

*CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET AL*

LOREN S. SCHECHTER, MD

03/28/2022



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CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET AL

LOREN S. SCHECHTER, MD
03/28/2022

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
3 HUNTINGTON DIVISION
4 CHRISTOPHER FAIN; ZACHARY
5 MARTELL; BRIAN MCNEMAR, SHAWN
6 ANDERSON a/k/a SHAUNTAE ANDERSON;
7 and LEANNE JAMES, individually
8 and on behalf of all others
9 similarly situated,
10 Plaintiffs,
11 Civil Action No. 3:20-cv-00740
12 Hon. Robert C. Chambers, Judge
13 v.
14 WILLIAM CROUCH, in his official
15 capacity as Cabinet Secretary
16 of the West Virginia Department
17 of Health and Human Resources;
18 CYNTHIA BEANE, in her official
19 capacity as Commissioner for
20 the West Virginia Bureau for
21 Medical Services; WEST VIRGINIA
22 DEPARTMENT OF HEALTH AND HUMAN
23 RESOURCES, BUREAU FOR MEDICAL
24 SERVICES; JASON HAUGHT, in his
official Capacity as Director
of the West Virginia Public
Employees Insurance Agency;
and THE HEALTH PLAN OF WEST
VIRGINIA, INC.,
Defendants.
VIDEO CONFERENCE DEPOSITION
OF
LOREN S. SCHECHTER, M.D.
March 28, 2022

Page 2

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3
4 VIDEO CONFERENCE DEPOSITION
5 OF
6 LOREN S. SCHECHTER, M.D.
7 March 28, 2022
8
9 Videoconference deposition of DR.
10 LOREN S. SCHECHTER taken by the Defendants
11 under the West Virginia Rules of Civil
12 Procedure in the above-entitled action,
13 pursuant to notice, before Teresa S. Evans, a
14 Registered Merit Reporter, all parties located
15 remotely, on the 28th day of March, 2022.
16
17
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Page 3

1 EXAMINATION INDEX
2
3 BY MR. DAVID 8
4
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15
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17
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Page 4

<p style="text-align: right;">Page 5</p> <p style="text-align: center;">EXHIBIT INDEX</p> <p>1</p> <p>2</p> <p>3 Exhibit 1 Article entitled "Reduction 179 in Mental Health Treatment Utilization Among Transgender 4 Individuals After Gender-Affirming Surgeries: A Total Population 5 Study" by Richard Bränström, Ph.D. and John E. Pachankis, Ph.D.</p> <p>6 Exhibit 2 Correction to article 179 7 entitled "Reduction in Mental Health Treatment 8 Utilization Among Transgender Individuals After Gender-Affirming 9 Surgeries: A Total Population Study" by Richard Bränström, Ph.D. 10 and John E. Pachankis, Ph.D.</p> <p>11 Exhibit 3 Article entitled "Long-Term 185 12 Follow-Up of Transsexual Persons Undergoing Sex 13 Reassignment Surgery: Cohort Study in Sweden" by Cecilia 14 Dhejne and others</p> <p>15 Exhibit 4 Article entitled 197 16 "Evidence-Based Patient Safety Advisory: Blood Dyscrasias" by Haeck and 17 others</p> <p>18 Exhibit 5 WPATH DRAFT Version on the 197 19 Standards of Care Version 8</p> <p>20 Exhibit 6 Initial Schechter report 197</p> <p>21 Exhibit 7 Rebuttal Schechter report 197</p> <p>22 Exhibit 8 Article entitled 209 23 "Individuals Treated for Gender Dysphoria with 24 Medical and/or Surgical Transition Who Subsequently Detransitioned: A Survey of 100 Detransitioners"</p>	<p style="text-align: right;">Page 7</p> <p style="text-align: center;">PROCEEDINGS</p> <p>1</p> <p>2 COURT REPORTER: Good morning. My 3 name is Teresa Evans. I am a Registered Merit 4 Reporter.</p> <p>5 Today's date is March 28, 2022 6 and the time is approximately 9:58 a.m.</p> <p>7 This is the deposition of 8 Dr. Loren Schechter in the matter of Fain, et 9 al. versus Crouch, et al. This case is venued 10 in the United States District Court for the 11 Southern District of West Virginia at 12 Huntington. The case number is 3:20-cv-00740.</p> <p>13 At this time, I will ask counsel 14 to identify yourselves and whom you represent 15 and agree on the record that there is no 16 objection to this officer of the court 17 administering a binding oath to the witness 18 via Zoom.</p> <p>19 Please state your agreement on 20 the record, starting with the noticing 21 attorney.</p> <p>22 MR. DAVID: Caleb David and Lou 23 Ann Cyrus on behalf of the Defendants, the 24 West Virginia Department of Health and Human</p>
<p style="text-align: right;">Page 6</p> <p style="text-align: center;">EXHIBIT INDEX (Contd.)</p> <p>1</p> <p>2</p> <p>3 Exhibit 9 Cornell University web page 216 4 entitled "What does the scholarly research say about 5 the effect of gender 6 transition on transgender 7 well-being"</p>	<p style="text-align: right;">Page 8</p> <p>1 Resources, Secretary Crouch and Commissioner 2 Beane, and we have no objection to the witness 3 being sworn via Zoom or the deposition taking 4 place via Zoom.</p> <p>5 MS. HUPPERT: This is Nora 6 Huppert from Lambda Legal for the plaintiffs. 7 Also no objection to being sworn by Zoom.</p> <p>8 MR. AUVIL: Walt Auvil for the 9 plaintiffs. No objection.</p> <p>10 MS. BORELLI: Tara Borelli for 11 the Plaintiffs. No objection.</p> <p>12 MS. SMITH: Avatara Smith- 13 Carrington for the plaintiffs. No objection.</p> <p>14 (The witness was sworn.) 15 LOREN SCHECHTER, M. D. 16 was called as a witness by the Defendants, and 17 having been first duly sworn, testified as 18 follows:</p> <p>19 EXAMINATION 20 BY MR. DAVID: 21 Q. Doctor, my name's Caleb David, and as 22 you just heard, I represent the defendants in 23 this lawsuit that's been filed by Christopher 24 Fain and Shauntae Anderson, and we're here to</p>

Page 9

1 take your deposition today, and I see from
2 your expert disclosure report that you've had
3 your deposition taken a few times before. Is
4 that right?
 5 A. That's correct.
6 Q. Okay. Then I'll spare you all the
7 details and rules. If you do misunderstand
8 something or if you can't hear me or Zoom cuts
9 out or something, please let me know. That's
10 always a difficulty. And if you want to take
11 a break at any time, we can do that. That's
12 not a problem.
 13 So are you ready to get started?
 14 A. Yes.
15 Q. Okay. All right. Can you please
16 state your full name for the record?
 17 MR. DAVID:, I'm sorry, Nora, did
 18 you want to --
 19 MS. HUPPERT: Apologies. Not to
 20 interrupt. We just wanted to propose really
 21 quickly to agree that an objection to form
 22 would preserve all form objections without
 23 needing specified for the sake of efficiency.
 24 Would you agree to that?

Page 10

1 MR. DAVID: Absolutely.
 2 MS. HUPPERT: Thank you very
 3 much.
 4 BY MR. DAVID:
5 Q. Doctor, can you please state your full
6 name for the record?
 7 A. Loren, L-O-R-E-N, Slone, S-L-O-N-E,
 8 Schechter, S-C-H-E-C-H-T-E-R.
9 Q. Doctor, how are you currently
10 employed?
 11 A. I'm currently employed by Weiss
 12 Hospital.
13 Q. And what is your position with Weiss
14 Hospital?
 15 A. Physician.
16 Q. And what type of physician?
 17 A. Plastic surgeon.
18 Q. And are you -- do you also have a
19 teaching position as a plastic surgeon at
20 Weiss Hospital?
 21 A. I didn't hear that. That cut out.
22 Q. I'm sorry. Do you have a teaching
23 role as a physician at Weiss Hospital?
 24 A. I have a teaching role at Rush

Page 11

1 University. We do teach -- we do have
 2 rotating residents from the University of
 3 Chicago and from Rush University.
 4 However, my employment will be
 5 switching on April 5th to Rush University.
6 Q. And at Rush University, will you be a
7 physician as well as a professor?
 8 A. That's correct. And Mr. David, I'm
 9 sorry, you just cut out a little bit every so
 10 often.
11 Q. Let me -- I'm trying to get rid of
12 e-mail notifications. I think that's the
13 problem. They keep popping up. Okay.
14 Let's try that again. At Rush
15 University, will you be an attending physician
16 as well as a professor?
 17 A. I currently have a hospital
 18 appointment now as an attending physician at
 19 Rush, and then I will assume the role of
 20 director of their program in gender
 21 affirmation surgery as well as a professor of
 22 surgery which is pending academic review.
23 Q. And that program in gender affirmation
24 surgery, how long has that program existed?

Page 12

1 A. I joined the staff at Rush -- I
 2 believe it was in August of '20, I believe be
 3 -- just before the pandemic.
4 Q. So in August of 2019 then?
 5 A. I think you're correct. It would be
 6 August of '19, yes.
7 Q. And is that when the program started,
8 when your arrival coincided with the program's
9 beginning?
 10 A. My arrival coincided -- or I guess my
 11 arrival began their program in predominantly
 12 genital surgery. I believe they had been
 13 performing top surgery, meaning mostly
 14 mastectomy, prior to my joining.
15 Q. And when -- and I -- maybe -- I might
16 be misunderstanding you. When you say
17 "program in gender affirmation surgery," are
18 you talking about just the fact that those
19 procedures are being performed, or is there a
20 residency or internship program?
 21 A. The program is housed within the
 22 department of surgery under the auspices of
 23 plastic surgery. We have rotating residents
 24 from plastic surgery. We also have a

Page 13

1 fellowship in gender affirming surgery.
 2 That fellowship started in 2017
 3 initially through Weiss, and I believe we
 4 switched the administrative authority in '19
 5 to Rush University.
 6 **Q. Okay. So how many residents -- and**
 7 **again, I guess they would be physicians --**
 8 **full-fledged physicians by the time they got**
 9 **to the fellowship, but how many people have**
 10 **gone through that fellowship program?**
 11 A. Four people have completed, and the
 12 fifth will start in July of this year.
 13 **Q. And the four that have completed, are**
 14 **they now practicing plastic surgery and**
 15 **performing gender confirmation or gender**
 16 **affirmation surgeries?**
 17 A. Yes, I believe all have that as part
 18 of their practice.
 19 **Q. Do you have any idea where those folks**
 20 **are now?**
 21 A. One in San Francisco; one in Toronto;
 22 one in Philadelphia, and I believe one in New
 23 York.
 24 **Q. And do you know those individuals'**

Page 14

1 **names?**
 2 A. Alexander Facque, F-A-C-Q-U-E.
 3 Rayisa, R-A-Y-I-S-A, Hontscharuk,
 4 H-O-N-T-S-C-H-A-R-U-K. Alireza Hamidian,
 5 A-L-I-R-E-Z-A, Hamidian, H-A-M-I-D-I-A-N. And
 6 David Whitehead, W-H-I-T-E-H-E-A-D.
 7 **Q. That was impressive, Doctor, for you**
 8 **to be able to spell all of that. Thank you.**
 9 **So this program has been in existence since**
 10 **2019. Have you only been accepting one fellow**
 11 **each year?**
 12 A. It's been in existence since '17.
 13 **Q. Okay.**
 14 A. It administratively moved to Rush in
 15 '19. We accept one per year. This year,
 16 Doctor Hamidian, who is our most recent
 17 graduate, had planned to stay through December
 18 but was offered a position at Temple
 19 University, so we allowed him to leave a bit
 20 early.
 21 So we had no fellow from about
 22 August of '21 through June of '22. And the
 23 fifth person will start July of '22.
 24 **Q. And can you just, in general terms,**

Page 15

1 **tell me what the fellowship actually entails?**
 2 **First, is it a one- or two-year fellowship?**
 3 **And then what it actually entails in terms of**
 4 **procedures that are performed, if there's any**
 5 **research component, anything like that?**
 6 MS. HUPPERT: Objection to form.
 7 A. It's designed to be a one-year
 8 fellowship. There are both -- there are
 9 several components: Clinical components,
 10 which involve office-based education;
 11 didactics, meaning lectures; operative
 12 experience, both pre- and post-operative care
 13 in the office as well as in the hospital;
 14 clinical research; teaching rotating medical
 15 students and plastic surgery residents.
 16 **Q. And I know it's a small sample size,**
 17 **but for the four who have completed that**
 18 **fellowship, on average how many procedures,**
 19 **gender affirmation procedures, are they**
 20 **performing during that one-year period?**
 21 A. We do about 150 to 200 procedures per
 22 year. That may have been lower during the
 23 COVID situation, though.
 24 **Q. Sure.**

Page 16

1 A. And with our Canadian fellow who had
 2 some difficulties with border closures related
 3 to COVID.
 4 **Q. Okay. So in the small sample size of**
 5 **nonCOVID years where people can freely travel**
 6 **without quarantine, it's 150 to 200 procedures**
 7 **in that one fellowship year.**
 8 A. That is correct.
 9 **Q. Okay. Now, obviously -- you are board**
 10 **certified in plastic surgery, correct?**
 11 A. I am.
 12 **Q. Okay. And is there a subspecialty**
 13 **board certification in gender affirmation**
 14 **surgeries?**
 15 A. Not through the American Board of
 16 Medical Specialties.
 17 **Q. Okay. Is there one that's -- that's**
 18 **separate from the American Board of Medical**
 19 **Specialties?**
 20 A. Not a certification.
 21 **Q. Okay. Is there some other type of**
 22 **certificate or -- I don't know what else, but**
 23 **is there some other type of certificate in**
 24 **gender affirmation surgery?**

Page 17

1 MS. HUPPERT: Object to form.
 2 A. Each of the fellows receives a
 3 certificate from the institution indicating
 4 successful completion of the program.
 5 **Q. Okay. Are you aware of whether or not**
 6 **the American Board of Medical Specialties is**
 7 **developing a board certification in gender**
 8 **affirmation surgeries?**
 9 MS. HUPPERT: Object to the form.
 10 A. To my knowledge, they are not.
 11 **Q. Ask you some of the generic doctor**
 12 **questions that you've probably been asked**
 13 **before. But you're licensed to practice**
 14 **medicine, correct?**
 15 A. I am.
 16 **Q. And in the State of Illinois?**
 17 A. Yes.
 18 **Q. And you have -- do you have any**
 19 **restrictions on your license?**
 20 A. No.
 21 **Q. Have you ever -- has your license ever**
 22 **been subject to disciplinary -- to discipline**
 23 **in any way from any board of -- any licensure**
 24 **board? Sorry.**

Page 18

1 A. No.
 2 **Q. Okay. Have you ever had a malpractice**
 3 **suit filed against you?**
 4 A. Yes.
 5 **Q. Okay. And did that -- well, first,**
 6 **when was that suit filed?**
 7 A. I've had one probably in -- a case
 8 from '03. I don't remember when it was filed.
 9 It was dismissed.
 10 I have an ongoing case from 2015.
 11 The case may have been filed in '16 or '17.
 12 I'm not sure.
 13 **Q. The case in 2003, did that involve a**
 14 **patient undergoing gender affirmation surgery?**
 15 A. No.
 16 **Q. And the case in 2015, did that involve**
 17 **a patient undergoing gender affirmation**
 18 **surgery?**
 19 A. No.
 20 **Q. Now, looking at your report where**
 21 **you're talking about your background, you**
 22 **state that there -- that you've performed over**
 23 **1500 gender affirmation surgeries. Is that**
 24 **correct?**

Page 19

1 A. Yes.
 2 **Q. Okay. And you also state that for at**
 3 **least the past five years, you've been**
 4 **performing approximately 150 gender**
 5 **confirmation procedures every year. Is that**
 6 **right?**
 7 A. Yes.
 8 **Q. Okay. So just doing quick math, it**
 9 **seems to me that over the last five years,**
 10 **there's been an uptick in the amount of gender**
 11 **confirmation surgeries that you're performing.**
 12 **Is that true?**
 13 MS. HUPPERT: Object to form.
 14 A. I would say the numbers over the last
 15 five years have been fairly consistent.
 16 **Q. Okay. So if you're looking at the**
 17 **last 5 years compared to the prior 22 years of**
 18 **practice -- because you've been practicing for**
 19 **27 years; is that right?**
 20 A. I completed my residency in '99. I
 21 did my fellow -- started my fellowship in '99,
 22 also with getting attending privileges. And I
 23 began training in '94.
 24 So I've been involved - whether

Page 20

1 as an attending, a fellow, a resident - for
 2 over -- and prior to that, as a student. But
 3 as a physician, going on 28 or 29 years.
 4 **Q. Okay. And I'm referencing Paragraph 7**
 5 **of your initial report, and it says, "I have**
 6 **been performing gender confirming surgeries**
 7 **for more than 27 years." Is that an accurate**
 8 **statement?**
 9 A. That is.
 10 **Q. Okay. And just looking at the math,**
 11 **if you've done now -- you say over 1500, but**
 12 **I'm using 1500 as a benchmark just so that I'm**
 13 **being clear with you.**
 14 **1500. But if you've done 150**
 15 **procedures each year for the past five years,**
 16 **that's half of the 1500 procedures. So what**
 17 **I'm asking, in the last five years, has there**
 18 **been a significant amount of gender**
 19 **confirmation surgeries that you've performed**
 20 **compared to earlier in your career?**
 21 A. No. The 1500 is a very conservative
 22 number.
 23 **Q. Okay. So in 2000, the year 2000, were**
 24 **you performing more or less gender**

Page 21

1 **confirmation surgeries than you did in 2018?**
 2 MS. HUPPERT: Object to form.
 3 **Q. Less than 2000?**
 4 A. I was performing less.
 5 **Q. Okay. And what about 2010 versus**
 6 **2018? Which did you perform more gender**
 7 **confirmation surgeries?**
 8 A. I would estimate around 2010, that
 9 number is closer to the number referenced in
 10 my report.
 11 **Q. Okay. So in 2010, were you also**
 12 **performing approximately 150 gender**
 13 **confirmation surgeries per year?**
 14 A. I don't recall the exact number, but
 15 close -- likely closer to the 150.
 16 **Q. Okay. So during your career, from the**
 17 **time that you finished your training until**
 18 **2010, there was an increase in the number of**
 19 **procedures that you performed and it's sort of**
 20 **been stable since that time.**
 21 MS. HUPPERT: Object to form.
 22 A. I'm sorry, can you -- can you ask that
 23 again?
 24 **Q. Sure. So from the point that you**

Page 22

1 **finished your training to 2010, there was an**
 2 **increase in the number of procedures that you**
 3 **were performing annually, but since 2010, it's**
 4 **somewhat stable.**
 5 MS. HUPPERT: Object to form.
 6 A. I can't say that it was specifically
 7 2010 that that number increased.
 8 **Q. Okay. At what point did that number**
 9 **increase?**
 10 A. Well, there was an increase from 2000
 11 -- there's been an increase since 2000 --
 12 **Q. So --**
 13 A. -- most likely every year.
 14 **Q. I'm sorry. I didn't mean to interrupt**
 15 **you. So has it been a gradual increase?**
 16 A. There was a gradual increase. I would
 17 estimate 2008 to 2010, the rate of increase
 18 increased.
 19 **Q. Okay. I think I understand. Okay.**
 20 **So your -- and Paragraph 7 of your report also**
 21 **says currently 90 percent of the patients in**
 22 **your practice are transgender individuals**
 23 **seeking gender confirmation surgeries.**
 24 **Is that an accurate statement?**

Page 23

1 A. Yes.
 2 **Q. In the year 2000, what percentage of**
 3 **your patients were transgender individuals**
 4 **seeking gender confirmation surgeries?**
 5 MS. HUPPERT: Object to form.
 6 A. I would estimate probably on the order
 7 of about 10 percent.
 8 **Q. And what do you attribute to either**
 9 **the increased number of procedures that you're**
 10 **performing or that people are coming to you**
 11 **specifically? What do you attribute to that**
 12 **change in your practice?**
 13 MS. HUPPERT: Object to form.
 14 A. I'm sorry, can you rephrase?
 15 **Q. Sure. Absolutely. So do you -- what**
 16 **do you believe is the reason for the change in**
 17 **your practice from 10 percent of your patients**
 18 **being transgender individuals seeking gender**
 19 **confirmation surgeries in the year 2000 to 90**
 20 **percent of your patients being transgender**
 21 **individuals seeking gender confirmation**
 22 **surgeries in the year 2022?**
 23 MS. HUPPERT: Object to form.
 24 A. Well, it's been a specific area of my

Page 24

1 practice and expertise.
 2 **Q. So over the last 20 years, you have**
 3 **developed a specific area of practice to the**
 4 **point that you're now teaching in that area of**
 5 **practice. Correct?**
 6 A. That is correct.
 7 **Q. Okay.**
 8 A. And I was teaching in that area and
 9 have been teaching in that area since 2000.
 10 **Q. Okay. So in the year 2000, you were**
 11 **also teaching in the area of gender**
 12 **affirmation or gender confirmation surgeries?**
 13 A. Yes. I've had rotating plastic
 14 surgery residents with me for virtually my
 15 entire professional career, whether from
 16 University of Chicago, University of Illinois,
 17 Loyola, Rush, general surgery residents from
 18 the University of Illinois, medical students
 19 from a variety of medical schools throughout
 20 Chicago, as well as visiting students and
 21 residents from across the country and visiting
 22 surgeons from all over the world.
 23 **Q. And at that time, prior to beginning**
 24 **the program that you talked about starting in**

Page 25

1 2017 at Weiss and moving over to Rush in 2019,
2 were -- in that period of 2000 to 2016, were
3 you providing instruction when patients came
4 in and you were performing those surgeries, or
5 was there a specific program that you were
6 providing education for gender affirmation
7 surgeries?
8 MS. HUPPERT: Object to form.
9 A. It's been a part of my practice as an
10 attending since '99. So it's been a part of
11 the instruction I provide in plastic surgery.
12 **Q. Okay. So it was a part of the general**
13 **education that you were providing to residents**
14 **when they rotated through your program, but**
15 **there wasn't a specific program dedicated to**
16 **it.**
17 A. My practice -- gender affirmation
18 surgery has been a component of my practice
19 since '99.
20 **Q. You did not have a fellowship program**
21 **devoted to gender affirmation surgeries until**
22 **2017. Is that a true statement?**
23 A. The fellowship which began in 2017 was
24 dedicated to post-residency graduates in

Page 26

1 plastic surgery. Prior to that, residents in
2 not only plastic surgery, but also urology,
3 general surgery, gynecology, family medicine
4 all rotated with me to gain exposure and
5 education in the field of gender confirming
6 surgery.
7 **Q. And all of those specialties that you**
8 **just mentioned - plastic surgery, urology,**
9 **etc. - those all have dedicated residency**
10 **programs. Correct?**
11 A. Those were individuals who are in
12 dedicated residency programs in the
13 affirmation specialties who then rotated with
14 me.
15 **Q. Was there a residency program in**
16 **gender affirmation surgeries prior to 2017?**
17 MS. HUPPERT: Objection to form.
18 A. Gender affirmation surgery under a
19 variety of different names has been part of
20 plastic surgery training as it was for me, not
21 only plastic surgery, but part of my under --
22 my medical education, my doctor of medicine
23 degree, in the '90s.
24 So it's been an accepted part of

Page 27

1 residency training certainly since I was a
2 resident.
3 **Q. Could you do a residency solely in**
4 **your affirmation surgery prior to 2017?**
5 MS. HUPPERT: Objection to form.
6 A. Gender affirmation surgery - depending
7 on the procedure - is performed by different
8 specialties: Urology, plastic surgery,
9 gynecology, ear, nose and throat,
10 otolaryngology. It's been a part of plastic
11 surgery -- plastic surgery training and
12 education, based on my personal experience,
13 since the '90s.
14 **Q. Again, my question was simply: Could**
15 **you do a residency, specifically a residency**
16 **program saying -- a residency program in**
17 **gender affirmation surgery only? Is that**
18 **something you could do in 2017 -- before 2017?**
19 MS. HUPPERT: Objection to form.
20 Asked and answered.
21 A. We typically don't do residency
22 programs in particular procedures. So for
23 example, I can't do a residency only in breast
24 reconstruction, although that's part and

Page 28

1 parcel of a plastic surgery residency.
2 So similar to procedures like
3 breast reconstruction or cleft lip, gender
4 affirming surgeries were part of the standard
5 training program in plastic surgery.
6 **Q. Okay. Recognizing that it was part of**
7 **your -- or part of the standard rotation and**
8 **it's something that they learned, it's not a**
9 **-- its own specific specialty. Is that**
10 **correct?**
11 A. Similar --
12 MS. HUPPERT: Objection to form.
13 A. Similar to other procedures: Cleft
14 lip, breast reconstruction, breast
15 augmentation, mastectomy. Gender affirming
16 surgery is part and parcel of plastic surgery
17 training.
18 **Q. So was the answer yes, it doesn't have**
19 **its own specific residency, but it is --**
20 **similar to other procedures, it is a part of**
21 **the training that individuals receive in a**
22 **plastic surgery residency?**
23 MS. HUPPERT: Objection to form.
24 A. The answer is: It is consistent with

Page 29

1 other procedures performed within plastic
 2 surgery.
 3 **Q. I mean, I can keep going all day.**
 4 **It's just a simple question. Is there a**
 5 **specific residency program that focuses only**
 6 **on gender affirming surgeries?**
 7 MS. HUPPERT: Objection to form.
 8 A. As with other procedures such as cleft
 9 lip, cleft palate, breast reconstruction,
 10 mastectomy, lower extremity reconstruction,
 11 it's part and parcel of the plastic surgery
 12 training program included in the core
 13 curriculum, tested on the written boards and
 14 tested on the oral board.
 15 **Q. So can you just -- you're not going to**
 16 **answer that question?**
 17 MS. HUPPERT: Objection.
 18 A. I believe I did.
 19 **Q. It's -- I'm fine with you providing an**
 20 **explanation. I just want an answer to the**
 21 **question. Is there a specific residency**
 22 **program for gender affirming surgeries?**
 23 MS. HUPPERT: Objection.
 24 Counsel, Doctor Schechter's answered your

Page 30

1 question.
 2 MR. DAVID: He hasn't.
 3 MS. HUPPERT: He has.
 4 A. It is consistent with other procedures
 5 I just discussed.
 6 **Q. Okay. All right. Well, we'll talk to**
 7 **the judge about that.**
 8 **Okay. So anyway, you have stated**
 9 **that you have a practice that includes 90**
 10 **percent of patients who are transgender**
 11 **individuals seeking gender confirmation**
 12 **surgeries, correct?**
 13 A. Approximately 90 percent of my
 14 practice involves gender affirming or gender
 15 confirming surgery, yes.
 16 **Q. Okay. And what percentage of your**
 17 **patient population resides in the State of**
 18 **Illinois?**
 19 A. I would estimate 50 percent. That may
 20 be plus or minus a bit.
 21 **Q. And what percentage of your patient**
 22 **population is Medicaid beneficiaries?**
 23 A. That, I can't answer. The bill is --
 24 I don't have specific knowledge to each

Page 31

1 patient's third party coverage.
 2 **Q. Do you accept Medicaid for your**
 3 **procedures?**
 4 A. Yes.
 5 **Q. When did you begin accepting Medicaid?**
 6 A. Illinois -- the State of Illinois
 7 began covering it perhaps within the last two
 8 to three years. And prior to that, our office
 9 would often work out single case agreements,
 10 whether between Illinois or neighboring
 11 states.
 12 **Q. And tell me what you mean when you say**
 13 **"single case agreements."**
 14 A. So if an insured's company doesn't
 15 necessarily have a provider who's able to
 16 perform them but the procedure is covered,
 17 they may have a con -- an individual contract
 18 - in this case with me or my office or my
 19 employer - to cover the procedure.
 20 **Q. In the case of Illinois Medicaid prior**
 21 **to 2020 - which at least by my research is**
 22 **when they started covering these procedures -**
 23 **did you ever perform a procedure on an**
 24 **Illinois Medicaid beneficiary for gender**

Page 32

1 **confirming surgery and they ended up paying**
 2 **for it?**
 3 A. It is possible, but I'd have to -- I'd
 4 have to check records to give a definitive
 5 answer.
 6 **Q. And again, understanding that you're**
 7 **not certain about the answer, if that**
 8 **happened, would that have been done under a**
 9 **single case agreement?**
 10 MS. HUPPERT: Objection to form.
 11 A. Possible, but again, I'd have to check
 12 with the records to get a definitive answer.
 13 **Q. Are you aware that the Illinois**
 14 **licensure website for the Board of Medicine**
 15 **states that you do not accept Medicaid**
 16 **patients?**
 17 A. No.
 18 **Q. Okay. And it also states that you do**
 19 **not accept patients through the All Kids**
 20 **program? Is that accurate?**
 21 A. That, I don't know. But I do know we
 22 accept Medicaid.
 23 **Q. Okay. So let's talk a little bit more**
 24 **about your practice. In addition to the 90**

Page 33

1 percent of patients that you're seeing for
2 gender affirming surgeries, you're also seeing
3 patients for Botox, correct?
 4 A. I do, although less so for Botox.
 5 Injectables isn't a major part of my practice.
6 Q. Okay. And you have patients who
7 receive JUVEDERM?
 8 A. Again, that's an injectable, which
 9 isn't a major part of my practice. But on
 10 occasion, I do inject.
11 Q. Okay. Chemical peels?
 12 A. Similar. Not a significant portion of
 13 my practice any longer.
14 Q. Liposuction?
 15 A. Yes.
16 Q. Fat injections?
 17 A. Yes.
18 Q. Dermabrasion?
 19 A. Similar to the injectables and
 20 chemical peel. And those procedures - for
 21 example, liposuction, lipofilling which is
 22 also known as fat grafting - are also
 23 performed for transgender individuals.
24 Q. Now, do -- I understand it's not a

Page 34

1 large portion of your practice, but do you
2 perform Botox injections for facial wrinkles?
 3 A. Yes.
4 Q. Okay. And what percentage of your
5 patients being treated with Botox injections
6 for facial wrinkles are Medicaid
7 beneficiaries?
 8 A. I wouldn't -- I wouldn't know that
 9 answer.
10 Q. If that -- is Botox injections for
11 facial wrinkles something that is reimbursable
12 under Medicaid?
 13 A. I would say it would likely depend
 14 upon the reason that was being conducted. If
 15 someone had a medical condition for which
 16 Botox would be a treatment, then it could be
 17 covered.
 18 I can't speak specific to the
 19 coverage - for example, of Illinois Medicaid -
 20 but to third party coverage in general.
21 Q. And my question was specific to facial
22 wrinkles, Botox injections for facial
23 wrinkles. Is that covered by any insurance?
 24 A. Facial wrinkles -- Botox may be used

Page 35

1 for facial wrinkles or medical conditions.
 2 For example, in a case of hemifacial
 3 paralysis, one side of the face may wrinkle;
 4 the other may not.
5 Q. But in that instance, you're trying to
6 treat the hemi paralysis, correct, not just
7 the wrinkles?
 8 A. No, we're not treating the paralysis;
 9 we're treating the appearance. Paralysis can
 10 be treated by nerve grafts, muscle transfers,
 11 etc.
12 Q. Okay. And you do perform Botox
13 injections for medical conditions like chronic
14 migraines, overactive bladder. Correct?
 15 A. It is performed for that. I typically
 16 don't use it for migraines or overactive
 17 bladder.
18 Q. Okay. Are you aware that your website
19 specifically states that you do that?
 20 A. Migraines or overactive bladder?
21 Q. Yes.
 22 A. If you'd show me that, I'd like to see
 23 that.
24 Q. Okay. Are chemical peels covered by

Page 36

1 Illinois Medicaid?
 2 A. Chemical peels, again, can be used for
 3 reconstructive or aesthetic reasons, and once
 4 again, similar, for example, to procedures we
 5 perform in gender affirming surgery and when
 6 performed on the basis of a medical condition,
 7 can be covered and often are covered by third
 8 party payers.
9 Q. Under what circumstances are chemical
10 peels covered by third party payers?
 11 A. There can be situations such as
 12 scarring, post-traumatic scarring, for
 13 example.
14 Q. And what about laser resurfacing, is
15 that something that is covered by Illinois
16 Medicaid?
 17 A. A similar answer to the previous
 18 questions. It's not the procedure itself that
 19 dictates necessarily what's covered; it's the
 20 basis upon which the procedure is performed.
 21 We often have, as plastic surgeons, a variety
 22 of tools in our parliamentary, so to speak,
 23 and we apply those tools to a variety of
 24 clinical conditions.

Page 37

1 **Q. Okay. What clinical conditions have**
 2 **you treated with chemical peels?**
 3 A. Facial scarring. So there may be
 4 scarring related to prior traumatic events.
 5 **Q. And that facial scarring is cosmetic,**
 6 **correct?**
 7 MS. HUPPERT: Objection to form.
 8 A. No, once again, scarring can be the
 9 result of trauma, so when performed, again,
 10 based on -- for the reason -- it depends on
 11 the reason for which it's performed.
 12 If it's performed, for example,
 13 to treat a traumatic condition, then face --
 14 then chemical peel, laser resurfacing, may be
 15 reimbursable by third parties.
 16 **Q. Okay. What percentage of your**
 17 **patients receiving Botox injections for facial**
 18 **wrinkles have their expenses for those**
 19 **procedures reimbursed by a third party payer?**
 20 A. I'm sorry, for Botox?
 21 **Q. For Botox injections for facial**
 22 **wrinkles.**
 23 A. Less than 10 to 15 percent.
 24 **Q. Would that be a similar statistic for**

Page 38

1 **the use of JUVEDERM?**
 2 A. Yes, probably less than 10 percent.
 3 **Q. And what about the percentage for**
 4 **chemical peels?**
 5 A. I would say probably less than 30 --
 6 probably about a third or so.
 7 **Q. Okay. Same question for laser**
 8 **resurfacing.**
 9 A. I no longer do laser resurfacing
 10 myself.
 11 **Q. Okay. Dermabrasion?**
 12 A. Again, probably about a third. And
 13 dermabrasion may be conditions like rinophyma,
 14 traumatic scarring, ice pick scarring from
 15 acne, for example.
 16 **Q. So the -- so dermabrasion for acne**
 17 **scarring is something that is reimbursable?**
 18 A. It would depend on the insurer.
 19 **Q. And does that -- and this is going to**
 20 **end up jumping ahead a little bit. But does**
 21 **that mean that some of those insurers are**
 22 **deeming the dermabrasion for acne scarring to**
 23 **be medically necessary and some aren't?**
 24 MS. HUPPERT: Objection to form.

Page 39

1 A. The -- we have had dermabrasion for
 2 acne scarring - we call ice pick scarring -
 3 covered by third party payers.
 4 **Q. And did you make a determination at**
 5 **that time that the dermabrasion for ice pick**
 6 **scarring was a medically necessary procedure?**
 7 A. If it was covered by a third party
 8 payer, I would have likely written both.
 9 Whether or not it was covered by the third
 10 party payer, I may have -- I may have written
 11 a letter to the insurer indicating or
 12 discussing the medical necessity.
 13 **Q. And do you believe that dermabrasion**
 14 **for ice pick scarring for acne is a medically**
 15 **necessary procedure?**
 16 A. It would depend on the individual
 17 circumstances.
 18 **Q. And under what circumstance would that**
 19 **be medically necessary?**
 20 MS. HUPPERT: Objection to form.
 21 A. I would have to have an individual
 22 case, but it could affect both form and
 23 function for the individual.
 24 **Q. So when you're talking about this ice**

Page 40

1 **pick scarring, you're talking about facial**
 2 **scarring?**
 3 A. I'm talking about scarring -- well, it
 4 could occur elsewhere in the body, not
 5 necessarily -- and not only the face.
 6 **Q. Okay. Is it most prominent on the**
 7 **face?**
 8 A. As far as I've treated it, it would be
 9 most likely on the face, although it can be
 10 used in other body -- in other anatomic
 11 locations.
 12 **Q. Okay. And you have seen ice pick**
 13 **scarring from acne that was severe enough to**
 14 **affect the form and function of the**
 15 **individual?**
 16 A. Yes.
 17 **Q. Okay. And in what way did it affect**
 18 **the form and functioning of the individual?**
 19 A. It could distort facial features. It
 20 could lead to disfigurement. Part of the
 21 function of the face is to look like a face.
 22 So if it causes distress, then it's possible
 23 it may -- may be considered medically
 24 necessary.

Page 41

1 **Q. Okay. So you're -- I'm trying to make**
 2 **sure that I understand this entirely. If the**
 3 **facial scarring is severe enough that it**
 4 **distorts facial features or can be considered**
 5 **a disfigurement or causes distress, then**
 6 **dermabrasion could be medically necessary to**
 7 **correct that.**
 8 MS. HUPPERT: Objection to form.
 9 A. Dermabrasion can be considered
 10 medically necessary. As to individual
 11 circumstances, I'd have to see and evaluate
 12 the case.
 13 **Q. And I'm trying to understand whether**
 14 **it's the -- is it the distress that is caused**
 15 **to the individual that would make the**
 16 **procedure medically necessary?**
 17 A. Again, it would depend upon the
 18 particular case, the extent of the scarring,
 19 where it was located, the impact on the
 20 individual.
 21 **Q. All right. Can you describe for me a**
 22 **circumstance where that would be significant**
 23 **enough to be medically necessary?**
 24 MS. HUPPERT: Objection to form.

Page 42

1 A. Yes.
 2 **Q. Please do.**
 3 A. If the scarring caused pain,
 4 distortion of the eyelid, for example, or
 5 other functional implications -- other
 6 functional reasons, it could be considered
 7 medically necessary.
 8 **Q. So when you talk about distortion of**
 9 **the eyelid, you're meaning if it is something**
 10 **that actually affects the eyelid from**
 11 **functioning the way that it was designed to**
 12 **do.**
 13 A. It may be either form or function.
 14 **Q. So when you say "form or function,"**
 15 **you mean formed -- is that in reference to**
 16 **appearance?**
 17 A. Yes.
 18 **Q. Okay. And appearance alone, without**
 19 **the effect on function, that would be**
 20 **sufficient to make it medically necessary?**
 21 A. It would depend, again, on the
 22 particular case.
 23 **Q. Okay. And in that particular case,**
 24 **would it be required that the patient have**

Page 43

1 **significant mental or emotional distress for**
 2 **it to be medically necessary?**
 3 MS. HUPPERT: Objection to form.
 4 A. I'm sorry, can you repeat that?
 5 **Q. Sure. So in the case of an individual**
 6 **that has distortion of the eyelid that is in**
 7 **appearance only and not in function, would it**
 8 **require the patient to experience significant**
 9 **mental or emotional distress for dermabrasion**
 10 **to be medically necessary?**
 11 MS. HUPPERT: Objection to form.
 12 A. It would depend upon not only the
 13 particulars of the case, but the ability of
 14 that person, for example, to interact within
 15 society not feeling stigmatized or ostracized.
 16 So for example, in a burn case
 17 where there's substantial scarring and the
 18 individual is inhibited from interacting
 19 normally in society, whether chemical peel,
 20 dermabrasion or scar revision, all of which
 21 could be considered medically necessary.
 22 **Q. So in the case of someone who has ice**
 23 **pick scarring to the eyelid as a result of**
 24 **acne and it is in appearance only - does not**

Page 44

1 **affect the function of the eyelid - it can**
 2 **still be medically necessary for that patient**
 3 **to undergo microderm -- excuse me,**
 4 **dermabrasion, if the ability of the person to**
 5 **operate within society is affected.**
 6 MS. HUPPERT: Objection.
 7 A. One would not --
 8 THE DEPONENT: I'm sorry.
 9 A. One would not typically have ice pick
 10 scarring to the eyelid; it would be -- or
 11 could be a case into the eyelid.
 12 **Q. So in the case of someone who has ice**
 13 **pick scarring adjacent to the eyelid that does**
 14 **not affect the function of the eyelid, that**
 15 **person could be medically -- it could be**
 16 **medically necessary for that person to undergo**
 17 **dermabrasion if it affects their ability to**
 18 **operate within society.**
 19 MS. HUPPERT: Objection to form.
 20 A. So part of the function of a face is
 21 to look like a face. And conditions that
 22 interfere with that and then require medical
 23 and -- surgical interventions or medical
 24 interventions, can be considered medically

Page 45

1 necessary.

2 **Q. Okay. At what point is a facial scar**

3 **so significant that it requires medical**

4 **intervention?**

5 A. I would have to see a specific case.

6 **Q. What about if someone has a**

7 **nonmalignant mole that they believe causes a**

8 **stigma? Would that be medically necessary to**

9 **remove that mole?**

10 A. I wouldn't know that it was

11 necessarily nonmalignant if it wasn't

12 biopsied.

13 **Q. I'm saying, as a hypothetical, is a**

14 **nonmalignant mole - but it causes someone**

15 **distress because they have a stigma in**

16 **society; they get made fun of because they**

17 **have that mole and it causes them distress -**

18 **is it medically necessary to remove that mole?**

19 MS. HUPPERT: Objection.

20 A. I can't accept that hypothetical,

21 because I wouldn't be able to know if it was

22 nonmalignant if it wasn't biopsied.

23 **Q. Okay. If you biopsy it and it's**

24 **determined to be nonmalignant, is it medically**

Page 46

1 **necessary to remove that mole?**

2 MS. HUPPERT: Objection to form.

3 A. Again, it would depend on the specific

4 circumstances.

5 **Q. Under what specific circumstances**

6 **would it be medically necessary to remove that**

7 **mole?**

8 MS. HUPPERT: Objection to form.

9 A. A potential for malignant

10 degeneration.

11 **Q. Any other circumstances?**

12 MS. HUPPERT: Objection to form.

13 A. Potential for progression: For

14 example, increase in size, bleeding, itching,

15 ulceration. Those would be some, probably not

16 an exhaustive list.

17 **Q. Okay. Does an exhaustive list include**

18 **for the alleviation of stigma from society?**

19 MS. HUPPERT: Objection to form.

20 A. Yes, it can. So there may be people

21 born with Port-wine stains who undergo --

22 which are facial lesions, blotches on the

23 face, that may undergo laser intervention.

24 Those lesions may be benign, but

Page 47

1 also may receive coverage for medical

2 intervention.

3 **Q. So specific to a facial mole, is**

4 **alleviating distress caused by the stigma from**

5 **society a reason for medical necessity for**

6 **removal of the mole?**

7 A. Again, it would depend on the

8 characteristics of that mole.

9 **Q. And as we discussed, you biopsied it**

10 **-- and I -- let's -- I'll try to rephrase**

11 **this.**

12 **Is the alleviation of distress**

13 **caused by the stigma of society alone - that**

14 **alone - a reason for medical necessity for**

15 **removal?**

16 A. I would have to know more than where

17 it's located - the size and so forth - to be

18 able to answer that question. The biopsy

19 result.

20 **Q. Okay. And again, my question is:**

21 **This specific circumstance is a nonmalignant**

22 **mole that is not progressing, that is not**

23 **bleeding, that there is no other reason except**

24 **for the alleviation of distress to remove this**

Page 48

1 **mole. Is that sufficient for medical**

2 **necessity?**

3 MS. HUPPERT: Object to form.

4 A. Again, you're asking a medical

5 condition that isn't necessarily a complete

6 hypothetical. I don't know the biopsy

7 results. I don't know that it won't progress.

8 So I can't answer it without more specific

9 information.

10 **Q. Can you point me to any piece of**

11 **medical literature that will tell me that**

12 **removal of a mole is medically necessary if it**

13 **is done solely for the purpose of alleviating**

14 **stress from society's stigma against that**

15 **mole?**

16 MS. HUPPERT: Object to form.

17 A. Moles may be removed for a variety of

18 reasons, and the reason you stated may be one

19 of those reasons.

20 **Q. And my question was: Can you point me**

21 **to any medical literature that would support**

22 **that you -- it is medically necessary to**

23 **remove a mole for the sole purpose of**

24 **alleviating distress caused by the stigma of**

Page 49

1 **that mole?**

2 MS. HUPPERT: Object to form.

3 A. That may be considered medically

4 necessary by the physician, depending on the

5 characteristics of the mole.

6 **Q. And my question again was: Can you**

7 **point me to any medical literature?**

8 MS. HUPPERT: Object to form.

9 A. Most medical literature doesn't

10 discuss third party coverage of lesions. We

11 perform procedures based on the medical

12 conditions. There's always -- there is an

13 indication for any procedure that we perform.

14 Medical literature typically

15 doesn't list which procedures are medically

16 necessary -- or I should say medical

17 literature, the focus of medical literature,

18 may not be under the medical necessity for the

19 procedure but on the indications for the

20 procedure.

21 **Q. And again, can you point me to any**

22 **medical literature that would state that if**

23 **the sole indication for the procedure is to**

24 **alleviate distress from stigma, that it is**

Page 50

1 **medically necessary to remove a mole?**

2 MS. HUPPERT: Object to form,

3 asked and answered.

4 A. Again, as with many procedures, the

5 medical necessity of a particular procedure

6 will depend upon the specifics of the case.

7 **Q. So please go ahead and point me to the**

8 **medical literature that would support that.**

9 MS. HUPPERT: Object to form,

10 asked and answered.

11 A. Again, consistent with many medical

12 procedures, the medical necessity would depend

13 upon the specifics of the case.

14 **Q. Okay. What is the universe of**

15 **literature that you're aware of that discusses**

16 **the medical necessity of mole removal?**

17 MS. HUPPERT: Object to form.

18 A. Medical textbooks, surgical textbooks,

19 in terms of literature. Journals,

20 communications with colleagues, conferences,

21 teaching seminars.

22 **Q. And can you name any that are specific**

23 **to the removal of moles to alleviate distress**

24 **caused by the stigma of the mole?**

Page 51

1 MS. HUPPERT: Object to form.

2 Asked and answered.

3 A. Again, the typical discussion

4 regarding moles does not relate to whether or

5 not it's medically necessary, but rather the

6 indication, the medical indication.

7 **Q. Okay. So the answer is you are not**

8 **able to name a single source of any medical**

9 **literature that would support the removal of a**

10 **mole to alleviate the distress caused by**

11 **stigma of that mole.**

12 MS. HUPPERT: Object to form.

13 Asked and answered. Mischaracterizing the

14 testimony.

15 A. The answer is that medical literature

16 typically focuses on the medical indications.

17 The medical necessity would depend upon the

18 particulars of the case.

19 **Q. Okay. Please list all the medical**

20 **literature that you are aware of that states**

21 **that it is medically necessary to remove a**

22 **mole to alleviate distress caused by stigma of**

23 **that mole.**

24 MS. HUPPERT: Object to form.

Page 52

1 Asked and answered.

2 A. Once again, similar to other

3 procedures, the focus is on typically

4 indications for removal of the procedure. The

5 medical necessity of any case depends upon the

6 judgment of the physician in their interaction

7 with the individuals seeking treatment.

8 **Q. And how many pieces of medical**

9 **literature -- how many articles did you just**

10 **list?**

11 MS. HUPPERT: Object to form.

12 A. In reference to?

13 **Q. How many -- in response to my last**

14 **question, how many articles did you list?**

15 MS. HUPPERT: Object to form.

16 A. And your last question was what?

17 **Q. To -- I asked you to please list all**

18 **of the medical literature that would support**

19 **the removal of a mole for the sole purpose of**

20 **alleviating distress caused by stigma.**

21 MS. HUPPERT: Object to the form.

22 Asked and answered.

23 A. Once again, medical literature

24 discusses typically indications. The focus --

Page 53

1 the decision of medical necessity depends upon
 2 the individual circumstances of a case.
 3 **Q. Okay. And so in response to my**
 4 **question that asked you to list articles, how**
 5 **many articles did you list?**
 6 A. Once again, medical necessity depends
 7 upon the specifics of the case and it is a
 8 determination between the physician and the
 9 individual seeking care.
 10 **Q. Okay. So my question is: How many**
 11 **articles did you list?**
 12 MS. HUPPERT: Object to form.
 13 Asked and answered.
 14 A. Once again, the determination of
 15 medical necessity depends upon the specifics
 16 of a case. And without much more specifics, I
 17 can't answer that hypothetical.
 18 **Q. Okay. Well, that wasn't a**
 19 **hypothetical. It was "How many." So how**
 20 **many, is the question - the number - how many**
 21 **did you list?**
 22 MS. HUPPERT: Object to form.
 23 Asked and answered.
 24 A. You're referencing a case, or a

Page 54

1 clinical situation, without providing complete
 2 information.
 3 **Q. I did provide -- what additional do**
 4 **you need when I say the sole purpose, the only**
 5 **purpose, the singular purpose, is to alleviate**
 6 **distress caused by stigma related to that**
 7 **mole. What additional information do you**
 8 **need?**
 9 MS. HUPPERT: Sorry for
 10 interrupting. Object to form.
 11 A. I would need to see the biopsy result;
 12 I'd need to see the location, the size and the
 13 specific characteristics, as well as the
 14 impact on the individual.
 15 **Q. Okay. Knowing that you're not going**
 16 **to answer that question, we'll move on. Do**
 17 **you diagnose gender dysphoria?**
 18 A. I do not.
 19 **Q. Okay. And you are not a mental health**
 20 **professional; is that correct?**
 21 A. I'm a plastic surgeon.
 22 **Q. And you are not a mental health**
 23 **professional; is that correct?**
 24 MS. HUPPERT: Objection. Asked

Page 55

1 and answered.
 2 A. I am a licensed physician and surgeon
 3 with board certification in plastic surgery.
 4 **Q. Are you a psychiatrist?**
 5 MS. HUPPERT: Objection.
 6 A. No.
 7 **Q. Are you a psychologist?**
 8 A. No.
 9 **Q. Did you complete a residency in**
 10 **psychology?**
 11 A. No.
 12 **Q. Did you complete a residency in**
 13 **psychiatry?**
 14 A. No.
 15 **Q. Do you have fellowship training in**
 16 **psychiatry?**
 17 A. No.
 18 **Q. Do you have training in child and**
 19 **adolescent development psychology?**
 20 A. My area of specialty is in plastic
 21 surgery. I do work with colleagues who have
 22 specialty training and who are child and
 23 adolescent psychologists.
 24 **Q. Do you yourself have that training?**

Page 56

1 A. I'm sorry, which training?
 2 **Q. The training in child and adolescent**
 3 **development psychology.**
 4 A. Well, as part of medical school, child
 5 and adolescent development is part of medical
 6 school curriculum. I am not boarded in child
 7 and adolescent psychiatry.
 8 **Q. My question was: Do you have training**
 9 **in child and adolescent developmental**
 10 **psychology?**
 11 A. Well, child and adolescent
 12 development, including psychology, is part of
 13 a medical school curriculum.
 14 **Q. Okay. So other than your courses in**
 15 **medical school, you have no additional**
 16 **training in child and adolescent developmental**
 17 **psychology. Is that a true statement?**
 18 A. While I am not a child and adolescent
 19 psychologist, I do work with and attend
 20 lectures, seminars, educational events
 21 involving children and adolescent psychology
 22 and psychiatry.
 23 **Q. Do you consider yourself to be trained**
 24 **and professionally competent in using the**

Page 57

1 **American Psychiatric Association's DSM-V to**
 2 **make child and adolescent mental illness**
 3 **diagnoses?**
 4 MS. HUPPERT: Object to form.
 5 A. That is not part of my clinical
 6 practice.
 7 **Q. And same question for adults. Do you**
 8 **consider yourself to be professionally**
 9 **competent and trained at using the DSM-V for**
 10 **adult psychological or psychiatric diagnoses?**
 11 MS. HUPPERT: Object to form.
 12 A. That is not part of my clinical area.
 13 **Q. Okay. And when you say it is not part**
 14 **of your clinical area, you mean you are not**
 15 **professionally competent to make those**
 16 **diagnoses. Correct?**
 17 A. It means that, once again, that while
 18 I'm not a -- either a child or adult
 19 psychologist or psychiatrist, I do work with
 20 professionals in that field; I do attend and
 21 participate in educational seminars with those
 22 individuals; I write literature with those
 23 individuals.
 24 I do not practice either child

Page 58

1 and adolescent psychology or psychiatry or adult
 2 psychology or psychiatry.
 3 **Q. And you don't make diagnoses in adult or**
 4 **child psychology.**
 5 MS. HUPPERT: Objection to form.
 6 A. I do not make diagnoses in those areas.
 7 **Q. Do you have any training in development of**
 8 **health insurance guidelines?**
 9 A. I have training in guideline development,
 10 which are used by insurance companies. And I've
 11 worked with various insurance companies to help
 12 develop guidelines.
 13 **Q. Have you performed any research relating to**
 14 **what must and must not be covered by health**
 15 **insurers?**
 16 A. I typically -- my involvement is typically
 17 along the lines of helping them to develop coverage
 18 policies, not research -- I would say my
 19 involvement is helping develop coverage -- coverage
 20 policies.
 21 And there is research involved with
 22 that.
 23 **Q. What insurance companies have you worked**
 24 **with to develop coverage policies?**

Page 59

1 A. So I'm under an NDA for some of those.
 2 **Q. Are there some that you're not under an NDA**
 3 **for?**
 4 A. I believe the specific insurance companies,
 5 I'm under an NDA, all the specific insurance
 6 companies. In a more general sense, through my
 7 work through the Global Education Institute at
 8 WPATH, we've been involved with educational events
 9 through the State of -- through the State of
 10 California and a number of insurance providers.
 11 **Q. So are you able to testify without**
 12 **violating an NDA as to any specific insurance**
 13 **company that you are assisting with developing**
 14 **coverage guidelines?**
 15 A. I don't believe so outside of the general
 16 statement that through my work at WPATH and the
 17 Global Education Institute, we're working with
 18 between 30 to 40 insurance carriers within the
 19 State of California.
 20 **Q. Are you working with any insurance carriers**
 21 **in the State of West Virginia?**
 22 A. Not to my knowledge. But I would say I
 23 can't necessarily speak to all the various
 24 arrangements an insurance company would have or

Page 60

1 practice in which state.
 2 **Q. Do you hold yourself out to be an expert in**
 3 **the requirement of what must be covered under the**
 4 **Affordable Care Act?**
 5 A. As a practicing physician on a day-to-day
 6 basis, I address issues related to insurance
 7 coverage, whether approvals of coverage, denials of
 8 coverage, appeals, peer reviews, etc.
 9 Whether they're specific or not to the
 10 Affordable Care Act would depend on the carrier.
 11 **Q. And I'm simply trying to find out if you**
 12 **are going to testify in this case that you have**
 13 **reviewed the specific provisions of the Affordable**
 14 **Care Act that you believe are applicable and you're**
 15 **going to say that West Virginia law violates the**
 16 **Affordable Care Act.**
 17 **Is that something that you're going to**
 18 **testify to in this case?**
 19 MS. HUPPERT: Objection to form.
 20 A. So my testimony is related to the
 21 categorical exclusion in the various cases. I do
 22 have knowledge, as a practicing physician - both in
 23 my clinical work as well as administrative work -
 24 in issues pertaining to insurance coverage, denials

Page 61

1 and appeals.

2 **Q. So for this case, have you specifically**

3 **looked at provisions of the Affordable Care Act to**

4 **determine whether West Virginia's -- West Virginia**

5 **Medicaid's policy violates those provisions?**

6 MS. HUPPERT: Objection to form.

7 A. I have not looked at the Affordable Care

8 Act specific to this case. I have looked at the

9 Affordable Care Act and have written about the

10 Affordable Care Act and gender affirming surgery.

11 **Q. Okay. And what publications do you have**

12 **regarding the Affordable Care Act and gender**

13 **affirming surgery?**

14 A. There is a publication that -- I believe

15 it's been out already in the Journal of Plastic and

16 Reconstructive Surgery. It should be on my CV, so

17 if you had it, I can direct you to it.

18 It's possible it's in print, but I

19 believe it's been published.

20 **Q. We'll come back to that later.**

21 MR. DAVID: We've been going for a

22 little over an hour. Does anyone want to take a

23 five-minute break?

24 MS. HUPPERT: I'm happy to go with

Page 62

1 whatever Doctor Schechter prefers.

2 THE DEPONENT: Sure. Let me just make

3 a quick rest stop and then come back.

4 (A recess was taken after which the

5 proceedings continued as follows:)

6 BY MR. DAVID:

7 **Q. Doctor, before we took a break, we were**

8 **talking specifically about insurance, and you used**

9 **the term "categorical exclusion." And I wanted to**

10 **first ask you what that means by you.**

11 A. The denial - in my case - of the gender

12 affirming services, the across-the-board denial of

13 services.

14 **Q. And do you believe that West Virginia**

15 **Medicaid has a categorical exclusion for treatment**

16 **for gender dysphoria?**

17 A. I'm looking at it from the perspective of

18 gender affirming surgery, and I believe that there

19 is a exclusion for - although I don't believe the

20 term "gender affirming surgery" is used; a

21 different term is used - for gender affirming

22 surgical services.

23 **Q. Do you know whether West Virginia Medicaid**

24 **covers mental health care for gender dysphoria?**

Page 63

1 MS. HUPPERT: Objection to form.

2 A. I do not.

3 **Q. Okay. Do you know whether West Virginia**

4 **Medicaid covers hormone therapy for individuals who**

5 **are transgender?**

6 MS. HUPPERT: Objection to form.

7 Object to form, excuse me.

8 A. I do not.

9 **Q. And have you reviewed the specific what**

10 **you're calling a categorical exclusion within West**

11 **Virginia Medicaid's policy?**

12 A. I have seen, I believe, what's the West

13 Virginia Medicaid policy.

14 **Q. Okay. And you believe that that is a**

15 **categorical exclusion as to gender affirming**

16 **surgeries.**

17 A. I believe the term used is something such

18 as "sex transformation" or something along those

19 lines.

20 **Q. And again, your understanding is that the**

21 **West Virginia Medicaid's policy has a categorical**

22 **exclusion on the category of gender affirming**

23 **surgery.**

24 A. In my review -- and again, I'll use the

Page 64

1 term "gender affirming" and I believe what was

2 used, "sex transformation," to -- I'll use them as

3 a synonym in this case.

4 But it is my understanding that gender

5 affirming surgeries are not covered under the West

6 Virginia Medicaid.

7 **Q. And how did you obtain that understanding?**

8 A. I reviewed -- I reviewed, I believe, three

9 West Virginia Medicaid policies.

10 **Q. Okay. Did you review the managed care**

11 **organization's specific health plans?**

12 A. I believe these were three Medicaid

13 policies that may have been in conjunction with

14 other carriers -- for example, Aetna, and two

15 others.

16 **Q. So you reviewed -- was it Aetna, the health**

17 **plan -- I'm forgetting the other one right now.**

18 **But you had reviewed them and they appeared to be**

19 **-- and we'll talk about the Aetna one specifically.**

20 **But there appeared to be a document**

21 **that was jointly prepared by Medicaid and Aetna, or**

22 **a document that was prepared by Aetna following**

23 **Medicaid guidelines?**

24 MS. HUPPERT: Objection to form.

Page 65

1 A. I can't speak to how it was prepared. It
2 came to me simply as, I believe, Medicaid/Aetna.
3 So I don't know who is responsible for the
4 preparation.
5 **Q. And do you recall what the language was in**
6 **the Aetna/Medicaid document that you reviewed?**
7 A. I recall a term "sex transformation."
8 Again, I believe that was the term. It may have
9 been a different or similar term. And I believe
10 that there was an exclusion or that those
11 procedures were not covered by -- by that plan.
12 **Q. And when you read that, what specific**
13 **procedures did you believe that meant were not**
14 **covered?**
15 MS. HUPPERT: Objection to form.
16 A. I believe, as I said, the term was "sex
17 transformation." I'll use a more appropriate term
18 of "gender affirming" or "gender confirming"
19 surgeries.
20 Those are typically a constellation of
21 procedures that include top surgery, so typically
22 chest or breast, genital surgeries, in addition to,
23 for example, a hysterectomy, oophorectomy,
24 orchiectomy.

Page 66

1 **Q. And when you reviewed that policy, did you**
2 **believe that those procedures were entirely**
3 **excluded or -- excuse me, or not covered for**
4 **transgender patients or for people with gender**
5 **dysphoria?**
6 MS. HUPPERT: Objection to form?
7 A. So it would typically only be transgender
8 individuals who would seek to access those
9 interventions.
10 **Q. Well, for instance, in your report, you**
11 **frequently mention that individuals with breast**
12 **cancer receive double mastectomy. That's a common**
13 **occurrence for an individual with cancer, correct?**
14 A. That can be, yes, one of the options, as --
15 there may be others.
16 **Q. Did you see anything in any of the**
17 **insurance policies that you reviewed that said if a**
18 **individual has breast cancer and a double**
19 **mastectomy is the procedure that is recommended,**
20 **that the transgendered individual cannot undergo**
21 **that procedure, it's not covered?**
22 MS. HUPPERT: Objection to form.
23 A. So again, I'm -- sex transformation
24 procedures would only be done for transgender

Page 67

1 individuals.
2 **Q. Okay. What if a cisgender individual**
3 **wanted one of those procedures?**
4 A. Which procedure?
5 **Q. A -- we'll do a top surgery. What if a**
6 **cisgender individual requested a top surgery from**
7 **-- requested prior approval for coverage for a top**
8 **surgery from West Virginia Medicaid?**
9 MS. HUPPERT: Object to form.
10 A. And again, I would need to know more about
11 the situation. "Top surgery" meaning --
12 **Q. A -- we'll say a double mastectomy.**
13 MS. HUPPERT: Object to form.
14 A. Cisgender individuals may undergo double
15 mastectomies for a variety of indications: A
16 predisposition, for example, to breast cancer. So
17 an individual, cisgender woman - or for that
18 matter, a cisgender man - may have a genetic
19 predisposition, a strong family history.
20 Mastectomy may be one of the treatment
21 options open to them.
22 **Q. And is there anything that you reviewed**
23 **that would suggest to you that in those same**
24 **situations for transgender individuals, that those**

Page 68

1 **coverages are not available to them?**
2 MS. HUPPERT: Object to form.
3 A. So again, the sex transformation -- again,
4 I apologize. I don't like that particular term,
5 but we'll use, I believe, what's in it. Sex
6 transformation would only be performed for a
7 transgender individual.
8 A cisgender individual -- at least I
9 haven't had that experience in my practice, to seek
10 a, quote, sex transformation procedure.
11 **Q. Are you aware of West Virginia Medicaid**
12 **denying coverage for a double mastectomy for**
13 **someone with cancer because they are transgender?**
14 MS. HUPPERT: Objection to form.
15 A. Again, my issue is the exclusion or the
16 lack of coverage for sex transformation procedures,
17 which again, are only performed on transgender
18 individuals.
19 **Q. So I can ask the question again. Are you**
20 **aware of West Virginia Medicaid denying coverage to**
21 **an individual with cancer, noncoverage for a double**
22 **mastectomy, for an individual with cancer because**
23 **they are transgender?**
24 MS. HUPPERT: Object to form.

Page 69

1 A. So I wasn't asked to review the document
 2 for cancer coverage or oncologic services. I'm
 3 looking at the exclusion for sex transformation,
 4 which again is only performed on transgender
 5 individuals.
 6 **Q. So the answer is no, you are not aware of**
 7 **that situation occurring.**
 8 MS. HUPPERT: Objection to form.
 9 A. No, the answer is: I didn't review the
 10 documents specific to oncologic services.
 11 **Q. Okay. Please list all individuals you are**
 12 **aware of who were denied coverage for a double**
 13 **mastectomy when they had a diagnosis of cancer**
 14 **because they are transgender.**
 15 MS. HUPPERT: Objection to form.
 16 Asked and answered.
 17 A. Again, my focus was on the exclusion of sex
 18 transformation procedures which are only performed
 19 upon individuals who are transgender.
 20 **Q. And so therefore you did not review or**
 21 **determine whether transgender individuals have been**
 22 **denied coverage for double mastectomy for cancer**
 23 **diagnosis.**
 24 MS. HUPPERT: Object to form.

Page 70

1 A. My review was for the exclusion of sex
 2 transformation, which is only performed on
 3 transgender individuals.
 4 **Q. Why is it only performed on transgender**
 5 **individuals?**
 6 MS. HUPPERT: Objection to form.
 7 A. Cisgender individuals do not typically seek
 8 a procedure, a sex transformation - or I'll call it
 9 gender affirming - procedure.
 10 **Q. The cisgender people do not typically seek.**
 11 **Is it possible for a cisgender person to seek such**
 12 **a surgery?**
 13 MS. HUPPERT: Objection to form.
 14 A. I have not encountered that in my clinical
 15 practice.
 16 **Q. And if a cisgender person did seek that**
 17 **surgery, is there anything that would suggest to**
 18 **you that they would have a different outcome**
 19 **applying to West Virginia Medicaid for coverage?**
 20 MS. HUPPERT: Objection to form.
 21 A. Well, again, cisgender individuals may
 22 undergo mastectomy, as we've said, oophorectomy,
 23 and so forth. But those aren't considered to be
 24 sex transformation procedures in cisgender

Page 71

1 individuals. Only for transgender individuals
 2 would a sex transformation procedure be performed.
 3 **Q. So are you aware of any language anywhere**
 4 **in the Medicaid policies which you reviewed that**
 5 **says that coverage is denied to someone on the**
 6 **basis of them being transgendered?**
 7 A. Again, sex transformation is only -- I
 8 apologize, it's just not a comfortable term for me.
 9 But a sex transformation is not performed -- or is
 10 only performed, excuse me, on a transgender person.
 11 **Q. So can you point me to language in the West**
 12 **Virginia Medicaid policy that says transgender**
 13 **people are not entitled to coverage?**
 14 MS. HUPPERT: Objection to form.
 15 A. Sex -- again, sex transformation is only
 16 performed in transgender individuals.
 17 **Q. Okay. So where in the Medicaid policy does**
 18 **it say that transgender individuals are not**
 19 **entitled to Medicaid coverage?**
 20 MS. HUPPERT: Objection to form.
 21 A. Sex transformation is only performed in
 22 transgender individuals.
 23 **Q. So if I pull up the Medicaid policies, are**
 24 **you going to be able to show me where it says that**

Page 72

1 **transgender individuals are not entitled to**
 2 **Medicaid coverage?**
 3 MS. HUPPERT: Objection to form.
 4 A. If it's one of the policies I reviewed, I
 5 can show you where sex transformation - again, I
 6 believe that was the language - is excluded. And
 7 that applies only to transgender individuals.
 8 **Q. Are there any other portions of the policy**
 9 **that you believe provide exclusions or noncoverage**
 10 **for transgender individuals?**
 11 A. I'm sorry, can you repeat that?
 12 **Q. Are there any other portions of the**
 13 **Medicaid policies that you believe exclude or do**
 14 **not cover services for transgender individuals?**
 15 MS. HUPPERT: Objection.
 16 A. I focus on the exclusion for sex
 17 transformation services.
 18 **Q. So when you're saying that there is a**
 19 **categorical exclusion, you're talking about the**
 20 **category is gender affirming surgeries or sex**
 21 **transformation surgeries.**
 22 MS. HUPPERT: Objection to form.
 23 A. I'm referring -- and again, I'm using the
 24 term "gender affirming" to mean sex transformation.

Page 73

1 I'm referring to the exclusion of gender affirming
2 surgery.

3 **Q. All right. And beyond gender affirming**
4 **surgery, are you aware of any other exclusions?**

5 MS. HUPPERT: Object to form.

6 A. I did not review the policy specific to
7 other clinical conditions.

8 **Q. Okay. So to hopefully put a pin in this,**
9 **the only exclusion that you are concerned with is**
10 **that you believe that the West Virginia Medicaid**
11 **policy excludes gender affirming surgeries.**

12 MS. HUPPERT: Object to form.

13 A. No. The only exclusion that I was -- that
14 I reviewed and am speaking to is the exclusion of
15 sex transformation surgery. It's possible that
16 there would be other concerns, but I reviewed this
17 specific to the issue of sex transformation
18 surgeries.

19 **Q. Are you going to testify about any other**
20 **exclusions that you believe exist for transgender**
21 **individuals in the West Virginia Medicaid policy?**

22 MS. HUPPERT: Object to form.

23 A. My area is -- focuses on the gender
24 affirming -- the exclusion pertaining to gender

Page 74

1 affirming surgical services.

2 **Q. Okay. So again, there's nothing outside of**
3 **what you're talking about, the exclusion that you**
4 **believe applies to gender affirming surgeries, that**
5 **what you're saying -- that sex transformation**
6 **surgery language is the universe of language that**
7 **you were asked to look at.**

8 MS. HUPPERT: Object to form.

9 A. I was asked to look at the exclusion of
10 surgical services for transgender individuals, and
11 the exclusion of sex transformation surgery applies
12 only to transgender individuals.

13 I didn't look - as we discussed
14 earlier - for coverage related to oncologic
15 considerations.

16 **Q. And Doctor, all I'm trying to do is find**
17 **out if you're going to testify to any other portion**
18 **of the West Virginia Medicaid plan. Is it -- are**
19 **you only going to testify as to coverage related to**
20 **gender affirming surgeries?**

21 MS. HUPPERT: Object to form.

22 A. So I'm speaking to the exclusion for gender
23 affirming surgeries. But to the extent that those
24 are procedures that may be performed for other

Page 75

1 clinical conditions, I may speak to that issue, as
2 we did mastectomy for oncologic conditions, for
3 example.

4 **Q. Okay. And you used the term "categorical**
5 **exclusion," and I'm trying to understand what the**
6 **category is that is being excluded.**

7 MS. HUPPERT: Object to form.

8 A. The transgender individuals being excluded
9 from surgical intervention, sex transformation
10 services.

11 **Q. And again, I want to be specific here. You**
12 **are not implying that a transgender person can**
13 **never get a mastectomy; you're saying that a**
14 **transgender person is excluded from getting a**
15 **mastectomy for gender dysphoria.**

16 MS. HUPPERT: Object to form.

17 A. The language as I read didn't specify the
18 condition on which it would be performed. Again,
19 trans -- sex transformation surgery would only be
20 performed on an individual who's transgender.

21 **Q. Okay. Is it your testimony that**
22 **transgender individuals, for any purpose, are**
23 **excluded from getting a mastectomy?**

24 MS. HUPPERT: Object to form.

Page 76

1 A. I am reviewing it within the context of
2 being performed as a sex transformation surgery.

3 **Q. Okay. You also just testified that you've**
4 **looked at other portions as they relate to similar**
5 **types of procedures like mastectomies that we just**
6 **talked about, and you specifically pointed out.**
7 **Are you saying that transgender individuals are**
8 **excluded from getting a mastectomy for any**
9 **diagnosis?**

10 A. No, I said --

11 MS. HUPPERT: Objection.

12 A. -- I said I did not review it for oncologic
13 -- for coverage, for example, for oncologic
14 services, regardless of one's gender identity.

15 **Q. Okay.**

16 A. The fact that sex transformation is
17 excluded would apply only to a transgender person.
18 Whether a cisgender woman can have a -- would have
19 access to oncologic breast services, I did not
20 review the policy within that framework.

21 **Q. Did you review the policy in the framework**
22 **of a transgender person receiving oncologic care?**

23 A. I refer to -- I refer --

24 MS. HUPPERT: Sorry to interrupt.

Page 77

1 Objection to form.
 2 You can answer.
 3 THE DEPONENT: Thank you.
 4 A. I referred it -- I reviewed it within the
 5 context of sex transformation surgery, again
 6 performed on a transgender individual.
 7 **Q. Are you aware of any exclusions beyond the**
 8 **exclusion for sex transformation surgery?**
 9 A. There were other exclusions in the list
 10 with sex transformation surgery. I don't recall
 11 them by memory.
 12 **Q. Okay. Are you aware of any individual**
 13 **attempting to get a single case agreement from West**
 14 **Virginia Medicaid for a gender affirming surgery?**
 15 MS. HUPPERT: Object to form.
 16 A. Not to my knowledge.
 17 **Q. Have you reviewed Christopher Fain's**
 18 **medical records?**
 19 A. No.
 20 **Q. Have you spoken to Christopher Fain?**
 21 A. No.
 22 **Q. Have you examined Christopher Fain?**
 23 A. No.
 24 **Q. Same questions for Shauntae Anderson. Have**

Page 78

1 **you reviewed Shauntae Anderson's medical records?**
 2 A. No.
 3 **Q. Have you spoken to Shauntae Anderson?**
 4 A. No.
 5 **Q. Have you examined Shauntae Anderson?**
 6 A. No.
 7 **Q. Have you read Doctor Karasic's report that**
 8 **includes interviews with Mr. Fain and Ms. Anderson?**
 9 A. No, only to the extent of what I've always
 10 included in Doctor Levine's report pertaining to
 11 what he referred to in Doctor Karasic's report.
 12 **Q. Okay. So you have not reviewed either the**
 13 **original report or the rebuttal report from Dan**
 14 **Karasic.**
 15 A. I have not reviewed anything from Doctor
 16 Karasic.
 17 **Q. Do you consider yourself to be an expert in**
 18 **the evaluation of evidence?**
 19 MS. HUPPERT: Objection to form.
 20 A. What type of evidence?
 21 **Q. Well, there are principles of evidence-**
 22 **based decision making in medicine, correct?**
 23 A. Yes.
 24 **Q. Okay. And what are those principles?**

Page 79

1 A. Are you referring to levels of evidence?
 2 **Q. Sure. And we can talk about levels of**
 3 **evidence. But I'm referring to the principles that**
 4 **a physician use the best available evidence, that**
 5 **the physician use a framework to judge the**
 6 **trustworthiness of that evidence, and that if the**
 7 **evidence isn't sufficient, that the physician**
 8 **consider the patient's needs and preferences in**
 9 **determining treatment.**
 10 **Is that something that you're familiar**
 11 **with?**
 12 MS. HUPPERT: Objection to form.
 13 A. I'm not quite clear on what context you're
 14 -- to which you're referring.
 15 **Q. Sure. I'm referring to the evaluation of**
 16 **evidence as defined by the American Medical**
 17 **Association. Is that something that you're**
 18 **familiar with?**
 19 A. I'm familiar with levels of evidence
 20 pertaining to study design, yes.
 21 **Q. Okay. So when you're talking about levels**
 22 **of evidence, you're talking about Level I being**
 23 **high-quality multi centered or single-centered**
 24 **randomized controlled trials with adequate power or**

Page 80

1 **systematic reviews of those studies.**
 2 A. That would be a typical definition. There
 3 may be others. But that would be one.
 4 **Q. Okay. What are the other definitions?**
 5 A. Well, I -- if you're referring to a
 6 specific study, you know, I can review that study
 7 and look at your wording. There may be other
 8 definitions where the wording is slightly --
 9 slightly different.
 10 **Q. Sure. Well, and this, I don't believe, is**
 11 **specific to gender affirming care, but I pulled**
 12 **those levels of evidence specifically from a**
 13 **document that you co-authored, and I'll go ahead**
 14 **and show that now.**
 15 MS. HUPPERT: I just wanted to sort of
 16 raise, you know, the logistics of how you're
 17 intending to handle documents. Just curious, you
 18 know, is the witness going to have control over
 19 what he's seeing, that sort of thing?
 20 MR. DAVID: I was simply going to
 21 share my screen and I was going to show him the
 22 specific table, scale for grading recommendations
 23 that's included in an article that he published.
 24 If he would like me to scroll up,

Page 81

1 scroll down, I'm happy to do it. I don't know if
 2 that's a capability that he will have.
 3 MS. HUPPERT: Okay.
 4 **Q. Doctor, can you see what's on the screen?**
 5 A. I can.
 6 **Q. And I'll scroll up to the top so that you**
 7 **can see that. This is a -- an article titled**
 8 **"Evidence-based Patient Safety Advisory" - and I'm**
 9 **not even going to pretend that I understand how to**
 10 **pronounce that word - "Blood Dyscrasia?"**
 11 A. Dyscrasia.
 12 **Q. Okay. And you are one of the co-authors of**
 13 **this article, correct?**
 14 A. I am.
 15 **Q. Okay. And there is a table, Table 1. Can**
 16 **you see that on the screen?**
 17 A. Table -- yeah. Not crystal -- could be my
 18 eyes. But not crystal clear, but I can see it.
 19 **Q. I can see if I can zoom in a little bit,**
 20 **maybe I can even go a little bit further. And that**
 21 **should -- can you see it a little bit better now?**
 22 A. I can, yeah.
 23 **Q. Okay. And that Evidence Rating Scale has**
 24 **24 Levels of Evidence I through V, correct?**

Page 82

1 A. It does.
 2 **Q. Okay. And Level I is "High-quality, multi**
 3 **centered or single-centered randomized controlled**
 4 **trial with adequate power, or systematic review of**
 5 **these studies." Is that correct?**
 6 A. That's what it says, but if you could
 7 enlarge, I'd like to see because it's possible we
 8 used -- I want to see what evidence scale we used,
 9 so there should be a reference to that. So if you
 10 can perhaps --
 11 **Q. Where would I go?**
 12 A. Perhaps -- I want to see in the text where
 13 that source was from, because that wasn't -- okay,
 14 wait. Okay, depending on study's own quality --
 15 yes, okay, that was through the ASPS Evidence
 16 Rating Scale, which is why I asked.
 17 And there may be other rating scales,
 18 but for the purpose of this purpose -- for this
 19 manuscript, that was used.
 20 **Q. Okay. And is the ASPS rating scale a**
 21 **generally-accepted rating scale?**
 22 A. Can you go up? I want to see what year --
 23 **Q. Sure. This was 2009, I believe.**
 24 A. Yes, so it's conceivable that that scale

Page 83

1 has been updated since 2009.
 2 **Q. Okay. Can we agree that randomized**
 3 **controlled trials are the gold standard?**
 4 A. Well, it depends on how they're performed.
 5 Simply because something is a randomized controlled
 6 trial doesn't mean that it was performed in a
 7 scientifically-correct manner.
 8 **Q. Sure. And assuming that the trials are**
 9 **conducted in an appropriate manner, would they be**
 10 **the gold standard?**
 11 MS. HUPPERT: Object to form.
 12 A. So --
 13 MS. HUPPERT: Apologies. Object to
 14 form.
 15 You can answer.
 16 A. Again, so it would depend on the study
 17 design. Simply a randomized controlled trial, an
 18 individual randomized controlled trial, doesn't
 19 mean it's, as you said, a gold -- a gold standard.
 20 Randomized controlled trials, when
 21 studied appropriately, would carry a level -- a
 22 Level I, typically -- the Level I level of
 23 evidence.
 24 **Q. Okay. Would you agree --**

Page 84

1 A. And you can -- well, you can see the
 2 caveats in the table: "With adequate power," for
 3 example, being one of those caveats.
 4 **Q. So would you agree that prospective**
 5 **randomized double-blind placebo-controlled studies**
 6 **are the gold standard?**
 7 A. I would say that would be a framework for
 8 what would be Level I evidence. Again, as to a
 9 particular study, it would depend on the study,
 10 adequacy of that particular study.
 11 **Q. Doctor, are you aware that I just quoted**
 12 **from your rebuttal report that says, "While**
 13 **prospective randomized double-blind placebo**
 14 **-controlled studies are the gold standard, they**
 15 **cannot be used to evaluate many clinical**
 16 **procedures"?**
 17 A. I agree with that statement, the fact that
 18 they cannot be used to evaluate many clinical
 19 procedures.
 20 **Q. Do you agree with the statement that they**
 21 **are the gold standard?**
 22 A. When performed, as I said, appropriately,
 23 yes.
 24 **Q. Okay. And in this instance, I believe that**

Page 85

1 **your written testimony, at least, is that for**
 2 **gender affirming care - specifically gender**
 3 **affirming surgeries - you cannot do these types of**
 4 **studies. Is that correct?**
 5 MS. HUPPERT: Object to form.
 6 A. Which type of study?
 7 **Q. A random -- a prospective randomized**
 8 **double-blind placebo-controlled study.**
 9 A. So as with many areas of surgery and
 10 medicine, you cannot perform that type of study.
 11 For example, it may be unethical to deny people
 12 medically-necessary care. Also, surgery doesn't
 13 lend itself to either a placebo or a double-blind
 14 framework.
 15 Obviously if you had surgery, you're
 16 going to know that you've had surgery.
 17 So as with other clinical areas of
 18 medicine -- for example, a cleft lip. We don't
 19 randomize children to repair or not repair their
 20 cleft -- their cleft lip. Similar to other areas
 21 of medicine, randomized controlled trials or
 22 placebo or double-blind studies may not be ethical
 23 or feasible.
 24 **Q. So are you aware any Level I evidence in**

Page 86

1 **support of gender confirming or gender affirming**
 2 **surgeries?**
 3 MS. HUPPERT: Object to form.
 4 A. As with many areas of plastic surgery, the
 5 levels that I have (Zoom audio glitch) in gender
 6 affirming surgery are very much consistent with
 7 that due to the considerations we just discussed.
 8 **Q. Okay. So can you list all of the studies**
 9 **that you are aware of that have produced Level I --**
 10 **Level I evidence in support of gender confirming**
 11 **surgeries?**
 12 MS. HUPPERT: Object to form.
 13 A. As we've said with -- both in my report and
 14 now, in areas of plastic surgery, we can't -- they
 15 don't lend themselves - either because of medical
 16 ethics or practical considerations, like a placebo
 17 - to that type of study framework.
 18 So the levels of evidence within
 19 gender affirming surgery are consistent with other
 20 areas of plastic surgery.
 21 **Q. So how many articles in your bibliography**
 22 **contain Level I evidence for -- in support of**
 23 **gender affirming surgery?**
 24 MS. HUPPERT: Object to form.

Page 87

1 A. I'd have to review that bibliography.
 2 **Q. Well, I just asked you to list all of the**
 3 **ones that you're aware of, and you didn't list any.**
 4 **So are any in your bibliography?**
 5 MS. HUPPERT: Object to form.
 6 A. I'd have to, again, refuse -- specific to
 7 -- I'm sorry, I'm getting an echo -- all the
 8 sudden, I'm getting an echo.
 9 Okay. I'd have to specifically review
 10 the bibliography. But again, as other studies
 11 cited in my bibliography, the levels of evidence in
 12 gender affirming surgery are consistent with that
 13 of other areas of plastic surgery which are readily
 14 accepted as medically necessary.
 15 **Q. So can you name a single piece of medical**
 16 **literature that contains Level I evidence in**
 17 **support of gender affirming surgery?**
 18 MS. HUPPERT: Object to form.
 19 A. As we said, the -- denying people medically
 20 necessary care would be unethical. So it would be
 21 medically inappropriate to deny people medically
 22 necessary care, and simply not be feasible to, for
 23 example, perform a placebo control within the area
 24 of surgery.

Page 88

1 So that's not something that's
 2 medically feasible to do.
 3 **Q. So you are unable to name any medical**
 4 **literature that includes Level I evidence in**
 5 **support of gender affirming surgery.**
 6 MS. HUPPERT: Object to form. Asked
 7 and answered.
 8 A. Again, it is not possible to have a placebo
 9 designed with surgery. So it's not medically
 10 feasible to do that.
 11 **Q. Okay. All right. So Level II evidence is**
 12 **lesser quality, randomized controlled trial,**
 13 **prospective cohort study, or systematic review of**
 14 **these studies. Is that correct?**
 15 A. Well, you're using a 2009 scale.
 16 So based on the 2009 scale -- I see
 17 what you're reading. Again, it's conceivable that
 18 that ASPS evidence scale has been updated.
 19 **Q. Are you aware of the scale being updated?**
 20 A. It's possible. I can't say for certain.
 21 **Q. Are you aware of any lesser quality,**
 22 **randomized controlled trials, prospective cohort**
 23 **studies or systematic review of those studies that**
 24 **analyze the efficacy of gender affirming surgery?**

Page 89

1 MS. HUPPERT: Object to form.
 2 A. I'm aware of systematic reviews. I'm aware
 3 of prospective studies. Again, I'm not aware of a
 4 randomized controlled study as it would not be
 5 ethical to deny people medically necessary care.
 6 **Q. Okay. What systematic reviews are you**
 7 **aware of?**
 8 A. I believe some of those are listed in my
 9 rebuttal report, or in the bibliography.
 10 **Q. What prospective cohort studies are you**
 11 **aware of in efficacy of gender affirming surgeries?**
 12 A. I'm aware of -- I don't recall whether they
 13 were cohort studies, so I can't specifically say
 14 they were cohort studies.
 15 **Q. Can you explain to me what a prospective**
 16 **study is?**
 17 A. It is - within the context of surgery -
 18 performing, for example, a procedure and then
 19 following that individual on a go-forward basis as
 20 opposed, for example, to looking backwards in a
 21 retrospective nature at a procedure that was
 22 performed at a time in the past and then evaluating
 23 the outcome.
 24 **Q. Have you participated in any prospective**

Page 90

1 **studies?**
 2 A. Yes.
 3 **Q. In what prospective studies have you**
 4 **participated?**
 5 A. I have participated in studies that explore
 6 patient expectations regarding gender affirming
 7 surgery. I have participated in prospective
 8 studies that look at expectations -- or I should
 9 say "am participating in," currently.
 10 -- studies that explore expectations
 11 around sexual function following gender affirming
 12 surgery. And there was one other that I can't
 13 recall. I believe it was contained within the
 14 expectations around gender affirming surgery.
 15 **Q. All right. Have you participated in any**
 16 **prospective studies that analyze mental health**
 17 **outcomes of individuals undergoing gender affirming**
 18 **surgery?**
 19 A. I'm sorry, did you say -- can you repeat
 20 that?
 21 **Q. Sure. Have you participated in any**
 22 **prospective studies that analyze and focus on the**
 23 **mental health outcomes of patients undergoing**
 24 **gender affirming surgeries?**

Page 91

1 A. I have participated in studies that look at
 2 outcomes. It's conceivable that there were mental
 3 health parameters, but I believe the focus was on
 4 complications relating to gender affirming surgery.
 5 **Q. Are any of the prospective studies that you**
 6 **have participated in, have they been published?**
 7 A. They have been presented. Whether they
 8 have been published in a -- in a proceedings
 9 manner, I am not entirely sure. It's conceivable.
 10 But they've been presented.
 11 **Q. Okay. So they may have been presented at a**
 12 **conference -- or they have been presented at**
 13 **conferences, but you're not aware of a place that I**
 14 **could go on the Internet and find a print version**
 15 **or an online version of the study.**
 16 MS. HUPPERT: Object to form.
 17 A. It's conceivable they may have been
 18 published as part of the abstracts in the
 19 proceeding, but I'd have to look at my CV. I don't
 20 recall that 100 percent.
 21 **Q. Okay. And for these prospective studies,**
 22 **who actually conducted the studies?**
 23 A. Myself as well as a team of researchers.
 24 **Q. And how -- what was your method -- what is**

Page 92

1 **your methodology -- if there are some that are**
 2 **still going on -- but what was or what is your**
 3 **methodology for these prospective studies?**
 4 MS. HUPPERT: Object to form.
 5 A. Those were survey studies.
 6 **Q. Okay. And did you develop the survey**
 7 **questions?**
 8 A. I did in conjunction with other members of
 9 the team.
 10 **Q. And how many of these survey studies have**
 11 **you completed?**
 12 A. So the two prospective studies -- I'm
 13 thinking of one that was a pilot study regarding
 14 expectations around gender affirming surgery.
 15 The other is currently ongoing looking
 16 at expectations regarding sexual function before
 17 and after gender affirming surgery.
 18 **Q. Okay. And how often are the patients**
 19 **surveyed?**
 20 MS. HUPPERT: Object to form.
 21 A. So for the current, pre-operatively, and
 22 then at, I believe, six-month follow-up and
 23 one-year follow-up.
 24 **Q. Do you have any intention to extend that**

Page 93

1 **follow-up period?**

2 A. We are always, you know, considering new --

3 new clinical research questions and possibilities,

4 so it's certainly possible.

5 **Q. Why did you choose a one-year follow-up**

6 **period?**

7 A. To obtain the data. People may be less apt

8 to complete survey questions as time goes on.

9 **Q. And in your pilot study on patient**

10 **expectations, how many of the patients within the**

11 **study population actually participated in the**

12 **survey?**

13 A. An estimate is somewhere around 30. Again,

14 I'd have to look specifically at the study to give

15 -- to give the exact number. It could be a bit

16 more or it could be a bit less.

17 **Q. And we'll say it's an approximation. So**

18 **does that mean that approximately -- well, let me**

19 **ask you this first: Was the pilot study set up the**

20 **same way? There was a pre-operative, a six-month**

21 **and a one-year survey?**

22 A. It was. We stopped -- or we had limited

23 information -- or I should say we didn't have full

24 post-op survey because the IRB changed, and that

Page 94

1 was in the switch to Rush University.

2 So we -- rather than write a new IRB,

3 we stopped with the pre-operative survey and then

4 we collect data now through what's called the

5 REDcap system which is a method of maintaining or

6 obtaining data.

7 **Q. Okay. You just used what I assume is an**

8 **acronym, an IRB. Can you tell me what that is?**

9 A. Sure. Institutional Review Board.

10 **Q. Okay. And so the Institutional Review**

11 **Board changed as you changed locations from Weiss**

12 **to Rush?**

13 A. No. The hospital -- my employer changed in

14 2019 when my employer sold the hospital, and with

15 that, the IRB changed.

16 So rather than recomplete -- or

17 rework the IRB, we decided to pursue a different

18 methodology.

19 **Q. Okay. And so the pilot started -- and I'm**

20 **just trying to understand the timing. Was the**

21 **pilot study interrupted as a result of the change**

22 **in the IRB?**

23 A. We completed the pre-operative surveys. We

24 were not able to complete the post-operative

Page 95

1 surveys.

2 **Q. Okay. And so there -- let me ask: Were**

3 **you offering or requesting that all of your**

4 **patients participate in this program?**

5 A. I believe we had -- I believe it focused on

6 mastectomy and genital surgery. I don't recall

7 that we -- I think we excluded face. I believe

8 individuals had to be the age of majority. There

9 may have been some other exclusion criteria that

10 I'm also thinking -- that I just can't remember.

11 So the answer is: It was not open to

12 all individuals. There were some inclusion and

13 exclusion criteria.

14 **Q. Okay. And for the pre-operative surveys,**

15 **what was the time frame? Was it over the course of**

16 **a year? And what I mean is, the patients who were**

17 **included in the study, were they patients who had**

18 **the -- a procedure over the course of a single**

19 **year?**

20 A. No, this -- these were pre-operative, so

21 their procedure could have been 6 months, 12

22 months, 18 months later. It was specific to that

23 point prior to surgery. Whether surgery, you know,

24 occurred within that calendar year depended on the

Page 96

1 person.

2 **Q. Sure. So now with that understanding, to**

3 **refine my question a little bit, did you say,**

4 **"Okay, we're going to survey people pre-operatively**

5 **from July 1st of 2017 to June 30th of 2018," for**

6 **example?**

7 A. I don't remember. I think we may have --

8 again, this is an approximation. We may have set

9 the target as a specific number, not necessarily by

10 date at which they were seen.

11 **Q. So if I'm understanding correctly -- and I**

12 **don't know what the number was. But let's say that**

13 **you were hoping for 100 participants. You, over**

14 **the course of time, requested that people**

15 **participate in the survey if they didn't have an**

16 **exclusion criteria until you reached that number of**

17 **100.**

18 A. It wasn't 100. It was designed as a pilot

19 study, so then further we refined survey questions.

20 So it was less than 100 individuals, again, with

21 the purpose to review and then further refine

22 survey questions.

23 **Q. Okay. Do you believe that your pilot study**

24 **is a reliable study with Level II evidence?**

Page 97

1 MS. HUPPERT: Object to form.
 2 A. It's not a -- I would not -- again, based
 3 on this 2009 classification -- once again, I don't
 4 know if this is the most recent ASPS rating scale.
 5 So this would be from 13 -- 13 years ago. It's
 6 possible, but I can't speak to that same scale
 7 being used.
 8 **Q. Would you classify your pilot study as a**
 9 **prospective cohort study?**
 10 A. I would classify it as a prospective case
 11 series.
 12 **Q. Okay. And under the table, again the 2009**
 13 **ASPS rating scale, would that be Level IV?**
 14 A. Again, I can't accept this scale from 2009
 15 as being representative of 2022.
 16 **Q. Okay. So in 2022, which is a better or a**
 17 **higher level of evidence, a prospective cohort**
 18 **study or a case series?**
 19 MS. HUPPERT: Object to form.
 20 A. Again, as for a particular study, it would
 21 depend upon the study design of that -- of that
 22 particular study. In other words, a prospective
 23 cohort study, poorly done, would not necessarily be
 24 a higher quality but may -- could be considered a

Page 98

1 higher level of evidence.
 2 **Q. What were the results of your pilot study?**
 3 A. It was a survey designed to look at
 4 expectations regarding gender affirming surgery,
 5 and we had a variety of questions as well as the
 6 opportunity to free text as to reasons why or
 7 motivations for individuals to choose a surgical
 8 intervention such as aligning their body or
 9 alleviating or relieving their gender dysphoria.
 10 **Q. Were there individuals who were seeking**
 11 **that surgery in your study to align their body but**
 12 **not to alleviate gender dysphoria?**
 13 MS. HUPPERT: Object to form.
 14 A. I'd have to look. I'd have to go back and
 15 look at the individual -- individual data.
 16 **Q. Okay. Is that something that you see in**
 17 **your practice, that there are people who would like**
 18 **to align their body with their gender identity but**
 19 **they don't have gender dysphoria?**
 20 MS. HUPPERT: Object.
 21 A. So my typical indication for surgery is
 22 gender dysphoria.
 23 **Q. Okay. So are there patients that you have**
 24 **that would like to align their body with their**

Page 99

1 **gender identity but who do not suffer from gender**
 2 **dysphoria?**
 3 MS. HUPPERT: Object.
 4 A. It's possible that I've seen patients as
 5 you describe.
 6 **Q. Okay. Have you yourself conducted any**
 7 **systematic reviews on the efficacy of gender**
 8 **affirming surgeries?**
 9 A. I have been involved as an author,
 10 participated in studies that have performed
 11 reviews. Some may be scoping reviews, and some may
 12 have been systematic. I'd have to look
 13 specifically at my CV.
 14 **Q. What is a scoping review?**
 15 A. A literature search would have been done
 16 but not necessarily in a systematic fashion where
 17 one would include or exclude articles based on
 18 certain criteria.
 19 This would incorporate -- or could
 20 incorporate the universe of articles.
 21 **Q. Has your pilot study been involved or**
 22 **included in any systematic reviews to your**
 23 **knowledge?**
 24 A. Not to my knowledge.

Page 100

1 **Q. Are you familiar with the Grade framework**
 2 **for evaluating the trustworthiness of evidence?**
 3 A. I have heard of it, yes.
 4 **Q. Okay. And I'll go ahead -- I'm done asking**
 5 **about that Evidence Rating Scale, so I'll go ahead**
 6 **and go back to you getting to see my face.**
 7 **Is the Grade Rating Scale something**
 8 **that you use in your practice?**
 9 A. You mean clinically?
 10 **Q. I mean in terms of your -- the academic or**
 11 **research side of your practice.**
 12 A. Well, the Grade system, I believe, is used
 13 to look at clinical practice guidelines.
 14 **Q. Okay. And you're correct that that is one**
 15 **of the uses of the Grade system, and it's for**
 16 **treatment recommendations, and they rate the**
 17 **strength of those treatment recommendations. Is**
 18 **that the part that you're familiar with?**
 19 MS. HUPPERT: Object to form.
 20 A. I'd have to look at the specific, again,
 21 uses of Grade, but I believe they are used to
 22 evaluate clinical practice guidelines.
 23 **Q. And do you know what the grading scale is**
 24 **within Grade?**

Page 101

1 A. I don't recall the specific scale.
 2 **Q. Okay. Are you familiar with the Grade**
 3 **system providing a strong treatment recommendation?**
 4 MS. HUPPERT: Object to form.
 5 A. I'd have to see the specific scale. I
 6 can't speak contemporaneously to the specifics of
 7 how they do it, how they -- how Grade grades.
 8 **Q. Okay. Now, Doctor, in your original report**
 9 **- and I believe that it's in Paragraph 18 - you**
 10 **state "The term transgender is used to describe a**
 11 **diverse group of individuals whose gender identity**
 12 **or internal sense of gender differs from the sex**
 13 **they were assigned at birth."**
 14 **Is that an accurate statement?**
 15 A. It is.
 16 **Q. Okay. And there are a couple of different**
 17 **terms in there that I'd like you to define. And**
 18 **the first one is sex.**
 19 A. Sure. So sex is comprised of several
 20 factors, which may include one's anatomy, typically
 21 external and/or internal genitalia, chromosomes and
 22 their gender identity, their internal sense of who
 23 they know themselves to be.
 24 **Q. So an individual -- let me ask: Do you**

Page 102

1 **differentiate between the terms "gender" and "sex?"**
 2 A. So gender -- well, gender itself may
 3 include a variety of things, such as expression,
 4 behaviors and so forth. Sex, as we've said -- so
 5 gender may be incorporated within the context of
 6 sex in the sense of one's identity being a part of
 7 -- of their sex.
 8 **Q. Now, one of the things that you mentioned**
 9 **that comprises sex is chromosomes, and that's**
 10 **something that cannot be changed. Is that correct?**
 11 MS. HUPPERT: Object to form.
 12 A. Well, radiation -- there are things that
 13 can alter DNA. That's typically not what we do in
 14 surgery.
 15 **Q. Okay. I'll limit it to surgery. Are you**
 16 **able to surgically alter DNA?**
 17 A. I don't know if in the universe of what's
 18 going on in the world, but not in my practice.
 19 **Q. Okay.**
 20 A. I guess unless we take it to a -- you know,
 21 I suppose could radiation for cancer alter DNA?
 22 You know, it's possible. I assume that's possible
 23 and does, but --
 24 **Q. Okay. And the other part of this, you also**

Page 103

1 **say that the gender identity is an internal sense**
 2 **of gender. And my first question is: Do you**
 3 **believe that gender is fluid?**
 4 MS. HUPPERT: Object to form.
 5 A. I believe it depends on the individual
 6 person.
 7 **Q. And can an individual person's gender**
 8 **identity change over time?**
 9 A. Depending on the individual, it's -- it is
 10 possible.
 11 **Q. Have you witnessed that in practice,**
 12 **someone's gender identity changing over time?**
 13 MS. HUPPERT: Object to form.
 14 A. So I have seen and cared for individuals
 15 who would describe themselves as gender fluid.
 16 **Q. Okay. And have any of those individuals**
 17 **described to you that they have had a shift in**
 18 **their gender identity throughout their lives?**
 19 MS. HUPPERT: Object to form.
 20 A. I have had one patient who I performed a
 21 breast augmentation on who probably 10ish - give or
 22 take - years later requested removal of the breast
 23 implants.
 24 **Q. Okay. I'm going to ask you if you agree**

Page 104

1 **with a statement: While some people develop a**
 2 **gender identity early in childhood, others may**
 3 **identify with one gender at one time and then**
 4 **another gender later on. Do you agree with that?**
 5 MS. HUPPERT: Object to form.
 6 A. I would have to see the context in the
 7 document to which you refer.
 8 **Q. Okay. I'm asking a question. Do you agree**
 9 **that while some people develop a gender identity**
 10 **early in childhood, others may identify with one**
 11 **gender at one time and then another gender later**
 12 **on?**
 13 MS. HUPPERT: Object to form.
 14 A. So I don't treat children, so that is not a
 15 statement that, you know, would be within my
 16 clinical area.
 17 **Q. Okay. Have you seen adults who have had a**
 18 **shift or a change in their gender identity over**
 19 **their life span?**
 20 MS. HUPPERT: Object to form.
 21 A. So as I said, I have one patient who I
 22 performed a breast augmentation on who was assigned
 23 male at birth, was a transgender woman upon whom I
 24 performed a breast augmentation, and then, as I

1 said, approximately 10 years - it may be a bit --
 2 somewhere between 8 to 10 years - requested removal
 3 of the implant and was identifying with their male
 4 sex assigned at birth.
 5 **Q. When you say "sex assigned at birth," what**
 6 **do you mean by that?**
 7 A. The sex designated or recorded typically
 8 based on one's external genitalia.
 9 **Q. And typically is the external genitalia**
 10 **determined by that individual's chromosomes?**
 11 MS. HUPPERT: Object to form.
 12 A. For most individuals, chromosomes will
 13 determine -- will -- well, various factors.
 14 Chromosomes, hormones, receptivity to those
 15 hormones, all will impact the development of the
 16 external genitalia.
 17 **Q. And just because someone is born with the**
 18 **genitalia of a male does not mean that that**
 19 **person's gender identity will align with a male.**
 20 **Is that correct?**
 21 MS. HUPPERT: Object to form.
 22 A. So you're referring to "male" meaning a
 23 penis, the fact that someone is born with a penis,
 24 assigned male at birth, does not necessarily

1 indicate -- or does not comply as we wouldn't know
 2 at birth what the identity of that individual is.
 3 **Q. Okay. And would you agree with me there is**
 4 **a social construct?**
 5 A. I'm sorry, you cut out.
 6 **Q. Yeah. Would you agree with me that gender**
 7 **is a social construct?**
 8 MS. HUPPERT: Object to form.
 9 A. I believe that gender is innate for an
 10 individual.
 11 **Q. And what do you mean, that gender is innate**
 12 **for an individual?**
 13 A. People are born as who they -- who they
 14 are.
 15 **Q. And I'm not disagreeing with that. I'm**
 16 **talking specifically -- you're saying that there**
 17 **are gender identities that may be different from**
 18 **the sexual organs that someone is born with, and**
 19 **how do we assign an identity to someone based upon**
 20 **their external genitalia?**
 21 MS. HUPPERT: Object to form.
 22 A. Historically, it's been based upon the
 23 external -- the appearance of the external
 24 genitalia.

1 **Q. Okay. And we do that through the**
 2 **stereotype of people who have a certain external**
 3 **genitalia, correct?**
 4 MS. HUPPERT: Object to form.
 5 A. We do that typically based upon the
 6 appearance of the external genitalia. I wouldn't
 7 say necessarily "stereotype."
 8 **Q. Okay. Well, what do you -- what is your**
 9 **definition of "stereotype?"**
 10 A. Stereotype are characteristics that are
 11 applied to a group of individuals based off of some
 12 characteristics that individuals may have in a
 13 certain category. They may be accurate; they may
 14 be inaccurate.
 15 **Q. And for example, there is a stereotype that**
 16 **men like football. Correct? That's a stereotype**
 17 **that you've heard?**
 18 MS. HUPPERT: Object to form.
 19 A. Well, my wife likes football too, so I
 20 can't -- can't say that I would agree with that
 21 stereotype.
 22 **Q. And I'm not asking if you agree with it.**
 23 **I'm just asking if you've heard of that stereotype.**
 24 MS. HUPPERT: Object to form.

1 A. Men like football. I can't say that I
 2 specifically have heard it or not heard it. I
 3 don't deny that men like football, but I don't deny
 4 that men, women or transgender individuals may like
 5 football. I don't think liking football depends on
 6 one's anatomy or gender identity.
 7 **Q. Sure. And so tell me what -- give me an**
 8 **example of a stereotype that you have encountered**
 9 **as a male.**
 10 MS. HUPPERT: Object to form.
 11 A. Stereotype. Well, I can certainly say that
 12 I've been misgendered for most of my life based on
 13 my first -- first name. That's happened ever since
 14 I was a child and continues to happen.
 15 I can't say that I've been stereotyped
 16 in a particular way for being male.
 17 **Q. Okay. Well, let's go with your name. And**
 18 **you have been misgendered because typically the**
 19 **name Loren is associated with someone who is born**
 20 **with a vagina, correct?**
 21 MS. HUPPERT: Object to form.
 22 A. No, actually, I don't agree with it.
 23 Spellings are different. Historically, Loren was
 24 also characteristically a name for cisgender -- I

Page 109

1 can't say "cisgender" -- I don't know everyone's
 2 identity. But also associated with male-assigned
 3 -- assigned at birth. So I won't -- can't agree
 4 with that.
 5 **Q. Then why do you believe that you've been**
 6 **misgendered?**
 7 A. Individuals have taken the name Loren to
 8 assume that I was female.
 9 **Q. All right. And do you not believe that**
 10 **that's because society expects that the name Loren**
 11 **is associated with a female?**
 12 MS. HUPPERT: Object to form.
 13 A. I -- I mean, I can't answer what everyone's
 14 particular reason was, especially given the
 15 spelling.
 16 I think perhaps if it was spelled
 17 differently, I might agree with that.
 18 **Q. Do you agree with me that gender roles have**
 19 **changed over time?**
 20 MS. HUPPERT: Object to form.
 21 A. You'll have to be more specific. I'm not
 22 sure.
 23 **Q. Sure. Do you believe that the gender roles**
 24 **of people who are -- who identify as women today**

Page 110

1 **are the same as they were a hundred years ago?**
 2 MS. HUPPERT: Object to form.
 3 A. Again, if you -- I need you to be more
 4 specific as to -- and these are individual
 5 discussions based on the person. I can't apply a
 6 sweeping generality to something.
 7 **Q. Okay. How does someone develop a gender**
 8 **identity if there is no societal pressures about**
 9 **gender?**
 10 MS. HUPPERT: Object to form.
 11 A. So my area of expertise is not in the
 12 development of gender identities or the development
 13 of those identities.
 14 **Q. And so you can offer no testimony about why**
 15 **someone has a specific gender identity.**
 16 MS. HUPPERT: Object to form.
 17 A. I would defer to my colleagues who diagnose
 18 and treat children and adolescents.
 19 **Q. And it's your testimony that you do not**
 20 **have the -- a common understanding of how**
 21 **stereotypes are developed.**
 22 MS. HUPPERT: Object to form.
 23 A. I'm sorry, you cut out.
 24 **Q. Is it your testimony that you do not have a**

Page 111

1 **common understanding of how stereotypes are**
 2 **developed?**
 3 MS. HUPPERT: Object to form.
 4 A. It's my -- I believe I provided a
 5 definition of a stereotype.
 6 **Q. Okay. Give me an example of a stereotype**
 7 **of a male.**
 8 MS. HUPPERT: Object to form.
 9 A. Of a cisgender male?
 10 **Q. A cisgender male.**
 11 A. I can't think of a stereotype that I would
 12 apply to cisgender men.
 13 **Q. Can you think of a stereotype that you**
 14 **would apply to cisgender women?**
 15 A. No.
 16 **Q. Have you ever heard of any stereotypes of**
 17 **cisgender women?**
 18 MS. HUPPERT: Object to form.
 19 A. I can't say I would classify things of --
 20 as a stereotype. I judge people individually, not
 21 collectively.
 22 **Q. And do you believe that society does that**
 23 **the same way as you?**
 24 MS. HUPPERT: Object to form.

Page 112

1 A. Again, I would need to have more context to
 2 answer that question.
 3 **Q. Do you believe that society does not apply**
 4 **gender stereotypes?**
 5 MS. HUPPERT: Object to form.
 6 A. Well, if the question is individuals who
 7 are members of marginalized groups are subject to
 8 stigmatization and prejudice, I would agree with
 9 that.
 10 **Q. Okay. So you believe that there is a**
 11 **stigma around people who are in marginalized**
 12 **groups.**
 13 MS. HUPPERT: Object to form.
 14 A. Yes, there can be.
 15 **Q. Okay. And what do you believe that that**
 16 **stigma is based upon?**
 17 MS. HUPPERT: Object to form.
 18 A. It would depend upon, again, what -- the --
 19 what we're talking about, you know, the specific
 20 situation.
 21 **Q. So let's talk about race then. Have you**
 22 **heard of any stigmas or stereotypes regarding race**
 23 **in America?**
 24 MS. HUPPERT: Object to form.

Page 113

1 A. Stigma or stereotype associated with race.
 2 Well, I believe that humans are of one
 3 race.
 4 **Q. Okay. Have you ever listened to a certain**
 5 **former president refer to groups of people as**
 6 **rapists and criminals?**
 7 MS. HUPPERT: Object to form.
 8 A. Can you be more specific to whom you're
 9 referring and to a specific instance?
 10 **Q. Have you ever -- do you recall Donald Trump**
 11 **stating that people coming across our southern**
 12 **border - referring to Hispanic individuals - were**
 13 **rapists and criminals?**
 14 MS. HUPPERT: Object to form. Object
 15 to scope.
 16 A. I remember certainly Donald Trump. I can't
 17 remember the -- or don't have the specific
 18 quotations he used to refer to individuals, whether
 19 they're crossing the southern border or not.
 20 **Q. And would you agree with me if Donald Trump**
 21 **said that, that he is applying a stigma or a**
 22 **stereotype to a certain group of people?**
 23 MS. HUPPERT: Same objection.
 24 A. I'm sorry, if someone -- well, if someone

Page 114

1 were applying a generalization to an individual
 2 person without knowledge of who that person is, I
 3 would say they're wrong, without knowing the
 4 qualities or characteristics of that individual.
 5 **Q. And I don't disagree with you. I think**
 6 **it's also wrong. But I believe -- and I believe**
 7 **that you can testify that that is something that**
 8 **happens in America every single day, that a**
 9 **generalization is applied to an individual based on**
 10 **physical characteristics.**
 11 **Is that true?**
 12 MS. HUPPERT: Same objection.
 13 A. Again, if you can give me a specific
 14 instance, I can try my best to speak to it. But I
 15 can't speak for how all of America applies.
 16 **Q. So is it your testimony that your patients**
 17 **who are transgender do not experience any sort of**
 18 **stigmatization or stereotyping?**
 19 MS. HUPPERT: Object to form.
 20 A. So I treat my patients on an individual
 21 basis. I provide care on an individual basis,
 22 after obtaining the requisite information, and make
 23 determinations and recommendations based upon that.
 24 **Q. Okay. And what are you treating? What**

Page 115

1 **medical condition are you treating?**
 2 MS. HUPPERT: Object to form.
 3 A. In appropriately-selected individuals, my
 4 typical indication for surgery, for gender
 5 affirming surgery, is the condition of gender
 6 dysphoria.
 7 **Q. Does the condition of gender dysphoria**
 8 **require there to be distress caused by someone**
 9 **having a gender identity that is not aligned with**
 10 **their physical sex characteristics?**
 11 MS. HUPPERT: Object to form.
 12 A. So gender dysphoria is -- is a
 13 manifestation of gender incongruence, one's
 14 identity not being consistent or congruent with
 15 their physical anatomy, typically external --
 16 typically with their anatomy.
 17 **Q. And if everyone is an individual, then what**
 18 **is the cause of the distress? What is it that is**
 19 **making someone believe that their gender identity**
 20 **does not match with their external characteristics**
 21 **of their genitals?**
 22 MS. HUPPERT: Object to form.
 23 A. I don't make the diagnosis of gender
 24 dysphoria.

Page 116

1 **Q. So do you not understand the diagnosis well**
 2 **enough?**
 3 A. I work with colleagues who provide
 4 assessments regarding the diagnosis, just as I work
 5 with -- used to working more frequently with
 6 oncologists who made diagnoses of cancer.
 7 There are experts in those particular
 8 areas.
 9 **Q. Okay. So do you understand what you're**
 10 **actually treating when you are performing these**
 11 **gender affirming surgeries?**
 12 A. I'm treating the medical --
 13 MS. HUPPERT: Pardon me, object to
 14 form.
 15 You can go ahead.
 16 A. I'm treating the medical condition of
 17 gender dysphoria.
 18 **Q. And what symptom are you attempting to**
 19 **alleviate?**
 20 A. We are making one's body congruent with
 21 their mind, with their identity.
 22 **Q. Is incongruence alone sufficient for**
 23 **someone to undergo gender affirming surgery?**
 24 MS. HUPPERT: Object to form.

Page 117

1 A. So as I said, my indication is typically
 2 gender dysphoria. Is it conceivable that someone
 3 with gender incongruence may not have dysphoria?
 4 Yes.
 5 Is it conceivable that someone with
 6 gender incongruence would request a surgical
 7 intervention? Yes.
 8 As I said, I would have to look back,
 9 but my typical indication is gender dysphoria.
 10 **Q. How is someone's -- how does someone**
 11 **experience gender incongruence if there aren't**
 12 **societal pressures about what gender actually is?**
 13 MS. HUPPERT: Object to form.
 14 A. So again, I don't make those diagnoses, but
 15 there are also the -- while society may play a
 16 role, the individual's internal sense of identity
 17 may be disparate or incongruous with their physical
 18 anatomy.
 19 **Q. And again, what makes someone's identity**
 20 **tied to or supposed to be tied to or supposed to**
 21 **not be tied to -- who is saying that it should be**
 22 **tied to their anatomy?**
 23 MS. HUPPERT: Object to form.
 24 A. I'm sorry, you're -- again, you're cutting

Page 118

1 a little in and out.
 2 **Q. I'm sorry. So the -- you said that there**
 3 **is an incongruence between their sense of gender**
 4 **and their anatomy. Is that correct?**
 5 A. There's an incongruence between their
 6 gender identity, their internal sense of who they
 7 are, and their physical morphology, their anatomy.
 8 **Q. Okay. Why are those two things**
 9 **interrelated at all?**
 10 MS. HUPPERT: Object to form.
 11 A. As I said earlier, I don't make that
 12 diagnosis. My role is making the body congruent
 13 with their identity.
 14 **Q. And if you make someone's body congruent**
 15 **with their identity, does that cure something or**
 16 **alleviate something?**
 17 MS. HUPPERT: Object to form.
 18 A. In the case of gender affirming surgery for
 19 gender dysphoria - so again, in appropriately-
 20 sought individuals - surgery is typically part of a
 21 multi-faceted treatment plan and can alleviate or
 22 cure gender dysphoria.
 23 **Q. So is gender dysphoria a psychological**
 24 **condition or a medical condition?**

Page 119

1 MS. HUPPERT: Object to form.
 2 A. Gender dysphoria is a medical condition.
 3 Fortunately, treatable.
 4 **Q. And is there any diagnostic manual other**
 5 **than the DSM-V that identifies gender dysphoria as**
 6 **a medical condition?**
 7 MS. HUPPERT: Object to form.
 8 A. Again, I don't make the diagnosis of gender
 9 dysphoria.
 10 **Q. What other DSM-V diagnoses do you perform**
 11 **surgery to treat?**
 12 A. I don't make DSM-V diagnoses. We perform
 13 surgery for medical conditions --
 14 **Q. I understand --**
 15 A. -- of which gender dysphoria is one.
 16 **Q. I understand. Are you saying that it is**
 17 **not a DSM-V -- gender dysphoria is not a DSM-V**
 18 **diagnosis?**
 19 A. Gender dysphoria is in DSM-V. That does
 20 not mean it's not a medical condition and we
 21 perform -- I perform surgery for the medical
 22 condition of gender dysphoria.
 23 **Q. Are there any other DSM-V diagnoses that**
 24 **you perform surgery to treat?**

Page 120

1 A. Again, I don't make DSM-V diagnoses. The
 2 fact that there may be mental health manifestations
 3 of a medical condition does not mean that that --
 4 that the condition is not a medical condition.
 5 **Q. Physicians refer patients to you for**
 6 **treatment with surgery of DSM-V diagnoses other**
 7 **than gender dysphoria.**
 8 MS. HUPPERT: Object to form.
 9 A. Again, my medical indication -- a surgical
 10 indication is the medical diagnosis of gender
 11 dysphoria. The fact that a medical condition may
 12 have mental health manifestation is not unique to
 13 gender incongruence.
 14 **Q. Please list all DSM-V diagnoses for which**
 15 **you provide surgical treatment.**
 16 MS. HUPPERT: Object to form.
 17 A. I have a number of individuals - regardless
 18 of their underlying medical condition - who may
 19 have DSM-V diagnoses that doesn't prohibit them
 20 from undergoing surgical interventions for their
 21 medical indications.
 22 **Q. Do you treat generalized anxiety disorder**
 23 **with surgical intervention?**
 24 A. No.

1 **Q. Do you treat clinical depression with**
2 **surgical intervention?**

3 A. No. That's not to say that mental health
4 conditions may not improve. But that's not a
5 primary indication for a particular procedure.

6 **Q. Do you treat obsessive compulsive disorder**
7 **with surgical intervention?**

8 A. I treat medical conditions with surgical
9 interventions. The fact that people may have
10 mental health conditions and the fact that some of
11 those mental health conditions may improve after
12 surgery is a potential benefit of the surgical
13 procedure.

14 **Q. Have you ever performed a surgery with the**
15 **sole indication being obsessive compulsive**
16 **disorder?**

17 A. No.

18 **Q. Do you perform surgery for individuals with**
19 **body dysmorphia?**

20 MS. HUPPERT: Object to form.

21 A. With body dysmorphic disorder?

22 **Q. Correct.**

23 A. Typically not.

24 **Q. Okay. Would you agree that an individual**

1 **with body dysmorphic disorder may suffer with**
2 **distress caused by their physical appearance?**

3 MS. HUPPERT: Object to form.

4 A. Again, I don't diagnose or treat body
5 dysmorphic disorder.

6 **Q. Are you aware of any guidelines, medical**
7 **literature anywhere that says that surgery is an**
8 **appropriate treatment for body dysmorphic**
9 **disorder?**

10 MS. HUPPERT: Object to form.

11 A. I have not performed surgery for body
12 dysmorphic disorder. It is generally considered
13 not effective for the condition of body dysmorphic
14 disorder.

15 **Q. Have you reviewed literature on the**
16 **efficacy of surgery for body dysmorphic disorder?**

17 A. Probably over the course of my career.

18 **Q. Do you have colleagues that perform surgery**
19 **with the indication being body dysmorphic**
20 **disorder?**

21 A. I can't speak to all my colleagues'
22 indications for surgery.

23 **Q. Have you ever discussed that issue of**
24 **treating patients with the indication being body**

1 **dysmorphic disorder with surgical intervention**
2 **with your colleagues? Have you ever discussed**
3 **that?**

4 A. Not as a -- I have probably attended
5 educational conferences and so forth and it would
6 be typically understood that surgery would not be a
7 treatment for body dysmorphic disorder.

8 **Q. And do you know why surgery is not a**
9 **treatment for body dysmorphic disorder?**

10 MS. HUPPERT: Object to form.

11 A. It's my understanding it tends to be
12 ineffective or not effective for that.

13 **Q. And when you say "ineffective," you mean**
14 **that it does not alleviate the distress that that**
15 **individual is experiencing? What is the measure of**
16 **effectiveness?**

17 MS. HUPPERT: Object to form.

18 A. Again, I don't diagnose or treat that, so
19 that's not my clinic -- area of clinical focus.

20 **Q. Okay. So when you say that it -- your**
21 **understanding that it's not ineffective -- or it's**
22 **not effective as a treatment -- surgery is not**
23 **effective as a treatment for body dysmorphic**
24 **disorder, can you elaborate at all on what you mean**

1 **by "not effective"?**

2 MS. HUPPERT: Object to form.

3 A. That it does not treat body dysmorphic
4 disorder.

5 **Q. And are you aware of what the measures of**
6 **whether it's effective are?**

7 MS. HUPPERT: Object to form.

8 A. I don't make that diagnosis, so -- nor do I
9 treat that.

10 MS. HUPPERT: Caleb, we're approaching
11 noon here central time. I'm just curious what you
12 feel about a break.

13 MR. DAVID: I'm good with a break.

14 MS. HUPPERT: How do you feel about
15 that, Doctor Schechter?

16 THE DEPONENT: I'm good for a break,
17 take care of a few things.

18 (A recess was taken after which the
19 proceedings continued as follows:)

20 BY MR. DAVID:

21 **Q. Doctor, we're back on the record, and I**
22 **want to start by asking you if you are familiar**
23 **with the 2017 Endocrine Society guidelines as they**
24 **relate to the treatment of transgender individuals.**

Page 125

1 A. I am familiar, yes.

2 **Q. Okay. And have you reviewed those**

3 **guidelines in their entirety?**

4 A. Probably not in the sense that I don't dose

5 hormones and things like that.

6 **Q. Are you familiar with the statements made**

7 **by the Endocrine Society as it relates to childhood**

8 **desistance from gender dysphoria?**

9 MS. HUPPERT: Object to form.

10 A. I don't recall those statements offhand.

11 **Q. Could you tell me what desistance from**

12 **gender dysphoria means?**

13 MS. HUPPERT: Object to form.

14 A. Well, again, I don't treat children. My

15 understanding is that the term "desistance" is for

16 individuals - children, for example - who identify

17 as transgender, whether that is sustained through

18 adolescence or -- if not sustained through

19 adolescence or adulthood, may be classified as

20 desistance.

21 **Q. And are you aware that the Endocrine**

22 **Society states that 85 percent of prepubertal**

23 **children with a childhood diagnosis of gender**

24 **dysphoria do not remain gender incongruent in**

Page 126

1 **adolescence?**

2 MS. HUPPERT: Object to form. Object

3 to scope.

4 A. Again, I probably read that. But as I

5 don't specifically treat children, that wouldn't be

6 an area of focus for me.

7 **Q. All right. Now, what ages of patients do**

8 **you treat?**

9 A. The oldest is 75; the youngest, on two -- I

10 believe on two occasions, maybe three occasions,

11 was 14.

12 **Q. And what procedures have you performed on**

13 **14-year-olds?**

14 A. A bilateral mastectomy.

15 **Q. Is that the only procedure that you've**

16 **performed on a 14-year-old?**

17 A. Yes. For gender affirming surgery. I

18 might have --

19 **Q. Right, of course. I -- to clarify, all of**

20 **these questions are going to be about gender**

21 **affirming surgery. And have you performed**

22 **procedures other than bilateral mastectomy on**

23 **patients who are under the age of 18?**

24 MS. HUPPERT: Object to form.

Page 127

1 A. Yes.

2 MS. HUPPERT: Pardon me. Object to

3 form.

4 You can answer.

5 A. Yes.

6 **Q. And what other procedures have you**

7 **performed on patients under the age of 18 other**

8 **than bilateral mastectomy for the treatment of**

9 **gender dysphoria?**

10 MS. HUPPERT: Object to form.

11 A. I have performed a vaginoplasty on

12 17-year-old -- 17-year-olds. And I believe

13 metoidoplasty.

14 **Q. Can you explain what is involved in a**

15 **vaginoplasty?**

16 A. Yes. The typical procedure involves

17 formation of a vulva and associated structures,

18 meaning clitoris and labia, removal of the penis

19 and testicles, most often construction of a vaginal

20 canal.

21 **Q. Is a vaginoplasty an irreversible surgery?**

22 MS. HUPPERT: Object to form.

23 A. Well, in the sense that could the surgical

24 maneuvers be undone, the answer is yes. However,

Page 128

1 that is a complex -- complex procedure -- would be

2 a complex procedure to do.

3 **Q. If the surgical maneuvers were undone,**

4 **would that patient be able to produce sperm to**

5 **create children?**

6 A. No. The --

7 MS. HUPPERT: I'm sorry. Object to

8 form.

9 You can answer.

10 A. No. The orchiectomy would be permanent and

11 irreversible.

12 Although prior to undergoing,

13 individuals are offered the option for sperm

14 preservation.

15 **Q. And so in the case of a vaginoplasty, you**

16 **stated that the penis and the testicles would be**

17 **removed from the body. Is that correct?**

18 A. Well, the -- technically, the corporeal

19 bodies and a portion of the glands is removed and

20 the testicles with spermatic cord. The penis is

21 disassembled, so there are remnants used to form

22 the clitoris, the labial structures and the vaginal

23 canal.

24 **Q. So tissue from the penis is used to**

Page 129

1 **construct the vaginal canal, labia and clitoris.**
 2 A. Correct.
 3 **Q. Okay. In that case, where the penis and**
 4 **testicles are removed for the purposes of gender**
 5 **dysphoria, is that healthy tissue that is being**
 6 **removed?**
 7 MS. HUPPERT: Object to form.
 8 A. The tissue that is -- the tissue
 9 contributes -- presence of the tissue contributes
 10 to the diagnosis of the medical condition. So very
 11 much like in other procedures, mastectomy or
 12 oophorectomy or cisgender women who may be at an
 13 increased risk of cancer but don't have cancer,
 14 tissue would be removed here for the purpose of
 15 treating the dysphoria and preventing -- for
 16 treating the dysphoria.
 17 **Q. So the penis is removed -- the tissue**
 18 **that's removed from the penis, does it have to have**
 19 **a -- any type of disease to be removed?**
 20 MS. HUPPERT: Object to form.
 21 A. Well, it's the anatomy or the presence of
 22 that -- of the organ, the penis, that may lead to
 23 the diagnosis of gender dysphoria in the context of
 24 the identity not being congruous with the mind.

Page 130

1 **Q. Okay. Does it have to have necrotic tissue**
 2 **to be removed?**
 3 MS. HUPPERT: Objection to form.
 4 A. No, it does not have to have necrotic
 5 tissue to be removed.
 6 **Q. Does it have to have gangrenous tissue to**
 7 **be removed?**
 8 A. It does not have to have gangrenous tissue
 9 to be removed. Similar to what we do, as we said,
 10 in a oophorectomy for a cisgender woman with a risk
 11 or predisposition to ovarian cancer or a mastectomy
 12 in a cisgender woman with -- or a cisgender man
 13 with a predisposition to breast cancer.
 14 **Q. And in this case, does there have to be a**
 15 **predisposition to cancer for the tissue to be**
 16 **removed?**
 17 A. I'm sorry, Mr. David. I think it's -- it
 18 comes in and out.
 19 **Q. I'm hearing something as well. I'm not**
 20 **sure what's going on there.**
 21 MS. HUPPERT: There may be someone
 22 with their -- who's off of mute.
 23 MR. DAVID: Wait, I think you might be
 24 off your mute.

Page 131

1 THE DEPONENT: If you'll give me one
 2 second, I'm going to raise my blinds. There's this
 3 terrible bright light and it's driving me crazy.
 4 MR. AUVIL: Sorry about that. I don't
 5 know how that happened. Must have -- I don't know.
 6 Not used to being quiet for that long, I guess.
 7 BY MR. DAVID:
 8 **Q. All right. Doctor, we're back on the**
 9 **record. And in the instance of a vaginoplasty,**
 10 **does the tissue of the penis have to be predisposed**
 11 **to cancer for it to be removed?**
 12 MS. HUPPERT: Object to form.
 13 A. It does not have to be predisposed to
 14 cancer in order -- in order to be removed. There
 15 are often involuntional changes associated with the
 16 testes and the penis found on pathology.
 17 **Q. When you say -- I think the word you used**
 18 **was "involuntional" -- is that correct?**
 19 A. That's correct.
 20 **Q. Can you explain what that means?**
 21 A. Atrophy.
 22 **Q. All right. So is atrophy generally an**
 23 **indication for surgical removal of tissue?**
 24 A. The indication is typical for vaginaplasty

Page 132

1 is gender dysphoria, typically gender dysphoria.
 2 The pathologic findings in the tissue samples often
 3 indicate atrophy or involuntional changes of the
 4 structures we discussed.
 5 **Q. Are you aware of any other surgery other**
 6 **than gender affirming surgery that is performed due**
 7 **to atrophy?**
 8 MS. HUPPERT: Object to form.
 9 A. Wow. Procedures can be performed for
 10 atrophy, depending on the specific circumstances.
 11 **Q. Do you remove body parts that are**
 12 **atrophied?**
 13 A. So, for example, if a cisgendered woman had
 14 unilateral breast cancer, underwent mastectomy, as
 15 with age, she had involuntional changes of the
 16 opposite breast, the contralateral breast, surgery
 17 could then be performed on the contralateral breast
 18 to provide symmetry.
 19 **Q. So --**
 20 A. And that would -- go ahead.
 21 **Q. No, I didn't mean to cut you off.**
 22 A. It's all right.
 23 **Q. Other than for individuals with cancer, are**
 24 **you able to describe any other situation where**

Page 133

1 atrophied tissue is surgically removed, other than
2 gender affirming surgeries?
 3 MS. HUPPERT: Sorry, I did not mean to
 4 interrupt. My bad. Objection to form.
 5 A. So there are conditions such as hemifacial
 6 atrophy, hemifacial microstomia -- hemifacial
 7 atrophy, fat atrophy, which may occur, and are
 8 treated -- surgically treated with the addition of
 9 fat, for example, lipofilling or for facial
 10 surgery.
11 Q. And is lipofilling a medically-necessary
12 procedure?
 13 A. Can be, depending on the indication.
14 Q. In the instance of someone who has atrophy
15 to their calves, would lipofilling be a
16 medically-indicated or a medically-necessary
17 procedure?
 18 MS. HUPPERT: Object to form.
 19 A. It would be possible depending on the
 20 indication for that. Someone could be in a
 21 traumatic situation, have a congenital situation
 22 that resulted in atrophy for which they might seek
 23 reconstructive surgery.
24 Q. And reconstructive surgery can be different

Page 134

1 than lipofilling, correct?
 2 A. Well, as I said, there's no procedures that
 3 are specifically cosmetically constructed. It's
 4 the basis upon which the procedure is performed.
5 Q. And I'm specifically asking you about
6 lipofilling for calves. That's the specific
7 procedure. Is that a medically-necessary
8 procedure?
 9 MS. HUPPERT: Object to form.
 10 A. So it would depend on the clinical
 11 circumstances. If someone had a birth-related
 12 condition from that, post-traumatic condition,
 13 lipofilling may be indicated and considered
 14 medically necessary.
15 Q. Have you ever performed a lipofilling of a
16 calf that you -- that was medically indicated and
17 therefore medically necessary?
 18 A. I have performed medically necessary
 19 lipofilling procedures, meaning procedures
 20 performed for reconstructive purposes, on the face,
 21 the breast, genitalia, arms, forearms, thighs.
 22 I can't say -- I can't say
 23 specifically calf.
24 Q. And were any of those procedures that you

Page 135

1 just described done outside of the context of
2 gender affirming surgery?
 3 A. Yes.
4 Q. Okay. And what were the indications for
5 those procedures that were outside the context of
6 gender affirming surgery?
 7 A. They can be post-traumatic, post-oncologic,
 8 birth-related, effect of infection, radiation,
 9 previous surgeries. That may not be completely
 10 enumerative, but I think that that is a reasonable
 11 range.
12 Q. And in each of those instances that you
13 just described - trauma or infection - you're
14 talking about physical injuries to the tissue,
15 correct?
 16 MS. HUPPERT: Object to form.
 17 A. I have, I believe -- well, no, not
 18 necessarily all have physical injuries. Birth-
 19 related conditions may not be a physical injury
 20 consistent with how we're discussing trauma or
 21 cancer here.
22 Q. And those birth-related issues, were they
23 affecting the patient's functionality?
 24 MS. HUPPERT: Object to form.

Page 136

1 A. Again, so for conditions like hemifacial
 2 atrophy, hemifacial microsomia resulting in an
 3 obvious and overt discrepancy in appearance between
 4 the two sides of the face, those can and often are
 5 considered re -- well, they're considered
 6 reconstructive, and would not be uncommon to be
 7 reimbursed by a third party payer.
8 Q. When you say "wouldn't be uncommon to be
9 reimbursed," does that mean that there are times
10 where it's not reimbursed by a third party payer?
 11 A. I can't conceive of every situation in
 12 which I've treated and whether a third party payer
 13 has agreed to pay, but a decision for medical
 14 necessity -- or if the physician, based upon their
 15 examination and opinion of the patient, that would
 16 determine medical necessity.
 17 Whether insurers ultimately pay is a
 18 different question. I mean, it wasn't until 1998
 19 that breast reconstruction was covered.
20 Q. So other than in the situation of a
21 predispositioned cancer or when only one breast is
22 affected by cancer and both breasts are removed in
23 a double mastectomy, are you aware of any other
24 procedures outside of gender affirming care where

Page 137

1 **healthy tissue is removed from the body?**
 2 MS. HUPPERT: Object to form.
 3 A. Well, I don't describe it as necessarily
 4 "healthy tissue" in the sense that it's the
 5 etiology of the medical condition.
 6 **Q. And a little bit ago, you told me that you**
 7 **do not actually diagnose this, and you refused to**
 8 **answer some questions. So what is it about the**
 9 **medical condition now that you're in tune with**
 10 **exactly what the diagnostic criteria are?**
 11 MS. HUPPERT: Object to form. Object
 12 to characterization of the prior testimony.
 13 A. I'm sorry, "diagnose this" meaning -- you
 14 said "diagnose this."
 15 **Q. Diagnoses or the diag -- so now, let's talk**
 16 **about the diagnostic criteria for gender dysphoria.**
 17 **What are they?**
 18 MS. HUPPERT: Object to form.
 19 A. As I said, I don't diagnose gender
 20 dysphoria.
 21 **Q. Okay. So what is it about -- in a**
 22 **transgender man, what is it about the breast tissue**
 23 **that requires it to be removed in a double**
 24 **mastectomy?**

Page 138

1 MS. HUPPERT: Object to form.
 2 A. So not all transgender men request removal
 3 of breast tissue. That's typically done in a --
 4 it's done in appropriately-selected individuals,
 5 typically for the diagnosis of gender dysphoria and
 6 with the goal of aligning one's body with their
 7 identity.
 8 **Q. And why is it only required or medically**
 9 **necessary for certain individuals?**
 10 MS. HUPPERT: Object to form.
 11 A. Well, not all transgender individuals want
 12 surgery, want all types of surgery. That depends
 13 upon the decision to proceed with the surgery, the
 14 decision between the physician and the individual
 15 seeking treatment, and it's based on the individual
 16 facts of the case.
 17 **Q. And what is -- what are those individual**
 18 **facts that are necessary for surgery to be**
 19 **indicated?**
 20 A. Typically gender dysphoria is the
 21 indication, and then - as with any medical
 22 intervention - the individual will consider the
 23 treatment options and, in conjunction with their
 24 physician, make a determination of how to proceed.

Page 139

1 **Q. And are you aware of any lab tests that**
 2 **would be useful in determining whether a patient**
 3 **requires a double mastectomy for gender dysphoria?**
 4 MS. HUPPERT: Object to form.
 5 A. I -- there's a variety of lab tests that
 6 people may have to undergo prior to surgery.
 7 **Q. Okay. Are you aware of any that would be**
 8 **necessary and would indicate that a patient**
 9 **requires a double mastectomy for gender dysphoria?**
 10 MS. HUPPERT: Object to form.
 11 A. So regardless of the diagnosis, lab tests
 12 don't require an individual to seek an intervention
 13 or not seek an intervention. They may or may not
 14 be one part of the ultimate decision-making
 15 process.
 16 But the ultimate decision as to
 17 whether or not to proceed with the surgical
 18 intervention is a decision between the physician
 19 and the individual seeking treatment.
 20 **Q. Do you require lab tests from patients**
 21 **prior to performing gender affirming surgeries?**
 22 A. We typically do get labs prior to surgery.
 23 Rather, independent of gender identity.
 24 **Q. Right. Okay. So are there any that are**

Page 140

1 **specific to gender identity that you require for --**
 2 **prior to gender affirming surgery?**
 3 MS. HUPPERT: Object to form.
 4 A. The lab tests that we require are typically
 5 labs such as blood count, electrolytes, urinalyses,
 6 and then there may be other labs - x-rays,
 7 diagnostic tests - that are performed prior to
 8 surgery based on an individual's medical condition.
 9 **Q. Is there anything on a CBC that is**
 10 **diagnostic for gender dysphoria?**
 11 MS. HUPPERT: Object to form.
 12 A. Again, I don't make the diagnosis of gender
 13 dysphoria.
 14 **Q. Okay. Are you able to answer that**
 15 **question?**
 16 MS. HUPPERT: Object to form.
 17 A. We require a CBC for -- pre-operatively in
 18 most individuals undergoing surgery.
 19 **Q. And why do you require a CBC?**
 20 A. We want to check their hemoglobin level,
 21 their platelet level, their white blood count to
 22 assess for anything that may be of concern.
 23 **Q. Is someone's white blood count affected by**
 24 **their gender identity?**

Page 141

1 MS. HUPPERT: Object to form.
 2 A. Again, I'm not -- I don't make the
 3 diagnosis of gender dysphoria, nor am I a primary
 4 care professional, so might there be lab issues
 5 that I am unaware of? It's possible.
 6 I'm obtaining the labs to perform the
 7 surgery in a safe, safe manner.
 8 **Q. Okay. Are you aware of medical literature**
 9 **that would suggest that lab values have any link to**
 10 **a person's gender identity?**
 11 MS. HUPPERT: Object to form.
 12 A. There may be lab values that are pertinent
 13 based on the individual's medical condition and
 14 previous medical treatments which may be related to
 15 their medical diagnosis of gender dysphoria that
 16 may impact lab values and may need to be addressed
 17 prior to surgery.
 18 **Q. Are you aware of any medical literature**
 19 **that links a CBC to someone's gender identity?**
 20 MS. HUPPERT: Object to form. Asked
 21 and answered.
 22 A. Again, I'm performing the CBC for the
 23 purpose of evaluating them for surgery, not to
 24 diagnose them with gender dysphoria.

Page 142

1 **Q. And are you aware of any values on a**
 2 **complete metabolic panel that would be linked to**
 3 **someone's gender identity?**
 4 MS. HUPPERT: Object to form.
 5 A. Again, while I -- we typically -- we don't
 6 always get a complete metabolic panel. It's
 7 typically less than that, a basic metabolic
 8 profile.
 9 Again, I don't make the diagnosis. We
 10 often obtain that information for the purpose of
 11 looking at kidney function, electrolytes, and
 12 performing surgery in a safe, safe manner.
 13 **Q. Are there any lab values you use post-**
 14 **surgery to determine whether your surgery was**
 15 **successful for treating gender dysphoria?**
 16 MS. HUPPERT: Object to form.
 17 A. We obtain lab values post-surgically, but
 18 again, it's within the context of the surgical
 19 care, not within the context of the medical
 20 condition gender dysphoria. Unless treatments for
 21 that dysphoria was -- caused them to be on other
 22 medications that may influence lab values.
 23 **Q. But there's nothing that you pull up after**
 24 **you do surgery, you get lab work and you pull it up**

Page 143

1 **and say, "Wow, this shows that you're doing a lot**
 2 **better after this surgery for your gender**
 3 **dysphoria."**
 4 **There's nothing on a lab value that**
 5 **would actually show you that. Correct?**
 6 MS. HUPPERT: Object to form.
 7 A. As with many medical conditions, lab values
 8 may or may not be helpful in terms of the overall
 9 diagnosis. I don't have a lab value that I would
 10 order to -- that I order to assess their level of
 11 gender dysphoria.
 12 **Q. Are there vital signs that you take to**
 13 **assess someone's level of gender dysphoria?**
 14 MS. HUPPERT: Object to form.
 15 A. Well, in the sense that there are medical
 16 -- that medical conditions -- that -- can have
 17 somatic manifestation, we monitor everything:
 18 Vital signs, medication, lab values.
 19 **Q. And do you monitor vital signs specifically**
 20 **to determine whether or not someone has an**
 21 **increased or decreased level of gender dysphoria?**
 22 MS. HUPPERT: Object to form.
 23 A. We monitor the vital signs in relation to
 24 their recent surgery, and that helps us make

Page 144

1 determinations. Many things go into vital signs,
 2 especially in the peri-operative period: Pain,
 3 stress, anxiety, blood loss, fluids. All of those
 4 may have an impact on vital signs.
 5 **Q. Let's say six months after surgery, do you**
 6 **take a patient's vitals to see if their heart rate**
 7 **has increased or decreased as a result of an**
 8 **increase or decrease in the effects of gender**
 9 **dysphoria?**
 10 MS. HUPPERT: Object to form.
 11 A. So our medical assistant typically takes
 12 vital signs with both pre- and post-operative
 13 visits.
 14 **Q. And do you take those vital signs and use**
 15 **those as a tool to measure the effects of gender**
 16 **dysphoria on a person?**
 17 MS. HUPPERT: Object to form.
 18 A. I incorporate all medical information in
 19 terms of the overall person, and if there are
 20 abnormalities in vital signs, then we want to
 21 address them.
 22 **Q. So how does gender dysphoria affect heart**
 23 **rate?**
 24 A. Again, I'm not a primary care physician,

Page 145

1 but if someone had an elevated heart rate, I would
 2 speak with their primary care professional to
 3 ascertain as to why.
 4 **Q. How does gender dysphoria affect blood**
 5 **pressure?**
 6 A. Again, in a similar way that -- my primary
 7 clinical area is not the investigation of blood
 8 pressure. But should someone have low blood
 9 pressure, problematically low blood pressure,
 10 hypertension, we would want that -- conversely to
 11 hypotension, we would want that communicated with
 12 their primary care professional.
 13 In conjunction with them, they would
 14 make a determination as to what factors may impact
 15 that.
 16 **Q. Are you aware of any medical literature**
 17 **that links tachycardia, bradycardia, hypotension or**
 18 **hypertension to gender dysphoria?**
 19 MS. HUPPERT: Object to form.
 20 A. Physical manifestations of medical
 21 conditions can occur and do occur.
 22 **Q. And are you aware of any medical literature**
 23 **that links tachycardia, bradycardia, hypotension or**
 24 **hypertension to gender dysphoria?**

Page 146

1 MS. HUPPERT: Object to form.
 2 A. Again, I don't treat tachycardia,
 3 bradycardia, hypotension or hypertension, but
 4 medical conditions can impact those parameters.
 5 **Q. Okay. Can you please list all medical**
 6 **literature that you're aware of that links**
 7 **tachycardia, bradycardia, hypotension or**
 8 **hypertension, to gender dysphoria.**
 9 MS. HUPPERT: Object to form.
 10 A. Again, I don't make a diagnosis of gender
 11 dysphoria; nor do I treat tachycardia. In the
 12 peri-operative period, I do have to be very aware
 13 of vital signs. Tachycardia, bradycardia,
 14 hypotension, hypertension, can be a manifestation
 15 of multiple issues.
 16 Six months following surgery, I would
 17 typically refer them to their primary care
 18 professional to make that determination.
 19 **Q. Okay. When you are assessing whether your**
 20 **surgery, your gender affirming surgery, was**
 21 **successful, what objective findings do you look at?**
 22 A. So patient goals and expectations as we
 23 would with most or many plastic surgeries. Whether
 24 those goals and expectations have been met. How

Page 147

1 they're healing in terms of the incisions, the
 2 integrity of the incision, other parameters:
 3 Sensation, pain.
 4 And then patient overall reports of
 5 how they're doing.
 6 **Q. Are patient goals an objective finding?**
 7 MS. HUPPERT: Object to form.
 8 A. Those are what we refer to as patient
 9 recorded outcome measures. So patient goals are
 10 what the patient, obviously, would like to achieve
 11 from surgery.
 12 Whether those are achievable or
 13 realistic is part of the surgical -- the pre-
 14 operative discussion with the person seeking the
 15 intervention.
 16 The ability to measure that is an
 17 increasing area of interest, both in plastic
 18 surgery -- in plastic surgery, as well as within
 19 gender affirming surgery.
 20 **Q. Are patient goals an objective or**
 21 **subjective finding?**
 22 MS. HUPPERT: Object to form.
 23 A. Again, translating goals into what we call
 24 patient reported outcome measures, are the goals --

Page 148

1 is that one of the goals is to be able to
 2 objectively assess whether goals are met by a
 3 procedure.
 4 **Q. Can patients lie?**
 5 MS. HUPPERT: Object to form.
 6 A. Anybody can lie.
 7 **Q. All right. And so the patient could tell**
 8 **you that they have a bad outcome when they had a**
 9 **good outcome; or they could tell you that they had**
 10 **a good outcome when they had a bad outcome,**
 11 **correct?**
 12 MS. HUPPERT: Objection to form.
 13 A. That doesn't imply lying.
 14 **Q. Okay. So a patient can report to you**
 15 **different goals than they actually have, correct?**
 16 MS. HUPPERT: Object to form.
 17 A. That's part of the importance of the pre-
 18 operative assessment, so that it's not only the
 19 surgeon identifying -- working with the patient,
 20 but also other professionals.
 21 **Q. There is no lab value that tells you a**
 22 **patient goal, correct?**
 23 MS. HUPPERT: Object to form.
 24 A. Well, I can't -- there are -- again, not

Page 149

1 within necessarily the area of plastic surgery, but
 2 patients may have goals on hormone levels, maybe a
 3 goal as to a blood count, if someone has anemia.
 4 So it would depend a bit more on what you mean by
 5 "goals."
 6 **Q. Has any patient told you that they would**
 7 **like gender affirming surgery to affect their iron**
 8 **levels for anemia?**
 9 A. So individuals may be anemic - not uncommon
 10 - prior -- trans women, prior to undergoing
 11 surgery. And in fact, we often use iron prior to
 12 surgery to elevate their hemoglobin.
 13 **Q. But the surgery itself is not going to cure**
 14 **that, right?**
 15 A. Surgery -- gender affirming surgery is not
 16 to be performed for the indication of any
 17 (inaudible).
 18 **Q. And you can't do an MRI and determine a**
 19 **patient's goals, correct?**
 20 A. Again, it would be more specific for what
 21 you want. People try to estimate goals regarding
 22 breast size, post-operative appearance, using
 23 various facial morphing strategies and so forth.
 24 So in the context of, for example,

Page 150

1 imaging software, pre-operative photographs, you
 2 can sit with a patient; they can identify what
 3 their particular concerns are and what their goals
 4 are, and you can make a mutual decision as to
 5 whether those goals are achievable and/or
 6 realistic.
 7 **Q. My question was: Can you do an MRI and**
 8 **determine a patient's goals by looking inside their**
 9 **body?**
 10 MS. HUPPERT: Object to form.
 11 A. Again, you can do imaging tests to look,
 12 for example, at breast volume; you can do imaging
 13 tests to look at volume in other areas of the body,
 14 to assess whether if you transfer tissue from one
 15 area of the body to another, whether you will
 16 achieve their goal.
 17 So not trying to be glib. It's a bit
 18 of a broad question that you're asking in terms of,
 19 you know, "Can you use an imaging study, i.e.,
 20 MRI?"
 21 Studies have been used with people to
 22 understand what are achievable in their goals or
 23 what is not achievable.
 24 **Q. And I'm asking if you can do an MRI study**

Page 151

1 **to determine what someone's goals are -- not to**
 2 **look at parts of their body that they have already**
 3 **looked into to goals for. Can I look in someone's**
 4 **forearm and say, "Oh, well, that's where they keep**
 5 **their goals."**
 6 **It's not there, right? You're not**
 7 **going to see that on an MRI.**
 8 MS. HUPPERT: Object to form.
 9 A. I mean, we use imaging of the forearm
 10 routinely in plastic surgery, you know, to look at
 11 anatomy, to look at the tissue in terms of
 12 performing various flaps, so it's commonly used,
 13 and if there's a concern with that, we would say we
 14 can't use that forearm; we have to look at another
 15 -- another body part.
 16 So in the context of someone wants
 17 their forearm but it's not suitable, I guess that
 18 helps them determine their goals.
 19 **Q. How are patient goals communicated to you?**
 20 A. Typically, people articulate their goals,
 21 verbalize their goals. We discuss them; we review
 22 the assessment of the -- the pre-operative
 23 assessment, and that would be the typical manner by
 24 which we hope to come to a mutual understanding as

Page 152

1 to what goals are.
 2 **Q. Without that communication, is there any**
 3 **other way for you to determine a patient's goals?**
 4 MS. HUPPERT: Object to form.
 5 A. Communication would be an important part of
 6 determining those.
 7 **Q. Without that communication, are you able to**
 8 **do a lab test and determine a patient's goals?**
 9 MS. HUPPERT: Object to form.
 10 A. Communication would be the primary or
 11 principal methods of determining goals. We would
 12 then use adjunct studies, labs, imaging studies, as
 13 necessary to help arrive at a mutually-decided-upon
 14 course of treatment.
 15 So while one person may have goals,
 16 those goals may shift after a discussion of the
 17 various procedures.
 18 Individuals may or may not have an
 19 understanding of the realm or range of
 20 possibilities that are or are not available to
 21 them.
 22 **Q. I'll try this one more time. If I go and**
 23 **get lab work and just send my lab work to you, can**
 24 **you tell me what my goals are?**

Page 153

1 MS. HUPPERT: Object to form.
 2 A. As I said before, the principal methods of
 3 articulating goals would be communication with the
 4 patient. That's not to say, though, that other
 5 studies don't play a role into that shared
 6 decision-making process.
 7 **Q. And if I just send you a CT scan or an MRI**
 8 **and nothing else, can you tell me what my goals**
 9 **are?**
 10 MS. HUPPERT: Object to form.
 11 A. I can't tell anybody -- you know, I can't
 12 make a recommendation as to treatment without
 13 seeing anybody. So regardless of one's gender
 14 identity, I need to sit and speak with the person
 15 regardless -- and examine the person, regardless of
 16 the medical condition for which they're seeking an
 17 intervention.
 18 **Q. And if I send you lab work and nothing**
 19 **else, can you tell me what my gender identity is?**
 20 MS. HUPPERT: Object to form.
 21 A. I -- again, I don't make medical decisions
 22 based on an isolated lab value without examining
 23 and speaking with the patient or their caregiver or
 24 -- caregiver or power of health attorney depending

Page 154

1 upon the medical position.
 2 **Q. Is pain an objective or a subjective**
 3 **finding?**
 4 A. Pain is typically communicated by the
 5 patient based on - most often in the hospital - on
 6 a scale of 1 to 10. How individuals may perceive
 7 pain may differ between individuals.
 8 **Q. Is there a similar scale for patient**
 9 **expectations?**
 10 A. Again, the expectations are typically a
 11 mutual discussion, a mutual understanding between
 12 the patient and the individual.
 13 **Q. So when you are determining whether your**
 14 **surgery has reduced the level of someone's gender**
 15 **dysphoria, what do you assess to determine that?**
 16 A. That's typically a discussion and
 17 communication with the patient, as it is for many
 18 areas of plastic surgery, outside the realm of
 19 gender affirming treatment.
 20 **Q. Now, today and in your written report, you**
 21 **talk a lot about the similarities between the**
 22 **procedures, double mastectomy for a transgender man**
 23 **and for someone who is experiencing cancer, whether**
 24 **they're cisgender or not, but someone experiencing**

Page 155

1 **cancer and having a double mastectomy.**
 2 **So can you explain to me why those**
 3 **procedures are the same to you?**
 4 A. Again, individuals don't need to have
 5 cancer to have a double -- to have a bilateral
 6 mastectomy or what we call risk reduction
 7 mastectomy. Those may be individuals who are at an
 8 increased risk of breast cancer.
 9 That doesn't mean that they will
 10 ultimately go on to have breast cancer, and
 11 similarly, they can opt not to undergo mastectomy,
 12 and they can choose other intervention or no
 13 interventions.
 14 So the technical act of a mastectomy,
 15 in one indication, may be performed for cancer, to
 16 reduce a risk of cancer, or to reduce or alleviate
 17 gender dysphoria.
 18 **Q. And your testimony is that the procedure is**
 19 **the same regardless of the indication; is that**
 20 **right?**
 21 MS. HUPPERT: Object to form.
 22 A. There is a wide range of indications or
 23 techniques used to perform mastectomy, whether for
 24 gender affirming mastectomy or for a mastectomy

Page 156

1 pertaining to oncologic reasons or for risk
 2 reduction mastectomies, meaning removing a breast
 3 that is not cancerous but may have an increased
 4 predilection or risk of breast.
 5 There are different ways to perform
 6 that mastectomy, so as to how it would be performed
 7 compared to a gender affirming mastectomy, again,
 8 would depend upon the specific situation.
 9 **Q. Now, you've said over and over again in**
 10 **your written testimony that these procedures are**
 11 **safe. And one of the reasons that you say that**
 12 **they're safe is they're the same surgical**
 13 **technique. Is that a true statement or not?**
 14 A. Yes, the surgical techniques are the same
 15 or similar, but you're asking me to compare two
 16 unknowns. A nipple-sparing mastectomy for cancer
 17 is different than a nonnipple-sparing mastectomy
 18 for cancer. A skin-sparing mastectomy for cancer
 19 is different than a nonskin-sparing mastectomy for
 20 cancer.
 21 So there are a range of different
 22 techniques, but asking me to compare two specific
 23 situations, I would need to understand the two
 24 specific situations.

1 Q. And I'm -- you do not make that sort of a
2 designation within your written report that says
3 that, "Well, there are certain types of surgical
4 techniques that I would use for cancer compared to
5 surgical techniques that I would use for gender
6 dysphoria." You don't make that a distinction in
7 your report, do you?

8 MS. HUPPERT: Object to form.
9 A. There are a range of mastectomies that are
10 performed based on the clinical conditions.

11 Q. I'm going to quote from page 32 of your
12 original report: "The fact that the medical
13 community deems these analogous procedures
14 sufficiently safe to treat conditions other than
15 gender dysphoria is, by itself, more than
16 sufficient to support the safety of those surgeries
17 to treat gender dysphoria."

18 Is that a true statement?

19 A. Yes.

20 Q. Okay. Do you state in here that there are
21 different surgical techniques for mastectomy
22 procedures for cancer patients than there are for
23 gender dysphoric patients?

24 MS. HUPPERT: Object to form.

1 A. I didn't say they're necessarily different.
2 I said there's a range of mastectomy procedures
3 that may be performed for treating cancer or for
4 reducing risk of cancer. The decision as to which
5 type of mastectomy to be performed is a decision
6 between the doctor and the patient.

7 There are a range of mastectomies that
8 may be used to -- within the realm of gender
9 affirming surgery, and they are all similar --
10 they're all similar techniques.

11 Q. Is there any techniques that are techniques
12 for removing cancer that are not used for a gender
13 affirming surgery?

14 A. A modified mastectomy with lymph node
15 removal would unlikely be used for gender affirming
16 mastectomy in the absence of cancer.

17 Q. Are there any other types of techniques
18 that would be used for cancer but not for gender
19 dysphoria?

20 MS. HUPPERT: Object to form.

21 A. Again, mastectomies for cancer - either
22 cancer or predilection or risk of cancer - run the
23 gamut of procedures. Typically for gender
24 affirming surgery, we would not sample lymph nodes.

1 Most often for risk reduction mastectomies,
2 individuals also do not sample lymph nodes.
3 For cancer surgeries which may be more
4 invasive, they may sample lymph nodes.

5 Q. What are the morbidity rates of cancer
6 versus gender dysphoria?

7 A. Well, depends what you -- cancer is a broad
8 -- broad term.

9 Q. I agree, and your report just says
10 "cancer." So that's why I'm asking you about
11 cancer. What are the morbidity rates for cancer
12 versus gender dysphoria?

13 MS. HUPPERT: Object to form.

14 A. I don't treat cancer. I may treat --
15 perform a mastectomy for risk reduction of cancer.
16 But I'm not the oncologist who would treat cancer
17 and would be able to answer a question regarding --
18 I forget what you said.

19 Q. Morbidity.

20 A. The viable -- morbidity of cancer. I would
21 need to know more about the specifics and whether
22 or not I treat that specific cancer.

23 Q. Do you know what the rates of morbidity are
24 in people pre- and post-operative for reduction

1 mammoplas -- or mastectomies, reduction
2 mastectomies?

3 A. Again, that's a broad category, and it
4 would depend upon the reason upon which a
5 mastectomy was being performed.

6 In the area of risk reduction
7 mastectomy, those are performed on individuals who
8 have an increased risk, for example, of breast
9 cancer and may -- and significantly reduce the risk
10 - but don't eliminate the risk - of subsequently
11 developing breast cancer.

12 Q. And that's -- do you know what the
13 reduction in risk is from a risk reduction
14 mastectomy?

15 A. You know, again to answer a specific
16 question, I would need specific -- specific facts.
17 It tends to be the -- it tends to be the
18 intervention that provides the most significant
19 risk reduction in terms of reducing the risk of
20 cancer.

21 Not complete -- we used to call them
22 prophylactic mastectomies, but we recognize that
23 not everyone who undergoes a mastectomy with the
24 hope of preventing cancer is successful.

Page 161

1 **Q. What is the morbidity rate of gender**
 2 **dysphoria?**
 3 A. Again, it needs -- you need to be more
 4 specific. I treat -- I perform surgery for gender
 5 dysphoria.
 6 **Q. What is the rate of gender dysphoria for**
 7 **individuals who do not undergo surgery?**
 8 MS. HUPPERT: Object to form.
 9 A. Again, I -- most of the individuals that I
 10 see do undergo surgical intervention for gender
 11 dysphoria.
 12 **Q. How are you able to measure the**
 13 **effectiveness of your treatments if you don't know**
 14 **what the effects are pre-operatively?**
 15 MS. HUPPERT: Object to form.
 16 A. I don't -- I'm sorry, I don't know what --
 17 "What the effects are pre-operatively" means.
 18 Everyone is assessed not only by me, but undergoes
 19 a multi-disciplinary assessment as well.
 20 **Q. What's the suicidality rate of individuals**
 21 **with gender dysphoria who do not undergo surgery?**
 22 MS. HUPPERT: Object to form.
 23 A. That is, again, a very broad question,
 24 because not all individuals who have gender

Page 162

1 incongruence or gender dysphoria either seek or
 2 have access to medical and surgical interventions,
 3 and not all individuals request or require surgical
 4 interventions.
 5 So to say, you know, for someone who
 6 may not want to request a procedure or may not be a
 7 candidate for a procedure, I don't think is an
 8 accurate comparison.
 9 **Q. What does the medical literature say is the**
 10 **reduction in suicidality after a patient undergoes**
 11 **gender affirming surgery?**
 12 MS. HUPPERT: Object to form.
 13 A. So again, the indication for surgery is
 14 reduction -- is the alignment of body and gender
 15 identity, meaning gender dysphoria. While
 16 suicidality may also be lower for individuals
 17 following gender affirming surgery, the principal
 18 reason for treatment is gender dysphoria.
 19 **Q. So are you able to tell me what specific**
 20 **markers that you use to determine whether your**
 21 **treatment of gender dysphoria is effective?**
 22 A. So that is, again, primarily discussion and
 23 communications with the individual, as it is with
 24 many areas of plastic surgery.

Page 163

1 **Q. Okay. Do you perform nonbinary surgeries?**
 2 A. I'm sorry, you cut out.
 3 **Q. Do you perform nonbinary surgeries?**
 4 A. I operate on individuals who identify as
 5 nonbinary.
 6 **Q. And when I'm referring to nonbinary**
 7 **surgeries, I'm referring to ones that do not -- the**
 8 **end result is not someone having a penis or a**
 9 **vagina, such as a nullification surgery.**
 10 **Do you perform nullification**
 11 **surgeries?**
 12 MS. HUPPERT: Object to form.
 13 A. I have not.
 14 **Q. Okay. Have you performed phallus-**
 15 **preserving vaginoplasty?**
 16 A. I have not.
 17 **Q. Do you know the standard for informed**
 18 **consent in West Virginia?**
 19 MS. HUPPERT: Object to form.
 20 A. In reference to?
 21 **Q. To any medical procedure in West Virginia.**
 22 **Do you know what the standard of -- what the**
 23 **informed consent standard is?**
 24 MS. HUPPERT: Object to form.

Page 164

1 A. For an adult?
 2 **Q. Sure. For an adult.**
 3 A. I know what the medical community means by
 4 "informed consent." Whether there's a different
 5 definition of consent in West Virginia or whether
 6 the State has something aside from the usual
 7 medical definition of informed consent, I don't
 8 specifically know.
 9 **Q. Okay. And what is your definition of**
 10 **informed consent?**
 11 MS. HUPPERT: Object to form.
 12 A. An individual -- it must be voluntary, so
 13 noncoerced. Individual should be informed of the
 14 risks, benefits and alternatives of procedures.
 15 And typically there is a legal -- there's an age
 16 that may or may not be associated which may vary
 17 depending -- for health care depending upon the
 18 particular state, and the individual has to be
 19 competent to make a decision.
 20 **Q. How do you determine whether a patient is**
 21 **competent to make a decision?**
 22 A. As I have for 28 years of medical practice,
 23 their absence of delusion or psychoses, again as
 24 we've said. There may be -- age may be --

Page 165

1 typically the legal age is 18, although there may
2 be variations in particular states for health care
3 consent or emancipated minors and so forth.
4 So that person is oriented,
5 nondelusional, no psychoses, their judgment's not
6 altered by -- or under the influence of a
7 particular substance. Those would be: They're
8 alert; they're aware of time, place, location.
9 Those would be the usual
10 considerations.
11 **Q. Are there specific considerations for**
12 **competency that you undergo prior to gender**
13 **affirming surgery?**
14 A. So while the surgeon will ultimately decide
15 whether or not to operate on an individual, the
16 pre-operative process requires an assessment
17 process so that there are additional individuals
18 involved in the decision-making and assessment of
19 the person seeking treatment.
20 **Q. Okay. Who is involved in that process?**
21 A. There are other individuals, maybe mental
22 health professionals, behavioral health
23 professionals, primary care professionals, who
24 perform assessments - depending on the nature of

Page 166

1 the procedure - prior to undergoing -- prior to
2 recommending surgery and prior to the patient
3 undergoing surgery.
4 **Q. Prior to a gender affirming surgery, do you**
5 **require a mental health assessment?**
6 A. Yes.
7 **Q. Do you require a mental health assessment**
8 **for nongender confirming surgeries, for anything**
9 **other than gender confirming surgeries?**
10 A. It can, depending on the type of surgery,
11 so individuals may have mental health conditions --
12 and I'm speaking outside -- now, this is for
13 individuals who do not have the medical condition
14 of gender dysphoria but may want other nongender
15 affirming treatments.
16 If there are questions, concerns,
17 history of mental health conditions, they very well
18 may seek additional assessment. That might be a
19 mental health professional, a behavioral health
20 professional, might be other medical -- medical
21 consultants or surgical consultants.
22 It's really based on the need of the
23 patient. But psychosocial assessments are
24 performed routinely in other fields of surgery -

Page 167

1 transplant surgery, bariatric surgery - and in
2 fact, there's an evolving area of prehabilitation
3 to specifically assess individuals undergoing a
4 variety of procedures for psychosocial risk
5 factors.
6 **Q. Do you require a mental health assessment**
7 **prior to performing a mastectomy for cancer?**
8 A. Again, it would depend upon the particular
9 situation. So for individuals who are undergoing
10 mastectomy for risk reduction mastectomy, there are
11 times where they will be referred to or seek
12 pre-operative psychosocial assessments.
13 That may be a mental health
14 professional, behavioral professional, a therapist,
15 because the implications of surgery may affect --
16 may affect a variety of factors in their life.
17 **Q. So in terms of a mastectomy for cancer,**
18 **it's on a case-by-case basis. For a mastectomy in**
19 **a gender affirming procedure, it is a requirement.**
20 A. That is correct.
21 **Q. Okay. And why is that?**
22 A. Well, I think the importance of having a
23 multi-discipline -- or the multi-disciplinary
24 assessment is very important, and in fact, I would

Page 168

1 argue that it should be extended to other areas of
2 surgery. As we said, routinely in transplants and
3 bariatric surgery.
4 So I think looking for potential
5 issues that may affect or impact one's surgical
6 outcome is important. I think it's important for
7 patients to hear not only from the surgeon, but
8 from other professionals who may help shape or
9 guide their decision-making processes.
10 And again, not all individuals will
11 ultimately opt for a surgical intervention or the
12 entire range or spectrum of procedures that are
13 available.
14 **Q. Are you familiar with patient needs**
15 **standard of informed consent?**
16 A. I'm sorry, you said "patient" --
17 **Q. Are you familiar with the patient need**
18 **standard for informed consent?**
19 A. Need, N-E-E-D?
20 **Q. Yes.**
21 A. I'm familiar -- as I said, I'm familiar
22 with the definition that I described previously.
23 I'm not familiar with the addition of the term
24 "N-E-E-D, need."

1 **Q. What do you tell a patient are the risks of**
2 **a procedure -- we've talked about vaginoplasty**
3 **already, so let's just stick with that. What do**
4 **you tell a patient are the risks of a vaginoplasty**
5 **for -- with the indication of gender dysphoria?**

6 A. So there are risks of any procedure:

7 Bleeding; infection; fluid accumulations or seroma;
8 wound disruptions or delayed healing; tissue loss,
9 tissue necrosis; injury to adjacent or other
10 structures. In the case of a vaginoplasty, that
11 may be injury to the rectum, urethra, bladder.

12 The procedure -- there may be systemic
13 risks such as venous thromboembolism. Patients may
14 be unhappy with the procedure.

15 The procedure is sterilizing, so they
16 will not be able following -- unless they have
17 undergone, for example, sperm preservation, they
18 will not be able to produce sperm after the
19 procedure.

20 That there will be after-care
21 requirements. They'll need to care for,
22 potentially, drains, urinary catheters. There may
23 be pain, redness, drainage from the incision.

24 They'll need -- assuming they're

1 Practitioners, or for example, a physician
2 assistant, who may also go over additional logistic
3 information with them and then, of course,
4 insurance-related issues, the need for assessments,
5 pre-operative assessments, as we've just discussed,
6 whether or not there are other lab tests, x-rays,
7 mammograms, things of that nature, that need to be
8 undertaken.

9 Smoking cessation, risks of smoking.
10 We don't perform certain procedures on individuals
11 who are actively smoking, and we test for nicotine
12 in the urine. That would be a -- kind of a typical
13 consultation.

14 **Q. Do you tell patients that you cannot**
15 **guarantee that they will -- that the procedure will**
16 **alleviate the distress that they're feeling?**

17 MS. HUPPERT: Objection.

18 A. I --

19 MS. HUPPERT: Pardon me. Object to
20 form.

21 You can answer.

22 A. We tell people that they may be unhappy
23 with the results of surgery, that there are other
24 forms of treatment for gender dysphoria, some of

1 undergoing construction of a full vaginal canal,
2 they'll need to dilate following surgery. So when
3 patients see me in the office, I'll also meet
4 pre-operatively with our pelvic floor physical
5 therapist.

6 We'll go over many of these issues,
7 including dilation, issues related to personal
8 hygiene, bowel and bladder assistance, should they
9 need that.

10 I'll meet with our social worker to
11 discuss the pre-operative -- after-care plans for
12 surgery. If patients are traveling, it will depend
13 on who is able to accompany them, whether or not
14 they'll need a skilled nursing facility following
15 surgery.

16 How much time due to the nature of
17 their work, do they have to take off work. They
18 may be unhappy with the results of surgery.

19 I may be missing a few, but those are
20 largely the pre- and post-operative discussions
21 that I have, our physical therapist has, our social
22 worker has.

23 I'll typically meet as well with our
24 -- one of our APP's, Advanced Practice

1 which may or may not be helpful for them, so that
2 they are aware.

3 That while surgery is useful for many
4 people, other people may decline surgery or choose
5 not to undergo surgery.

6 **Q. Do you tell patients that some people will**
7 **still not consider them to be the gender that**
8 **they're seeking to appear as?**

9 MS. HUPPERT: Object to form.

10 A. Well, we do discuss -- and that's
11 important, I think, as part of the
12 multi-disciplinary assessment, is again what the
13 expectation of surgery is. Surgery is to align
14 one's body with their identity, but there may be
15 family relationships, personal relationships,
16 professional relationships that may be impacted by
17 surgery, and surgery is not a cure or a fix-all for
18 those.

19 The specific goal of surgery is to
20 align one's body, you know, with -- with their
21 mind.

22 **Q. What benefits do you tell patients that**
23 **they might obtain?**

24 A. Again, the goal is congruence of their body

Page 173

1 and their identity. There may be other -- for a
 2 transgender man seeking mastectomy who may have
 3 back pain, neck pain, a variety of other issues
 4 that may be related to binding or large pendulous
 5 breasts, there may be other benefits from that in
 6 terms of pain, posture, neck pain, back pain and so
 7 forth.
 8 **Q. Are you familiar with the Branstrom and**
 9 **Pachankis study?**
 10 A. I am.
 11 **Q. Okay. Do you disclose the results of that**
 12 **study to your patients?**
 13 A. I don't discuss typically individual
 14 studies with patients. If patients ask about a
 15 particular study, if I'm aware of it, I'll discuss
 16 it. If I'm not aware of it, I'll look it up.
 17 **Q. And that particular study was**
 18 **retrospective, right?**
 19 A. I don't recall. If you have it and want to
 20 put it up, I can --
 21 **Q. I can pull it up for you. And I'll see if**
 22 **I can't make it a little bit larger. I think it**
 23 **gets bigger after the --**
 24 A. I don't know. Maybe you can hit that --

Page 174

1 you know, that box. That might help -- you know,
 2 the box up in the -- no, the -- by the X up on the
 3 upper --
 4 **Q. Oh.**
 5 A. Yeah.
 6 **Q. Oh, I didn't realize it was doing that.**
 7 I'm sorry.
 8 A. That's okay.
 9 **Q. All right. So you're familiar with this**
 10 **"Reduction in Mental Health Treatment Utilization**
 11 **Among Transgender Individuals After Gender-**
 12 **Affirming Surgeries: A Total Population Study."**
 13 A. I am.
 14 **Q. And you can see in the Methods section that**
 15 **they used the Swedish Total Population Register**
 16 **which is linked to the National Patient Register**
 17 **and the Prescribed Drug Register and they looked at**
 18 **individuals who received a diagnosis of gender**
 19 **incongruence between 2005 and 2015.**
 20 **Mental health treatment in 2015 was**
 21 **examined as a function of length of time since**
 22 **gender affirming hormone, surgical treatment.**
 23 **Outcome measures were mood and anxiety disorder**
 24 **health care visits, anti-depressant and anxiolytic**

Page 175

1 **prescriptions and hospitalization after a suicide**
 2 **attempt.**
 3 A. I mean, I agree. Yeah, that's what you
 4 described. And that's what it says, yes.
 5 **Q. So mood and anxiety health care visits are**
 6 **something that we could count, right?**
 7 A. I mean, I don't -- you know, I can't speak
 8 to exactly how they do that in Sweden. It's not
 9 part of my clinical practice. But I believe they
 10 are able in this study to count them.
 11 **Q. And antidepressant and anxiolytic**
 12 **prescriptions, you can count those too, right?**
 13 A. Again, I can't speak in generalities as far
 14 as how people -- I can speak to what they said in
 15 the study, but I can't speak to the veracity of how
 16 they did the quantification of these methods. They
 17 appeared -- they appeared to quantitate them or
 18 attempt to quantitate them.
 19 Whether it's accurate or not, you
 20 know, that I can't specifically speak to or how
 21 Sweden monitors prescription and so forth.
 22 **Q. Sure. And then hospitalization after a**
 23 **suicide attempt is also something that you can**
 24 **count, correct?**

Page 176

1 MS. HUPPERT: Object to form.
 2 A. Again, that's what their methodologies --
 3 you know, I can't speak to the integrity of their
 4 methodology, but yes, that's what they are
 5 reporting in the Methods section of this study.
 6 **Q. Thanks. And I'm just saying that that's**
 7 **something that you, if you were examining this**
 8 **within your own patient population, you could count**
 9 **the number of hospitalizations after a suicide**
 10 **attempt, right?**
 11 MS. HUPPERT: Object to form.
 12 A. Presumably. But it would be more difficult
 13 as we don't have a total population register in the
 14 United States, so --
 15 **Q. Well --**
 16 A. -- there are going to be some differences
 17 in how things are going to be done.
 18 **Q. Okay. And the Conclusion of the study -**
 19 **I'll just read it - "In this first total population**
 20 **study of transgender individuals with a gender**
 21 **incongruence diagnosis, the longitudinal**
 22 **association between gender affirming surgery and**
 23 **reduced likelihood of mental health treatment lends**
 24 **support to the decision to provide gender affirming**

Page 177

1 **surgeries to transgender individuals who seek**
 2 **them."**
 3 **Did I read that correctly?**
 4 MS. HUPPERT: Object to form.
 5 A. I would say you read it correctly.
 6 **Q. Okay. And are you aware that two months**
 7 **after this was published, Branstrom and Pachankis**
 8 **issued a correction to this?**
 9 A. Yes. I believe the Journal issued -- I
 10 don't know if it was the authors, but I am aware
 11 that there was a correction. I don't know who
 12 authored the correction.
 13 **Q. Okay. And I don't know if this -- I just**
 14 **pulled up -- I don't know where it's from exactly.**
 15 MS. HUPPERT: Counsel, for clarity of
 16 the transcript, do you intend to mark this as an
 17 exhibit?
 18 MR. DAVID: I wasn't planning on it,
 19 no.
 20 **Q. I don't know what my screen is showing**
 21 **right now. So right now, is it showing the**
 22 **original article?**
 23 A. It's showing the first page of the
 24 original.

Page 178

1 **Q. Okay. And now is it showing something that**
 2 **says, "Correction to Branstrom and Pachankis?"**
 3 A. It does.
 4 **Q. Okay. And about halfway down where it's**
 5 **highlighted, this specific -- where I've**
 6 **highlighted the word "Given," they state: "Given**
 7 **that the study used neither a prospective cohort**
 8 **design nor a randomized controlled trial design,**
 9 **the conclusion that 'The longitudinal association**
 10 **between gender affirming surgery and lower use of**
 11 **mental health treatment lends support to the**
 12 **decision to provide gender affirming surgeries to**
 13 **transgender individuals who seek them' is too**
 14 **strong."**
 15 **Did I read that correctly?**
 16 A. It is read --
 17 **Q. Okay.**
 18 A. It was read correctly, yeah.
 19 **Q. And the sentence right before that says,**
 20 **"While this comparison was performed**
 21 **retrospectively and was not part of the original**
 22 **research question given that several other factors**
 23 **may differ between the groups, the results**
 24 **demonstrated no advantage of surgery in relation to**

Page 179

1 **subsequent mood or anxiety disorder-related health**
 2 **care visits or prescriptions or hospitalizations**
 3 **following suicide attempts in that comparison."**
 4 MS. HUPPERT: Pardon the interruption.
 5 Objection to form.
 6 Counsel, we would also ask that you
 7 introduce both of these as exhibits for clarity of
 8 the transcripts.
 9 MR. DAVID: That's fine. Mark the
 10 original as Exhibit 1 and the correction as Exhibit
 11 MS. HUPPERT: Thank you.
 12 SCHECHTER DEPOSITION EXHIBIT NOS. 1 and 2
 13 (Article entitled "Reduction in Mental
 14 Health Treatment Utilization
 15 Among Transgender Individuals After
 16 Gender-Affirming Surgeries: A Total
 17 Population Study" by Richard
 18 Bränström, Ph.D. and John E.
 19 Pachankis, Ph.D. and the correction to
 20 said article were marked for
 21 identification purposes as Schechter
 22 Deposition Exhibit Nos. 1 and 2.)
 23 **Q. Now, Doctor, do you disclose to your**
 24 **patients that there is a study that says -- that**

Page 180

1 **found that there is no advantage of surgery in**
 2 **relation to subsequent mood or anxiety disorder-**
 3 **related health care visits or prescriptions or**
 4 **hospitalizations following suicide attempts in**
 5 **their study?**
 6 MS. HUPPERT: Object to form.
 7 A. Yeah, so my indication for surgery is
 8 gender dysphoria, not mood or anxiety
 9 prescriptions. So the indication for surgery is
 10 gender dysphoria, and this study did not look at
 11 gender dysphoria. That's one -- one consideration
 12 with this particular study.
 13 And the fact that individuals need
 14 ongoing care or support is not unique to the
 15 individual in gender affirming intervention.
 16 Since we've been talking about cancer
 17 all day, someone may undergo a mastectomy and
 18 there's expectations that they'll continue to
 19 follow with their oncologist or -- medical
 20 oncologist, radiation oncologist, surgical
 21 oncologist, plastic surgeon.
 22 So that people may continue to seek
 23 treatment, whether medical or mental health, is
 24 really of -- of no surprise.

Page 181

1 But can you go back to the original
2 article? Okay. Can you scroll down for me more?
3 **Q. Yep.**
4 A. And keep -- just keep -- okay, next page.
5 Let's see. Can you keep going? Keep going. Keep
6 going. And keep going. And keep going. I'm
7 sorry, keep -- I apologize.
8 **Q. No, you're fine.**
9 A. Okay. Keep going. Okay, let's see. Thank
10 you. Keep going. Okay, yeah.
11 So this: What's interesting is that
12 in anyone after three years following surgery,
13 there were no suicide attempts in these
14 individuals.
15 So again, gender affirming surgery is
16 not a treatment specific for suicide, but what I
17 did find interesting was that there were no suicide
18 attempts in individuals who were out three years
19 from surgery, and I believe the authors comment on
20 this.
21 So you know, the fact that individuals
22 may seek additional mental health care, I would
23 encourage people who need mental health care to
24 seek that. And the problem is if we deny or

Page 182

1 stigmatize mental health care, and again, try to
2 prevent the important ongoing access to medically-
3 necessary care.
4 So I don't specifically - to answer
5 your question - disclose this study, because it
6 doesn't answer the question of gender dysphoria,
7 and the fact that people may need ongoing care is
8 not unique to gender affirming surgery.
9 **Q. And so my question is: Do you disclose**
10 **this to your patients?**
11 MS. HUPPERT: Object to form.
12 A. As I just said, I don't find anything in
13 this article that is inconsistent, or A, that
14 speaks to treatment of gender dysphoria
15 specifically; or B, would indicate that the need
16 for ongoing care is somehow, you know,
17 representative of the efficacy of surgery.
18 **Q. And so in patients who -- you mentioned**
19 **cancer again. Patients who have cancer and undergo**
20 **a mastectomy, you were able to determine afterwards**
21 **whether you were able to remove a cancerous mass,**
22 **correct?**
23 MS. HUPPERT: Object to form.
24 A. We hope so. Not always. It depends on the

Page 183

1 nature of the cancer, whether it's spread in the
2 lymph nodes. People who, again, have risk
3 reduction mastectomies who don't have cancer,
4 sometimes you do find cancer in those specimen.
5 But those individuals still require
6 ongoing follow-up in that area --
7 **Q. And that's what --**
8 A. -- both personal and professional -- both
9 self breast exams, for example, and physician-
10 guided exams.
11 **Q. And the follow-up for patients with cancer**
12 **include PET scans to determine if there were any**
13 **more potentially malignant areas, correct?**
14 A. Again, that would depend on the type of
15 cancer that was involved. Whether additional
16 studies are needed or not needed would depend on
17 the specifics at the time.
18 **Q. And for patients with gender dysphoria,**
19 **were you able to do a scan after a surgery to**
20 **determine the level of gender dysphoria?**
21 A. Again, the resolution or reduction of
22 dysphoria is typically communicated by the
23 individual, and the fact that an individual may
24 request or require ongoing mental health is really

Page 184

1 not particularly relevant as to the need for
2 surgery.
3 I would encourage anyone - whether
4 they have gender dysphoria or not - who feels they
5 need mental health care to seek it.
6 **Q. Are you familiar with -- and I'm -- I**
7 **apologize. I'm going to absolutely butcher this.**
8 **-- the Dhejne study?**
9 A. Yes.
10 **Q. How do you pronounce that?**
11 A. I say -- I may not be much better. I
12 prefer to call it Cecilia, so that's --
13 **Q. If I say "the Cecilia study," you**
14 **understand what I'm talking about.**
15 A. I do.
16 **Q. Okay, good. Okay. And the Cecilia study**
17 **tracks all patients who had undergone gender**
18 **affirming surgery over a 30-year interval and**
19 **compared those to 6,480 matched controls, correct?**
20 A. Again, if you have -- if you can put it up.
21 I don't remember it by memory.
22 **Q. I'm not sure that I can find it.**
23 **Well, while I look for that, under**
24 **what circumstances did you review the Cecilia**

Page 185

1 study?
 2 A. I mean, I've read it many, many times,
 3 whether for conferences, presentations, training,
 4 education, previous legal work. So I've read it a
 5 number of times. I can't tell you how many or --
 6 Q. And what have you been able to take away
 7 from that study to use as a physician?
 8 A. So if you have it, I'd appreciate it if you
 9 could --
 10 Q. And I can find it now, so --
 11 A. Okay.
 12 MS. HUPPERT: And we would just make
 13 the same request about marking.
 14 MR. DAVID: Sure. We will make the
 15 Cecilia study be Exhibit 3.
 16 SCHECHTER DEPOSITION EXHIBIT NO. 3
 17 (Article entitled "Long-Term Follow-Up
 18 of Transsexual Persons Undergoing Sex
 19 Reassignment Surgery: Cohort Study in
 20 Sweden" by Cecilia Dhejne and others
 21 was marked for identification purposes
 22 as Schechter Deposition Exhibit No.
 23 3.)
 24 Q. You're now looking at what has been marked

Page 186

1 as Exhibit 3. Is that the Cecilia that you were
 2 referring to?
 3 A. I believe this is the same one we're both
 4 referencing, yes.
 5 Q. Okay, good. Okay. And where do you need
 6 me to scroll to?
 7 A. If you can just scroll down a bit. Yeah,
 8 let me just refresh on it.
 9 Q. Sure.
 10 A. Okay. And if you can scroll down again.
 11 I'm sorry, yeah, keep going to next page. Okay,
 12 next. Next page.
 13 Okay, we can keep going. Oh, wait,
 14 I'm sorry. Go -- I apologize. Can you go back up
 15 one?
 16 Q. Sure.
 17 A. I'm sorry. Can you keep going?
 18 Q. Keep going up?
 19 A. I'm sorry, down. Next page, yeah.
 20 Q. And we can keep going. Okay, let's keep
 21 going. Okay, let's see.
 22 And yeah, if you can put the top of
 23 the -- the head of that table -- right. That's
 24 right. As I remember, they divided into two by

Page 187

1 time, 1973 to 1988, and then 1989 to 2003. And
 2 there were distinctions between those early groups,
 3 groups that underwent surgery prior to, for
 4 example, the development of Standards of Care in
 5 '79 and then subsequent to that in 1989 and 2003.
 6 Q. Okay. Are you -- are your concerns with
 7 this study that they may have selected the wrong
 8 patients for surgery or that the surgical
 9 techniques were not appropriate or something else?
 10 MS. HUPPERT: Object to form.
 11 A. Well, I think several concerns. Surgical
 12 techniques have arguably improved over the years.
 13 Indications and appreciations for selection of
 14 individuals undergoing surgery has improved.
 15 Again, general guidelines as for not only pre-op
 16 care, but post-operative care, have improved.
 17 And I think the difference between the
 18 two time periods reflects that. Not -- probably
 19 reflects that.
 20 Q. So is there any utility that you've gained
 21 from this study?
 22 A. I'm sorry, that first word --
 23 Q. Is there any utility that you've gained
 24 from this study?

Page 188

1 A. I think that it's important to -- that the
 2 multi-disciplinary nature of the care is important
 3 within the realm of gender affirming care.
 4 I think the fact that individuals may
 5 need ongoing support, help, treatment, access to
 6 mental health services, behavioral health services,
 7 medical services, is also important, and I think
 8 what is positive and interesting about the study is
 9 the reduction, for example, in the suicide attempts
 10 between the two groups, that 1973 to '88 as
 11 compared to '89 to 2003.
 12 Q. And what do you attribute the reduction in
 13 suicide attempts to in the -- those two time
 14 frames?
 15 A. Again, our indication, as we've discussed
 16 -- for surgery is gender dysphoria, so the fact
 17 that there may be other benefits - perhaps reduced
 18 suicidality - may be a result of multiple factors:
 19 Refinements in selecting individuals for care;
 20 recognizing the importance of multi-disciplinary
 21 care; and recognizing what, for some people, may be
 22 the need for ongoing support by whatever -- you
 23 know, whatever that means, whether it's mental
 24 health, medical, behavioral health.

Page 189

1 **Q. The rate of suicide attempts in the control**
 2 **group was lower than that in the group that**
 3 **underwent surgery, correct?**
 4 MS. HUPPERT: Object to form.
 5 A. Yes, although I don't believe it reached
 6 statistical significance in the '89 to '03 group.
 7 **Q. Okay. How does your informed consent**
 8 **process work for adolescents?**
 9 A. So as we said, most of the adolescents
 10 would be individuals -- the majority of individuals
 11 seeking mastectomy. So again, most individuals are
 12 referred either from their pediatrician, their
 13 adolescent physician, their mental health
 14 professional.
 15 We'd meet with the patient, the person
 16 as well as their family caregiver, guardian,
 17 whatever the particular circumstances may be.
 18 We'll have a discussion much like we
 19 talked about for vaginoplasty, but applied more
 20 specifically to mastectomy.
 21 I'll speak with the individual,
 22 typically both with their parents or guardians or
 23 caregivers in the room and also independent, should
 24 there be anything they want to tell in confidence.

Page 190

1 We will then encourage the patient and
 2 their family to go home, consider the information,
 3 read over the information and to contact me with
 4 questions or concerns.
 5 And in what may be a parallel process,
 6 we may be obtaining the various assessments for
 7 those individuals. Until that information is
 8 obtained and reviewed, we would not schedule
 9 surgery.
 10 **Q. Do you require parental consent for**
 11 **adolescents to undergo gender affirming surgery?**
 12 A. It would require, I guess, consent of the
 13 guardian -- whoever would have -- would be the
 14 guardian. So it may have been -- you know, I can't
 15 remember every case, if there was a custodial
 16 parent or a guardian, but typically, it would be a
 17 parent/guardian or -- who would, in addition to the
 18 individual, consent.
 19 **Q. In terms of the surgeries that you have**
 20 **performed - let's say for a transgender plan - have**
 21 **you experienced patients who have requested either**
 22 **top surgery or bottom surgery but not both?**
 23 MS. HUPPERT: Object to form.
 24 A. I have had -- cared for individuals,

Page 191

1 transgender men, who have -- I can't say that
 2 someone who's undergone genital surgery has not had
 3 previous top surgery or we're not speaking and
 4 laying out a plan over the course of time.
 5 So I would have to say I can't recall
 6 an individual transgender man who sought bottom
 7 surgery who has not had top surgery.
 8 **Q. Okay. And do you recall specific patients**
 9 **that have had top surgery -- transgender men who**
 10 **have had top surgery but not bottom surgery?**
 11 A. Yes.
 12 **Q. And in those cases, do those patients**
 13 **intend to later get bottom surgery?**
 14 MS. HUPPERT: Object to form.
 15 A. Again, it would depend on the individual
 16 patient. And I'm using, you know, "bottom surgery"
 17 with the catcher-wide net, so some patients may
 18 have had, for example, hysterectomy and
 19 oophorectomy but not phalloplasty or metoidoplasty
 20 so some of those -- none of those procedures.
 21 And the decision whether or not to
 22 proceed, again, would depend on the individual
 23 person.
 24 **Q. If a person undergoes a -- a transgender**

Page 192

1 **man undergoes a top surgery but does not desire a**
 2 **bottom surgery, can -- are you still able to put**
 3 **that patient in congruence with their sex and their**
 4 **gender identity?**
 5 MS. HUPPERT: Object to form.
 6 A. So as to any -- how any one patient
 7 proceeds with medical and surgical intervention
 8 depends upon the specific cases, the situation of
 9 the patient. As we talked, in many areas of
 10 plastic surgery - most areas of medicine - there
 11 are a range of treatment options that are available
 12 to people.
 13 Some may choose no surgical
 14 intervention; some may choose every surgical
 15 intervention that's possible; some people may
 16 choose something in the middle.
 17 So again, it would depend upon the
 18 specific situation at hand.
 19 **Q. And for any transgender patient that you've**
 20 **had that's seeking a gender affirming surgery, how**
 21 **do you determine whether it is medically necessary**
 22 **for that individual patient to undergo surgery?**
 23 A. And I'm sorry, you said gender -- with
 24 gender dysphoria or with gender incongruence? I

Page 193

1 didn't hear the --

2 **Q. Let's start with gender incongruence. How**

3 **do you determine whether it's medically necessary**

4 **for that patient to undergo surgery?**

5 A. So, you know, as we've said, it's most

6 often the indication is gender dysphoria. Is it

7 possible that I've operated on individuals who

8 experience gender incongruence who don't have

9 gender dysphoria? Is it possible -- whether or not

10 those procedures receive third-party coverage, I

11 can't recall specifically.

12 But far and away, with the diagnosis

13 of gender dysphoria, that would help determine the

14 basis of medical necessity.

15 **Q. Are you saying that gender incongruence**

16 **without gender dysphoria is not an appropriate**

17 **indication for gender affirming surgery?**

18 MS. HUPPERT: Object to form.

19 A. No, I'm not saying that. It may have a

20 basis as to whether a particular insurance company

21 may ultimately reimburse for a procedure. My

22 clinical experience, I have to say, gender

23 dysphoria is the typical diagnosis, so I would have

24 to say it would be unusual for someone not to be

Page 194

1 experiencing or diagnosed with the medical

2 condition of gender dysphoria that then undergoes

3 surgery.

4 That would probably be a far less

5 common -- is a far less common situation, and I

6 can't recall off the top of my head a specific

7 circumstance.

8 **Q. And regardless of the frequency of the**

9 **situation, my question is: If someone has gender**

10 **incongruence in the absence of gender dysphoria, is**

11 **that an appropriate indication for gender affirming**

12 **surgery?**

13 MS. HUPPERT: Object to form.

14 A. Again, I'd have to know more about the

15 specific clinical situation.

16 **Q. What more would you need to know?**

17 A. Well, as with any individual, I'd have to

18 have a history, physical exam, review their

19 assessments, the basis for their request for

20 surgery, again review their goals, their

21 expectations, perhaps a discussion with either a

22 primary care physician and/or a mental health

23 professional.

24 **Q. Okay. If a patient has gender incongruence**

Page 195

1 **but does not experience distress as a result of it,**

2 **is that patient an appropriate candidate for gender**

3 **affirming surgery?**

4 MS. HUPPERT: Object to form.

5 A. By "distress," are you referring to the

6 diagnosis of the medical condition gender

7 dysphoria?

8 **Q. I'm talking about someone whose gender**

9 **incongruence -- which -- I'll start here. Under**

10 **the ICD-11 codes, gender incongruence is now a**

11 **separate diagnostic code, correct?**

12 A. Yes.

13 **Q. And that's something that's going to be**

14 **recognized by WPATH in the eighth version of the**

15 **Standards of Care, correct?**

16 A. Presumably, yes. Although the Standards of

17 Care specifically relate -- while a global

18 document, recognize the need for, you know,

19 additional diagnoses in order to access medical

20 care in certain countries.

21 **Q. True. So the -- at least a draft of the**

22 **eighth version of the Standards of Care which is**

23 **obviously not supposed to be for broad**

24 **dissemination, of course, was broadly disseminated,**

Page 196

1 **right?**

2 A. Yeah. I don't -- I don't agree that it's

3 not for broad dissemination. I think the more --

4 you know, the more input and more feedback we

5 receive is a good thing.

6 **Q. Sure. And I'm not -- I'm not suggesting**

7 **that it was -- that you were trying to -- that**

8 **WPATH was trying to hide it. There's just**

9 **something on the bottom of it that says that this**

10 **is not for -- I think it says "Not for**

11 **Distribution" or something along those lines.**

12 **But the draft is out there and**

13 **accessible to people on the Internet, correct?**

14 A. Well, it was expressly for public comment,

15 so I'm not sure what the disclaimer -- you know, it

16 was designed for public comment, yeah. The fact

17 the public is commenting on it, I think is the

18 intention.

19 **Q. Okay. And let me pull this up and figure**

20 **out where I was going to ask you a question about,**

21 **because it's --**

22 MS. HUPPERT: Caleb, if you'd like --

23 we've been going almost two hours at this point,

24 and so could we --

Page 197

1 MR. DAVID: That's a good idea. I
2 will figure out where I am, but I can promise you
3 we're almost done, Doctor.
4 THE DEPONENT: All right, wonderful.
5 (A recess was taken after which the
6 proceedings continued as follows:)
7 SCHECHTER DEPOSITION EXHIBIT NOS. 4 - 7
8 (Article entitled "Evidence-Based
9 Patient Safety Advisory: Blood
10 Dyscrasias" by Haeck and others, the
11 WPATH DRAFT Version on the Standards
12 of Care Version 8, the initial
13 Schechter report, rebuttal Schechter
14 report were marked for identification
15 purposes as Schechter Deposition
16 Exhibit Nos. 4, 5, 6 and 7.)
17 BY MR. DAVID:
18 **Q. Doctor, we are back on the record, and I**
19 **was about to show you the WPATH Standards of Care**
20 **eighth version draft that was draft -- and just so**
21 **that we're all on the same page here, here is the**
22 **WPATH property confidential draft for public**
23 **comment, not for distribution.**
24 **So that's what I was referring to**

Page 198

1 earlier. But there are no page numbers on this
2 particular document, and let me screen share so
3 everyone is seeing what I'm seeing. There are no
4 page numbers on this particular document, but it is
5 page 72 of 359 that I'm specifically referring to.
6 And Doctor, in this particular section
7 of the draft Standards of Care, it's talking about
8 the two diagnostic terms that we discussed already,
9 gender incongruence and gender dysphoria, right?
10 A. Okay. I can look.
11 Okay.
12 **Q. All right. And in this paragraph that**
13 **we're focused on, I'll highlight a sentence. It**
14 **says, "One important reconceptualization in**
15 **comparison to the DSM-V Gender Dysphoria**
16 **classification is that distress is not a required**
17 **indicator of the ICD-11 Gender Incongruence**
18 **classification," and it's citing the World Health**
19 **Organization, 2019.**
20 **First, did I read that correctly?**
21 A. It is read correct.
22 **Q. Okay. Is that consistent with your**
23 **understanding of the differences between gender**
24 **incongruence and gender dysphoria?**

Page 199

1 A. So let me again say that I don't make that
2 diagnosis of gender dysphoria, so that's one. And
3 that two, to note, this is a draft -- a draft
4 document. So this may not represent the final --
5 obviously the final report.
6 **Q. Sure. And noting that and understanding**
7 **that, is that - this sentence that I have**
8 **highlighted on Exhibit 5 - consistent with your**
9 **understanding of the differences of those**
10 **diagnostic classifications?**
11 A. Again, I don't make those diagnoses, so I
12 don't want to -- that would be outside my typical
13 clinical area of expertise.
14 **Q. Okay. You treat these diagnoses, correct?**
15 MS. HUPPERT: Object to form.
16 A. I treat gender dysphoria, correct.
17 **Q. Okay. Do you treat gender incongruence?**
18 A. Yes.
19 **Q. Okay. And do you treat gender incongruence**
20 **surgically?**
21 A. As I said previously, one must be
22 transgender - meaning to have gender incongruence -
23 to experience gender dysphoria. So my indications
24 for surgery are gender dysphoria.

Page 200

1 **Q. All right. So I'm going to scroll down**
2 **here, and I think you'll be able to see both of**
3 **these paragraphs, and I wanted to specifically ask**
4 **you about -- and I'll scroll up some more. I think**
5 **the is consistent with your testimony. It says**
6 **that -- at least part of it.**
7 **First I'll read it. "As noted before,**
8 **not all transgender and gender diverse people**
9 **experience gender dysphoria and this should not**
10 **preclude them from accessing medical affirming**
11 **care."**
12 **First, did I read that correctly?**
13 A. Can I -- can you scroll -- I'd like to see
14 what chapter this is contained in?
15 **Q. Oh, sure.**
16 A. Yeah.
17 **Q. Let me see if I can find that. Under**
18 **Statement 12A.**
19 A. No, keep -- right. It will give a chapter
20 head.
21 Oh, okay, this is in the Adolescent
22 chapter, which is still undergoing revision.
23 **Q. Okay. Okay, back to this section, I'll**
24 **read the highlighted part again. "As noted before,**

Page 201

1 **not all transgender and gender diverse people**
 2 **experience gender dysphoria and this should not**
 3 **preclude them from accessing medical affirming**
 4 **care."**
 5 **Did I read that correctly?**
 6 A. You did read that correctly.
 7 **Q. Do you personally agree with that**
 8 **statement?**
 9 MS. HUPPERT: Object to form.
 10 A. So again, this is from a draft document,
 11 and this specific chapter, the Adolescent chapter,
 12 is still undergoing revision and discussion. So I
 13 can't provide a final comment until the final
 14 document is released.
 15 **Q. Okay. So you can't tell me whether you**
 16 **agree with that statement?**
 17 MS. HUPPERT: Object to form.
 18 A. So I am under, again, a nondisclosure
 19 pertaining -- until the release of the document, so
 20 I don't want to comment until -- as to the
 21 specifics of the document until it's finally
 22 released.
 23 **Q. All right. So you can't tell me whether or**
 24 **not people who do not experience gender dysphoria**

Page 202

1 **can appropriately undergo surgical therapy.**
 2 MS. HUPPERT: Object to form.
 3 A. So as I said, my indication for surgery is
 4 gender dysphoria. How diagnoses or treatments may
 5 evolve in the future, I can't necessarily predict.
 6 **Q. Okay. Sitting where you are today, do you**
 7 **believe that it is medically necessary to perform**
 8 **surgery on a patient with medical -- with gender**
 9 **incongruence without gender dysphoria?**
 10 MS. HUPPERT: Object to form.
 11 A. I'm sorry, that was a -- can you just read
 12 that back a minute?
 13 **Q. Sure. Sitting where you are today, if a**
 14 **patient presents to you with gender incongruence**
 15 **without gender dysphoria, is it medically necessary**
 16 **to perform a gender affirming surgery on that**
 17 **person?**
 18 MS. HUPPERT: Object to form.
 19 A. So I would have to know the -- more
 20 specifics of the case. Where I -- sitting here
 21 today, the typical indication is gender dysphoria.
 22 If an individual who is requesting surgical
 23 services does not experience gender dysphoria, I
 24 would have to speak with additional people -

Page 203

1 whether primary care professionals, mental health
 2 professionals - to understand more about the
 3 request.
 4 **Q. All right. That's all I have for this one.**
 5 **Let me stop --**
 6 **Okay. A couple of things that I want**
 7 **to go back to, and then we'll be done. I promise,**
 8 **we're getting very, very close now. You mentioned**
 9 **earlier that you had one patient who I believe you**
 10 **said you had performed a mastectomy on, and that**
 11 **patient came back years later and informed you that**
 12 **that patient regretted their decision -- or I might**
 13 **be forgetting the procedure.**
 14 **But do you remember what -- do you**
 15 **know what I'm talking about?**
 16 MS. HUPPERT: Object to form.
 17 A. So it was a -- an individual had breast
 18 augmentation, but did not express regret; rather --
 19 or requested removal of the implant.
 20 **Q. Okay. So was that a patient who was a**
 21 **transgender woman who received a breast**
 22 **augmentation?**
 23 A. That is correct.
 24 **Q. Okay. And then following a period of**

Page 204

1 **years, it sounded like - but you can narrow it if**
 2 **you need to, but a period of years - the patient**
 3 **returned to you and requested a removal of the**
 4 **implants.**
 5 MS. HUPPERT: Object to form.
 6 A. That is correct.
 7 **Q. Okay. Did you talk to the patient about**
 8 **the reasons for the removal?**
 9 A. Yes.
 10 **Q. Okay. And what do you recall the patient**
 11 **telling you was the reason for the removal?**
 12 A. As I recall, they were -- it was a -- she
 13 was a transgender woman at the time of the
 14 augmentation. I believe it was eight or ten years
 15 later, was seen requesting removal of the implants.
 16 And as I recall, she indicated that
 17 she was returning to her male identification, so
 18 the sex she had -- was assigned at birth being
 19 male.
 20 **Q. And have you experienced any other patients**
 21 **going through that similar process of transition**
 22 **and then requesting a reversal of the transitional**
 23 **gender affirming surgery?**
 24 MS. HUPPERT: Object to form.

Page 205

1 A. I believe that is the only person that I
2 have seen in consul -- that I have seen in
3 consultation for that.

4 **Q. Outside of the pilot study and your ongoing**
5 **study, do you do patient satisfaction surveys for**
6 **all of your patients?**

7 A. The hospital might. I'm not -- I'm not
8 sure. It's done as part of the study, so I think
9 it's captured within the context of the study.

10 **Q. What percentage of your patients continue**
11 **to have after-care with you after one year**
12 **following surgery?**

13 MS. HUPPERT: Object to form.

14 A. I would estimate perhaps 20 percent,
15 perhaps 25 percent.

16 **Q. So are the 70 to -- or 75 to 80 percent of**
17 **patients who do not continue to receive after-care,**
18 **are those patients that it's no longer necessary**
19 **for them to be receiving after-care, or they're**
20 **lost to follow up?**

21 MS. HUPPERT: Objection to form.

22 A. I wouldn't describe it as "lost to
23 follow-up," because although someone may not see
24 me, we always leave the door open to contact the

Page 206

1 office.

2 **Q. Okay. So are you able to accurately**
3 **testify about the outcomes for your specific**
4 **patients past a year?**

5 A. Yes. Because that's consistent with many
6 other areas of plastic surgery. Individuals would
7 typically return - depending on the specific case -
8 on an as-needed basis after that time.

9 So breast reconstruction patients --
10 sorry, breast augmentation patients, we may see
11 them at five or ten year follow-up to do implant
12 surveys. Not all patients follow up. Other
13 individuals would contact us on an as-needed basis.

14 **Q. And how likely is it that a patient who is**
15 **dissatisfied with your services will follow up with**
16 **you?**

17 MS. HUPPERT: Object to form.

18 A. I would anticipate we would hear about it.

19 **Q. And how would you hear about it?**

20 MS. HUPPERT: Object to form.

21 A. They would typically contact the office.

22 **Q. And so a year after surgery, are you able**
23 **to identify or locate 100 percent of your patients?**
24 A. As with any medical practice, I'm not sure

Page 207

1 I could locate 100 percent of our patients. We do,
2 of course, have their contact information and
3 emergency contact information.

4 **Q. And are you following up with them at that**
5 **point to ask them whether they are still satisfied**
6 **with the services that you provided?**

7 A. Well, I know that we've recently - because
8 of my practice transition - just sent a letter to
9 our last two or three years of patients, notifying
10 them of the -- of my change in practice location.
11 So --

12 **Q. And did that notification provide them with**
13 **a survey to fill out to tell you what their**
14 **satisfaction level was at that time?**

15 A. No. It asked them to -- or apprised them
16 of my new contact information.

17 **Q. Are you familiar with the body of**
18 **literature regarding detransitioning?**

19 MS. HUPPERT: Object to form.

20 A. I am familiar with the term "detransition."
21 I'm not sure exactly what you mean by "the body of
22 literature," if you can be more specific.

23 **Q. Sure. I believe that the author of the**
24 **study, the most recent one that I've seen, is**

Page 208

1 **Littman, did a study of 100 individuals who**
2 **detransitioned. Are you familiar with that?**

3 MS. HUPPERT: Object to form. Object
4 to scope.

5 A. I don't believe I've seen the recent
6 article by Littman. If you have it, I can take a
7 look.

8 **Q. Sure. Okay. Can you see what is on my**
9 **screen?**

10 A. Yes.

11 **Q. Okay. And this is titled "Individuals**
12 **Treated For Gender Dysphoria With Medical and/or**
13 **Surgical Transition Who Subsequently**
14 **Detransitioned: A Survey of 100 Detransitioners."**
15 **Are you familiar with this study?**

16 A. I have not seen that.

17 **Q. Okay. Then I will stop sharing.**

18 MS. HUPPERT: Counsel, I would just --
19 I would ask that you mark that as an exhibit also.
20 And just a question: Is that the version of the
21 article with the correction appended?

22 MR. DAVID: I don't know.

23 MS. HUPPERT: We'd just like to note
24 from the record - at least from what I can tell -

Page 209

1 that it appeared to be the version that did not
2 have the correction appended.
3 MR. DAVID: And I will note for the
4 record that I didn't ask any questions about it.
5 But I don't know that I have another version of
6 this.
7 MS. HUPPERT: Okay.
8 MR. DAVID: I have no problem with
9 making this an exhibit, but I didn't ask any
10 questions about that. So we can do that if you'd
11 like.
12 SCHECHTER DEPOSITION EXHIBIT NO. 7
13 (Article entitled "Individuals Treated
14 for Gender Dysphoria with Medical
15 and/or Surgical Transition Who
16 Subsequently Detransitioned: A Survey
17 of 100 Detransitioners" was marked for
18 identification purposes as Schechter
19 Deposition Exhibit No. 8.)
20 **Q. Are you aware of any other medical**
21 **literature regarding detransition, Doctor?**
22 MS. HUPPERT: Object to form. Object
23 to scope.
24 A. I am aware of literature that discusses

Page 210

1 individuals who have undergone gender affirming
2 interventions and who subsequently request surgical
3 reversal of their procedures.
4 **Q. And have you performed -- other than the**
5 **one patient that we've talked about, have you**
6 **performed any surgical reversals of gender**
7 **affirming surgeries?**
8 MS. HUPPERT: Object to form.
9 A. I have not.
10 **Q. Are you aware of whether or not Christopher**
11 **Fain has requested prior authorization for gender**
12 **affirming surgery?**
13 A. I am not aware. I did read the Complaint
14 and Amended Complaint, but I don't recall whether
15 or not there was a request for prior authorization.
16 **Q. Are you aware of any treating medical**
17 **provider of Christopher Fain who has recommended**
18 **gender affirming surgery?**
19 MS. HUPPERT: Object to form.
20 A. I have not -- neither seen nor spoken with
21 -- or seen any -- seen his medical records or
22 spoken with anyone involved in the clinical care.
23 **Q. And same questions for Shauntae Anderson:**
24 **Have you seen or are you aware of whether or not**

Page 211

1 **Shauntae Anderson has requested prior authorization**
2 **for gender affirming surgery?**
3 MS. HUPPERT: Object to form.
4 Sorry. Object to form.
5 A. Same answer as previous: I read the
6 Complaints, but I don't recall whether there was a
7 specific request for prior authorization.
8 **Q. And are you aware of any treating medical**
9 **provider who has recommended gender affirming**
10 **surgery for Shauntae Anderson?**
11 MS. HUPPERT: Object to form.
12 A. I have seen no medical records, nor have I
13 spoken with anyone involved in clinical care.
14 **Q. And I think that I poorly asked this**
15 **earlier. In the case of an individual who desires**
16 **top surgery but not bottom surgery, without both**
17 **surgeries, are you able to bring someone's gender**
18 **identity into congruence with their sexual**
19 **characteristics?**
20 MS. HUPPERT: Object to form.
21 A. Well, the purpose of the -- of surgery as a
22 treatment for gender dysphoria is to align one's
23 identity with their body. The decision to undergo
24 a particular medical or surgical intervention is

Page 212

1 based on the specific circumstances, the individual
2 -- and a discussion that I have with the patient, a
3 risk/benefit analysis on the part of an individual.
4 So whether or not one particular
5 individual chooses to undergo a particular
6 treatment option, as with the range of other
7 interventions in plastic surgery for other
8 conditions, really depends upon the specifics of
9 the case, that person's risk/benefit analysis and,
10 as we've said before, not all individuals will
11 elect to undergo all potential surgical options
12 that are available.
13 **Q. Have you had patients who are transgender**
14 **men who have undergone double mastectomy but have**
15 **not undergone a -- why am I -- I'm blanking.**
16 **Transgender men who have undergone a double**
17 **mastectomy but not a phalloplasty?**
18 **Are -- have you had patients who have**
19 **done that?**
20 MS. HUPPERT: Object to form.
21 A. I've had patients who are transgender men
22 who have undergone top surgery, meaning mastectomy,
23 but not a phalloplasty.
24 **Q. And have those patients reported to you**

Page 213

1 that they felt congruent with their gender
2 identity?
 3 A. Again, that depends on the individual
 4 specifics. So what individuals may express, that
 5 in an ideal situation, they would undergo
 6 phalloplasty, but for a myriad of reasons - as
 7 people do in making medical decisions in other
 8 areas - they may or may not opt for a particular
 9 intervention.
10 Q. And so if I'm understanding you correctly,
11 I think you said for almost all medical procedures
12 - maybe you said for all - it's dependent upon the
13 patient's history, physical examination, lab work
14 that you obtained, imaging that you obtained, and
15 also patient goals, expectations, wants and
16 desires. Correct?
 17 A. And their understanding of the risks, the
 18 benefits, the alternatives. And depending on the
 19 person, it may include other people who are
 20 relevant in their decision-making process: Spouse,
 21 partner, parent, child.
22 Q. And those determinations and those findings
23 are all individualized, correct?
 24 A. That is correct.

Page 214

1 Q. Okay. I wanted to ask you a couple
2 questions about some of the literature that you
3 cited in your rebuttal report. Specifically, you
4 cite to an article titled "What does the scholarly
5 research say about the effect of gender transition
6 on transgender well-being? What We Know," and you
7 state that that is from the Center For Study of
8 Inequality at Cornell University.
9 Are you familiar with that?
 10 A. I am, but if you put it up, I can speak
 11 more specifically to it.
12 Q. Okay. I'll see if I can find that real
13 quick. Okay. Let me share this thing. All right.
14 Can you see what's on my screen now?
 15 A. I can.
16 Q. Okay. And do you recognize this as one of
17 the articles that you cited to in your rebuttal
18 report?
 19 A. Can you just go up to the top?
20 Q. Sure.
 21 A. I don't know if this is the web study or
 22 the article.
23 Q. Your citation which is Footnote 16 of your
24 report specifically has this website as the


Page 215

1 citation.
 2 A. And can you read that to me? That citation
 3 in my report?
4 Q. "What does the scholarly research say about
5 the effect of gender transition on transgender
6 well-being?" "What We Know," 2021, https:// --
 7 A. Okay, I've got it.
8 Q. So do you recognize this article?
 9 A. Well, I recognize this -- that's what I was
 10 saying. I think it's a web -- a web page.
11 Q. Okay. Who wrote this?
 12 MS. HUPPERT: Object to form.
 13 A. Can you scroll down?
14 Q. Sure.
 15 A. Yeah. Okay. Well, the cite refers to
 16 articles written by the various authors here. If
 17 you can scroll back up, I think there were eight --
 18 yeah, I believe they reference the eight findings
 19 of the review.
 20 And if you can go to Home.
 21 So it appears to be the Center for the
 22 Study of Inequality at Cornell University.
23 Q. So do you know -- and I'll go back to the
24 page. Do you know who the researchers were on

Page 216

1 this?
 2 MS. HUPPERT: Object to form.
 3 A. I -- again, I -- this page refers to other
 4 articles. I don't know who wrote the web page.
5 Q. Okay. Is this web page peer-reviewed?
 6 MS. HUPPERT: Object to form.
 7 A. Can you scroll -- actually, I'm sorry. Can
 8 you go back to Home? Okay. Let me see. So this
 9 is a -- and you can go back to the other page.
 10 Yeah, this is basically a web page
 11 that directs to peer-reviewed literature.
 12 A. Okay.
 13 MS. HUPPERT: The same question, if
 14 you don't mind marking just that -- a printout of
 15 that web page that had the --
 16 MR. DAVID: I'll see if I can make
 17 that happen. I don't see any reason I can't.
 18 SCHECHTER DEPOSITION EXHIBIT NO. 9
 19 (Cornell University web page entitled
 20 "What does the scholarly research say
 21 about the effect of gender transition
 22 on transgender well-being" was marked
 23 for identification purposes as
 24 Schechter Deposition Exhibit No. 9.)

1 MS. HUPPERT: Appreciate it.
 2 **Q. There is an article that was written by**
 3 **Doctor Karasic that was titled "Age is Just a**
 4 **Number," and it was a -- I guess a review process**
 5 **where they spoke with WPATH surgeons about care**
 6 **that they provided. Did you participate in that?**
 7 MS. HUPPERT: Object to form.
 8 A. Do you have -- can you show me the
 9 citation?
 10 **Q. I should be able to. Okay. So can you see**
 11 **this up on the screen?**
 12 A. I can, yes.
 13 **Q. Okay. And I just want to know if you**
 14 **participated in this survey.**
 15 A. I believe I did.
 16 **Q. Okay. Do you remember -- if we went**
 17 **through this, would you be able to say, "This is me**
 18 **talking"?**
 19 A. I think this was a while -- can you -- if
 20 you scroll down. This was a while ago. Yeah, so
 21 it was published in '17, so, you know, submitted
 22 certainly before that, so I'm -- I'm not sure that
 23 I could identify my comments or whether any of my
 24 comments are even included.

1 STATE OF WEST VIRGINIA,
 2 COUNTY OF JACKSON, to wit;
 3
 4 I, Teresa S. Evans, a Notary Public within
 5 and for the County and State aforesaid, duly
 6 commissioned and qualified, do hereby certify that
 7 the foregoing deposition of DR. LOREN SCHECHTER was
 8 duly taken by me and before me at the time and
 9 place and for the purpose specified in the caption
 10 hereof, the said witness having been by me first
 11 duly sworn.
 12
 13 I do further certify that the said
 14 deposition was correctly taken by me in shorthand
 15 notes, and that the same were accurately written
 16 out in full and reduced to typewriting and that the
 17 witness did request to read his transcript.
 18
 19 I further certify that I am neither
 20 attorney or counsel for, nor related to or employed
 21 by, any of the parties to the action in which this
 22 deposition is taken, and further that I am not a
 23 relative or employee of any attorney or counsel
 24 employed by the parties or financially interested
 in the action and that the attached transcript
 meets the requirements set forth within article
 twenty-seven, chapter forty-seven of the West
 Virginia Code.
 My commission expires October 15, 2030.
 Given under my hand this 31st day of March, 2021.

 Teresa S. Evans
 RMR, CRR, RPR, WV-CCR

1 **Q. All of the surgeons were anonymous, so I**
 2 **didn't know if -- I assumed that would be your**
 3 **answer, but --**
 4 **Okay. Then I'm not going to ask you**
 5 **any questions about this.**
 6 MR. DAVID: And I think that those are
 7 all the questions I have for you, Doctor. Thank
 8 you.
 9 THE DEPONENT: Thank you.
 10 MS. HUPPERT: We do not have any
 11 questions for the witness, but we would like to
 12 review and sign.
 13 (Having indicated he would like to
 14 read his deposition before filing,
 15 further this deponent saith not.)
 16
 17 --oOo--
 18
 19
 20
 21
 22
 23
 24

1 ERRATA SHEET
 2
 3 I, DR. LOREN SCHECHTER, do hereby
 4 certify that the foregoing is a true and
 5 correct transcript of my deposition with the
 6 exception of the following corrections:
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18 DEPONENT'S SIGNATURE
 19 STATE OF _____,
 20 COUNTY OF _____,
 21
 22 Sworn to before me,
 23 _____, Notary Public, this
 24 _____ day of _____, 2021.

 NOTARY PUBLIC

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: --ooo--..adolescent

Exhibits	1500 18:23 20:11,12, 14,16,21	2022 7:5 23:22 97:15, 16	8	accessing 200:10 201:3
Exhibit 1 5:3 179:10	16 18:11 214:23	21 14:22	8 105:2 197:12 209:19	accompany 170:13
Exhibit 2 5:7	17 14:12 18:11 217:21	22 14:22,23 19:17	80 205:16	accumulations 169:7
Exhibit 3 5:11 185:15,16,22,23 186:1	17-year-old 127:12	25 205:15	85 125:22	accurate 20:7 22:24 32:20 101:14 107:13 162:8 175:19
Exhibit 4 5:15	17-year-olds 127:12	27 19:19 20:7	88 188:10	accurately 206:2
Exhibit 5 5:18 199:8	18 95:22 101:9 126:23 127:7 165:1	28 7:5 20:3 164:22	89 188:11 189:6	achievable 147:12 150:5,22,23
Exhibit 6 5:19	19 12:6 13:4 14:15	29 20:3	9	achieve 147:10 150:16
Exhibit 7 5:20 209:12	1973 187:1 188:10	3	9 216:18,24	acne 38:15,16,22 39:2,14 40:13 43:24
Exhibit 8 5:21 209:19	1988 187:1	3 185:15,16,23 186:1	90 22:21 23:19 30:9, 13 32:24	acronym 94:8
Exhibit 9 6:2 216:18, 24	1989 187:1,5	30 38:5 59:18 93:13	90s 26:23 27:13	across-the-board 62:12
-	1998 136:18	30-year 184:18	94 19:23	act 60:4,10,14,16 61:3,8,9,10,12 155:14
--ooo-- 218:17	1st 96:5	30th 96:5	99 19:20,21 25:10,19	actively 171:11
-controlled 84:14	2	32 157:11	9:58 7:6	addition 32:24 65:22 133:8 168:23 190:17
0	2 179:12,22	359 198:5	A	additional 54:3,7 56:15 165:17 166:18 171:2 181:22 183:15 195:19 202:24
03 18:8 189:6	20 12:2 24:2 205:14	3:20-cv-00740 7:12	A-L-I-R-E-Z-A 14:5	address 60:6 144:21
1	200 15:21 16:6	4	a.m. 7:6	addressed 141:16
1 81:15 154:6 179:10, 12,22	2000 20:23 21:3 22:10,11 23:2,19 24:9,10 25:2	4 197:7,16	ability 43:13 44:4,17 147:16	adequacy 84:10
10 23:7,17 37:23 38:2 105:1,2 154:6	2003 18:13 187:1,5 188:11	40 59:18	abnormalities 144:20	adequate 79:24 82:4 84:2
100 91:20 96:13,17, 18,20 206:23 207:1 208:1,14 209:17	2005 174:19	5	absence 158:16 164:23 194:10	adjacent 44:13 169:9
10ish 103:21	2008 22:17	5 19:17 197:16 199:8	absolutely 10:1 23:15 184:7	adjunct 152:12
12 95:21	2009 82:23 83:1 88:15,16 97:3,12,14	50 30:19	abstracts 91:18	administering 7:17
12A 200:18	2010 21:5,8,11,18 22:1,3,7,17	5th 11:5	academic 11:22 100:10	administrative 13:4 60:23
13 97:5	2015 18:10,16 174:19, 20	6	accept 14:15 31:2 32:15,19,22 45:20 97:14	administratively 14:14
14 126:11	2016 25:2	6 95:21 197:16	accepted 26:24 87:14	adolescence 125:18, 19 126:1
14-year-old 126:16	2017 13:2 25:1,22,23 26:16 27:4,18 96:5 124:23	6,480 184:19	accepting 14:10 31:5	adolescent 55:19,23 56:2,5,7,9,11,16,18, 21 57:2 58:1 189:13 200:21 201:11
14-year-olds 126:13	2018 21:1,6 96:5	7	access 66:8 76:19 162:2 182:2 188:5 195:19	
15 37:23	2019 12:4 14:10 25:1 94:14 198:19	7 20:4 22:20 197:7,16 209:12	accessible 196:13	
150 15:21 16:6 19:4 20:14 21:12,15	2020 31:21	70 205:16		
	2021 215:6	72 198:5		
		75 126:9 205:16		
		79 187:5		

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: adolescents..assigned

adolescents 110:18 189:8,9 190:11	174:12,22 176:22,24 178:10,12 180:15 181:15 182:8 184:18 188:3 190:11 192:20 193:17 194:11 195:3 200:10 201:3 202:16 204:23 210:1,7,12,18 211:2,9	allowed 14:19	apologize 68:4 71:8 181:7 184:7 186:14	11 55:20 57:12,14 73:23 87:23 104:16 110:11 123:19 126:6 145:7 147:17 149:1 150:15 160:6 167:2 183:6 199:13
adult 57:10,18 58:1,3 164:1,2	Affordable 60:4,10, 13,16 61:3,7,9,10,12	alter 102:13,16,21	APP's 170:24	areas 58:6 85:9,17,20 86:4,14,20 87:13 116:8 150:13 154:18 162:24 168:1 183:13 192:9,10 206:6 213:8
adulthood 125:19	after-care 169:20 170:11 205:11,17,19	altered 165:6	appeals 60:8 61:1	arguably 187:12
adults 57:7 104:17	age 95:8 126:23 127:7 132:15 164:15,24 165:1 217:3	alternatives 164:14 213:18	appearance 35:9 42:16,18 43:7,24 106:23 107:6 122:2 136:3 149:22	argue 168:1
Advanced 170:24	ages 126:7	Amended 210:14	appeared 64:18,20 175:17 209:1	arms 134:21
advantage 178:24 180:1	agree 7:15 9:21,24 83:2,24 84:4,17,20 103:24 104:4,8 106:3, 6 107:20,22 108:22 109:3,17,18 112:8 113:20 121:24 159:9 175:3 196:2 201:7,16	America 112:23 114:8,15	appears 215:21	arrangements 59:24
Advisory 81:8 197:9	agreed 136:13	American 16:15,18 17:6 57:1 79:16	appended 208:21 209:2	arrival 12:8,10,11 arrive 152:13
aesthetic 36:3	agreements 31:9,13	amount 19:10 20:18	applicable 60:14	article 80:23 81:7,13 177:22 179:13,20 181:2 182:13 185:17 197:8 208:6,21 209:13 214:4,22 215:8 217:2
Aetna 64:14,16,19,21, 22	ahead 38:20 50:7 80:13 100:4,5 116:15 132:20	analogous 157:13	applied 107:11 114:9 189:19	articles 52:9,14 53:4, 5,11 86:21 99:17,20 214:17 215:16 216:4
Aetna/medicaid 65:6	alert 165:8	analysis 212:3,9	applies 72:7 74:4,11 114:15	articulate 151:20
affect 39:22 40:14,17 44:1,14 144:22 145:4 149:7 167:15,16 168:5	Alexander 14:2	analyze 88:24 90:16, 22	apply 36:23 76:17 110:5 111:12,14 112:3	articulating 153:3
affected 44:5 136:22 140:23	align 98:11,18,24 105:19 172:13,20 211:22	anatomic 40:10	applying 70:19 113:21 114:1	as-needed 206:8,13
affecting 135:23	aligned 115:9	anatomy 101:20 108:6 115:15,16 117:18,22 118:4,7 129:21 151:11	appointment 11:18	ascertain 145:3
affects 42:10 44:17	aligning 98:8 138:6	and/or 101:21 150:5 194:22 208:12 209:15	appreciations 187:13	ASPS 82:15,20 88:18 97:4,13
affirmation 11:21,23 12:17 13:16 15:19 16:13,24 17:8 18:14, 17,23 24:12 25:6,17, 21 26:13,16,18 27:4, 6,17	alignment 162:14	Anderson 8:24 77:24 78:3,5,8 210:23 211:1,10	apprised 207:15	assess 140:22 143:10,13 148:2 150:14 154:15 167:3
affirming 13:1 28:4, 15 29:6,22 30:14 33:2 36:5 61:10,13 62:12, 18,20,21 63:15,22 64:1,5 65:18 70:9 72:20,24 73:1,3,11,24 74:1,4,20,23 77:14 80:11 85:2,3 86:1,6, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4 99:8 115:5 116:11,23 118:18 126:17,21 132:6 133:2 135:2,6 136:24 139:21 140:2 146:20 147:19 149:7,15 154:19 155:24 156:7 158:9,13,15,24 162:11,17 165:13 166:4,15 167:19	Alireza 14:4	Anderson's 78:1	appropriately 83:21 84:22 202:1	assessed 161:18
	alleviate 49:24 50:23 51:10,22 54:5 98:12 116:19 118:16,21 123:14 155:16 171:16	anemia 149:3,8	appropriately- 118:19	assessing 146:19
	alleviating 47:4 48:13,24 52:20 98:9	anemic 149:9	appropriately- selected 115:3 138:4	assessment 148:18 151:22,23 161:19 165:16,18 166:5,7,18 167:6,24 172:12
	alleviation 46:18 47:12,24	Ann 7:23	approval 67:7	assessments 116:4 165:24 166:23 167:12 171:4,5 190:6 194:19
		annually 22:3	approvals 60:7	assign 106:19
		anonymous 218:1	approximately 7:6 19:4 21:12 30:13 93:18 105:1	assigned 101:13 104:22 105:4,5,24
		anti-depressant 174:24	approximation 93:17 96:8	
		anticipate 206:18	April 11:5	
		antidepressant 175:11	apt 93:7	
		anxiety 120:22 144:3 174:23 175:5 179:1 180:2,8	area 23:24 24:3,4,8,9,	
		anxiolytic 174:24 175:11		
		Apologies 9:19 83:13		

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: assistance..cancerous

109:3 204:18 assistance 170:8 assistant 144:11 171:2 assisting 59:13 association 79:17 176:22 178:9 Association's 57:1 assume 11:19 94:7 102:22 109:8 assumed 218:2 assuming 83:8 169:24 atrophied 132:12 133:1 atrophy 131:21,22 132:3,7,10 133:6,7, 14,22 136:2 attempt 175:2,18,23 176:10 attempting 77:13 116:18 attempts 179:3 180:4 181:13,18 188:9,13 189:1 attend 56:19 57:20 attended 123:4 attending 11:15,18 19:22 20:1 25:10 attorney 7:21 153:24 attribute 23:8,11 188:12 audio 86:5 augmentation 28:15 103:21 104:22,24 203:18,22 204:14 206:10 August 12:2,4,6 14:22 auspices 12:22 author 99:9 207:23 authored 177:12 authority 13:4	authorization 210:11,15 211:1,7 authors 177:10 181:19 215:16 Auvil 8:8 131:4 Avatara 8:12 average 15:18 aware 17:5 32:13 35:18 50:15 51:20 68:11,20 69:6,12 71:3 73:4 77:7,12 84:11 85:24 86:9 87:3 88:19,21 89:2,3,7,11, 12 91:13 122:6 124:5 125:21 132:5 136:23 139:1,7 141:8,18 142:1 145:16,22 146:6,12 165:8 172:2 173:15,16 177:6,10 209:20,24 210:10,13, 16,24 211:8	Beane 8:2 began 12:11 19:23 25:23 31:7 begin 31:5 beginning 12:9 24:23 behalf 7:23 behavioral 165:22 166:19 167:14 188:6, 24 behaviors 102:4 benchmark 20:12 beneficiaries 30:22 34:7 beneficiary 31:24 benefit 121:12 benefits 164:14 172:22 173:5 188:17 213:18 benign 46:24 bibliography 86:21 87:1,4,10,11 89:9 bigger 173:23 bilateral 126:14,22 127:8 155:5 bill 30:23 binding 7:17 173:4 biopsied 45:12,22 47:9 biopsy 45:23 47:18 48:6 54:11 birth 101:13 104:23 105:4,5,24 106:2 109:3 204:18 Birth- 135:18 birth-related 134:11 135:8,22 bit 11:9 14:19 30:20 32:23 38:20 81:19,20, 21 93:15,16 96:3 105:1 137:6 149:4 150:17 173:22 186:7 bladder 35:14,17,20 169:11 170:8 blanking 212:15	bleeding 46:14 47:23 169:7 blinds 131:2 blood 81:10 140:5,21, 23 144:3 145:4,7,8,9 149:3 197:9 blotches 46:22 board 16:9,13,15,18 17:6,7,23,24 29:14 32:14 55:3 94:9,11 boarded 56:6 boards 29:13 bodies 128:19 body 40:4,10 98:8,11, 18,24 116:20 118:12, 14 121:19,21 122:1,4, 8,11,13,16,19,24 123:7,9,23 124:3 128:17 132:11 137:1 138:6 150:9,13,15 151:2,15 162:14 172:14,20,24 207:17, 21 211:23 border 16:2 113:12, 19 Borelli 8:10 born 46:21 105:17,23 106:13,18 108:19 Botox 33:3,4 34:2,5, 10,16,22,24 35:12 37:17,20,21 bottom 190:22 191:6, 10,13,16 192:2 196:9 211:16 bowel 170:8 box 174:1,2 bradycardia 145:17, 23 146:3,7,13 Branstrom 173:8 177:7 178:2 break 9:11 61:23 62:7 124:12,13,16 breast 27:23 28:3,14 29:9 65:22 66:11,18 67:16 76:19 103:21, 22 104:22,24 130:13 132:14,16,17 134:21 136:19,21 137:22	138:3 149:22 150:12 155:8,10 156:2,4 160:8,11 183:9 203:17,21 206:9,10 breasts 136:22 173:5 bright 131:3 bring 211:17 broad 150:18 159:7,8 160:3 161:23 195:23 196:3 broadly 195:24 Bränström 179:18 burn 43:16 butcher 184:7
C				
Caleb 7:22 8:21 124:10 196:22				
calendar 95:24				
calf 134:16,23				
California 59:10,19				
call 39:2 70:8 147:23 155:6 160:21 184:12				
called 8:16 94:4				
calling 63:10				
calves 133:15 134:6				
Canadian 16:1				
canal 127:20 128:23 129:1 170:1				
cancer 66:12,13,18 67:16 68:13,21,22 69:2,13,22 102:21 116:6 129:13 130:11, 13,15 131:11,14 132:14,23 135:21 136:21,22 154:23 155:1,5,8,10,15,16 156:16,18,20 157:4, 22 158:3,4,12,16,18, 21,22 159:3,5,7,10, 11,14,15,16,20,22 160:9,11,20,24 167:7, 17 180:16 182:19 183:1,3,4,11,15				
cancerous 156:3 182:21				

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: candidate..components

candidate 162:7 195:2	catcher-wide 191:17	chest 65:22	classifications 199:10	comments 217:23,24
capability 81:2	categorical 60:21 62:9,15 63:10,15,21 72:19 75:4	Chicago 11:3 24:16, 20	classified 125:19	Commissioner 8:1
captured 205:9	category 63:22 72:20 75:6 107:13 160:3	child 55:18,22 56:2,4, 6,9,11,16,18 57:2,18, 24 58:4 108:14 213:21	classify 97:8,10 111:19	common 66:12 110:20 111:1 194:5
care 15:12 53:9 60:4, 10,14,16 61:3,7,9,10, 12 62:24 64:10 76:22 80:11 85:2,12 87:20, 22 89:5 114:21 124:17 136:24 141:4 142:19 144:24 145:2, 12 146:17 164:17 165:2,23 169:21 174:24 175:5 179:2 180:3,14 181:22,23 182:1,3,7,16 184:5 187:4,16 188:2,3,19, 21 194:22 195:15,17, 20,22 197:12,19 198:7 200:11 201:4 203:1 210:22 211:13 217:5	catheters 169:22	childhood 104:2,10 125:7,23	clear 20:13 79:13 81:18	commonly 151:12
caregiver 153:23,24 189:16	caused 41:14 42:3 47:4,13 48:24 50:24 51:10,22 52:20 54:6 115:8 122:2 142:21	children 56:21 85:19 104:14 110:18 125:14,16,23 126:5 128:5	cleft 28:3,13 29:8,9 85:18,20	communicated 145:11 151:19 154:4 183:22
caregivers 189:23	caveats 84:2,3	choose 93:5 98:7 155:12 172:4 192:13, 14,16	clinic 123:19	communication 152:2,5,7,10 153:3 154:17
carrier 60:10	CBC 140:9,17,19 141:19,22	chooses 212:5	clinical 15:9,14 36:24 37:1 54:1 57:5,12,14 60:23 70:14 73:7 75:1 84:15,18 85:17 93:3 100:13,22 104:16 121:1 123:19 134:10 145:7 157:10 175:9 193:22 194:15 199:13 210:22 211:13	communications 50:20 162:23
carriers 59:18,20 64:14	Cecilia 184:12,13,16, 24 185:15,20 186:1	Christopher 8:23 77:17,20,22 210:10, 17	clinically 100:9	community 157:13 164:3
Carrington 8:13	Center 214:7 215:21	chromosomes 101:21 102:9 105:10, 12,14	clitoris 127:18 128:22 129:1	companies 58:10,11, 23 59:4,6
carry 83:21	centered 79:23 82:3	chronic 35:13	close 21:15 203:8	company 31:14 59:13,24 193:20
case 7:9,12 18:7,10, 11,13,16 31:9,13,18, 20 32:9 35:2 39:22 41:12,18 42:22,23 43:5,13,16,22 44:11, 12 45:5 50:6,13 51:18 52:5 53:2,7,16,24 60:12,18 61:2,8 62:11 64:3 77:13 97:10,18 118:18 128:15 129:3 130:14 138:16 169:10 190:15 202:20 206:7 211:15 212:9	central 124:11	circumstance 39:18 41:22 47:21 194:7	closer 21:9,15	compare 156:15,22
case-by-case 167:18	certificate 16:22,23 17:3	circumstances 36:9 39:17 41:11 46:4,5,11 53:2 132:10 134:11 184:24 189:17 212:1	closures 16:2	compared 19:17 20:20 156:7 157:4 184:19 188:11
cases 60:21 191:12 192:8	certification 16:13, 20 17:7 55:3	cisgender 67:2,6,14, 17,18 68:8 70:7,10, 11,16,21,24 76:18 108:24 109:1 111:9, 10,12,14,17 129:12 130:10,12 154:24	co-authored 80:13	comparison 162:8 178:20 179:3 198:15
	certified 16:10	cisgendered 132:13	co-authors 81:12	competency 165:12
	cessation 171:9	citation 214:23 215:1,2 217:9	code 195:11	competent 56:24 57:9,15 164:19,21
	change 23:12,16 94:21 103:8 104:18 207:10	cite 214:4 215:15	codes 195:10	Complaint 210:13,14
	changed 93:24 94:11,13,15 102:10 109:19	cited 87:11 214:3,17	cohort 88:13,22 89:10,13,14 97:9,17, 23 178:7 185:19	Complaints 211:6
	changing 103:12	citing 198:18	coincided 12:8,10	complete 48:5 54:1 55:9,12 93:8 94:24 142:2,6 160:21
	chapter 200:14,19,22 201:11	clarify 126:19	colleagues 50:20 55:21 110:17 116:3 122:18 123:2	completed 13:11,13 15:17 19:20 92:11 94:23
	characteristically 108:24	clarity 177:15 179:7	colleagues' 122:21	completely 135:9
	characteristics 47:8 49:5 54:13 107:10,12 114:4,10 115:10,20 211:19	classification 97:3 198:16,18	collect 94:4	completion 17:4
	characterization 137:12		collectively 111:21	complex 128:1,2
	check 32:4,11 140:20		comfortable 71:8	complications 91:4
	chemical 33:11,20 35:24 36:2,9 37:2,14 38:4 43:19		comment 181:19 196:14,16 197:23 201:13,20	comply 106:1
			commenting 196:17	component 15:5 25:18
				components 15:9

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: comprised..decreased

comprised 101:19	congenital 133:21	104:6 112:1 129:23 135:1,5 142:18,19 149:24 151:16 205:9	198:20 200:12 201:5, 6 213:10	curious 80:17 124:11
comprises 102:9	congruence 172:24 192:3 211:18	continue 180:18,22 205:10,17	cosmetic 37:5	current 92:21
compulsive 121:6,15	congruent 115:14 116:20 118:12,14 213:1	continued 62:5 124:19 197:6	cosmetically 134:3	curriculum 29:13 56:6,13
con 31:17	congruous 129:24	continues 108:14	counsel 7:13 29:24 177:15 179:6 208:18	custodial 190:15
conceivable 82:24 88:17 91:2,9,17 117:2,5	conjunction 64:13 92:8 138:23 145:13	contract 31:17	count 140:5,21,23 149:3 175:6,10,12,24 176:8	cut 10:21 11:9 106:5 110:23 132:21 163:2
conceive 136:11	consent 163:18,23 164:4,5,7,10 165:3 168:15,18 189:7 190:10,12,18	contralateral 132:16, 17	countries 195:20	cuts 9:8
concern 140:22 151:13	conservative 20:21	contributes 129:9	country 24:21	cutting 117:24
concerned 73:9	consideration 180:11	control 80:18 87:23 189:1	couple 101:16 203:6 214:1	CV 61:16 91:19 99:13
concerns 73:16 150:3 166:16 187:6, 11 190:4	considerations 74:15 86:7,16 165:10, 11	controlled 79:24 82:3 83:3,5,17,18,20 85:21 88:12,22 89:4 178:8	courses 56:14	Cyrus 7:23
conclusion 176:18 178:9	considered 40:23 41:4,9 42:6 43:21 44:24 49:3 70:23 97:24 122:12 134:13 136:5	controls 184:19	court 7:2,10,16	<hr/> D <hr/>
condition 34:15 36:6 37:13 48:5 75:18 115:1,5,7 116:16 118:24 119:2,6,20,22 120:3,4,11,18 122:13 129:10 134:12 137:5, 9 140:8 141:13 142:20 153:16 166:13 194:2 195:6	consistent 19:15 28:24 30:4 50:11 86:6,19 87:12 115:14 135:20 198:22 199:8 200:5 206:5	cord 128:20	cover 31:19 72:14	Dan 78:13
conditions 35:1,13 36:24 37:1 38:13 44:21 49:12 73:7 75:1,2 119:13 121:4, 8,10,11 133:5 135:19 136:1 143:7,16 145:21 146:4 157:10, 14 166:11,17 212:8	constellation 65:20	core 29:12	coverage 31:1 34:19, 20 47:1 49:10 58:17, 19,24 59:14 60:7,8,24 67:7 68:12,16,20 69:2,12,22 70:19 71:5,13,19 72:2 74:14,19 76:13 193:10	data 93:7 94:4,6 98:15
conducted 34:14 83:9 91:22 99:6	construct 106:4,7 129:1	cornell 214:8 215:22 216:19	coverages 68:1	date 7:5 96:10
conference 91:12	constructed 134:3	corporeal 128:18	covered 31:16 34:17, 23 35:24 36:7,10,15, 19 39:3,7,9 58:14 60:3 64:5 65:11,14 66:3,21 136:19	David 7:22 8:20,21 9:17 10:1,4 11:8 14:6 30:2 61:21 62:6 80:20 124:13,20 130:17,23 131:7 177:18 179:9 185:14 197:1,17 208:22 209:3,8 216:16 218:6
conferences 50:20 91:13 123:5 185:3	construction 127:19 170:1	correct 9:5 11:8 12:5 16:8,10 17:14 18:24 24:5,6 26:10 28:10 30:12 33:3 35:6,14 37:6 41:7 54:20,23 57:16 66:13 78:22 81:13,24 82:5 85:4 88:14 100:14 102:10 105:20 107:3,16 108:20 118:4 121:22 128:17 129:2 131:18, 19 134:1 135:15 143:5 148:11,15,22 149:19 167:20 175:24 182:22 183:13 184:19 189:3 195:11,15 196:13 198:21 199:14,16 203:23 204:6 213:16,23,24	covering 31:7,22	day 29:3 114:8 180:17
confidence 189:24	consult 205:2	correction 177:8,11, 12 178:2 179:10,19 208:21 209:2	covers 62:24 63:4	day-to-day 60:5
confidential 197:22	consultants 166:21	correctly 96:11 177:3,5 178:15,18	COVID 15:23 16:3	December 14:17
confirmation 13:15 19:5,11 20:19 21:1,7, 13 22:23 23:4,19,21 24:12 30:11	consultation 171:13 205:3		crazy 131:3	decide 165:14
confirming 20:6 26:5 30:15 32:1 65:18 86:1,10 166:8,9	contact 190:3 205:24 206:13,21 207:2,3,16		create 128:5	decided 94:17
	contained 90:13 200:14		criminals 113:6,13	decision 53:1 78:22 136:13 138:13,14 139:16,18 150:4 158:4,5 164:19,21 176:24 178:12 191:21 203:12 211:23
	contemporaneously 101:6		criteria 95:9,13 96:16 99:18 137:10,16	decision-making 139:14 153:6 165:18 168:9 213:20
	context 76:1 77:5 79:13 89:17 102:5		crossing 113:19	decisions 153:21 213:7
			Crouch 7:9 8:1	decline 172:4
			crystal 81:17,18	decrease 144:8
			CT 153:7	decreased 143:21
			cure 118:15,22 149:13 172:17	

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: dedicated..divided

144:7	164:17 165:24 166:10 206:7 213:18	determined 45:24 105:10	diagnostic 119:4 137:10,16 140:7,10 195:11 198:8 199:10	discussion 51:3 147:14 152:16 154:11,16 162:22 189:18 194:21 201:12 212:2
dedicated 25:15,24 26:9,12	depends 37:10 52:5 53:1,6,15 83:4 103:5 108:5 138:12 159:7 182:24 192:8 212:8 213:3	determining 79:9 139:2 152:6,11 154:13	dictates 36:19	discussions 110:5 170:20
deeming 38:22	deponent 44:8 62:2 77:3 124:16 131:1 197:4 218:9,15	detransition 207:20 209:21	didactics 15:11	disease 129:19
deems 157:13	deposition 7:7 8:3 9:1,3 179:12,22 185:16,22 197:7,15 209:12,19 216:18,24 218:14	detransitioned 208:2,14 209:16	differ 154:7 178:23	disfigurement 40:20 41:5
defendants 7:23 8:16,22	depression 121:1	Detransitioners 208:14 209:17	difference 187:17	dismissed 18:9
defer 110:17	dermabrasion 33:18 38:11,13,16,22 39:1, 5,13 41:6,9 43:9,20 44:4,17	detransitioning 207:18	differences 176:16 198:23 199:9	dismorphea 121:19
define 101:17	describe 41:21 99:5 101:10 103:15 132:24 137:3 205:22	develop 58:12,17,19, 24 92:6 104:1,9 110:7	differentiate 102:1	disorder 120:22 121:6,16,21 122:1,5, 9,12,14,16,20 123:1, 7,9,24 124:4 174:23
defined 79:16	design 79:20 83:17 97:21 178:8	developed 24:3 110:21 111:2	differently 109:17	disorder- 180:2
definition 80:2 107:9 111:5 164:5,7,9 168:22	designated 105:7	developing 17:7 59:13 160:11	differs 101:12	disorder-related 179:1
definitions 80:4,8	designation 157:2	development 55:19 56:3,5,12 58:7,9 105:15 110:12 187:4	difficult 176:12	disparate 117:17
definitive 32:4,12	designed 15:7 42:11 88:9 96:18 98:3 196:16	developmental 56:9, 16	difficulties 16:2	disruptions 169:8
degeneration 46:10	desire 192:1	deserving 17:7 59:13 160:11	difficulty 9:10	dissatisfied 206:15
degree 26:23	desires 211:15 213:16	development 55:19 56:3,5,12 58:7,9 105:15 110:12 187:4	dilate 170:2	disseminated 195:24
delayed 169:8	desistance 125:8,11, 15,20	devoted 25:21	dilation 170:7	dissemination 195:24 196:3
delusion 164:23	details 9:7	Dhejne 184:8 185:20	dilatation 170:7	distinction 157:6
demonstrated 178:24	determination 39:4 53:8,14 138:24 145:14 146:18	diag 137:15	direct 61:17	distinctions 187:2
denial 62:11,12	determinations 114:23 144:1 213:22	diagnose 54:17 110:17 122:4 123:18 137:7,13,14,19 141:24	director 11:20	distort 40:19
denials 60:7,24	determine 61:4 69:21 105:13 136:16 142:14 143:20 149:18 150:8 151:1,18 152:3,8 154:15 162:20 164:20 182:20 183:12,20 192:21 193:3,13	diagnosed 194:1	directs 216:11	distortion 42:4,8 43:6
denied 69:12,22 71:5		diagnoses 57:3,10, 16 58:3,6 116:6 117:14 119:10,12,23 120:1,6,14,19 137:15 195:19 199:11,14 202:4	disagree 114:5	distorts 41:4
deny 85:11 87:21 89:5 108:3 181:24		diagnosis 69:13,23 76:9 115:23 116:1,4 118:12 119:8,18 120:10 124:8 125:23 129:10,23 138:5 139:11 140:12 141:3, 15 142:9 143:9 146:10 174:18 176:21 193:12,23 195:6 199:2	disagreeing 106:15	distress 40:22 41:5, 14 43:1,9 45:15,17 47:4,12,24 48:24 49:24 50:23 51:10,22 52:20 54:6 115:8,18 122:2 123:14 171:16 195:1,5 198:16
denying 68:12,20 87:19			disassembled 128:21	distribution 196:11 197:23
department 7:24 12:22			disciplinary 17:22	District 7:10,11
depend 34:13 38:18 39:16 41:17 42:21 43:12 46:3 47:7 50:6, 12 51:17 60:10 83:16 84:9 97:21 112:18 134:10 149:4 156:8 160:4 167:8 170:12 183:14,16 191:15,22 192:17			discipline 17:22	diverse 101:11 200:8 201:1
depended 95:24			disclaimer 196:15	divided 186:24
dependent 213:12			disclose 173:11 179:23 182:5,9	
depending 27:6 49:4 82:14 103:9 132:10 133:13,19 153:24			disclosure 9:2	
			discrepancy 136:3	
			discuss 49:10 151:21 170:11 172:10 173:13,15	
			discussed 30:5 47:9 74:13 86:7 122:23 123:2 132:4 171:5 188:15 198:8	
			discusses 50:15 52:24 209:24	
			discussing 39:12 135:20	

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: DNA..expressly

DNA 102:13,16,21	115:6,7,12,24 116:17 117:2,3,9 118:19,22, 23 119:2,5,9,15,17, 19,22 120:7,11 125:8, 12,24 127:9 129:5,15, 16,23 132:1 137:16, 20 138:5,20 139:3,9 140:10,13 141:3,15, 24 142:15,20,21 143:3,11,13,21 144:9, 16,22 145:4,18,24 146:8,11 154:15 155:17 157:6,15,17 158:19 159:6,12 161:2,5,6,11,21 162:1,15,18,21 166:14 169:5 171:24 180:8,10,11 182:6,14 183:18,20,22 184:4 188:16 192:24 193:6, 9,13,16,23 194:2,10 195:7 198:9,15,24 199:2,16,23,24 200:9 201:2,24 202:4,9,15, 21,23 208:12 209:14 211:22	161:14,17	ethics 86:16	exclusions 72:9 73:4,20 77:7,9
doctor 8:21 10:5,9 14:7,16 17:11 26:22 29:24 62:1,7 74:16 78:7,10,11,15 81:4 84:11 101:8 124:15, 21 131:8 158:6 179:23 197:3,18 198:6 209:21 217:3 218:7	dysphoric 157:23	efficacy 88:24 89:11 99:7 122:16 182:17	etiology 137:5	excuse 44:3 63:7 66:3 71:10
document 64:20,22 65:6 69:1 80:13 104:7 195:18 198:2,4 199:4 201:10,14,19,21	E	efficiency 9:23	evaluate 41:11 84:15, 18 100:22	exhaustive 46:16,17
documents 69:10 80:17	e-mail 11:12	eighth 195:14,22 197:20	evaluating 89:22 100:2 141:23	exhibit 177:17 179:10,12,22 185:15, 16,22 186:1 197:7,16 199:8 208:19 209:9, 12,19 216:18,24
Donald 113:10,16,20	ear 27:9	elaborate 123:24	evaluation 78:18 79:15	exhibits 179:7
door 205:24	earlier 20:20 74:14 118:11 198:1 203:9 211:15	elect 212:11	Evans 7:3	exist 73:20
dose 125:4	early 14:20 104:2,10 187:2	electrolytes 140:5 142:11	events 37:4 56:20 59:8	existed 11:24
double 66:12,18 67:12,14 68:12,21 69:12,22 136:23 137:23 139:3,9 154:22 155:1,5 212:14,16	echo 87:7,8	elevate 149:12	everyone's 109:1,13	existence 14:9,12
double-blind 84:5,13 85:8,13,22	education 15:10 25:6,13 26:5,22 27:12 59:7,17 185:4	elevated 145:1	evidence 78:18,20 79:1,3,4,6,7,16,19,22 80:12 81:23,24 82:8, 15 83:23 84:8 85:24 86:10,18,22 87:11,16 88:4,11,18 96:24 97:17 98:1 100:2,5	expectation 172:13
draft 195:21 196:12 197:11,20,22 198:7 199:3 201:10	educational 56:20 57:21 59:8 123:5	eliminate 160:10	evidence- 78:21	expectations 90:6,8, 10,14 92:14,16 93:10 98:4 146:22,24 154:9, 10 180:18 194:21 213:15
drainage 169:23	effect 42:19 135:8 214:5 215:5 216:21	emancipated 165:3	Evidence-based 81:8 197:8	expects 109:10
drains 169:22	effective 122:13 123:12,22,23 124:1,6 162:21	emergency 207:3	evolve 202:5	expenses 37:18
driving 131:3	effectiveness 123:16 161:13	emotional 43:1,9	evolving 167:2	experience 15:12 27:12 43:8 68:9 114:17 117:11 193:8, 22 195:1 199:23 200:9 201:2,24 202:23
Drug 174:17	effects 144:8,15	employed 10:10,11	exact 21:14 93:15	experienced 190:21 204:20
DSM-V 57:1,9 119:5, 10,12,17,19,23 120:1, 6,14,19 198:15		employer 31:19 94:13,14	exam 194:18	experiencing 123:15 154:23,24 194:1
due 86:7 132:6 170:16		employment 11:4	examination 8:19 136:15 213:13	expert 9:2 60:2 78:17
duly 8:17		encountered 70:14 108:8	examine 153:15	expertise 24:1 110:11 199:13
Dyscrasia 81:10,11		encourage 181:23 184:3 190:1	examined 77:22 78:5 174:21	experts 116:7
Dyscrasias 197:10		end 38:20 163:8	examining 153:22 176:7	explain 89:15 127:14 131:20 155:2
dysmorphic 121:21 122:1,5,8,12,13,16,19 123:1,7,9,23 124:3		ended 32:1	exams 183:9,10	exploration 29:20
dysphoria 54:17 62:16,24 66:5 75:15 98:9,12,19,22 99:2		Endocrine 124:23 125:7,21	exclude 72:13 99:17	explore 90:5,10
		enlarge 82:7	excluded 66:3 72:6 75:6,8,14,23 76:8,17 95:7	exposure 26:4
		entails 15:1,3	excludes 73:11	express 203:18 213:4
		entire 24:15 168:12	exclusion 60:21 62:9,15,19 63:10,15, 22 65:10 68:15 69:3, 17 70:1 72:16,19 73:1,9,13,14,24 74:3, 9,11,22 75:5 77:8 95:9,13 96:16	expression 102:3
		entirety 125:3		expressly 196:14
		entitled 71:13,19 72:1 179:13 185:17 197:8 209:13 216:19		
		enumerative 135:10		
		estimate 21:8 22:17 23:6 30:19 93:13 149:21 205:14		
		et al 7:9		
		ethical 85:22 89:5		

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: extend..gender

extend 92:24	214:9	floor 170:4	21 107:4,18,24	freely 16:5	
extended 168:1	family 26:3 67:19 172:15 189:16 190:2	fluid 103:3,15 169:7	108:10,21 109:12,20 110:2,10,16,22 111:3, 8,18,24 112:5,13,17, 24 113:7,14 114:19 115:2,11,22 116:14, 24 117:13,23 118:10, 17 119:1,7 120:8,16 121:20 122:3,10 123:10,17 124:2,7 125:9,13 126:2,24 127:3,10,22 128:8,21 129:7,20 130:3 131:12 132:8 133:4, 18 134:9 135:16,24 137:2,11,18 138:1,10 139:4,10 140:3,11,16 141:1,11,20 142:4,16 143:6,14,22 144:10, 17 145:19 146:1,9 147:7,22 148:5,12,16, 23 150:10 151:8 152:4,9 153:1,10,20 155:21 157:8,24 158:20 159:13 161:8, 15,22 162:12 163:12, 19,24 164:11 171:20 172:9 176:1,11 177:4 179:5 180:6 182:11, 23 187:10 189:4 190:23 191:14 192:5 193:18 194:13 195:4 199:15 201:9,17 202:2,10,18 203:16 204:5,24 205:13,21 206:17,20 207:19 208:3 209:22 210:8, 19 211:3,4,11,20 212:20 215:12 216:2, 6 217:7	fluids 144:3	frequency 194:8
extent 41:18 74:23 78:9	fashion 99:16	focus 49:17 52:3,24 69:17 72:16 90:22 91:3 123:19 126:6	8,18,24 112:5,13,17, 24 113:7,14 114:19 115:2,11,22 116:14, 24 117:13,23 118:10, 17 119:1,7 120:8,16 121:20 122:3,10 123:10,17 124:2,7 125:9,13 126:2,24 127:3,10,22 128:8,21 129:7,20 130:3 131:12 132:8 133:4, 18 134:9 135:16,24 137:2,11,18 138:1,10 139:4,10 140:3,11,16 141:1,11,20 142:4,16 143:6,14,22 144:10, 17 145:19 146:1,9 147:7,22 148:5,12,16, 23 150:10 151:8 152:4,9 153:1,10,20 155:21 157:8,24 158:20 159:13 161:8, 15,22 162:12 163:12, 19,24 164:11 171:20 172:9 176:1,11 177:4 179:5 180:6 182:11, 23 187:10 189:4 190:23 191:14 192:5 193:18 194:13 195:4 199:15 201:9,17 202:2,10,18 203:16 204:5,24 205:13,21 206:17,20 207:19 208:3 209:22 210:8, 19 211:3,4,11,20 212:20 215:12 216:2, 6 217:7	frequently 66:11 116:5	
external 101:21 105:8,9,16 106:20,23 107:2,6 115:15,20	fat 33:16,22 133:7,9	focused 95:5 198:13	full 9:16 10:5 93:23 170:1		
extremity 29:10	feasible 85:23 87:22 88:2,10	focuses 29:5 51:16 73:23	full-fledged 13:8		
eyelid 42:4,9,10 43:6, 23 44:1,10,11,13,14	features 40:19 41:4	folks 13:19	fun 45:16		
eyes 81:18	feedback 196:4	follow 180:19 205:20 206:12,15	function 39:23 40:14, 21 42:13,14,19 43:7 44:1,14,20 90:11 92:16 142:11 174:21		
F	feel 124:12,14	follow-up 92:22,23 93:1,5 183:6,11 185:17 205:23 206:11	functional 42:5,6		
F-A-C-Q-U-E 14:2	feels 184:4	football 107:16,19 108:1,3,5	functionality 135:23		
face 35:3 37:13 40:5, 7,9,21 44:20,21 46:23 95:7 100:6 134:20 136:4	fellow 14:10,21 16:1 19:21 20:1	Footnote 214:23	functioning 40:18 42:11		
facial 34:2,6,11,21, 22,24 35:1 37:3,5,17, 21 40:1,19 41:3,4 45:2 46:22 47:3 133:9 149:23	fellows 17:2	forearm 151:4,9,14, 17	future 202:5		
facial 34:2,6,11,21, 22,24 35:1 37:3,5,17, 21 40:1,19 41:3,4 45:2 46:22 47:3 133:9 149:23	fellowship 13:1,2,9, 10 15:1,2,8,18 16:7 19:21 25:20,23 55:15	Forenote 214:23	G		
facility 170:14	felt 213:1	forearms 134:21	gain 26:4		
Facque 14:2	female 109:8,11	forget 159:18	gained 187:20,23		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	field 26:5 57:20	forgetting 64:17 203:13	gamut 158:23		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	fields 166:24	form 9:21,22 15:6 17:1,9 19:13 21:2,21 22:5 23:5,13,23 25:8 26:17 27:5,19 28:12, 23 29:7 32:10 37:7 38:24 39:20,22 40:14, 18 41:8,24 42:13,14 43:3,11 44:19 46:2,8, 12,19 48:3,16 49:2,8 50:2,9,17 51:1,12,24 52:11,15,21 53:12,22 54:10 57:4,11 58:5 60:19 61:6 63:1,6,7 64:24 65:15 66:6,22 67:9,13 68:2,14,24 69:8,15,24 70:6,13,20 71:14,20 72:3,22 73:5,12,22 74:8,21 75:7,16,24 77:1,15 78:19 79:12 83:11,14 85:5 86:3,12,24 87:5, 18 88:6 89:1 91:16 92:4,20 97:1,19 98:13 100:19 101:4 102:11 103:4,13,19 104:5,13, 20 105:11,21 106:8,	gangrenous 130:6,8		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	figure 196:19 197:2	formation 127:17	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	finding 147:6,21 154:3	formed 42:15	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	findings 132:2 146:21 213:22 215:18	forms 171:24	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	find 60:11 74:16 91:14 181:17 182:12 183:4 184:22 185:10 200:17 214:12	Fortunately 119:3	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	final 199:4,5 201:13	found 131:16 180:1	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	finally 201:21	frame 95:15	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	find 60:11 74:16 91:14 181:17 182:12 183:4 184:22 185:10 200:17 214:12	frames 188:14	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	findings 132:2 146:21 213:22 215:18	framework 76:20,21 79:5 84:7 85:14 86:17 100:1	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	finding 147:6,21 154:3	Francisco 13:21	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	find 60:11 74:16 91:14 181:17 182:12 183:4 184:22 185:10 200:17 214:12	free 98:6	gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 85:2 86:1,5,10, 19,23 87:12,17 88:5, 24 89:11 90:6,11,14, 17,24 91:4 92:14,17 98:4,9,12,18,19,22 99:1,7 101:11,12,22 102:1,2,5 103:1,2,3,7, 12,15,18 104:2,3,4,9, 11,18 105:19 106:6,9,		
fact 12:18 76:16 84:17 105:23 120:2,11 121:9,10 149:11 157:12 167:2,24 180:13 181:21 182:7 183:23 188:4,16 196:16	findings 132:2 146:21 213:22 215:18		gender 11:20,23 12:17 13:1,15 15:19 16:13,24 17:7 18:14, 17,23 19:4,10 20:6, 18,24 21:6,12 22:23 23:4,18,21 24:11,12 25:6,17,21 26:5,16,18 27:6,17 28:3,15 29:6, 22 30:11,14 31:24 33:2 36:5 54:17 61:10,12 62:11,16,18, 20,21,24 63:15,22 64:1,4 65:18 66:4 70:9 72:20,24 73:1,3, 11,23,24 74:4,20,22 75:15 76:14 77:14 80:11 8		

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: Gender-..Huppert

11,17 108:6 109:18, 23 110:7,9,12,15 112:4 115:4,5,7,9,12, 13,19,23 116:11,17, 23 117:2,3,6,9,11,12 118:3,6,18,19,22,23 119:2,5,8,15,17,19,22 120:7,10,13 125:8,12, 23,24 126:17,20 127:9 129:4,23 132:1, 6 133:2 135:2,6 136:24 137:16,19 138:5,20 139:3,9,21, 23 140:1,2,10,12,24 141:3,10,15,19,24 142:3,15,20 143:2,11, 13,21 144:8,15,22 145:4,18,24 146:8,10, 20 147:19 149:7,15 153:13,19 154:14,19 155:17,24 156:7 157:5,15,17,23 158:8, 12,15,18,23 159:6,12 161:1,4,6,10,21,24 162:1,11,14,15,17,18, 21 165:12 166:4,9,14 167:19 169:5 171:24 172:7 174:18,22 176:20,22,24 178:10, 12 180:8,10,11,15 181:15 182:6,8,14 183:18,20 184:4,17 188:3,16 190:11 192:4,20,23,24 193:2, 6,8,9,13,15,16,17,22 194:2,9,10,11,24 195:2,6,8,10 198:9, 15,17,23,24 199:2,16, 17,19,22,23,24 200:8, 9 201:1,2,24 202:4,8, 9,14,15,16,21,23 204:23 208:12 209:14 210:1,6,11,18 211:2, 9,17,22 213:1 214:5 215:5 216:21	114:1,9 generalized 120:22 generally 122:12 131:22 generally-accepted 82:21 generic 17:11 genetic 67:18 genital 12:12 65:22 95:6 191:2 genitalia 101:21 105:8,9,16,18 106:20, 24 107:3,6 134:21 genitals 115:21 give 32:4 93:14,15 103:21 108:7 111:6 114:13 131:1 200:19 glands 128:19 glib 150:17 glitch 86:5 global 59:7,17 195:17 go-forward 89:19 goal 138:6 148:22 149:3 150:16 172:19, 24 goals 146:22,24 147:6,9,20,23,24 148:1,2,15 149:2,5, 19,21 150:3,5,8,22 151:1,3,5,18,19,20,21 152:1,3,8,11,15,16,24 153:3,8 194:20 213:15 gold 83:3,10,19 84:6, 14,21 good 7:2 124:13,16 148:9,10 184:16 186:5 196:5 197:1 Grade 100:1,7,12,15, 21,24 101:2,7 grades 101:7 grading 80:22 100:23 gradual 22:15,16 graduate 14:17 graduates 25:24	grafting 33:22 grafts 35:10 group 101:11 107:11 113:22 189:2,6 groups 112:7,12 113:5 178:23 187:2,3 188:10 guarantee 171:15 guardian 189:16 190:13,14,16 guardians 189:22 guess 12:10 13:7 102:20 131:6 151:17 190:12 217:4 guide 168:9 guided 183:10 guideline 58:9 guidelines 58:8,12 59:14 64:23 100:13, 22 122:6 124:23 125:3 187:15 gynecology 26:3 27:9	health 7:24 54:19,22 58:8,14 62:24 64:11, 16 90:16,23 91:3 120:2,12 121:3,10,11 153:24 164:17 165:2, 22 166:5,7,11,17,19 167:6,13 174:10,20, 24 175:5 176:23 178:11 179:1,14 180:3,23 181:22,23 182:1 183:24 184:5 188:6,24 189:13 194:22 198:18 203:1 healthy 129:5 137:1,4 hear 9:8 10:21 168:7 193:1 206:18,19 heard 8:22 100:3 107:17,23 108:2 111:16 112:22 hearing 130:19 heart 144:6,22 145:1 helpful 143:8 172:1 helping 58:17,19 helps 143:24 151:18 hemi 35:6 hemifacial 35:2 133:5,6 136:1,2 hemoglobin 140:20 149:12 hide 196:8 high-quality 79:23 82:2 higher 97:17,24 98:1 highlight 198:13 highlighted 178:5,6 199:8 200:24 Hispanic 113:12 Historically 106:22 108:23 history 67:19 166:17 194:18 213:13 hit 173:24 hold 60:2 home 190:2 215:20 216:8	Hontscharuk 14:3 hope 151:24 160:24 182:24 hoping 96:13 hormone 63:4 149:2 174:22 hormones 105:14,15 125:5 hospital 10:12,14,20, 23 11:17 15:13 94:13, 14 154:5 205:7 hospitalization 175:1,22 hospitalizations 176:9 179:2 180:4 hour 61:22 hours 196:23 housed 12:21 https 215:6 Human 7:24 humans 113:2 hundred 110:1 Huntington 7:12 Huppert 8:5,6 9:19 10:2 15:6 17:1,9 19:13 21:2,21 22:5 23:5,13,23 25:8 26:17 27:5,19 28:12,23 29:7,17,23 30:3 32:10 37:7 38:24 39:20 41:8,24 43:3,11 44:6, 19 45:19 46:2,8,12,19 48:3,16 49:2,8 50:2,9, 17 51:1,12,24 52:11, 15,21 53:12,22 54:9, 24 55:5 57:4,11 58:5 60:19 61:6,24 63:1,6 64:24 65:15 66:6,22 67:9,13 68:2,14,24 69:8,15,24 70:6,13,20 71:14,20 72:3,15,22 73:5,12,22 74:8,21 75:7,16,24 76:11,24 77:15 78:19 79:12 80:15 81:3 83:11,13 85:5 86:3,12,24 87:5, 18 88:6 89:1 91:16 92:4,20 97:1,19 98:13,20 99:3 100:19
H				
H-A-M-I-D-I-A-N 14:5				
H-O-N-T-S-C-H-A-R- U-K 14:4				
Haack 197:10				
half 20:16				
halfway 178:4				
Hamidian 14:4,5,16				
hand 192:18				
handle 80:17				
happen 108:14 216:17				
happened 32:8 108:13 131:5				
happy 61:24 81:1				
head 186:23 194:6 200:20				
healing 147:1 169:8				

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: hygiene..inhibited

101:4 102:11 103:4, 13,19 104:5,13,20 105:11,21 106:8,21 107:4,18,24 108:10, 21 109:12,20 110:2, 10,16,22 111:3,8,18, 24 112:5,13,17,24 113:7,14,23 114:12, 19 115:2,11,22 116:13,24 117:13,23 118:10,17 119:1,7 120:8,16 121:20 122:3,10 123:10,17 124:2,7,10,14 125:9, 13 126:2,24 127:2,10, 22 128:7 129:7,20 130:3,21 131:12 132:8 133:3,18 134:9 135:16,24 137:2,11, 18 138:1,10 139:4,10 140:3,11,16 141:1,11, 20 142:4,16 143:6,14, 22 144:10,17 145:19 146:1,9 147:7,22 148:5,12,16,23 150:10 151:8 152:4,9 153:1,10,20 155:21 157:8,24 158:20 159:13 161:8,15,22 162:12 163:12,19,24 164:11 171:17,19 172:9 176:1,11 177:4, 15 179:4,11 180:6 182:11,23 185:12 187:10 189:4 190:23 191:14 192:5 193:18 194:13 195:4 196:22 199:15 201:9,17 202:2,10,18 203:16 204:5,24 205:13,21 206:17,20 207:19 208:3,18,23 209:7,22 210:8,19 211:3,11,20 212:20 215:12 216:2, 6,13 217:1,7 218:10	I i.e. 150:19 ICD-11 195:10 198:17 ice 38:14 39:2,5,14,24 40:12 43:22 44:9,12 idea 13:19 197:1 ideal 213:5 identification 179:21 185:21 197:14 204:17 209:18 216:23 identifies 119:5 identify 7:14 104:3, 10 109:24 125:16 150:2 163:4 206:23 217:23 identifying 105:3 148:19 identities 106:17 110:12,13 identity 76:14 98:18 99:1 101:11,22 102:6 103:1,8,12,18 104:2, 9,18 105:19 106:2,19 108:6 109:2 110:8,15 115:9,14,19 116:21 117:16,19 118:6,13, 15 129:24 138:7 139:23 140:1,24 141:10,19 142:3 153:14,19 162:15 172:14 173:1 192:4 211:18,23 213:2 II 88:11 96:24 Illinois 17:16 24:16, 18 30:18 31:6,10,20, 24 32:13 34:19 36:1, 15 illness 57:2 imaging 150:1,11,12, 19 151:9 152:12 213:14 impact 41:19 54:14 105:15 141:16 144:4 145:14 146:4 168:5 impacted 172:16 implant 105:3 203:19	206:11 implants 103:23 204:4,15 implications 42:5 167:15 imply 148:13 implying 75:12 importance 148:17 167:22 188:20 important 152:5 167:24 168:6 172:11 182:2 188:1,2,7 198:14 impressive 14:7 improve 121:4,11 improved 187:12,14, 16 inaccurate 107:14 inappropriate 87:21 inaudible 149:17 incision 147:2 169:23 incisions 147:1 include 46:17 65:21 99:17 101:20 102:3 183:12 213:19 included 29:12 78:10 80:23 95:17 99:22 217:24 includes 30:9 78:8 88:4 including 56:12 170:7 inclusion 95:12 incongruence 115:13 116:22 117:3, 6,11 118:3,5 120:13 162:1 174:19 176:21 192:24 193:2,8,15 194:10,24 195:9,10 198:9,17,24 199:17, 19,22 202:9,14 incongruent 125:24 incongruous 117:17 inconsistent 182:13 incorporate 99:19,20	144:18 incorporated 102:5 increase 21:18 22:2, 9,10,11,15,16,17 46:14 144:8 increased 22:7,18 23:9 129:13 143:21 144:7 155:8 156:3 160:8 increasing 147:17 independent 139:23 189:23 indicating 17:3 39:11 indication 49:13,23 51:6 98:21 115:4 117:1,9 120:9,10 121:5,15 122:19,24 131:23,24 133:13,20 138:21 149:16 155:15,19 162:13 169:5 180:7,9 188:15 193:6,17 194:11 202:3,21 indications 49:19 51:16 52:4,24 67:15 120:21 122:22 135:4 155:22 187:13 199:23 indicator 198:17 individual 31:17 39:16,21,23 40:15,18 41:10,15,20 43:5,18 53:2,9 54:14 66:13, 18,20 67:2,6,17 68:7, 8,21,22 75:20 77:6,12 83:18 89:19 98:15 101:24 103:5,7,9 106:2,10,12 110:4 114:1,4,9,20,21 115:17 121:24 123:15 138:14,15,17,22 139:12,19 154:12 162:23 164:12,13,18 165:15 173:13 180:15 183:23 189:21 190:18 191:6,15,22 192:22 194:17 202:22 203:17 211:15 212:1,3,5 213:3 individual's 105:10 117:16 140:8 141:13 individualized	213:23 individually 111:20 individuals 22:22 23:3,18,21 26:11 28:21 30:11 33:23 52:7 57:22,23 63:4 66:8,11 67:1,14,24 68:18 69:5,11,19,21 70:3,5,7,21 71:1,16, 18,22 72:1,7,10,14 73:21 74:10,12 75:8, 22 76:7 90:17 95:8,12 96:20 98:7,10 101:11 103:14,16 105:12 107:11,12 108:4 109:7 112:6 113:12, 18 115:3 118:20 120:17 121:18 124:24 125:16 128:13 132:23 138:4,9,11 140:18 149:9 152:18 154:6,7 155:4,7 159:2 160:7 161:7,9,20,24 162:3, 16 163:4 165:17,21 166:11,13 167:3,9 168:10 171:10 174:11,18 176:20 177:1 178:13 179:15 180:13 181:14,18,21 183:5 187:14 188:4, 19 189:10,11 190:7, 24 193:7 206:6,13 208:1,11 209:13 210:1 212:10 213:4 individuals' 13:24 ineffective 123:12, 13,21 Inequality 214:8 215:22 infection 135:8,13 169:7 influence 142:22 165:6 information 48:9 54:2,7 93:23 114:22 142:10 144:18 171:3 190:2,3,7 207:2,3,16 informed 163:17,23 164:4,7,10,13 168:15, 18 189:7 203:11 inhibited 43:18
---	---	--	---	---

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: initial..literature

initial 20:5 197:12	interesting 181:11, 17 188:8	iron 149:7,11	77:16 99:23,24 114:2	88:4,11 96:24 97:13, 17 98:1 140:20,21 143:10,13,21 154:14 183:20 207:14
initially 13:3	interfere 44:22	irreversible 127:21 128:11	L	levels 79:1,2,19,21 80:12 81:24 86:5,18 87:11 149:2,8
inject 33:10	internal 101:12,21,22 103:1 117:16 118:6	isolated 153:22	L-O-R-E-N 10:7	Levine's 78:10
injectable 33:8	Internet 91:14 196:13	issue 68:15 73:17 75:1 122:23	lab 139:1,5,11,20 140:4 141:4,9,12,16 142:13,17,22,24 143:4,7,9,18 148:21 152:8,23 153:18,22 171:6 213:13	license 17:19,21
injectables 33:5,19	internship 12:20	issued 177:8,9	labia 127:18 129:1	licensed 17:13 55:2
injections 33:16 34:2,5,10,22 35:13 37:17,21	interrelated 118:9	issues 60:6,24 135:22 141:4 146:15 168:5 170:6,7 171:4 173:3	labial 128:22	licensure 17:23 32:14
injuries 135:14,18	interrupt 9:20 22:14 76:24 133:4	itching 46:14	labs 139:22 140:5,6 141:6 152:12	lie 148:4,6
injury 135:19 169:9, 11	interrupted 94:21	IV 97:13	lack 68:16	life 104:19 108:12 167:16
innate 106:9,11	interrupting 54:10	J	Lambda 8:6	light 131:3
input 196:4	interruption 179:4	John 179:18	language 65:5 71:3, 11 72:6 74:6 75:17	likelihood 176:23
inside 150:8	interval 184:18	joined 12:1	large 34:1 173:4	likes 107:19
instance 35:5 66:10 84:24 113:9 114:14 131:9 133:14	intervention 45:4 46:23 47:2 75:9 98:8 117:7 120:23 121:2,7 123:1 138:22 139:12, 13,18 147:15 153:17 155:12 160:18 161:10 168:11 180:15 192:7, 14,15 211:24 213:9	joining 12:14	largely 170:20	liking 108:5
instances 135:12	interventions 44:23, 24 66:9 120:20 121:9 155:13 162:2,4 210:2 212:7	jointly 64:21	larger 173:22	limit 102:15
Institute 59:7,17	interviews 78:8	Journal 61:15 177:9	laser 36:14 37:14 38:7,9 46:23	limited 93:22
institution 17:3	introduce 179:7	Journals 50:19	law 60:15	lines 58:17 63:19 196:11
Institutional 94:9,10	invasive 159:4	judge 30:7 79:5 111:20	lawsuit 8:23	link 141:9
instruction 25:3,11	investigation 145:7	judgment 52:6	laying 191:4	linked 142:2 174:16
instruction 25:3,11	involutional 131:15, 18 132:3,15	judgment's 165:5	lead 40:20 129:22	links 141:19 145:17, 23 146:6
insurance 34:23 58:8,10,11,23 59:4,5, 10,12,18,20,24 60:6, 24 62:8 66:17 193:20	involve 15:10 18:13, 16	July 13:12 14:23 96:5	learned 28:8	lip 28:3,14 29:9 85:18, 20
insurance-related 171:4	involved 19:24 58:21 59:8 99:9,21 127:14 165:18,20 183:15 210:22 211:13	jumping 38:20	leave 14:19 205:24	lipofilling 33:21 133:9,11,15 134:1,6, 13,15,19
insured's 31:14	involvement 58:16, 19	June 14:22 96:5	lectures 15:11 56:20	liposuction 33:14,21
insurer 38:18 39:11	involves 30:14 127:16	JUVEDERM 33:7 38:1	legal 8:6 164:15 165:1 185:4	list 46:16,17 49:15 51:19 52:10,14,17 53:4,5,11,21 69:11 77:9 86:8 87:2,3 120:14 146:5
insurers 38:21 58:15 136:17	involving 56:21	K	lend 85:13 86:15	listed 89:8
integrity 147:2 176:3	IRB 93:24 94:2,8,15, 17,22	Karasic 78:14,16 217:3	lends 176:23 178:11	listened 113:4
intend 177:16 191:13		Karasic's 78:7,11	length 174:21	literature 48:11,21 49:7,9,14,17,22 50:8, 15,19 51:9,15,20 52:9,18,23 57:22 87:16 88:4 99:15
intending 80:17		kidney 142:11	lesions 46:22,24 49:10	
intention 92:24 196:18		Kids 32:19	lesser 88:12,21	
interact 43:14		kind 171:12	letter 39:11 207:8	
interacting 43:18		knowing 54:15 114:3	level 79:22 82:2 83:21,22 84:8 85:24 86:9,10,22 87:16	
interaction 52:6		knowledge 17:10 30:24 59:22 60:22		
interest 147:17				

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: Littman..microstomia

122:7,15 141:8,18 145:16,22 146:6 162:9 207:18,22 209:21,24 214:2 216:11	majority 95:8 189:10	208:19	62:15,23 63:4,13 64:6,9,12,21,23 67:8 68:11,20 70:19 71:4, 12,17,19,23 72:2,13 73:10,21 74:18 77:14	medically- necessary 85:12 133:11,16 134:7
Littman 208:1,6	make 39:4 41:1,15 42:20 57:2,15 58:3,6 62:2 114:22 115:23 117:14 118:11,14 119:8,12 120:1 124:8 138:24 140:12 141:2 142:9 143:24 145:14 146:10,18 150:4 153:12,21 157:1,6 164:19,21 173:22 185:12,14 199:1,11 216:16	marked 179:20 185:21,24 197:14 209:17 216:22	Medicaid's 61:5 63:11,21	medication 143:18
lives 103:18	makes 117:19	markers 162:20	Medicaid/aetna 65:2	medications 142:22
locate 206:23 207:1	making 78:22 115:19 116:20 118:12 209:9 213:7	marking 185:13 216:14	medical 15:14 16:16, 18 17:6 24:18,19 26:22 34:15 35:1,13 36:6 39:12 44:22,23 45:3 47:1,5,14 48:1,4, 11,21 49:7,9,11,14, 16,17,18,22 50:5,8, 11,12,16,18 51:6,8, 15,16,17,19 52:5,8, 18,23 53:1,6,15 56:4, 5,13,15 77:18 78:1 79:16 86:15 87:15 88:3 115:1 116:12,16 118:24 119:2,6,13,20, 21 120:3,4,9,10,11, 18,21 121:8 122:6 129:10 136:13,16 137:5,9 138:21 140:8 141:8,13,14,15,18 142:19 143:7,15,16 144:11,18 145:16,20, 22 146:4,5 153:16,21 154:1 157:12 162:2,9 163:21 164:3,7,22 166:13,20 180:19,23 188:7,24 192:7 193:14 194:1 195:6, 19 200:10 201:3 202:8 206:24 208:12 209:14,20 210:16,21 211:8,12,24 213:7,11	medicine 17:14 26:3, 22 32:14 78:22 85:10, 18,21 192:10
located 41:19 47:17	male 104:23 105:3,18, 19,22,24 108:9,16 111:7,9,10 204:17,19	mass 182:21	meet 170:3,10,23 189:15	members 92:8 112:7
location 54:12 165:8 207:10	male-assigned 109:2	mastectomies 67:15 76:5 156:2 157:9 158:7,21 159:1 160:1, 2,22 183:3	memory 77:11 184:21	men 107:16 108:1,3,4 111:12 138:2 191:1,9 212:14,16,21
locations 40:11 94:11	malignant 46:9 183:13	mastectomy 12:14 28:15 29:10 66:12,19 67:12,20 68:12,22 69:13,22 70:22 75:2, 13,15,23 76:8 95:6 126:14,22 127:8 129:11 130:11 132:14 136:23 137:24 139:3, 9 154:22 155:1,6,7, 11,14,23,24 156:6,7, 16,17,18,19 157:21 158:2,5,14,16 159:15 160:5,7,14,23 167:7, 10,17,18 173:2 180:17 182:20 189:11,20 203:10 212:14,17,22	mental 43:1,9 54:19, 22 57:2 62:24 90:16, 23 91:2 120:2,12 121:3,10,11 165:21 166:5,7,11,17,19 167:6,13 174:10,20 176:23 178:11 179:13 180:23 181:22,23 182:1 183:24 184:5 188:6,23 189:13 194:22 203:1	memory 77:11 184:21
logistic 171:2	malpractice 18:2	match 115:20	mention 66:11	mentioned 26:8 102:8 182:18 203:8
logistics 80:16	mammograms 171:7	matched 184:19	Merit 7:3	met 146:24 148:2
long 11:24 131:6	mammoplas 160:1	math 19:8 20:10	metabolic 142:2,6,7	method 91:24 94:5
Long-term 185:17	man 67:18 130:12 137:22 154:22 173:2 191:6 192:1	matter 7:8 67:18	methodologies 176:2	methodology 92:1,3 94:18 176:4
longer 33:13 38:9 205:18	manifestation 115:13 120:12 143:17 146:14	meaning 12:13 15:11 42:9 67:11 105:22 127:18 134:19 137:13 156:2 162:15 199:22 212:22	methods 152:11 153:2 174:14 175:16 176:5	metoidoplasty 127:13 191:19
longitudinal 176:21 178:9	manifestations 120:2 145:20	means 57:17 62:10 125:12 131:20 161:17 164:3 188:23	microderm 44:3	microsomia 136:2
looked 61:3,7,8 76:4 151:3 174:17	manner 83:7,9 91:9 141:7 142:12 151:23	meant 65:13	microstomia 133:6	
Loren 7:8 10:7 108:19,23 109:7,10	manual 119:4	measure 123:15 144:15 147:16 161:12		
loss 144:3 169:8	manuscript 82:19	measures 124:5 147:9,24 174:23		
lost 205:20,22	March 7:5	Medicaid 30:22 31:2, 5,20,24 32:15,22 34:6,12,19 36:1,16		
lot 143:1 154:21	marginalized 112:7, 11			
Lou 7:22	mark 177:16 179:9			
low 145:8,9				
lower 15:22 29:10 162:16 178:10 189:2				
Loyola 24:17				
lying 148:13				
lymph 158:14,24 159:2,4 183:2				
M				
made 45:16 116:6 125:6				
maintaining 94:5				
major 33:5,9				

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: offhand..performed

offhand 125:10	oral 29:14	parcel 28:1,16 29:11	22 149:6 150:2 151:19 153:4,23 154:5,8,12,17 158:6 162:10 164:20 166:2, 23 168:14,16,17 169:1,4 174:16 176:8 189:15 190:1 191:16 192:3,6,9,19,22 193:4 194:24 195:2 197:9 202:8,14 203:9,11,12, 20 204:2,7,10 205:5 206:14 210:5 212:2 213:15	pending 11:22
office 15:13 31:8,18 170:3 206:1,21	orchiectomy 65:24 128:10	Pardon 116:13 127:2 171:19 179:4	patient's 31:1 79:8 135:23 144:6 149:19 150:8 152:3,8 213:13	pendulous 173:4
office-based 15:10	order 23:6 131:14 143:10 195:19	parent 190:16 213:21	patients 22:21 23:3, 17,20 25:3 30:10 32:16,19 33:1,3,6 34:5 37:17 66:4 90:23 92:18 93:10 95:4,16, 17 98:23 99:4 114:16, 20 120:5 122:24 126:7,23 127:7 139:20 148:4 149:2 157:22,23 168:7 169:13 170:3,12 171:14 172:6,22 173:12,14 179:24 182:10,18,19 183:11, 18 184:17 187:8 190:21 191:8,12,17 204:20 205:6,10,17, 18 206:4,9,10,12,23 207:1,9 212:13,18,21, 24	penis 105:23 127:18 128:16,20,24 129:3, 17,18,22 131:10,16 163:8
officer 7:16	organ 129:22	parent/guardian 190:17	perform 21:6 31:16, 23 34:2 35:12 36:5 49:11,13 85:10 87:23 119:10,12,21,24 121:18 122:18 141:6 155:23 156:5 159:15 161:4 163:1,3,10 165:24 171:10 202:7, 16	people 13:9,11 16:5 23:10 46:20 66:4 70:10 71:13 85:11 87:19,21 89:5 93:7 96:4,14 98:17 104:1,9 106:13 107:2 109:24 111:20 112:11 113:5, 11,22 121:9 139:6 149:21 150:21 151:20 159:24 171:22 172:4, 6 175:14 180:22 181:23 182:7 183:2 188:21 192:12,15 196:13 200:8 201:1, 24 202:24 213:7,19
oldest 126:9	Organization 198:19	parental 190:10	perceive 154:6	
oncologic 69:2,10 74:14 75:2 76:12,13, 19,22 156:1	organization's 64:11	parents 189:22	percent 22:21 23:7, 17,20 30:10,13,19 33:1 37:23 38:2 91:20 125:22 205:14,15,16 206:23 207:1	
oncologist 159:16 180:19,20,21	organs 106:18	parliamentarium 36:22	percentage 23:2 30:16,21 34:4 37:16 38:3 205:10	
oncologists 116:6	oriented 165:4	part 13:17 25:9,10,12 26:19,21,24 27:10,24 28:4,6,7,16,20 29:11 33:5,9 40:20 44:20 56:4,5,12 57:5,12,13 91:18 100:18 102:6, 24 118:20 139:14 147:13 148:17 151:15 152:5 172:11 175:9 178:21 200:6,24 205:8 212:3	perform 21:6 31:16, 23 34:2 35:12 36:5 49:11,13 85:10 87:23 119:10,12,21,24 121:18 122:18 141:6 155:23 156:5 159:15 161:4 163:1,3,10 165:24 171:10 202:7, 16	
one's 76:14 101:20 102:6 105:8 108:6 115:13 116:20 138:6 153:13 168:5 172:14, 20 211:22	original 78:13 101:8 157:12 177:22,24 178:21 179:10 181:1	participants 96:13	perform 21:6 31:16, 23 34:2 35:12 36:5 49:11,13 85:10 87:23 119:10,12,21,24 121:18 122:18 141:6 155:23 156:5 159:15 161:4 163:1,3,10 165:24 171:10 202:7, 16	
one- 15:2	ostracized 43:15	participate 57:21 95:4 96:15 217:6	performed 12:19 15:4 18:22 20:19 21:19 27:7 29:1 33:23 35:15 36:6,20 37:9, 11,12 58:13 68:6,17 69:4,18 70:2,4 71:2,9, 10,16,21 74:24 75:18, 20 76:2 77:6 83:4,6 84:22 89:22 99:10 103:20 104:22,24 121:14 122:11 126:12,16,21 127:7, 11 132:6,9,17 134:4, 15,18,20 140:7	
one-year 15:7,20 92:23 93:5,21	otolaryngology 27:10	participated 89:24 90:4,5,7,15,21 91:1,6 93:11 99:10 217:14		
ongoing 18:10 92:15 180:14 182:2,7,16 183:6,24 188:5,22 205:4	outcome 70:18 89:23 147:9,24 148:8,9,10 168:6 174:23	participating 90:9		
online 91:15	outcomes 90:17,23 91:2 206:3	particulars 43:13 51:18		
oophorectomy 65:23 70:22 129:12 130:10 191:19	ovarian 130:11	parties 37:15		
open 67:21 95:11 205:24	overactive 35:14,16, 20	partner 213:21		
operate 44:5,18 163:4 165:15	overt 136:3	parts 132:11 151:2		
operated 193:7	P	party 31:1 34:20 36:8, 10 37:19 39:3,7,10 49:10 136:7,10,12		
operative 15:11 147:14 148:18	Pachankis 173:9 177:7 178:2 179:19	past 19:3 20:15 89:22 206:4		
opinion 136:15	pain 42:3 144:2 147:3 154:2,4,7 169:23 173:3,6	pathologic 132:2		
opportunity 98:6	palate 29:9	pathology 131:16		
opposed 89:20	pandemic 12:3	patient 18:14,17 30:17,21 42:24 43:8 44:2 81:8 90:6 93:9 103:20 104:21 128:4 136:15 139:2,8 146:22 147:4,6,8,9, 10,20,24 148:7,14,19,		
opposite 132:16	panel 142:2,6	pay 136:13,17		
opt 155:11 168:11 213:8	paragraph 20:4 22:20 101:9 198:12	payer 37:19 39:8,10 136:7,10,12		
option 128:13 212:6	paragraphs 200:3	payers 36:8,10 39:3		
options 66:14 67:21 138:23 192:11 212:11	parallel 190:5	paying 32:1		
	paralysis 35:3,6,8,9	pediatrician 189:12		
	parameters 91:3 146:4 147:2	peel 33:20 37:14 43:19		
		peels 33:11 35:24 36:2,10 37:2 38:4		
		peer 60:8		
		peer-reviewed 216:5,11		
		pelvic 170:4		

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: performing..prior

149:16 155:15 156:6 157:10 158:3,5 160:5, 7 163:14 166:24 178:20 190:20 203:10 210:4,6 performing 12:13 13:15 15:20 19:4,11 20:6,24 21:4,12 22:3 23:10 25:4 89:18 116:10 139:21 141:22 142:12 151:12 167:7 peri-operative 144:2 146:12 period 15:20 25:2 93:1,6 144:2 146:12 203:24 204:2 periods 187:18 permanent 128:10 person 14:23 43:14 44:4,15,16 70:11,16 71:10 75:12,14 76:17, 22 96:1 103:6 110:5 114:2 144:16,19 147:14 152:15 153:14,15 165:4,19 189:15 191:23,24 202:17 205:1 213:19 person's 103:7 105:19 141:10 212:9 personal 27:12 170:7 172:15 183:8 personally 201:7 Persons 185:18 perspective 62:17 pertaining 60:24 73:24 78:10 79:20 156:1 201:19 pertinent 141:12 PET 183:12 Ph.d. 179:18,19 phalloplasty 191:19 212:17,23 213:6 phallus- 163:14 Philadelphia 13:22 photographs 150:1 physical 114:10 115:10,15 117:17	118:7 122:2 135:14, 18,19 145:20 170:4, 21 194:18 213:13 physician 10:15,16, 23 11:7,15,18 20:3 49:4 52:6 53:8 55:2 60:5,22 79:4,5,7 136:14 138:14,24 139:18 144:24 171:1 185:7 189:13 194:22 physician- 183:9 physicians 13:7,8 120:5 pick 38:14 39:2,5,14 40:1,12 43:23 44:9,13 piece 48:10 87:15 pieces 52:8 pilot 92:13 93:9,19 94:19,21 96:18,23 97:8 98:2 99:21 205:4 pin 73:8 place 8:4 91:13 165:8 placebo 84:13 85:13, 22 86:16 87:23 88:8 placebo-controlled 84:5 85:8 plaintiffs 8:6,9,11,13 plan 64:17 65:11 74:18 118:21 190:20 191:4 planned 14:17 planning 177:18 plans 64:11 170:11 plastic 10:17,19 12:23,24 13:14 15:15 16:10 24:13 25:11 26:1,2,8,20,21 27:8, 10,11 28:1,5,16,22 29:1,11 36:21 54:21 55:3,20 61:15 86:4, 14,20 87:13 146:23 147:17,18 149:1 151:10 154:18 162:24 180:21 192:10 206:6 212:7 platelet 140:21 play 117:15 153:5	point 21:24 22:8 24:4 45:2 48:10,20 49:7,21 50:7 71:11 95:23 196:23 207:5 pointed 76:6 policies 58:18,20,24 64:9,13 66:17 71:4,23 72:4,13 policy 61:5 63:11,13, 21 66:1 71:12,17 72:8 73:6,11,21 76:20,21 poorly 97:23 211:14 popping 11:13 population 30:17,22 93:11 174:12,15 176:8,13,19 179:17 Port-wine 46:21 portion 33:12 34:1 74:17 128:19 portions 72:8,12 76:4 position 10:13,19 14:18 154:1 positive 188:8 possibilities 93:3 152:20 post- 142:13 post-oncologic 135:7 post-op 93:24 post-operative 15:12 94:24 144:12 149:22 159:24 170:20 187:16 post-residency 25:24 post-surgically 142:17 post-traumatic 36:12 134:12 135:7 posture 173:6 potential 46:9,13 121:12 168:4 212:11 potentially 169:22 183:13 power 79:24 82:4 84:2 153:24	practical 86:16 practice 13:18 17:13 19:18 22:22 23:12,17 24:1,3,5 25:9,17,18 30:9,14 32:24 33:5,9, 13 34:1 57:6,24 60:1 68:9 70:15 98:17 100:8,11,13,22 102:18 103:11 164:22 170:24 175:9 206:24 207:8,10 practicing 13:14 19:18 60:5,22 Practitioners 171:1 pre- 15:12 144:12 147:13 148:17 159:24 170:20 pre-op 187:15 pre-operative 93:20 94:3,23 95:14,20 150:1 151:22 165:16 167:12 170:11 171:5 pre-operatively 92:21 96:4 140:17 161:14,17 170:4 preclude 200:10 201:3 predict 202:5 predilection 156:4 158:22 predisposed 131:10, 13 predisposition 67:16,19 130:11,13, 15 predispositioned 136:21 predominantly 12:11 prefer 184:12 preferences 79:8 prefers 62:1 prehabilitation 167:2 prejudice 112:8 preparation 65:4	prepared 64:21,22 65:1 prepubertal 125:22 Prescribed 174:17 prescription 175:21 prescriptions 175:1, 12 179:2 180:3,9 presence 129:9,21 presentations 185:3 presented 91:7,10, 11,12 presents 202:14 preservation 128:14 169:17 preserve 9:22 preserving 163:15 president 113:5 pressure 145:5,8,9 pressures 110:8 117:12 pretend 81:9 prevent 182:2 preventing 129:15 160:24 previous 36:17 135:9 141:14 185:4 191:3 211:5 previously 168:22 199:21 primarily 162:22 primary 121:5 141:3 144:24 145:2,6,12 146:17 152:10 165:23 194:22 203:1 principal 152:11 153:2 162:17 principles 78:21,24 79:3 print 61:18 91:14 printout 216:14 prior 12:14 19:17 20:2 24:23 26:1,16 27:4 31:8,20 37:4 67:7 95:23 128:12 137:12
---	--	---	--	--

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: privileges..recall

139:6,21,22 140:2,7 141:17 149:10,11 165:12 166:1,2,4 167:7 187:3 210:11, 15 211:1,7	processes 168:9	provided 111:4 207:6 217:6	214:10	randomize 85:19
privileges 19:22	produce 128:4 169:18	provider 31:15 210:17 211:9	Q	randomized 79:24 82:3 83:2,5,17,18,20 84:5,13 85:7,21 88:12,22 89:4 178:8
problem 9:12 11:13 181:24 209:8	produced 86:9	providers 59:10	qualities 114:4	range 135:11 152:19 155:22 156:21 157:9 158:2,7 168:12 192:11 212:6
problematically 145:9	professional 24:15 54:20,23 141:4 145:2, 12 146:18 166:19,20 167:14 172:16 183:8 189:14 194:23	providing 25:3,6,13 29:19 54:1 101:3	quality 82:14 88:12, 21 97:24	rapists 113:6,13
procedure 27:7 31:16,19,23 36:18,20 39:6,15 41:16 49:13, 19,20,23 50:5 52:4 66:19,21 67:4 68:10 70:8,9 71:2 89:18,21 95:18,21 121:5,13 126:15 127:16 128:1, 2 133:12,17 134:4,7,8 148:3 155:18 162:6,7 163:21 166:1 167:19 169:2,6,12,14,15,19 171:15 193:21 203:13	professionally 56:24 57:8,15	provisions 60:13 61:3,5	quantification 175:16	rate 22:17 100:16 144:6,23 145:1 161:1, 6,20 189:1
procedures 12:19 15:4,18,19,21 16:6 19:5 20:15,16 21:19 22:2 23:9 27:22 28:2, 13,20 29:1,8 30:4 31:3,22 33:20 36:4 37:19 49:11,15 50:4, 12 52:3 65:11,13,21 66:2,24 67:3 68:16 69:18 70:24 74:24 76:5 84:16,19 126:12, 22 127:6 129:11 132:9 134:2,19,24 135:5 136:24 152:17 154:22 155:3 156:10 157:13,22 158:2,23 164:14 167:4 168:12 171:10 191:20 193:10 210:3 213:11	professionals 57:20 148:20 165:22,23 168:8 203:1,2	psychiatric 57:1,10	quantitate 175:17,18	rating 81:23 82:16,17, 20,21 97:4,13 100:5,7
proceed 138:13,24 139:17 191:22	professor 11:7,16,21	psychiatrist 55:4 57:19	quarantine 16:6	Rayisa 14:3
proceeding 91:19	profile 142:8	psychiatry 55:13,16 56:7,22 58:1,2	question 27:14 29:4, 16,21 30:1 34:21 38:7 47:18,20 48:20 49:6 52:14,16 53:4,10,20 54:16 56:8 57:7 68:19 96:3 103:2 104:8 112:2,6 136:18 140:15 150:7,18 159:17 160:16 161:23 178:22 182:5,6,9 194:9 196:20 208:20 216:13	reached 96:16 189:5
proceedings 62:5 91:8 124:19 197:6	program 11:20,23,24 12:7,11,17,20,21 13:10 14:9 17:4 24:24 25:5,14,15,20 26:15 27:16 28:5 29:5,12,22 32:20 95:4	psychologist 55:7 56:19 57:19	questions 17:12 36:18 77:24 92:7 93:3,8 96:19,22 98:5 126:20 137:8 166:16 190:4 209:4,10 210:23 214:2 218:5,7, 11	read 65:12 75:17 78:7 126:4 176:19 177:3,5 178:15,16,18 185:2,4 190:3 198:20,21 200:7,12,24 201:5,6 202:11 210:13 211:5 215:2 218:14
proceeds 192:7	program's 12:8	psychologists 55:23	quick 19:8 62:3 214:13	readily 87:13
process 139:15 153:6 165:16,17,20 189:8 190:5 204:21 213:20 217:4	programs 26:10,12 27:22	psychology 55:10, 19 56:3,10,12,17,21 58:1,2,4	quickly 9:21	reading 88:17
	progress 48:7	psychoses 164:23 165:5	quiet 131:6	ready 9:13
	progressing 47:22	psychosocial 166:23 167:4,12	quotations 113:18	real 214:12
	progression 46:13	public 196:14,16,17 197:22	quote 68:10 157:11	realistic 147:13 150:6
	prohibit 120:19	publication 61:14	quoted 84:11	realize 174:6
	prominent 40:6	publications 61:11	R	realm 152:19 154:18 158:8 188:3
	promise 197:2 203:7	published 61:19 80:23 91:6,8,18 177:7 217:21	R-A-Y-I-S-A 14:3	reason 23:16 34:14 37:10,11 47:5,14,23 48:18 109:14 160:4 162:18 204:11 216:17
	pronounce 81:10 184:10	pull 71:23 142:23,24 173:21 196:19	race 112:21,22 113:1, 3	Reassignment 185:19
	property 197:22	pulled 80:11 177:14	radiation 102:12,21 135:8 180:20	rebuttal 78:13 84:12 89:9 197:13 214:3,17
	prophylactic 160:22	purpose 48:13,23 52:19 54:4,5 75:22 82:18 96:21 129:14 141:23 142:10 211:21	raise 80:16 131:2	recall 21:14 65:5,7
	propose 9:20	purposes 129:4 134:20 179:21 185:21 197:15 209:18 216:23	random 85:7	
	prospective 84:4,13 85:7 88:13,22 89:3, 10,15,24 90:3,7,16,22 91:5,21 92:3,12 97:9, 10,17,22 178:7	pursue 94:17		
	provide 25:11 54:3 72:9 114:21 116:3 120:15 132:18 176:24 178:12 201:13 207:12	put 73:8 173:20 184:20 186:22 192:2		

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: receive..review

77:10 89:12 90:13 91:20 95:6 101:1 113:10 125:10 173:19 191:5,8 193:11 194:6 204:10,12,16 210:14 211:6	197:18 208:24 209:4 recorded 105:7 147:9 records 32:4,12 77:18 78:1 210:21 211:12 rectum 169:11 REDCAP 94:5 redness 169:23 reduce 155:16 160:9 reduced 154:14 176:23 188:17 reducing 158:4 160:19 reduction 155:6 156:2 159:1,15,24 160:1,6,13,19 162:10, 14 167:10 174:10 179:13 183:3,21 188:9,12 refer 76:23 104:7 113:5,18 120:5 146:17 147:8 reference 42:15 52:12 82:9 163:20 215:18 referenced 21:9 referencing 20:4 53:24 186:4 referred 77:4 78:11 167:11 189:12 referring 72:23 73:1 79:1,3,14,15 80:5 105:22 113:9,12 163:6,7 186:2 195:5 197:24 198:5 refers 215:15 216:3 refine 96:3,21 refined 96:19 Refinements 188:19 reflects 187:18,19 refresh 186:8 refuse 87:6 refused 137:7 register 174:15,16,17 176:13	Registered 7:3 regret 203:18 regretted 203:12 reimbursable 34:11 37:15 38:17 reimburse 193:21 reimbursed 37:19 136:7,9,10 relate 51:4 76:4 124:24 195:17 related 16:2 37:4 54:6 60:6,20 74:14,19 135:19 141:14 170:7 173:4 180:3 relates 125:7 relating 58:13 91:4 relation 143:23 178:24 180:2 relationships 172:15,16 release 201:19 released 201:14,22 relevant 184:1 213:20 reliable 96:24 relieving 98:9 remain 125:24 remember 18:8 95:10 96:7 113:16,17 184:21 186:24 190:15 203:14 217:16 remnants 128:21 removal 47:6,15 48:12 50:16,23 51:9 52:4,19 103:22 105:2 127:18 131:23 138:2 158:15 203:19 204:3, 8,11,15 remove 45:9,18 46:1, 6 47:24 48:23 50:1 51:21 132:11 182:21 removed 48:17 128:17,19 129:4,6,14, 17,18,19 130:2,5,7,9, 16 131:11,14 133:1 136:22 137:1,23	removing 156:2 158:12 repair 85:19 repeat 43:4 72:11 90:19 rephrase 23:14 47:10 report 9:2 18:20 20:5 21:10 22:20 66:10 78:7,10,11,13 84:12 86:13 89:9 101:8 148:14 154:20 157:2, 7,12 159:9 197:13,14 199:5 214:3,18,24 215:3 reported 147:24 212:24 Reporter 7:2,4 reporting 176:5 reports 147:4 represent 7:14 8:22 199:4 representative 97:15 182:17 request 117:6 138:2 162:3,6 183:24 185:13 194:19 203:3 210:2,15 211:7 requested 67:6,7 96:14 103:22 105:2 190:21 203:19 204:3 210:11 211:1 requesting 95:3 202:22 204:15,22 require 43:8 44:22 115:8 139:12,20 140:1,4,17,19 162:3 166:5,7 167:6 183:5, 24 190:10,12 required 42:24 138:8 198:16 requirement 60:3 167:19 requirements 169:21 requires 45:3 137:23 139:3,9 165:16 requisite 114:22	research 15:5,14 31:21 58:13,18,21 93:3 100:11 178:22 214:5 215:4 216:20 researchers 91:23 215:24 residency 12:20 19:20 26:9,12,15 27:1,3,15,16,21,23 28:1,19,22 29:5,21 55:9,12 resident 20:1 27:2 residents 11:2 12:23 13:6 15:15 24:14,17, 21 25:13 26:1 resides 30:17 resolution 183:21 Resources 8:1 response 52:13 53:3 responsible 65:3 rest 62:3 restrictions 17:19 result 37:9 43:23 47:19 54:11 94:21 144:7 163:8 188:18 195:1 resulted 133:22 resulting 136:2 results 48:7 98:2 170:18 171:23 173:11 178:23 resurfacing 36:14 37:14 38:8,9 retrospective 89:21 173:18 retrospectively 178:21 return 206:7 returned 204:3 returning 204:17 reversal 204:22 210:3 reversals 210:6 review 11:22 63:24 64:10 69:1,9,20 70:1
---	---	--	--	---

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: reviewed..society

73:6 76:12,20,21 80:6 82:4 87:1,9 88:13,23 94:9,10 96:21 99:14 151:21 184:24 194:18,20 215:19 217:4 218:12 reviewed 60:13 63:9 64:8,16,18 65:6 66:1, 17 67:22 71:4 72:4 73:14,16 77:4,17 78:1,12,15 122:15 125:2 190:8 reviewing 76:1 reviews 60:8 80:1 89:2,6 99:7,11,22 revision 43:20 200:22 201:12 rework 94:17 Richard 179:17 rid 11:11 rinophyma 38:13 risk 129:13 130:10 155:6,8,16 156:1,4 158:4,22 159:1,15 160:6,8,9,10,13,19 167:4,10 183:2 risk/benefit 212:3,9 risks 164:14 169:1,4, 6,13 171:9 213:17 role 10:23,24 11:19 117:16 118:12 153:5 roles 109:18,23 room 189:23 rotated 25:14 26:4,13 rotating 11:2 12:23 15:14 24:13 rotation 28:7 routinely 151:10 166:24 168:2 rules 9:7 run 158:22 Rush 10:24 11:3,5,6, 14,19 12:1 13:5 14:14 24:17 25:1 94:1,12	S	S-C-H-E-C-H-T-E-R 10:8 S-L-O-N-E 10:7 safe 141:7 142:12 156:11,12 157:14 safety 81:8 157:16 197:9 saith 218:15 sake 9:23 sample 15:16 16:4 158:24 159:2,4 samples 132:2 San 13:21 satisfaction 205:5 207:14 satisfied 207:5 scale 80:22 81:23 82:8,16,20,21,24 88:15,16,18,19 97:4, 6,13,14 100:5,7,23 101:1,5 154:6,8 scales 82:17 scan 153:7 183:19 scans 183:12 scar 43:20 45:2 scarring 36:12 37:3, 4,5,8 38:14,17,22 39:2,6,14 40:1,2,3,13 41:3,18 42:3 43:17,23 44:10,13 Schechter 7:8 10:8 62:1 124:15 179:12, 21 185:16,22 197:7, 13,15 209:12,18 216:18,24 Schechter's 29:24 Schecter 197:13 schedule 190:8 scholarly 214:4 215:4 216:20 school 56:4,6,13,15 schools 24:19	scientifically- correct 83:7 scope 113:15 126:3 208:4 209:23 scoping 99:11,14 screen 80:21 81:4,16 177:20 198:2 208:9 214:14 217:11 scroll 80:24 81:1,6 181:2 186:6,7,10 200:1,4,13 215:13,17 216:7 217:20 search 99:15 Secretary 8:1 section 174:14 176:5 198:6 200:23 seek 66:8 68:9 70:7, 10,11,16 133:22 139:12,13 162:1 166:18 167:11 177:1 178:13 180:22 181:22,24 184:5 seeking 22:23 23:4, 18,21 30:11 52:7 53:9 98:10 138:15 139:19 147:14 153:16 165:19 172:8 173:2 189:11 192:20 selected 187:7 selecting 188:19 selection 187:13 seminars 50:21 56:20 57:21 send 152:23 153:7,18 Sensation 147:3 sense 59:6 101:12,22 102:6 103:1 117:16 118:3,6 125:4 127:23 137:4 143:15 sentence 178:19 198:13 199:7 separate 16:18 195:11 series 97:11,18 seroma 169:7 services 62:12,13,22 69:2,10 72:14,17	74:1,10 75:10 76:14, 19 188:6,7 202:23 206:15 207:6 set 93:19 96:8 severe 40:13 41:3 sex 63:18 64:2 65:7, 16 66:23 68:3,5,10,16 69:3,17 70:1,8,24 71:2,7,9,15,21 72:5, 16,20,24 73:15,17 74:5,11 75:9,19 76:2, 16 77:5,8,10 101:12, 18,19 102:1,4,6,7,9 105:4,5,7 115:10 185:18 192:3 204:18 sexual 90:11 92:16 106:18 211:18 shape 168:8 share 80:21 198:2 214:13 shared 153:5 sharing 208:17 Shauntae 8:24 77:24 78:1,3,5 210:23 211:1,10 shift 103:17 104:18 152:16 show 35:22 71:24 72:5 80:14,21 143:5 197:19 217:8 showing 177:20,21, 23 178:1 shows 143:1 side 35:3 100:11 sides 136:4 sign 218:12 significance 189:6 significant 20:18 33:12 41:22 43:1,8 45:3 160:18 significantly 160:9 signs 143:12,18,19, 23 144:1,4,12,14,20 146:13 similar 28:2,11,13,20 33:12,19 36:4,17 37:24 52:2 65:9 76:4	85:20 130:9 145:6 154:8 156:15 158:9, 10 204:21 similarities 154:21 similarly 155:11 simple 29:4 simply 27:14 60:11 65:2 80:20 83:5,17 87:22 single 31:9,13 32:9 51:8 77:13 87:15 95:18 114:8 single-centered 79:23 82:3 singular 54:5 sit 150:2 153:14 sitting 202:6,13,20 situation 15:23 54:1 67:11 69:7 112:20 132:24 133:21 136:11,20 156:8 167:9 192:8,18 194:5, 9,15 213:5 situations 36:11 67:24 156:23,24 six-month 92:22 93:20 size 15:16 16:4 46:14 47:17 54:12 149:22 skilled 170:14 skin-sparing 156:18 slightly 80:8,9 Slone 10:7 small 15:16 16:4 SMITH 8:12 Smith- 8:12 smoking 171:9,11 social 106:4,7 170:10,21 societal 110:8 117:12 society 43:15,19 44:5,18 45:16 46:18 47:5,13 109:10 111:22 112:3 117:15 124:23 125:7,22
--	----------	--	---	---	---

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: society's..surgeries

society's 48:14	114:13 132:10 134:6 140:1 149:20 156:8, 22,24 159:22 160:15, 16 161:4 162:19 165:11 172:19 178:5 181:16 191:8 192:8, 18 194:6,15 201:11 206:3,7 207:22 211:7 212:1	start 13:12 14:23 124:22 193:2 195:9	stigmatize 182:1	subsequently 160:10 208:13 209:16 210:2
software 150:1	specifically 22:6 23:11 27:15 35:19 61:2 62:8 64:19 76:6 80:12 85:2 87:9 89:13 93:14 99:13 106:16 108:2 126:5 134:3,5, 23 143:19 164:8 167:3 175:20 182:4, 15 189:20 193:11 195:17 198:5 200:3 214:3,11,24	started 9:13 12:7 13:2 19:21 31:22 94:19	stigmatized 43:15	subspecialty 16:12
sold 94:14	specifics 50:6,13 53:7,15,16 101:6 159:21 183:17 201:21 202:20 212:8 213:4	starting 7:20 24:24	stop 62:3 203:5 208:17	substance 165:7
sole 48:23 49:23 52:19 54:4 121:15	specimen 183:4	state 7:19 9:16 10:5 17:16 18:22 19:2 30:17 31:6 49:22 59:9,19,21 60:1 101:10 157:20 164:6, 18 178:6 214:7	stopped 93:22 94:3	substantial 43:17
solely 27:3 48:13	spectrum 168:12	stated 30:8 48:18 128:16	strategies 149:23	successful 17:4 142:15 146:21 160:24
somatic 143:17	spell 14:8	statement 20:8 22:24 25:22 56:17 59:16 84:17,20 101:14 104:1,15 156:13 157:18 200:18 201:8, 16	strength 100:17	sudden 87:8
someone's 103:12 117:10,19 118:14 140:23 141:19 142:3 143:13 151:1,3 154:14 211:17	spelled 109:16	statements 125:6,10	stress 48:14 144:3	suffer 99:1 122:1
sort 21:19 80:15,19 114:17 157:1	spelling 109:15	states 7:10 31:11 32:15,18 35:19 51:20 125:22 165:2 176:14	strong 67:19 101:3 178:14	sufficient 42:20 48:1 79:7 116:22 157:16
sought 118:20 191:6	spellings 108:23	stating 113:11	structures 127:17 128:22 132:4 169:10	sufficiently 157:14
sounded 204:1	sperm 128:4,13 169:17,18	statistic 37:24	student 20:2	suggest 67:23 70:17 141:9
source 51:8 82:13	spermatc 128:20	statistical 189:6	students 15:15 24:18,20	suggesting 196:6
southern 7:11 113:11,19	spoke 217:5	stay 14:17	studied 83:21	suicidality 161:20 162:10,16 188:18
span 104:19	spoken 77:20 78:3 210:20,22 211:13	stereotype 107:2,7, 9,10,15,16,21,23 108:8,11 111:5,6,11, 13,20 113:1,22	studies 80:1 82:5 84:5,14 85:4,22 86:8 87:10 88:14,23 89:3, 10,13,14 90:1,3,5,8, 10,16,22 91:1,5,21,22 92:3,5,10,12 99:10 150:21 152:12 153:5 173:14 183:16	suicide 175:1,23 176:9 179:3 180:4 181:13,16,17 188:9, 13 189:1
spare 9:6	Spouse 213:20	stereotyped 108:15	study 79:20 80:6 83:16 84:9,10 85:6,8, 10 86:17 88:13 89:4, 16 91:15 92:13 93:9, 11,14,19 94:21 95:17 96:19,23,24 97:8,9, 18,20,21,22,23 98:2, 11 99:21 150:19,24 173:9,12,15,17 174:12 175:10,15 176:5,18,20 178:7 179:17,24 180:5,10, 12 182:5 184:8,13,16 185:1,7,15,19 187:7, 21,24 188:8 205:4,5, 8,9 207:24 208:1,15 214:7,21 215:22	suit 18:3,6
speak 34:18 36:22 59:23 65:1 75:1 97:6 101:6 114:14,15 122:21 145:2 153:14 175:7,13,14,15,20 176:3 189:21 202:24 214:10	spread 183:1	stereotypes 110:21 111:1,16 112:4,22	studied 83:21	suitable 151:17
speaking 73:14 74:22 153:23 166:12 191:3	stable 21:20 22:4	stereotyping 114:18	studies 80:1 82:5 84:5,14 85:4,22 86:8 87:10 88:14,23 89:3, 10,13,14 90:1,3,5,8, 10,16,22 91:1,5,21,22 92:3,5,10,12 99:10 150:21 152:12 153:5 173:14 183:16	support 48:21 50:8 51:9 52:18 86:1,10,22 87:17 88:5 157:16 176:24 178:11 180:14 188:5,22
speaks 182:14	staff 12:1	sterilizing 169:15	student 20:2	suppose 102:21
specialties 16:16,19 17:6 26:7,13 27:8	stains 46:21	stick 169:3	students 15:15 24:18,20	supposed 117:20 195:23
specialty 28:9 55:20, 22	standard 28:4,7 83:3, 10,19 84:6,14,21 163:17,22,23 168:15, 18	stigma 45:8,15 46:18 47:4,13 48:14,24 49:24 50:24 51:11,22 52:20 54:6 112:11,16 113:1,21	studied 83:21	surgeon 10:17,19 54:21 55:2 148:19 165:14 168:7 180:21
specific 23:24 24:3 25:5,15 28:9,19 29:5, 21 30:24 34:18,21 45:5 46:3,5 47:3,21 48:8 50:22 54:13 59:4,5,12 60:9,13 61:8 63:9 64:11 65:12 69:10 73:6,17 75:11 80:6,11,22 87:6 95:22 96:9 100:20 101:1,5 109:21 110:4,15 112:19 113:8,9,17	Standards 187:4 195:15,16,22 197:11, 19 198:7	stigmatization 112:8 114:18	studied 83:21	surgeons 24:22 36:21 217:5 218:1

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET ALLOREN S. SCHECHTER, MD
03/28/2022 Index: surgery..transformation

90:24 99:8 116:11 133:2 135:9 139:21 146:23 157:16 159:3 163:1,3,7,11 166:8,9 174:12 177:1 178:12 179:16 190:19 210:7 211:17 surgery 11:21,22,24 12:12,13,17,22,23,24 13:1,14 15:15 16:10, 24 18:14,18 24:14,17 25:11,18 26:1,2,3,6,8, 18,20,21 27:4,6,8,11, 17 28:1,5,16,22 29:2, 11 30:15 32:1 36:5 55:3,21 61:10,13,16 62:18,20 63:23 65:21 67:5,6,8,11 70:12,17 73:2,4,15 74:6,11 75:19 76:2 77:5,8,10, 14 85:9,12,15,16 86:4,6,14,19,20,23 87:12,13,17,24 88:5, 9,24 89:17 90:7,12, 14,18 91:4 92:14,17 95:6,23 98:4,11,21 102:14,15 115:4,5 116:23 118:18,20 119:11,13,21,24 120:6 121:12,14,18 122:7,11,16,18,22 123:6,8,22 126:17,21 127:21 132:5,6,16 133:10,23,24 135:2,6 138:12,13,18 139:6, 22 140:2,8,18 141:7, 17,23 142:12,14,24 143:2,24 144:5 146:16,20 147:11,18, 19 149:1,7,11,12,13, 15 151:10 154:14,18 158:9,13,24 161:4,7, 21 162:11,13,17,24 163:9 165:13 166:2,3, 4,10,24 167:1,15 168:2,3 170:2,12,15, 18 171:23 172:3,4,5, 13,17,19 176:22 178:10,24 180:1,7,9 181:12,15,19 182:8, 17 183:19 184:2,18 185:19 187:3,8,14 188:16 189:3 190:9, 11,22 191:2,3,7,9,10, 13,16 192:1,2,10,20, 22 193:4,17 194:3,12, 20 195:3 199:24	202:3,8,16 204:23 205:12 206:6,22 210:12,18 211:2,10, 16,21 212:7,22 surgical 44:23 50:18 62:22 74:1,10 75:9 98:7 117:6 120:9,15, 20,23 121:2,7,8,12 123:1 127:23 128:3 131:23 139:17 142:18 147:13 156:12,14 157:3,5,21 161:10 162:2,3 166:21 168:5, 11 174:22 180:20 187:8,11 192:7,13,14 202:1,22 208:13 209:15 210:2,6 211:24 212:11 surgically 102:16 133:1,8 199:20 surprise 180:24 survey 92:5,6,10 93:8,12,21,24 94:3 96:4,15,19,22 98:3 207:13 208:14 209:16 217:14 surveyed 92:19 surveys 94:23 95:1, 14 205:5 206:12 sustained 125:17,18 Sweden 175:8,21 185:20 Swedish 174:15 sweeping 110:6 switch 94:1 switched 13:4 switching 11:5 sworn 8:3,7,14,17 symmetry 132:18 symptom 116:18 synonym 64:3 system 94:5 100:12, 15 101:3 systematic 80:1 82:4 88:13,23 89:2,6 99:7, 12,16,22 systemic 169:12	T	table 80:22 81:15,17 84:2 97:12 186:23 tachycardia 145:17, 23 146:2,7,11,13 takes 144:11 taking 8:3 talk 30:6 32:23 42:8 64:19 79:2 112:21 137:15 154:21 204:7 talked 24:24 76:6 169:2 189:19 192:9 210:5 talking 12:18 18:21 39:24 40:1,3 62:8 72:19 74:3 79:21,22 106:16 112:19 135:14 180:16 184:14 195:8 198:7 203:15 217:18 Tara 8:10 target 96:9 teach 11:1 teaching 10:19,22,24 15:14 24:4,8,9,11 50:21 team 91:23 92:9 technical 155:14 technically 128:18 technique 156:13 techniques 155:23 156:14,22 157:4,5,21 158:10,11,17 187:9, 12 telling 204:11 tells 148:21 Temple 14:18 ten 204:14 206:11 Teresa 7:3 term 62:9,20,21 63:17 64:1 65:7,8,9,16,17 68:4 71:8 72:24 75:4 101:10 125:15 159:8 168:23 207:20	terms 14:24 15:3 50:19 100:10 101:17 102:1 143:8 144:19 147:1 150:18 151:11 160:19 167:17 173:6 190:19 198:8 terrible 131:3 test 152:8 171:11 tested 29:13,14 testes 131:16 testicles 127:19 128:16,20 129:4 testified 8:17 76:3 testify 59:11 60:12,18 73:19 74:17,19 114:7 206:3 testimony 51:14 60:20 75:21 85:1 110:14,19,24 114:16 137:12 155:18 156:10 200:5 tests 139:1,5,11,20 140:4,7 150:11,13 171:6 text 82:12 98:6 textbooks 50:18 them' 178:13 therapist 167:14 170:5,21 therapy 63:4 202:1 thighs 134:21 thing 80:19 196:5 214:13 things 102:3,8,12 111:19 118:8 124:17 125:5 144:1 171:7 176:17 203:6 thinking 92:13 95:10 third-party 193:10 throat 27:9 thromboembolism 169:13 tied 117:20,21,22 time 7:6,13 9:11 13:8 21:17,20 24:23 39:5 89:22 93:8 95:15	96:14 103:8,12 104:3, 11 109:19 124:11 152:22 165:8 170:16 174:21 183:17 187:1, 18 188:13 191:4 204:13 206:8 207:14 times 9:3 136:9 167:11 185:2,5 timing 94:20 tissue 128:24 129:5, 8,9,14,17 130:1,5,6,8, 15 131:10,23 132:2 133:1 135:14 137:1,4, 22 138:3 150:14 151:11 169:8,9 titled 81:7 208:11 214:4 217:3 today 9:1 109:24 154:20 202:6,13,21 Today's 7:5 told 137:6 149:6 tool 144:15 tools 36:22,23 top 12:13 65:21 67:5, 6,7,11 81:6 186:22 190:22 191:3,7,9,10 192:1 194:6 211:16 212:22 214:19 Toronto 13:21 total 174:12,15 176:13,19 179:16 tracks 184:17 trained 56:23 57:9 training 19:23 21:17 22:1 26:20 27:1,11 28:5,17,21 29:12 55:15,18,22,24 56:1, 2,8,16 58:7,9 185:3 trans 75:19 149:10 transcript 177:16 transcripts 179:8 transfer 150:14 transfers 35:10 transformation 63:18 64:2 65:7,17 66:23 68:3,6,10,16 69:3,18 70:2,8,24
--	--	----------	---	---	---

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET AL

LOREN S. SCHECHTER, MD
03/28/2022 Index: voluntary..zoom

<p>voluntary 164:12</p> <p>vulva 127:17</p> <hr/> <p style="text-align: center;">W</p> <hr/> <p>W-H-I-T-E-H-E-A-D 14:6</p> <p>wait 82:14 186:13</p> <p>Walt 8:8 130:23</p> <p>wanted 9:20 62:9 67:3 80:15 200:3 214:1</p> <p>ways 156:5</p> <p>web 214:21 215:10 216:4,5,10,15,19</p> <p>website 32:14 35:18 214:24</p> <p>Weiss 10:11,13,20,23 13:3 25:1 94:11</p> <p>well-being 214:6 215:6 216:22</p> <p>West 7:11,24 59:21 60:15 61:4 62:14,23 63:3,10,12,21 64:5,9 67:8 68:11,20 70:19 71:11 73:10,21 74:18 77:13 163:18,21 164:5</p> <p>white 140:21,23</p> <p>Whitehead 14:6</p> <p>wide 155:22</p> <p>wife 107:19</p> <p>witnessed 103:11</p> <p>woman 67:17 76:18 104:23 130:10,12 132:13 203:21 204:13</p> <p>women 108:4 109:24 111:14,17 129:12 149:10</p> <p>wonderful 197:4</p> <p>word 81:10 131:17 178:6 187:22</p> <p>wording 80:7,8</p> <p>words 97:22</p> <p>work 31:9 55:21</p>	<p>56:19 57:19 59:7,16 60:23 116:3,4 142:24 152:23 153:18 170:17 185:4 189:8 213:13</p> <p>worked 58:11,23</p> <p>worker 170:10,22</p> <p>working 59:17,20 116:5 148:19</p> <p>world 24:22 102:18 198:18</p> <p>wound 169:8</p> <p>Wow 132:9 143:1</p> <p>WPATH 59:8,16 195:14 196:8 197:11, 19,22 217:5</p> <p>wrinkle 35:3</p> <p>wrinkles 34:2,6,11, 22,23,24 35:1,7 37:18,22</p> <p>write 57:22 94:2</p> <p>written 29:13 39:8,10 61:9 85:1 154:20 156:10 157:2 215:16 217:2</p> <p>wrong 114:3,6 187:7</p> <p>wrote 215:11 216:4</p> <hr/> <p style="text-align: center;">X</p> <hr/> <p>x-rays 140:6 171:6</p> <hr/> <p style="text-align: center;">Y</p> <hr/> <p>year 13:12 14:11,15 15:22 16:7 19:5 20:15,23 21:13 22:13 23:2,19,22 24:10 82:22 95:16,19,24 205:11 206:4,11,22</p> <p>years 16:5 19:3,9,15, 17,19 20:3,7,15,17 24:2 31:8 97:5 103:22 105:1,2 110:1 164:22 181:12,18 187:12 203:11 204:1,2,14 207:9</p> <p>York 13:23</p>	<p>youngest 126:9</p> <hr/> <p style="text-align: center;">Z</p> <hr/> <p>zoom 7:18 8:3,4,7 9:8 81:19 86:5</p>
--	--	---

CHRISTOPHER FAIN, ET AL vs.
WILLIAM CROUCH, ET AL

LOREN S. SCHECHTER, MD
03/28/2022

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

ERRATA SHEET

I, DR. LOREN SCHECHTER, do hereby
certify that the foregoing is a true and
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PAGE LINE CORRECTION

44	10	Change "a case" to "adjacent to"
78	9	Change "what I've always" to "what's been"
118	20	Change "sought" to "selected"
121	21	Change "dysmorphyc" to "dysmorphic"
122	1, 5, 8, 12, 13, 16, 19	Change "dysmorphyc" to "dysmorphic"
123	1, 9, 23	Change "dysmorphyc" to "dysmorphic"
124	3	Change "dysmorphyc" to "dysmorphic"
128	18	Change "corporeal" to "corporal"
132	9	Change "wow" to "well"
132	13	Change "cisgendered" to "cisgender"
206	9	Change "reonstrution" to "reconstruction"

loren schechter

DEPONENT'S SIGNATURE

STATE OF VIRGINIA _____,
COUNTY OF FAIRFAX _____,

Sworn to before me,
VY NGOC THANH NGUYEN _____, Notary Public, this
14 day of APRIL _____, 2021.

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Reduction in Mental Health Treatment Utilization Among Transgender Individuals After Gender-Affirming Surgeries: A Total Population Study

Richard Bränström, Ph.D., John E. Pachankis, Ph.D.

Objective: Despite professional recommendations to consider gender-affirming hormone and surgical interventions for transgender individuals experiencing gender incongruence, the long-term effect of such interventions on mental health is largely unknown. The aim of this study was to ascertain the prevalence of mood and anxiety disorder health care visits and antidepressant and anxiolytic prescriptions in 2015 as a function of gender incongruence diagnosis and gender-affirming hormone and surgical treatment in the entire Swedish population.

Methods: This study used the Swedish Total Population Register (N=9,747,324), linked to the National Patient Register and the Prescribed Drug Register. Among individuals who received a diagnosis of gender incongruence (i.e., transsexualism or gender identity disorder) between 2005 and 2015 (N=2,679), mental health treatment in 2015 was examined as a function of length of time since gender-affirming hormone and surgical treatment. Outcome measures were mood and anxiety disorder health care visits, antidepressant and anxiolytic prescriptions, and hospitalization after a suicide attempt.

Results: Compared with the general population, individuals with a gender incongruence diagnosis were about six times as likely to have had a mood and anxiety disorder health care visit, more than three times as likely to have received prescriptions for antidepressants and anxiolytics, and more than six times as likely to have been hospitalized after a suicide attempt. Years since initiating hormone treatment was not significantly related to likelihood of mental health treatment (adjusted odds ratio=1.01, 95% CI=0.98, 1.03). However, increased time since last gender-affirming surgery was associated with reduced mental health treatment (adjusted odds ratio=0.92, 95% CI=0.87, 0.98).

Conclusions: In this first total population study of transgender individuals with a gender incongruence diagnosis, the longitudinal association between gender-affirming surgery and reduced likelihood of mental health treatment lends support to the decision to provide gender-affirming surgeries to transgender individuals who seek them.

Am J Psychiatry 2020; 177:727–734; doi: 10.1176/appi.ajp.2019.19010080

Numerous studies indicate that transgender individuals—that is, individuals who experience incongruity between their sex assigned at birth and their current gender identity—are at particular risk of psychological distress and associated impairment (e.g., suicidality) (1–3). This elevated risk is hypothesized to stem at least in part from transgender individuals' elevated exposure to stigma-related stress, also known as minority stress (4, 5), and it can also result from the stress associated with a lack of gender affirmation (i.e., the accurate recognition and validation of one's gender identity) (6). ICD-11 (7) specifies that individuals experiencing persistent discordance between their experienced gender and their assigned sex meet diagnostic criteria for gender incongruence.

To alleviate the stress of persistent discordance between experienced gender and assigned sex, an increasing number of

transgender individuals who experience gender incongruence seek gender-affirming medical interventions, including hormone replacement therapy and gender-affirming surgeries (8). The World Professional Association for Transgender Health's *Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People* recommends consideration of these interventions for affirming transgender individuals' gender and alleviating gender-related stress (9).

Despite professional recommendations to consider gender-affirming medical interventions for transgender individuals who experience gender incongruence, the effect of such interventions on long-term mental health is largely unknown. Available evidence stems mainly from small samples utilizing cross-sectional designs and self-reported treatment exposures and mental health outcomes (2, 10, 11). A meta-analysis

See related feature: Editorial by Dr. Mueller (p. 657)

that aggregated data across nearly two dozen small-sample studies (10), mostly relying on cross-sectional designs, found positive associations between self-reports of receiving both hormone therapy and gender-affirming surgery and mental health. Several more recent uncontrolled studies of the effects of hormone replacement therapy on transgender individuals' mental health have found that transgender individuals' mental health improved for up to 24 months after initiating hormone therapy (11, 12).

Because of previous studies' limitations, including short assessment periods and the fact that existing probability-based surveys do not routinely assess transgender status or other aspects of gender diversity, insufficient evidence exists regarding associations between length of time since receiving gender-affirming interventions and treatment for psychiatric disorders among the transgender population. In fact, no probability-based evidence exists regarding even the prevalence of mood and anxiety disorder treatment among transgender individuals compared with the general population (1).

The limitations of previous research in terms of non-representative sampling, self-reported measurement, and limited follow-up periods can be overcome with national health registry data sets that include clinician-derived assessment of gender incongruence and complete records of psychiatric and gender-affirming treatment and utilization data in an entire population. In the one known study to use a population-based design to investigate psychiatric morbidity among transgender individuals (N=324), individuals who had legally changed their gender and had a diagnosis of gender incongruence associated with an inpatient hospital visit in Sweden between 1973 and 2003 were at higher risk of suicide attempts, suicide-related mortality, and psychiatric hospitalization compared with age- and reassigned-gender-matched controls (13). The study did not report the prevalence of mood and anxiety disorder treatment among those receiving gender-affirming treatment compared with the total population or as a function of length of time since receiving gender-affirming treatment. Furthermore, the proportion of individuals receiving gender-affirming treatments in Sweden has increased nearly exponentially since 2003 (8, 14). Similar recent increases in referrals for gender-affirming treatments have been reported in other countries around the world (15–18).

In this study, we took advantage of the Swedish Total Population Register (19), linked to the Swedish National Patient Register and the Swedish Prescribed Drug Register, to ascertain the prevalence of mood and anxiety disorder health care visits, antidepressant and anxiolytic prescriptions, and hospitalization after a suicide attempt among the entire Swedish population as a function of gender incongruence diagnosis, gender-affirming hormone and surgery utilization, and length of time since receiving gender-affirming treatments. This data set permitted identification of all individuals in Sweden seeking gender-affirming treatments between January 1, 2005, and December 31, 2015. Although not all transgender individuals seek gender-affirming treatments

and not all treatment-seeking transgender individuals meet diagnostic criteria for gender incongruence, findings from this unique data opportunity have timely implications for documenting the mental health of transgender individuals seeking gender-affirmative treatment and ways in which the medical profession can support this increasingly visible population.

METHODS

This total population prospective study included all individuals living in Sweden on December 31, 2014, as identified in the Swedish Total Population Register. Using de-identified personal identification numbers (a unique number assigned to all Swedish residents), we linked sociodemographic information with National Patient Register information on health care usage between January 1, 2005, and December 31, 2015, and Prescribed Drug Register information on prescribed and purchased medication between July 1, 2005, and December 31, 2015. The study was approved by the Regional Ethics Committee in Stockholm (no. 2017/1736–31).

Gender Incongruence Diagnosis

Using the Swedish National Patient Register, we classified all individuals in Sweden according to whether they had received a diagnosis of gender incongruence, as defined by the diagnostic system applied in Sweden during the study period (i.e., a diagnosis of either transsexualism [ICD-10 code F64.0] or gender identity disorder [ICD-10 codes F64.8, F64.9]) during an inpatient or specialized outpatient visit between January 1, 2005, and December 31, 2015. The two diagnoses used to define gender incongruence at the time of the study are not fully equivalent but capture largely overlapping populations (20). In Sweden during the study period, a diagnosis of either transsexualism or gender identity disorder was required for accessing gender-affirming treatment (e.g., gender-affirming hormone treatment, hormone-suppressing or -blocking medication treatment, mastectomy with chest contouring, hair removal, vocal cord surgery, speech therapy, genital surgery) and was given after an approximately yearlong evaluation, following a national consensus program (14, 21). Adolescents could receive the same gender-affirming treatments as adults but could not receive genital surgery before age 18 (22).

Outcome Measures

This study's outcome measures were psychiatric outpatient health care visits, antidepressant and anxiolytic prescriptions, and hospitalization after a suicide attempt between January 1, 2015, and December 31, 2015. Restricting the outcome assessment period to one year, 2015, the most recent available, removes potential confounding by secular trends in treatment utilization and transgender acceptance and visibility. Each psychiatric outpatient visit was coded by the treating physician with a primary diagnosis from ICD-10 (23)

and up to 20 supplementary ICD-10 diagnostic codes. Using these codes, we classified all individuals as having received treatment for any or no mood disorders (codes F30–F39) or anxiety disorders (codes F40–F42). Prescribed medication use was obtained from the Swedish Prescribed Drug Register, which contains information regarding all prescribed and purchased medications nationwide for all individuals. Individuals were categorized into any use or no use of antidepressant and anxiolytic medication according to the Anatomical Therapeutic Chemical (ATC) Classification system (codes N06A and N05B). All inpatient health care visits were similarly coded by the treating physician using ICD-10, indicating a primary cause of hospitalization and up to 30 supplementary causes. Using these codes, we classified all individuals as having been hospitalized after a suicide attempt (versus not) using the ICD-10 codes for intentional self-harm (codes X60–X84).

Covariates

Sociodemographic information was drawn from the Swedish Total Population Register in December 2014 and included current legal gender, age, country of birth, level of education, urbanicity, and household income.

Gender-Affirming Treatment Utilization

For individuals with a gender incongruence diagnosis at any visit, we assessed the type and year of gender-affirming treatment, both hormone treatment and surgery. Information about hormone treatment, including androgen-suppressing and -blocking medication, was obtained from the Swedish Prescribed Drug Register between July 1, 2005, and December 31, 2015. All medications prescribed to individuals who had received a gender incongruence diagnosis were coded as gender-affirming if they were feminizing hormone medication (i.e., estrogens [ATC codes G03C, L02AA], progestogen [G03D]), masculinizing hormone medication (i.e., androgens [G03B]), or androgen-suppression or -blocking medication (i.e., testosterone-5-alpha reductase inhibitors [G04CB], antiandrogens [G03H], gonadotropin-releasing hormone analogues [G03GA, L02AE, H01CA], antigonadotropin-releasing hormones [H01CC], and spironolactone [C03DA01]). For each individual with a gender incongruence diagnosis who received prescriptions for any of these medications, we calculated the number of years since initiation.

Gender-affirming surgery was coded using information about all inpatient surgical procedures received by individuals with a gender incongruence diagnosis in the National Patient Register between January 1, 2005, and December 31, 2015. All surgical procedures associated with a gender incongruence diagnosis performed during this

TABLE 1. Demographic characteristics of the Swedish population, by gender incongruence diagnosis, December 31, 2014

Measure	Individuals Diagnosed With Gender Incongruence (N=2,679)		General Population ^a (N=9,744,645)	
	Mean	SD	Mean	SD
Age (years)	31.5	14.0	40.7	23.8
Mean yearly household income (Swedish kronor, 000s)	298.4	301.0	464.8	800.6
	N	%	N	%
Legal gender				
Male	1,284	47.9	4,870,930	50.0
Female	1,395	52.1	4,873,715	50.0
University education	809	30.2	2,643,505	27.1
Urbanicity				
Larger city	1,102	41.1	3,364,003	34.5
Smaller city	867	32.4	3,238,223	33.2
Rural community	710	26.5	3,142,419	32.2
Country of birth				
Sweden	2,214	82.6	8,141,590	83.5
Other European country	164	6.1	801,227	8.2
Outside of Europe	301	11.2	800,800	8.2
No information about country of birth	0	0.0	1,028	0.01

^a The N for general population excludes those with a diagnosis of gender incongruence.

period were coded by type of surgery using the Nordic Medico-Statistical Committee Classification of Surgical Procedures (16): breast or dermatological chest surgery (codes H and QB), surgery of the reproductive organs (codes K and L), dermatological surgery (code Q), and laryngeal surgery (code DQ).

Statistical Analysis

We first examined sociodemographic differences between individuals with a gender incongruence diagnosis and the rest of the population in Sweden. We then compared the prevalence of any mood and anxiety disorder treatments (i.e., psychiatric outpatient health care visits and prescribed psychiatric medication) between individuals receiving gender-affirming treatments and the rest of the population in Sweden during 2015, using logistic regression. Among individuals with a gender incongruence diagnosis, we then investigated the odds of mood and anxiety disorder treatment and hospitalization following a suicide attempt (occurring in 2015) as a function of years since initiation of hormone or hormone-suppressing treatment and since last gender-affirming surgery. We examined years since *last* gender-affirming surgery because gender-affirming surgery is often a lengthy process involving several distinct procedures before gender affirmation is attained.

All analyses were conducted using SPSS, version 24 (IBM, Armonk, N.Y.), and adjusted for current legal gender, age, country of birth, level of education, urbanicity, and household income.

TABLE 2. Association between gender incongruence diagnosis and mood- and anxiety-related health care visits, antidepressant and anxiolytic prescriptions, and hospitalization after suicide attempt in the total Swedish population, 2015^a

Measure	Individuals Diagnosed With Gender Incongruence (N=2,679)		General Population ^b (N=9,744,645)		Unadjusted		Adjusted	
	N	%	N	%	Odds Ratio	95% CI	Odds Ratio	95% CI
Psychiatric outpatient visits, 2015								
Any mood disorder	250	9.3	95,137	1.0	10.44	9.16, 11.89	6.07	5.32, 6.93
Any anxiety disorder	197	7.4	63,200	0.6	12.16	10.52, 14.06	5.92	5.10, 6.86
Prescribed medication treatment, 2015								
Any antidepressant use	771	28.8	377,043	9.4	3.90	3.58, 4.24	3.95	3.62, 4.31
Any anxiolytic treatment	449	16.8	566,678	5.8	3.26	2.95, 3.61	3.43	3.09, 3.81
Inpatient visits, 2015								
Hospitalization after suicide attempt	22	0.8	7,104	0.1	11.35	7.46, 17.28	6.79	4.45, 10.35

^a All analyses were conducted using logistic regression and adjusted for age, gender, education, income, urbanity, and country of birth.

^b The N for general population excludes those with a diagnosis of gender incongruence.

RESULTS

Of the total Swedish population on December 31, 2014 (N=9,747,324), 2,679 had received a diagnosis of gender incongruence between January 1, 2005, and December 31, 2015 (Table 1). Those diagnosed with gender incongruence were significantly younger on average than the rest of the population ($t=19.94$, $p<0.001$), and they were more likely to have a current legal female gender than male gender ($\chi^2=4.54$, $p=0.03$). Individuals with a gender incongruence diagnosis were more likely to have a university education ($\chi^2=12.77$, $p<0.001$), to have a lower household income ($t=30.61$, $p<0.001$), to live in a larger city ($\chi^2=61.95$, $p<0.001$), and to have been born outside of Europe ($\chi^2=32.33$, $p<0.001$).

Mood and Anxiety Disorder Treatment Among Individuals Diagnosed With Gender Incongruence

Table 2 compares the prevalence of health care visits and medication treatment for mood and anxiety disorders between individuals diagnosed with gender incongruence and those not. In analyses adjusted for sociodemographic factors, those diagnosed with gender incongruence were about six times as likely to have had a health care visit due to a mood or anxiety disorder in 2015, more than three times as likely to have received prescriptions for antidepressant and anxiolytic medication in 2015, and more than six times as likely to have been hospitalized after a suicide attempt.

Gender-Affirming Treatments Among Individuals Diagnosed With Gender Incongruence

Just over 70% of individuals diagnosed with gender incongruence during the follow-up period (2005–2015) had received prescriptions for hormone treatment, including androgen-suppressing and -blocking medication, during this period. Half of those treated with hormones had initiated their hormone treatment within the past 5 years (Table 3).

Nearly 40% of those with a diagnosis of gender incongruence had received gender-affirming surgical treatments during the follow-up period. Table 3 presents the types of surgical treatments and the distribution of individuals by number of years since last gender-affirming surgery. The most common types of surgical procedures were mastectomy with chest contouring, surgery of the reproductive organs, dermatological surgeries, and laryngeal surgery.

Less than a third (29%) of those diagnosed with gender incongruence had received neither hormone treatment nor gender-affirming surgery. Among those who had received gender-affirming surgery, 97% had also been treated with hormones.

Changes in Likelihood of Mood and Anxiety Disorder Treatment After Gender-Affirming Hormone and Surgical Treatment

We examined the effect of years since hormone treatment initiation and years since last gender-affirming surgery on likelihood of having received mood or anxiety disorder treatment in 2015 among individuals with a diagnosis of gender incongruence. Among those with a gender incongruence diagnosis receiving hormone treatment, years since initiation of hormone treatment was not significantly related to likelihood of mental health treatment (i.e., psychiatric outpatient health care visits and prescribed psychiatric medication; adjusted odds ratio=1.01, 95% CI=0.98, 1.03). However, among those receiving gender-affirming surgical treatment, the risk of mental health treatment was significantly reduced with increased time since last surgical treatment (adjusted odds ratio=0.92, 95% CI=0.87, 0.97). Specifically, the likelihood of being treated for a mood or anxiety disorder was reduced by 8% for each year since last gender-affirming surgery. The number of individuals with a gender incongruence diagnosis who had been hospitalized after a suicide attempt in 2015 was low (N=22) but was also

reduced as a function of time since last surgical treatment. The association between time since gender-affirming hormone and surgical treatments and hospitalization after a suicide attempt did not reach significance (hormone treatment: adjusted odds ratio=1.12, 95% CI=0.97, 1.30; surgical treatment: adjusted odds ratio=0.87, 95% CI=0.61, 1.24). Figure 1 presents the prevalence of mental health treatment (either health care visits for depression and anxiety, antidepressant and anxiolytic prescriptions, or both) and hospitalization after a suicide attempt in 2015 by years since last gender-affirming surgical treatment.

To assess the potentially interrelated and therefore confounding effect of gender-affirming hormone and surgical treatments on each other, a sensitivity analysis was conducted, entering both years since initiation of hormone treatment and years since last surgical treatment simultaneously into the same model predicting odds of mood and anxiety disorder treatment (i.e., psychiatric outpatient health care visits and prescribed psychiatric medication). The results of this analysis were similar to those presented above, with a nonsignificant effect of time since initiation of hormone treatment (adjusted odds ratio=1.03, 95% CI=0.97, 1.08) and a significant effect of years since last gender-affirming surgical treatment (adjusted odds ratio=0.91, 95% CI=0.86, 0.97).

DISCUSSION

Taking advantage of total population registers containing diagnoses of gender incongruence, gender-related hormone and surgical treatment codes, and mental health treatment utilization, we examined the potential impact of gender-affirming hormone and surgical treatment on later mental health treatment utilization. The results also present the first known population prevalence of mood and anxiety disorder treatment and suicide attempts among transgender individuals compared with the general population. Overall, our results show that transgender individuals, here defined as those with a diagnosis of gender incongruence, are about six times as likely

TABLE 3. Type of, and years since, gender-affirming hormone and surgery treatment in December 31, 2015, among individuals with a gender incongruence diagnosis in Sweden, January 1, 2005, to December 31, 2015

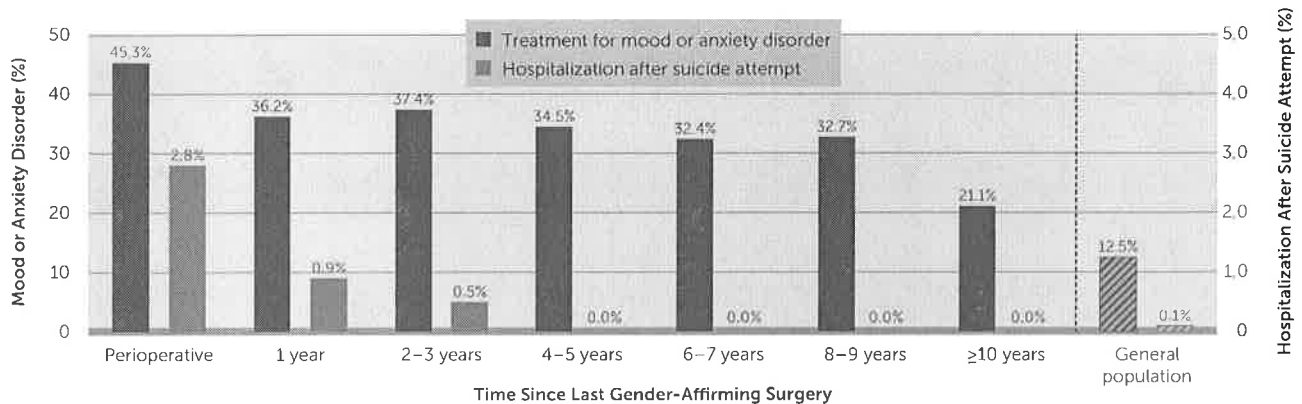
Measure	N	%
Individuals with gender incongruence diagnosis (N=2,679)		
Time since first gender-affirming hormone treatment		
No hormone treatment	794	29.6
<1 year	359	13.4
1 year	226	8.4
2–3 years	367	13.7
4–5 years	330	12.3
6–7 years	176	6.6
8–9 years	193	7.2
≥10 years	234	8.7
All individuals receiving gender-affirming hormone treatment (N=1,885)		
Type of hormone treatment (more than one type is possible)		
Estrogen or progesterone	1,066	56.6
Androgen	916	48.6
Androgen-suppressing or -blocking medication	808	42.9
All individuals with gender incongruence diagnosis (N=2,679)		
Time since last gender-affirming surgical treatment		
No surgical treatment	1,661	62.0
<1 year	353	13.2
1 year	221	8.2
2–3 years	198	7.4
4–5 years	110	4.1
6–7 years	68	2.5
8–9 years	49	1.8
≥10 years	19	0.7
All individuals receiving gender-affirming surgical treatment (N=1,018)		
Type of surgical procedures (more than one type is possible)		
Breast or dermatological chest surgery	788	77.4
Surgery of the reproductive organs	540	53.0
Dermatological surgery	315	30.9
Laryngeal surgery	70	6.9

as the general population to have had a health care visit for any mood or anxiety disorder, between three and four times as likely to have received prescriptions for antidepressant or anxiolytic medication, and more than six times as likely to have been hospitalized after a suicide attempt. Time since initiating gender-affirming hormone treatment was not associated with these mental health treatment outcomes, whereas time since receiving gender-affirming surgery was significantly associated with a decrease in mental health treatment.

These findings begin to answer the call for population-based documentation of transgender health (1) and extend earlier evidence of associations between gender-affirming treatment and improved mental health mostly derived from studies utilizing cross-sectional designs or short follow-up periods, self-reported exposures and outcomes, and small nonprobability samples (2, 10, 11). In addition to showing that transgender individuals are more likely to utilize mental health treatments than the general population, the results suggest that gender-affirming treatments may reduce this risk. Specifically, the odds of receiving mental health treatment in 2015 were reduced by 8% for every year since

REDUCTION IN MENTAL HEALTH TREATMENT UTILIZATION AFTER GENDER-AFFIRMING SURGERIES

FIGURE 1. Prevalence of treatment for mood or anxiety disorders (health care visit or antidepressant or anxiolytic prescription) and hospitalization after suicide attempt in 2015 among individuals with a gender incongruence diagnosis, by number of years since last gender-affirming surgery



receiving gender-affirming surgery over the 10-year follow-up period. Despite this linear decrease, even 10 years after receiving such treatments, the prevalence of mental health treatment utilization continued to exceed that of the general Swedish population (24), suggesting the need to address factors in addition to gender-affirming treatment availability that may strengthen transgender individuals' mental health. Such factors may include reductions in structural (e.g., economic inequality), interpersonal (e.g., victimization), and psychosocial (e.g., identity concealment) stressors to which transgender individuals are disproportionately exposed (4, 24). Ensuring access to transgender-affirming mental health care may also further reduce transgender individuals' persistent psychiatric risk (25). Although the prevalence of hospitalization after suicide attempt among those with a gender incongruence diagnosis was too small for statistical testing, the numbers who were treated after a suicide attempt decreased as a function of years since last gender-affirming surgery. Among those who received their last gender-affirming surgery more than 3 years ago, no suicide attempts were registered.

Despite the notable methodological strengths of utilizing data from a total population, the results should be interpreted in light of several limitations. First, the criterion used here to define the transgender population does not capture the full spectrum of those who identify as transgender. We specifically lacked information regarding gender assigned at birth, legal gender change, and gender identity at the time of data collection, preventing subgroup analyses of the transgender population (26). Recent estimates across five countries suggest that between 0.4% and 1.3% of the population may identify as transgender, including gender-nonconforming individuals who do not seek gender-affirming hormone or surgical treatment (18, 27-29). Although the transgender population in the present study is limited to individuals with a diagnosis of gender incongruence, this population is of particular concern to the medical community because of its high likelihood of seeking gender-affirming hormone and surgical

treatments. Given the free availability of gender-affirming treatments in Sweden, our approach to ascertaining this particular population is likely highly sensitive. Our approach also did not include a comparison group of individuals who had sought but not yet received gender-affirming treatment. While this population might be able to serve as an important comparison group in future studies, without the ability to distinguish between those who had not received treatment because they are waiting for it and those not seeking it in the first place, the current data structure cannot provide this comparison. Longitudinal designs assessing within-person changes in treatment seeking, treatment receipt, and ultimate mental health outcomes would be essential for tracking mental health before and immediately after treatment. Because our approach could only ascertain suicide attempts among living individuals, longitudinal designs that allow for tracking completed suicide among decedents remains an important future direction.

Second, mental health treatment utilization is an imperfect proxy for mental health itself. Transgender people receiving treatment for gender incongruence are by definition exposed to treatment settings, which may disproportionately expose them to mental health treatment opportunities. Although the Swedish context of universal health care coverage removes financial barriers to treatment seeking, other unmeasured factors, such as general tendency toward treatment seeking or perceived discrimination in treatment settings, may influence the associations examined here. Third, because we derived information about outpatient psychiatric health care visits from national health care databases, we had limited information about the type of mental health treatment patients received, and we could not differentiate among individuals receiving psychotropic medication, psychotherapy, or both. Fourth, this study was conducted in a single high-income national context with legal protections for transgender individuals and universal health coverage, including for gender-affirming treatments. While this context makes the present study possible,

it also may constrain the generalizability of findings to low- and middle-income countries and to countries that lack transgender protections or universal health care coverage.

Overall, this study provides timely support for policies that ensure coverage of gender-affirming treatments. Although gender-affirming treatments are recommended as a medical necessity for appropriately selected individuals experiencing gender incongruence and are a covered health benefit in most developed countries, uncertainty exists, such as in the United States, regarding federal protections of transgender employees from transgender-related exclusions in employee benefits (30). In the context of such uncertainty, some U.S. states deny use of state funds to cover costs for gender-affirming treatments, and the Veterans Health Administration specifically prohibits gender-affirming surgery within Veterans Affairs (VA) facilities or use of VA funding for gender-affirming treatments (31, 32). To the extent that gender-affirmative medical interventions are interpreted as sterilization, many hospitals can refuse to provide such care, citing religious directives (33). Debates regarding the provision of gender-affirming health care are global, and in much of the world, such care is unavailable or largely unaffordable (29). Therefore, in many contexts around the world, lack of coverage for gender-affirming treatments drives the use of non-medically supervised hormones and surgeries, thereby exacerbating physical health risks (34) and the other epidemics disproportionately borne by the global transgender population, including suicide and HIV infection. The longitudinal association found in the present study between gender-affirming surgery and reduced mental health treatment utilization, combined with the physical and mental health risks of surgery denial, supports policies that provide gender-affirming surgeries to transgender individuals who seek such treatments.

ADDENDUM

After this article was published online on October 4, 2019, some letters containing questions on the statistical methodology employed led the *Journal* to seek statistical consultations. The results of these consultations were presented to us and we concurred with many of the points raised. The letters (35-41) and our response to them (42) appear in the Letters to the Editor section of the August 2020 issue of the *Journal*.

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Supported by the Swedish Research Council (no. 2016-01707) and the Swedish Research Council for Health, Working Life, and Welfare (no. 2018-01628).

The authors report no financial relationships with commercial interests.

Received January 25, 2019; revisions received May 7 and June 14, 2019; accepted July 16, 2019; published online Oct. 4, 2019.

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Correction to Bränström and Pachankis

After the article “Reduction in Mental Health Treatment Utilization Among Transgender Individuals After Gender-Affirming Surgeries: A Total Population Study” by Richard Bränström, Ph.D., and John E. Pachankis, Ph.D. (doi: 10.1176/appi.ajp.2019.19010080), was published online on October 4, 2019, some letters containing questions on the statistical methodology employed in the study led the *Journal* to seek statistical consultations. The results of these consultations were presented to the study authors, who concurred with many of the points raised. Upon request, the authors reanalyzed the data to compare outcomes between individuals diagnosed with gender incongruence who had received gender-affirming surgical treatments and those diagnosed with gender incongruence who had not. While this comparison was performed retrospectively and was not part of the original research question given that several other factors may differ between the groups, the results demonstrated no advantage of surgery in relation to subsequent mood or anxiety disorder-related health care visits or prescriptions or hospitalizations following suicide attempts in that comparison. Given that the study used neither a prospective cohort design nor a randomized controlled trial design, the conclusion that “the longitudinal association between gender-affirming surgery and lower use of mental health treatment lends support to the decision to provide gender-affirming surgeries to transgender individuals who seek them” is too strong. Finally, although the percentage of individuals with a gender incongruence diagnosis who had received gender-affirming surgical treatments during the follow-up period is correctly reported in Table 3 (37.9%), the text incorrectly refers to this percentage as 48%. The article was reposted on August 1, 2020, correcting this percentage and including an addendum referencing the postpublication discussion captured in the Letters to the Editor section of the August 2020 issue of the *Journal* (1).

1. Kalin NH: Reassessing mental health treatment utilization reduction in transgender individuals after gender-affirming surgeries: a comment by the editor on the process (letter). *Am J Psychiatry* 2020; 177:765

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EXHIBIT**2 - Schechter, MD**

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Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden

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Abstract

Context: The treatment for transsexualism is sex reassignment, including hormonal treatment and surgery aimed at making the person's body as congruent with the opposite sex as possible. There is a dearth of long term, follow-up studies after sex reassignment.

Objective: To estimate mortality, morbidity, and criminal rate after surgical sex reassignment of transsexual persons.

Design: A population-based matched cohort study.

Setting: Sweden, 1973–2003.

Participants: All 324 sex-reassigned persons (191 male-to-females, 133 female-to-males) in Sweden, 1973–2003. Random population controls (10:1) were matched by birth year and birth sex or reassigned (final) sex, respectively.

Main Outcome Measures: Hazard ratios (HR) with 95% confidence intervals (CI) for mortality and psychiatric morbidity were obtained with Cox regression models, which were adjusted for immigrant status and psychiatric morbidity prior to sex reassignment (adjusted HR [aHR]).

Results: The overall mortality for sex-reassigned persons was higher during follow-up (aHR 2.8; 95% CI 1.8–4.3) than for controls of the same birth sex, particularly death from suicide (aHR 19.1; 95% CI 5.8–62.9). Sex-reassigned persons also had an increased risk for suicide attempts (aHR 4.9; 95% CI 2.9–8.5) and psychiatric inpatient care (aHR 2.8; 95% CI 2.0–3.9). Comparisons with controls matched on reassigned sex yielded similar results. Female-to-males, but not male-to-females, had a higher risk for criminal convictions than their respective birth sex controls.

Conclusions: Persons with transsexualism, after sex reassignment, have considerably higher risks for mortality, suicidal behaviour, and psychiatric morbidity than the general population. Our findings suggest that sex reassignment, although alleviating gender dysphoria, may not suffice as treatment for transsexualism, and should inspire improved psychiatric and somatic care after sex reassignment for this patient group.

Citation: Dhejne C, Lichtenstein P, Boman M, Johansson ALV, Långström N, et al. (2011) Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden. PLoS ONE 6(2): e16885. doi:10.1371/journal.pone.0016885

Editor: James Scott, The University of Queensland, Australia

Received: September 30, 2010; **Accepted:** January 9, 2011; **Published:** February 22, 2011

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Funding: Financial support was provided through the regional agreement on medical training and clinical research (ALF) between Stockholm County Council and the Karolinska Institutet, and through grants from the Swedish Medical Research Council (K2008-62x-14647-06-3) and the Royal Swedish Academy of Sciences (Torsten Amundson's Foundation). The sponsors of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report. All authors had full access to the data in the study and the final responsibility for the decision to submit for publication was made by the corresponding author.

Competing Interests: The authors have declared that no competing interests exist.

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Introduction

Transsexualism (ICD-10),[1] or gender identity disorder (DSM-IV),[2] is a condition in which a person's gender identity - the sense of being a man or a woman - contradicts his or her bodily sex characteristics. The individual experiences gender dysphoria and desires to live and be accepted as a member of the opposite sex.

The treatment for transsexualism includes removal of body hair, vocal training, and cross-sex hormonal treatment aimed at making the person's body as congruent with the opposite sex as possible to alleviate the gender dysphoria. Sex reassignment also involves the surgical removal of body parts to make external sexual characteristics resemble those of the opposite sex, so called sex reassignment/confirmation surgery (SRS). This is a unique

intervention not only in psychiatry but in all of medicine. The present form of sex reassignment has been practised for more than half a century and is the internationally recognized treatment to ease gender dysphoria in transsexual persons.[3,4]

Despite the long history of this treatment, however, outcome data regarding mortality and psychiatric morbidity are scant. With respect to suicide and deaths from other causes after sex reassignment, an early Swedish study followed 24 transsexual persons for an average of six years and reported one suicide.[5] A subsequent Swedish study recorded three suicides after sex reassignment surgery of 175 patients.[6] A recent Swedish follow-up study reported no suicides in 60 transsexual patients, but one death due to complications after the sex reassignment surgery.[7] A Danish study reported death by suicide in 3 out of 29 operated male-to-female transsexual persons followed for an average of six years.[8] By contrast, a Belgian study of 107 transsexual persons followed for 4–6 years found no suicides or deaths from other causes.[9] A large Dutch single-centre study (N=1,109), focusing on adverse events following hormonal treatment, compared the outcome after cross-sex hormone treatment with national Dutch standardized mortality and morbidity rates and found no increased mortality, with the exception of death from suicide and AIDS in male-to-females 25–39 years of age.[10] The same research group concluded in a recent report that treatment with cross-sex hormones seems acceptably safe, but with the reservation that solid clinical data are missing.[11] A limitation with respect to the Dutch cohort is that the proportion of patients treated with cross-sex hormones who also had surgical sex-reassignment is not accounted for.[10]

Data is inconsistent with respect to psychiatric morbidity post sex reassignment. Although many studies have reported psychiatric and psychological improvement after hormonal and/or surgical treatment,[7,12,13,14,15,16] other have reported on regrets,[17] psychiatric morbidity, and suicide attempts after SRS.[9,18] A recent systematic review and meta-analysis concluded that approximately 80% reported subjective improvement in terms of gender dysphoria, quality of life, and psychological symptoms, but also that there are studies reporting high psychiatric morbidity and suicide rates after sex reassignment.[19] The authors concluded though that the evidence base for sex reassignment “is of very low quality due to the serious methodological limitations of included studies.”

The methodological shortcomings have many reasons. First, the nature of sex reassignment precludes double blind randomized controlled studies of the result. Second, transsexualism is rare [20] and many follow-ups are hampered by small numbers of subjects.[5,8,21,22,23,24,25,26,27,28] Third, many sex reassigned persons decline to participate in follow-up studies, or relocate after surgery, resulting in high drop-out rates and consequent selection bias.[6,9,12,21,24,28,29,30] Fourth, several follow-up studies are hampered by limited follow-up periods.[7,9,21,22,26,30] Taken together, these limitations preclude solid and generalisable conclusions. A long-term population-based controlled study is one way to address these methodological shortcomings.

Here, we assessed mortality, psychiatric morbidity, and psychosocial integration expressed in criminal behaviour after sex reassignment in transsexual persons, in a total population cohort study with long-term follow-up information obtained from Swedish registers. The cohort was compared with randomly selected population controls matched for age and gender. We adjusted for premorbid differences regarding psychiatric morbidity and immigrant status. This study design sheds new light on transsexual persons' health after sex reassignment. It does not, however, address whether sex reassignment is an effective treatment or not.

Methods

National registers

The study population was identified by the linkage of several Swedish national registers, which contained a total of 13.8 million unique individuals. The Hospital Discharge Register (HDR, held by the National Board of Health and Welfare) contains discharge diagnoses, up to seven contributory diagnoses, external causes of morbidity or mortality, surgical procedure codes, and discharge date. Discharge diagnoses are coded according to the 8th (1969–1986), 9th (1987–1996), and 10th editions (1997–) of the International Classification of Diseases (ICD). The register covers virtually all psychiatric inpatient episodes in Sweden since 1973. Discharges that occurred up to 31 December 2003 were included. Surgical procedure codes could not be used for this study due to the lack of a specific code for sex reassignment surgery. The Total Population Register (TPR, held by Statistics Sweden) is comprised of data about the entire Swedish population. Through linkage with the Total Population Register it was possible to identify birth date and birth gender for all study subjects. The register is updated every year and gender information was available up to 2004/2005. The Medical Birth Register (MBR) was established in 1973 and contains birth data, including gender of the child at birth. National censuses based on mandatory self-report questionnaires completed by all adult citizens in 1960, 1970, 1980, and 1990 provided information on individuals, households, and dwellings, including gender, living area, and highest educational level. Complete migration data, including country of birth for immigrants for 1969–2003, were obtained from the TPR. In addition to educational information from the censuses, we also obtained highest educational level data for 1990 and 2000 from the Register of Education. The Cause of Death Register (CDR, Statistics Sweden) records all deaths in Sweden since 1952 and provided information on date of death and causes of death. Death events occurring up to 31 December 2003 are included in the study. The Crime Register (held by the National Council of Crime Prevention) provided information regarding crime type and date on all criminal convictions in Sweden during the period 1973–2004. Attempted and aggravated forms of all offences were also included. All crimes in Sweden are registered regardless of insanity at the time of perpetration; for example, for individuals who suffered from psychosis at the time of the offence. Moreover, conviction data include individuals who received custodial or non-custodial sentences and cases where the prosecutor decided to caution or fine without court proceedings. Finally, Sweden does not differ considerably from other members of the European Union regarding rates of violent crime and their resolution.[31]

Study population, identification of sex-reassigned persons (exposure assessment)

The study was designed as a population-based matched cohort study. We used the individual national registration number, assigned to all Swedish residents, including immigrants on arrival, as the primary key through all linkages. The registration number consists of 10 digits; the first six provide information of the birth date, whereas the ninth digit indicates the gender. In Sweden, a person presenting with gender dysphoria is referred to one of six specialised gender teams that evaluate and treat patients principally according to international consensus guidelines: Standards of Care.[3] With a medical certificate, the person applies to the National Board of Health and Welfare to receive permission for sex reassignment surgery and a change of legal sex status. A new national registration number signifying the new gender is assigned after sex reassignment surgery. The National

Board of Health and Welfare maintains a link between old and new national registration numbers, making it possible to follow individuals undergoing sex reassignment across registers and over time. Hence, sex reassignment surgery in Sweden requires (i) a transsexualism diagnosis and (ii) permission from the National Board of Health and Welfare.

A person was defined as exposed to sex reassignment surgery if two criteria were met: (i) at least one inpatient diagnosis of gender identity disorder diagnosis without concomitant psychiatric diagnoses in the Hospital Discharge Register, and (ii) at least one discrepancy between gender variables in the Medical Birth Register (from 1973 and onwards) or the National Censuses from 1960, 1970, 1980, or 1990 and the latest gender designation in the Total Population Register. The first criterion was employed to capture the hospitalization for sex reassignment surgery that serves to secure the diagnosis and provide a time point for sex reassignment surgery; the plastic surgeons namely record the reason for sex reassignment surgery, i.e., transsexualism, but not any co-occurring psychiatric morbidity. The second criterion was used to ensure that the person went through all steps in sex-reassignment and also changed sex legally.

The date of sex reassignment (start of follow-up) was defined as the first occurrence of a gender identity disorder diagnosis, without any other concomitant psychiatric disorder, in the Hospital Discharge Register after the patient changed sex status (any discordance in sex designation across the Censuses, Medical Birth, and Total Population registers). If this information was missing, we used instead the closest date in the Hospital Discharge Register on which the patient was diagnosed with gender identity disorder without concomitant psychiatric disorder prior to change in sex status. The reason for prioritizing the use of a gender identity disorder diagnosis *after* changed sex status over *before* was to avoid overestimating person-years at risk of sex-reassigned person.

Using these criteria, a total of 804 patients with gender identity disorder were identified, whereof 324 displayed a shift in the gender variable during the period 1973–2003. The 480 persons that did not shift gender variable comprise persons who either did not apply, or were not approved, for sex reassignment surgery. Moreover, the ICD 9 code 302 is a non specific code for sexual disorders. Hence, this group might also comprise persons that were hospitalized for sexual disorders other than transsexualism. Therefore, they were omitted from further analyses. Of the remaining 324 persons, 288 were identified with the gender identity diagnosis *after* and 36 *before* change of sex status. Out of the 288 persons identified *after* changed sex status, 185 could also be identified *before* change in sex status. The median time lag between the hospitalization *before* and *after* sex change for these 185 persons was 0.96 years (mean 2.2 years, SD 3.3).

Gender identity disorder was coded according to ICD-8: 302.3 (transsexualism) and 302.9 (sexual deviation NOS); ICD-9: 302 (overall code for sexual deviations and disorders, more specific codes were not available in ICD-9); and ICD-10: F64.0 (transsexualism), F64.1 (dual-role transvestism), F64.8 (other gender identity disorder), and F64.9 (gender identity disorder NOS). Other psychiatric disorders were coded as ICD-8: 290-301 and 303-315; ICD-9: 290-301 and 303-319; and ICD-10: F00-F63 as well as F65-F99.

Identification of population-based controls (unexposed group)

For each exposed person ($N = 324$), we randomly selected 10 unexposed controls. A person was defined as unexposed if there were no discrepancies in sex designation across the Censuses, Medical Birth, and Total Population registers and no gender

identity disorder diagnosis according to the Hospital Discharge Register. Control persons were matched by sex and birth year and had to be alive and residing in Sweden at the estimated sex reassignment date of the case person. To study possible gender-specific effects on outcomes of interest, we used two different control groups: one with the same sex as the case individual at birth (birth sex matching) and the other with the sex that the case individual had been reassigned to (final sex matching).

Outcome measures

We studied mortality, psychiatric morbidity, accidents, and crime following sex reassignment. More specifically, we investigated: (1) all-cause mortality, (2) death by definite/uncertain suicide, (3) death by cardiovascular disease, and (4) death by tumour. Morbidity included (5) any psychiatric disorder (gender identity disorders excluded), (6) alcohol/drug misuse and dependence, (7) definite/uncertain suicide attempt, and (8) accidents. Finally, we addressed court convictions for (9) any criminal offence and (10) any violent offence. Each individual could contribute with several outcomes, but only one event per outcome. Causes of death (Cause of Death Registry from 1952 and onwards) were defined according to ICD as suicide (ICD-8 and ICD-9 codes E950-E959 and E980-E989, ICD-10 codes X60-X84 and Y10-Y34); cardiovascular disease (ICD-8 codes 390-458, ICD-9 codes 390-459, ICD-10 codes I00-I99); neoplasms (ICD-8 and ICD-9 codes 140-239, ICD-10 codes C00-D48); any psychiatric disorder (gender identity disorders excluded); (ICD-8 codes 290-301 and 303-315, ICD-9 codes 290-301 and 303-319, ICD-10 codes F00-F63 and F65-F99); alcohol/drug abuse and dependence (ICD-8 codes 303-304, ICD-9 codes 303-305 (tobacco use disorder excluded), ICD-10 codes F10-F16 and F18-F19 (x5 excluded)); and accidents (ICD-8 and ICD-9 codes E800-E929, ICD-10 codes V01-X59).

Any criminal conviction during follow-up was counted; specifically, violent crime was defined as homicide and attempted homicide, aggravated assault and assault, robbery, threatening behaviour, harassment, arson, or any sexual offense.[32]

Covariates

Severe psychiatric morbidity was defined as inpatient care according to ICD-8 codes 291, 295-301, 303-304, and 307; ICD-9 codes 291-292, 295-298, 300-301, 303-305 (tobacco use disorder excluded), 307.1, 307.5, 308-309, and 311; ICD-10 codes F10-F16, F18-F25, F28-F45, F48, F50, and F60-F62. Immigrant status, defined as individuals born abroad, was obtained from the Total Population Register. All outcome/covariate variables were dichotomized (i.e., affected or unaffected) and without missing values.

Statistical analyses

Each individual contributed person-time from study entry (for exposed: date of sex reassignment; for unexposed: date of sex reassignment of matched case) until date of outcome event, death, emigration, or end of study period (31 December 2003), whichever came first. The association between exposure (sex reassignment) and outcome (mortality, morbidity, crime) was measured by hazard ratios (HR) with 95% CIs, taking follow-up time into account. HRs were estimated from Cox proportional hazard regression models, stratified on matched sets (1:10) to account for the matching by sex, age, and calendar time (birth year). We present crude HRs (though adjusted for sex and age through matching) and confounder-adjusted HRs [aHRs] for all outcomes. The two potential confounders, immigrant status (yes/no) and history of severe psychiatric morbidity (yes/no) prior to sex

reassignment, were chosen based on previous research[18,33] and different prevalence across cases and controls (Table 1).

Gender-separated analyses were performed and a Kaplan-Meier survival plot graphically illustrates the survival of the sex reassigned cohort and matched controls (all-cause mortality) over time. The significance level was set at 0.05 (all tests were two-sided). All outcome/covariate variables were without missing values, since they are generated from register data, which are either present (affected) or missing (unaffected). The data were analysed using SAS version 9.1 (SAS Institute Inc., Cary, NC, USA).

Ethics

The data linking of national registers required for this study was approved by the IRB at Karolinska Institutet, Stockholm. All data were analyzed anonymously; therefore, informed consent for each individual was neither necessary nor possible.

Results

We identified 324 transsexual persons (exposed cohort) who underwent sex reassignment surgery and were assigned a new legal sex between 1973 and 2003. These constituted the sex-reassigned (exposed) group. Fifty-nine percent (N = 191) of sex-reassigned persons were male-to-females and 41% (N = 133) female-to-males, yielding a sex ratio of 1.4:1 (Table 1).

The average follow-up time for all-cause mortality was 11.4 (median 9.1) years. The average follow-up time for the risk of being hospitalized for any psychiatric disorder was 10.4 (median 8.1).

Characteristics prior to sex reassignment

Table 1 displays demographic characteristics of sex-reassigned and control persons prior to study entry (sex reassignment). There were no substantial differences between female-to-males and male-to-females regarding measured baseline characteristics. Immigrant status was twice as common among transsexual individuals compared to controls, living in an urban area somewhat more common, and higher education about equally prevalent. Transsexual individuals had been hospitalized for psychiatric morbidity other than gender identity disorder prior to sex reassignment about four times more often than controls. To adjust for these baseline discrepancies, hazard ratios adjusted for immigrant status and psychiatric morbidity prior to baseline are presented for all outcomes [aHRs].

Mortality

Table 2 describes the risks for selected outcomes during follow-up among sex-reassigned persons, compared to same-age controls of the same birth sex. Sex-reassigned transsexual persons of both genders had approximately a three times higher risk of all-cause mortality than controls, also after adjustment for covariates. Table 2

Table 1. Baseline characteristics among sex-reassigned subjects in Sweden (N = 324) and population controls matched for birth year and sex.

Characteristic at baseline	Sex-reassigned subjects (N = 324)	Birth-sex matched controls (N = 3,240)	Final-sex matched controls (N = 3,240)
Gender			
Female at birth, male after sex change	133 (41%)	1,330 (41%)	1,330 (41%)
Male at birth, female after sex change	191 (59%)	1,910 (59%)	1,910 (59%)
Average age at study entry [years] (SD, min-max)			
Female at birth, male after sex change	33.3 (8.7, 20–62)	33.3 (8.7, 20–62)	33.3 (8.7, 20–62)
Male at birth, female after sex change	36.3 (10.1, 21–69)	36.3 (10.1, 21–69)	36.3 (10.1, 21–69)
Both genders	35.1 (9.7, 20–69)	35.1 (9.7, 20–69)	35.1 (9.7, 20–69)
Immigrant status			
Female at birth, male after sex change	28 (21%)	118 (9%)	100 (8%)
Male at birth, female after sex change	42 (22%)	176 (9%)	164 (9%)
Both genders	70 (22%)	294 (9%)	264 (8%)
Less than 10 years of schooling prior to entry vs. 10 years or more			
Females at birth, males after sex change	49 (44%); 62 (56%)	414 (37%); 714 (63%)	407 (36%); 713 (64%)
Males at birth, females after sex change	61 (41%); 89 (59%)	665 (40%); 1,011 (60%)	595 (35%); 1,091 (65%)
All individuals with data	110 (42%); 151 (58%)	1,079 (38%); 1,725 (62%)	1,002 (36%); 1,804 (64%)
Psychiatric morbidity* prior to study entry			
Female at birth, male after sex change	22 (17%)	47 (4%)	42 (3%)
Male at birth, female after sex change	36 (19%)	76 (4%)	72 (4%)
Both genders	58 (18%)	123 (4%)	114 (4%)
Rural [vs. urban] living area prior to entry			
Female at birth, male after sex change	13 (10%)	180 (14%)	195 (15%)
Male at birth, female after sex change	20 (10%)	319 (17%)	272 (14%)
Both genders	33 (10%)	499 (15%)	467 (14%)

Note:

*Hospitalizations for gender identity disorder were not included.
doi:10.1371/journal.pone.0016885.t001

Table 2. Risk of various outcomes among sex-reassigned subjects in Sweden (N = 324) compared to population controls matched for birth year and birth sex.

	Number of events cases/ controls 1973–2003	Outcome incidence rate per 1000 person-years 1973–2003 (95% CI)		Crude hazard ratio (95% CI) 1973–2003	Adjusted* hazard ratio (95% CI) 1973–2003	Adjusted* hazard ratio (95% CI) 1973–1988	Adjusted* hazard ratio (95% CI) 1989–2003
		Cases	Controls				
Any death	27/99	7.3 (5.0–10.6)	2.5 (2.0–3.0)	2.9 (1.9–4.5)	2.8 (1.8–4.3)	3.1 (1.9–5.0)	1.9 (0.7–5.0)
Death by suicide	10/5	2.7 (1.5–5.0)	0.1 (0.1–0.3)	19.1 (6.5–55.9)	19.1 (5.8–62.9)	N/A	N/A
Death by cardiovascular disease	9/42	2.4 (1.3–4.7)	1.1 (0.8–1.4)	2.6 (1.2–5.4)	2.5 (1.2–5.3)	N/A	N/A
Death by neoplasm	8/38	2.2 (1.1–4.3)	1.0 (0.7–1.3)	2.1 (1.0–4.6)	2.1 (1.0–4.6)	N/A	N/A
Any psychiatric hospitalisation‡	64/173	19.0 (14.8–24.2)	4.2 (3.6–4.9)	4.2 (3.1–5.6)	2.8 (2.0–3.9)	3.0 (1.9–4.6)	2.5 (1.4–4.2)
Substance misuse	22/78	5.9 (3.9–8.9)	1.8 (1.5–2.3)	3.0 (1.9–4.9)	1.7 (1.0–3.1)	N/A	N/A
Suicide attempt	29/44	7.9 (5.5–11.4)	1.0 (0.8–1.4)	7.6 (4.7–12.4)	4.9 (2.9–8.5)	7.9 (4.1–15.3)	2.0 (0.7–5.3)
Any accident	32/233	9.0 (6.3–12.7)	5.7 (5.0–6.5)	1.6 (1.1–2.3)	1.4 (1.0–2.1)	1.6 (1.0–2.5)	1.1 (0.5–2.2)
Any crime	60/350	18.5 (14.3–23.8)	9.0 (8.1–10.0)	1.9 (1.4–2.5)	1.3 (1.0–1.8)	1.6 (1.1–2.4)	0.9 (0.6–1.5)
Violent crime	14/61	3.6 (2.1–6.1)	1.4 (1.1–1.8)	2.7 (1.5–4.9)	1.5 (0.8–3.0)	N/A	N/A

Notes:

*Adjusted for psychiatric morbidity prior to baseline and immigrant status.

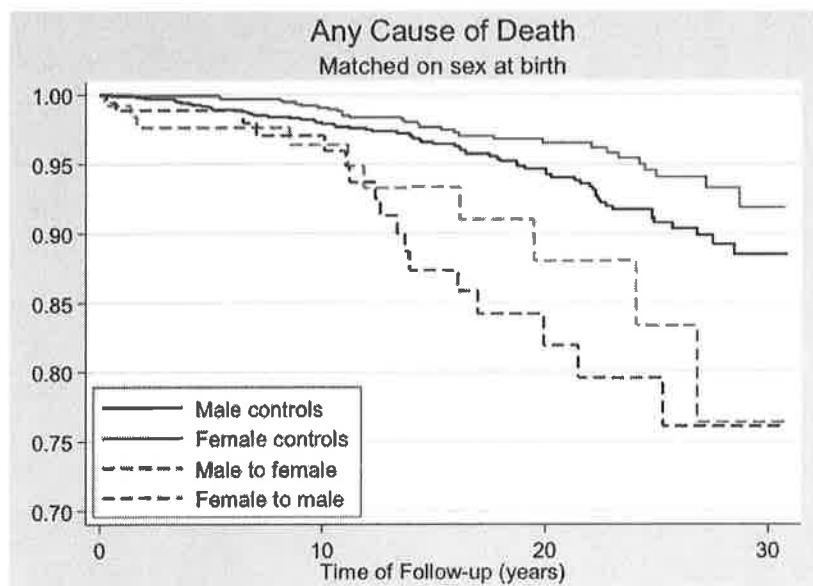
‡Hospitalisations for gender identity disorder were excluded.

N/A Not applicable due to sparse data.

doi:10.1371/journal.pone.0016885.t002

separately lists the outcomes depending on when sex reassignment was performed: during the period 1973–1988 or 1989–2003. Even though the overall mortality was increased across both time periods, it did not reach statistical significance for the period 1989–2003. The Kaplan-Meier curve (Figure 1) suggests that survival of transsexual persons started to diverge from that of matched controls after about 10 years of follow-up. The cause-specific mortality from

suicide was much higher in sex-reassigned persons, compared to matched controls. Mortality due to cardiovascular disease was moderately increased among the sex-reassigned, whereas the numerically increased risk for malignancies was borderline statistically significant. The malignancies were lung cancer (N = 3), tongue cancer (N = 1), pharyngeal cancer (N = 1), pancreas cancer (N = 1), liver cancer (N = 1), and unknown origin (N = 1).

**Figure 1.** Death from any cause as a function of time after sex reassignment among 324 transsexual persons in Sweden (male-to-female: N = 191, female-to-male: N = 133), and population controls matched on birth year.
doi:10.1371/journal.pone.0016885.g001

Psychiatric morbidity, substance misuse, and accidents

Sex-reassigned persons had a higher risk of inpatient care for a psychiatric disorder other than gender identity disorder than controls matched on birth year and birth sex (Table 2). This held after adjustment for prior psychiatric morbidity, and was true regardless of whether sex reassignment occurred before or after 1989. In line with the increased mortality from suicide, sex-reassigned individuals were also at a higher risk for suicide attempts, though this was not statistically significant for the time period 1989–2003. The risks of being hospitalised for substance misuse or accidents were not significantly increased after adjusting for covariates (Table 2).

Crime rate

Transsexual individuals were at increased risk of being convicted for any crime or violent crime after sex reassignment (Table 2); this was, however, only significant in the group who underwent sex reassignment before 1989.

Gender differences

Comparisons of female-to-males and male-to-females, although hampered by low statistical power and associated wide confidence intervals, suggested mostly similar risks for adverse outcomes (Tables S1 and S2). However, violence against self (suicidal behaviour) and others ([violent] crime) constituted important exceptions. First, male-to-females had significantly increased risks for suicide attempts compared to both female (aHR 9.3; 95% CI 4.4–19.9) and male (aHR 10.4; 95% CI 4.9–22.1) controls. By contrast, female-to-males had significantly increased risk of suicide attempts only compared to male controls (aHR 6.8; 95% CI 2.1–21.6) but not compared to female controls (aHR 1.9; 95% CI 0.7–4.8). This suggests that male-to-females are at higher risk for suicide attempts after sex reassignment, whereas female-to-males maintain a female pattern of suicide attempts after sex reassignment (Tables S1 and S2).

Second, regarding any crime, male-to-females had a significantly increased risk for crime compared to female controls (aHR 6.6; 95% CI 4.1–10.8) but not compared to males (aHR 0.8; 95% CI 0.5–1.2). This indicates that they retained a male pattern regarding criminality. The same was true regarding violent crime. By contrast, female-to-males had higher crime rates than female controls (aHR 4.1; 95% CI 2.5–6.9) but did not differ from male controls. This indicates a shift to a male pattern regarding criminality and that sex reassignment is coupled to increased crime rate in female-to-males. The same was true regarding violent crime.

Discussion

Principal findings and comparison with previous research

We report on the first nationwide population-based, long-term follow-up of sex-reassigned transsexual persons. We compared our cohort with randomly selected population controls matched for age and gender. The most striking result was the high mortality rate in both male-to-females and female-to-males, compared to the general population. This contrasts with previous reports (with one exception[8]) that did not find an increased mortality rate after sex reassignment, or only noted an increased risk in certain subgroups.[7,9,10,11] Previous clinical studies might have been biased since people who regard their sex reassignment as a failure are more likely to be lost to follow-up. Likewise, it is cumbersome to track deceased persons in clinical follow-up studies. Hence, population-based register studies like the present are needed to improve representativity.[19,34]

The poorer outcome in the present study might also be explained by longer follow-up period (median >10 years) compared to previous studies. In support of this notion, the survival curve (Figure 1) suggests increased mortality from ten years after sex reassignment and onwards. In accordance, the overall mortality rate was only significantly increased for the group operated before 1989. However, the latter might also be explained by improved health care for transsexual persons during 1990s, along with altered societal attitudes towards persons with different gender expressions.[35]

Mortality due to cardiovascular disease was significantly increased among sex reassigned individuals, albeit these results should be interpreted with caution due to the low number of events. This contrasts, however, a Dutch follow-up study that reported no increased risk for cardiovascular events.[10,11] A recent meta-analysis concluded, however, that data on cardiovascular outcome after cross-sex steroid use are sparse, inconclusive, and of very low quality.[34]

With respect to neoplasms, prolonged hormonal treatment might increase the risk for malignancies,[36] but no previous study has tested this possibility. Our data suggested that the cause-specific risk of death from neoplasms was increased about twice (borderline statistical significance). These malignancies (see Results), however, are unlikely to be related to cross-hormonal treatment.

There might be other explanations to increased cardiovascular death and malignancies. Smoking was in one study reported in almost 50% by the male-to-females and almost 20% by female-to-males.[9] It is also possible that transsexual persons avoid the health care system due to a presumed risk of being discriminated.

Mortality from suicide was strikingly high among sex-reassigned persons, also after adjustment for prior psychiatric morbidity. In line with this, sex-reassigned persons were at increased risk for suicide attempts. Previous reports [6,8,10,11] suggest that transsexualism is a strong risk factor for suicide, also after sex reassignment, and our long-term findings support the need for continued psychiatric follow-up for persons at risk to prevent this.

Inpatient care for psychiatric disorders was significantly more common among sex-reassigned persons than among matched controls, both before and after sex reassignment. It is generally accepted that transsexuals have more psychiatric ill-health than the general population prior to the sex reassignment.[18,21,22,33] It should therefore come as no surprise that studies have found high rates of depression,[9] and low quality of life[16,25] also after sex reassignment. Notably, however, in this study the increased risk for psychiatric hospitalisation persisted even after adjusting for psychiatric hospitalisation prior to sex reassignment. This suggests that even though sex reassignment alleviates gender dysphoria, there is a need to identify and treat co-occurring psychiatric morbidity in transsexual persons not only before but also after sex reassignment.

Criminal activity, particularly violent crime, is much more common among men than women in the general population. A previous study of all applications for sex reassignment in Sweden up to 1992 found that 9.7% of male-to-female and 6.1% of female-to-male applicants had been prosecuted for a crime.[33] Crime after sex reassignment, however, has not previously been studied. In this study, male-to-female individuals had a higher risk for criminal convictions compared to female controls but not compared to male controls. This suggests that the sex reassignment procedure neither increased nor decreased the risk for criminal offending in male-to-females. By contrast, female-to-males were at a higher risk for criminal convictions compared to female controls and did not differ from male controls, which suggests increased crime proneness in female-to-males after sex reassignment.

Strengths and limitations of the study

Strengths of this study include nationwide representativity over more than 30 years, extensive follow-up time, and minimal loss to follow-up. Many previous studies suffer from low outcome ascertainment,[6,9,21,29] whereas this study has captured almost the entire population of sex-reassigned transsexual individuals in Sweden from 1973–2003. Moreover, previous outcome studies have mixed pre-operative and post-operative transsexual persons,[22,37] while we included only post-operative transsexual persons that also legally changed sex. Finally, whereas previous studies either lack a control group or use standardised mortality rates or standardised incidence rates as comparisons,[9,10,11] we selected random population controls matched by birth year, and either birth or final sex.

Given the nature of sex reassignment, a double blind randomized controlled study of the result after sex reassignment is not feasible. We therefore have to rely on other study designs. For the purpose of evaluating whether sex reassignment is an effective treatment for gender dysphoria, it is reasonable to compare reported gender dysphoria pre and post treatment. Such studies have been conducted either prospectively[7,12] or retrospectively,[5,6,9,22,25,26,29,38] and suggest that sex reassignment of transsexual persons improves quality of life and gender dysphoria. The limitation is of course that the treatment has not been assigned randomly and has not been carried out blindly.

For the purpose of evaluating the safety of sex reassignment in terms of morbidity and mortality, however, it is reasonable to compare sex reassigned persons with matched population controls. The caveat with this design is that transsexual persons before sex reassignment might differ from healthy controls (although this bias can be statistically corrected for by adjusting for baseline differences). It is therefore important to note that the current study is only informative with respect to transsexuals persons health after sex reassignment; no inferences can be drawn as to the effectiveness of sex reassignment as a treatment for transsexualism. In other words, the results should not be interpreted such as sex reassignment *per se* increases morbidity and mortality. Things might have been even worse without sex reassignment. As an analogy, similar studies have found increased somatic morbidity, suicide rate, and overall mortality for patients treated for bipolar disorder and schizophrenia.[39,40] This is important information, but it does not follow that mood stabilizing treatment or antipsychotic treatment is the culprit.

Other facets to consider are first that this study reflects the outcome of psychiatric and somatic treatment for transsexualism provided in Sweden during the 1970s and 1980s. Since then, treatment has evolved with improved sex reassignment surgery, refined hormonal treatment,[11,41] and more attention to psychosocial care that might have improved the outcome. Second, transsexualism is a rare condition and Sweden is a small country (9.2 million inhabitants in 2008). Hence, despite being based on a

comparatively large national cohort and long-term follow-up, the statistical power was limited. Third, regarding psychiatric morbidity after sex reassignment, we assessed inpatient psychiatric care. Since most psychiatric care is provided in outpatient settings (for which no reliable data were available), underestimation of the *absolute* prevalences was inevitable. However, there is no reason to believe that this would change the *relative risks* for psychiatric morbidity unless sex-reassigned transsexual individuals were more likely than matched controls to be admitted to hospital for any given psychiatric condition.

Finally, to estimate start of follow-up, we prioritized using the date of a gender identity disorder diagnosis *after* changed sex status over *before* changed sex status, in order to avoid overestimating person-years at risk after sex-reassignment. This means that adverse outcomes might have been underestimated. However, given that the median time lag between the hospitalization before and after change of sex status was less than a year (see Methods), this maneuver is unlikely to have influenced the results significantly. Moreover, all deaths will be recorded regardless of this exercise and mortality hence correctly estimated.

Conclusion

This study found substantially higher rates of overall mortality, death from cardiovascular disease and suicide, suicide attempts, and psychiatric hospitalisations in sex-reassigned transsexual individuals compared to a healthy control population. This highlights that post surgical transsexuals are a risk group that need long-term psychiatric and somatic follow-up. Even though surgery and hormonal therapy alleviates gender dysphoria, it is apparently not sufficient to remedy the high rates of morbidity and mortality found among transsexual persons. Improved care for the transsexual group after the sex reassignment should therefore be considered.

Supporting Information

Table S1 Risk of various outcomes in sex-reassigned persons in Sweden compared to population controls matched for birth year and birth sex.

(DOCX)

Table S2 Risk of various outcomes in sex-reassigned persons in Sweden compared to controls matched for birth year and final sex.

(DOCX)

Author Contributions

Conceived and designed the experiments: CD PL AJ NL ML. Performed the experiments: MB AJ. Analyzed the data: CD PL MB AJ NL ML. Contributed reagents/materials/analysis tools: PL NL AJ. Wrote the paper: CD PL MB AJ NL ML.

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PATIENT SAFETY

Outcomes Article

EXHIBIT

4 - Schechter, MD

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Evidence-Based Patient Safety Advisory: Blood Dyscrasias

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Summary: Rarely, patients with blood disorders may seek to undergo plastic surgery. Although plastic surgeons are not expected to diagnose or manage blood disorders, they should be able to recognize which patients are suitable for surgery and which should be referred to a hematologist before a procedure. This practice advisory provides an overview of the perioperative steps that should be completed to ensure appropriate care for patients with blood disorders. (*Plast. Reconstr. Surg.* 124 (Suppl.): 82S, 2009.)

The term "blood dyscrasia" refers to any pathologic condition of the blood involving disorders of the blood's cellular components (platelets, white blood cells, or red blood cells) or soluble plasma components required for proper coagulation (coagulation factors). In general, most of these blood disorders can be broken down into two basic categories based on the patient's coagulation phenotype: hypocoagulable (hemorrhagic) states and hypercoagulable (thrombotic) states. Each category includes heritable and acquired causes.

During normal hemostasis, various factors operate in combination to arrest bleeding after vascular injury. Early in the coagulation response, platelets aggregate to form a plug at the site of the ruptured vessel. After initial bleeding control has been achieved, the platelet plug is stabilized by means of fibrin deposition, effectively sealing the break in the vessel and preventing further bleeding. Fibrin deposition is initiated by a cascading series of proteolytic events involving coagulation factors (Fig. 1). This efficient coagulation system is controlled at

several steps by means of anticoagulant mechanisms to ensure that the clotting process remains localized to the area of damage.

Hypocoagulable patients typically have difficulty controlling bleeding as a result of decreased platelet numbers or loss-of-function mutations affecting specific clotting factors. By contrast, hypercoagulable patients typically exhibit excessive thrombus formation resulting from hyperactive platelet aggregation, increased platelet numbers, or mutations affecting the function of specific clotting factors (Fig. 1). Whatever the source of the defect in the coagulation cascade, these patients' risks of bleeding or thrombosis during surgery is increased significantly over the normal patient, and complications may result if they are not diagnosed or treated appropriately.

There is a paucity of published clinical research pertaining to the perioperative care of surgical patients with blood dyscrasias. In an effort to ensure patient safety, the American Society of Plastic Surgeons (ASPS) Patient Safety Committee sought to develop a practice advisory to assist decision-making for patients with blood disorders who seek to undergo elective surgical procedures. The current practice advisory thus provides an overview of the perioperative steps that should be completed to ensure appropriate care for these patients. These guidelines are designed for use by

From the American Society of Plastic Surgeons' Patient Safety Committee.

Received for publication March 3, 2009; accepted May 27, 2009.

Approved by the ASPS Executive Committee, January 10, 2009.

The members of the ASPS Patient Safety Committee are listed at the end of this article.

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DOI: 10.1097/PRS.0b013e3181b54640

Disclosure: *The authors have no financial conflicts related to this article.*

Hypercoagulable (Thrombotic)

Hypocoagulable (Hemorrhagic)

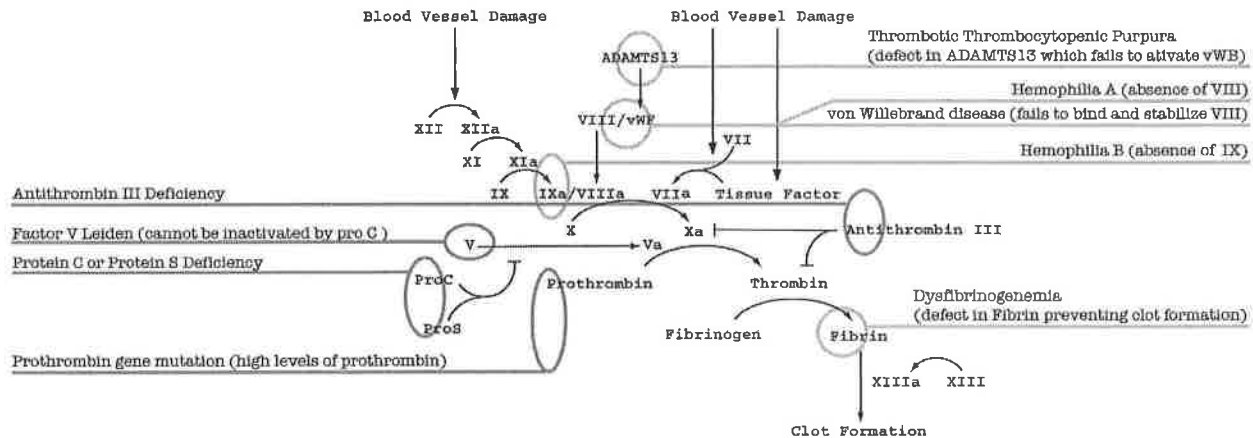


Fig. 1. The coagulation cascade and associated defects.

any health care practitioner managing the peri-operative care of patients with bleeding disorders. Although plastic surgeons are not expected to manage hypocoagulable and hypercoagulable disorders, they should be able to recognize which patients are suitable for surgery and which should be referred to a hematologist before a procedure.

This patient safety advisory was developed through a comprehensive review of the scientific literature and a consensus of the Patient Safety Committee. The supporting literature was critically appraised for study quality according to criteria referenced in key publications on evidence-based medicine.¹⁻⁵ Depending on study design and quality, each reference was assigned a corresponding level of evidence (I through V) with the ASPS Evidence Rating Scale (Table 1),⁶ and the evidence was synthesized into practice recommendations. The recommendations were then graded (A through D) with the ASPS Grades of Recommendation Scale (Table 2)⁷; grades correspond to

the levels of evidence provided by the supporting literature for that recommendation. Practice recommendations are discussed throughout this document, and graded recommendations are summarized in Appendix A.

DISCLAIMER

Practice advisories are strategies for patient management, developed to assist physicians in clinical decision-making. This practice advisory, based on a thorough evaluation of the present scientific literature and relevant clinical experience, describes a range of generally acceptable approaches to diagnosis, management, or prevention of specific diseases or conditions. This practice advisory attempts to define principles of practice that should generally meet the needs of most patients in most circumstances. However, this practice advisory should not be construed as a rule, nor should it be deemed inclusive of all proper methods of care or exclusive of other methods of care reasonably directed at obtaining the appropriate results. It is anticipated that it will be necessary to approach some patients' needs in different ways. The ultimate judgment regarding the care of a particular patient must be made by the physician in light of all the circumstances presented by the patient, the diagnostic and treatment options available, and available resources.

This practice advisory is not intended to define or serve as the standard of medical care. Standards of medical care are determined on the basis of all the facts or circumstances involved in an individual case and are subject to change as scien-

Table 1. Evidence Rating Scale for Studies Reviewed

Level of Evidence	Qualifying Studies
I	High-quality, multicentered or single-centered, randomized controlled trial with adequate power; or systematic review of these studies
II	Lesser quality, randomized controlled trial; prospective cohort study; or systematic review of these studies
III	Retrospective comparative study; case-control study; or systematic review of these studies
IV	Case series
V	Expert opinion; case report or clinical example; or evidence based on physiology, bench research, or "first principles"

Table 2. Scale for Grading Recommendations

Grade	Descriptor	Qualifying Evidence	Implications for Practice
A	Strong recommendation	Level I evidence or consistent findings from multiple studies of levels II, III, or IV	Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present.
B	Recommendation	Levels II, III, or IV evidence and findings are generally consistent	Generally, clinicians should follow a recommendation but should remain alert to new information and sensitive to patient preferences.
C	Option	Levels II, III, or IV evidence, but findings are inconsistent	Clinicians should be flexible in their decision-making regarding appropriate practice, although they may set bounds on alternatives; patient preference should have a substantial influencing role.
D	Option	Level V: Little or no systematic empirical evidence	Clinicians should consider all options in their decision-making and be alert to new published evidence that clarifies the balance of benefit versus harm; patient preference should have a substantial influencing role.

tific knowledge and technology advance, and as practice patterns evolve. This practice advisory reflects the state of knowledge current at the time of publication. Given the inevitable changes in the state of scientific information and technology, periodic review and revision will be necessary.

PATIENT SELECTION

Medical care has become sufficiently advanced that patients with complex blood disorders can safely undergo a variety of surgical procedures. However, there remain inherent risks associated with any surgical procedure, and these can be exacerbated in patients with blood dyscrasias. The literature is unclear about whether patients with blood dyscrasias are appropriate candidates for ambulatory surgery. Only minor outpatient procedures (e.g., dental) have been described in the literature. Most patients with hypocoagulable or hypercoagulable states need close monitoring for many days following surgery; however, this can now be accomplished with outpatient testing.

During the preoperative assessment, patients should be evaluated for a history of bleeding, bruising, or thrombosis, including any family history of these conditions. Evidence of unusual postsurgical bleeding, epistaxis, gingival bleeding, and (in women) menorrhagia and a history of pregnancy complications such as stillbirth, preterm delivery, and recurrent miscarriages may be signs of an undiagnosed blood dyscrasia.⁸⁻¹⁵ In addition, patients should be asked about their use of antithrombotic drugs and other drugs/supplements (i.e., over-the-counter and herbal) that may affect coagulation.⁸ In its evidence-based guidelines for managing patients with bleeding disorders,¹⁶ the National Heart, Lung, and Blood Institute has provided appropriate ques-

tions to ask patients during the preoperative assessment (Appendix B).

Although routine screening of all patients is not recommended, patients who have a positive history for bleeding, bruising, or thrombosis should undergo preoperative coagulation and/or thrombophilia screening.^{8,16,17} Initial hemostasis laboratory tests may include platelet count and complete blood count, activated partial thromboplastin time, prothrombin time, and optionally either a fibrinogen level or a thrombin time.^{8,16} Bleeding time may be useful to detect severe blood disorders, but is often unreliable for detecting mild or moderate cases.^{8,16} If initial tests are positive or inconclusive, referral may be necessary for further evaluation.

PERIOPERATIVE MANAGEMENT

For patients with hypocoagulable or hypercoagulable states who are candidates for surgical procedures, the following points should be taken into consideration when preparing a detailed preoperative plan for the treatment of local bleeding/thrombi formation:

- Hemostatic laboratory monitoring.
- The choice of treatment for the disorder.
- Preoperative confirmation of the treatment's effectiveness in the specific patient.
- The dose and duration of the treatment.
- Anticipated side effects of the treatment.

HYPOCOAGULABLE (HEMORRHAGIC) STATES

Hypocoagulable, or hemorrhagic, states are characterized by inappropriate or excessive bleeding and a failure to form blood clots. As with any

Volume 124, Number 4S • Blood Dyscrasias

medical procedure, there are several possible complications that may arise in association with surgical treatment; however, in patients with hypocoagulable states, the risk of excessive bleeding is the primary concern.

Patients with hypocoagulable disorders taking prophylactic coagulation factors in combination with anticoagulants need to be closely monitored before, during, and after surgery. Medications administered for a particular disorder are often monitored to determine the effectiveness of the coagulation therapy. Coagulation is often monitored by activated partial thromboplastin time, prothrombin time, and other methods, similar to full coagulation workups typically performed preoperatively. Thrombin generation assays, which measure clotting time, the amount of thrombin that forms, and the time it remains active, have also been used to monitor coagulation efficiency in patients.¹⁸ Thromboelastographic assessment, which determines the kinetics of clot formation and the strength and stability of the formed clot, has also been used to monitor coagulation in patients with these disorders.^{19,20}

There are two sequelae of coagulation therapy that need to be considered. First, patients undergoing coagulation-factor replacement therapy to control bleeding need to be monitored closely and treated for possible thrombi formation.^{21,22} Second, the development of inhibitors (antibodies) against human-derived factors is a common and serious complication of factor replacement therapy. Because of the complexity of controlling coagulation in patients who have developed inhibitors, the risks of elective procedures should be considered carefully,

and these patients may not be candidates for elective surgery. If surgery is necessary, patients should undergo surgical procedures in centers with personnel well skilled in perioperative inhibitor management.^{23,24}

The treatment of patients with hypocoagulable states depends on the cause and nature of the procedure. For patients with mild disease who are undergoing minor surgical procedures, desmopressin and/or antifibrinolytic agents may facilitate local hemostasis.^{12,25,26} However, bleeding episodes and surgical procedures typically require the use of blood-derived or recombinant replacement factors (Fig. 2).^{18,27-38} For patients who have developed inhibitors against standard factor replacements, therapies that bypass the inhibitors have been used.^{23,39-46} Other treatments such as platelet concentrate, red blood cells, fresh frozen plasma, plasmapheresis, and cryoprecipitate have been described but depend on the type and severity of bleeding disorder.^{20,47-50}

There are several specific conditions, either inherited or acquired, that can cause excessive bleeding. Below are descriptions of the most common bleeding disorders followed by recommendations for perioperative management. Because von Willebrand disease and hemophilia often require similar management, treatment/prophylactic options are discussed concurrently after their descriptions.

von Willebrand Disease

The von Willebrand factor, a multimeric plasma glycoprotein, normally functions to me-

Hypercoagulable (Thrombotic)

Hypocoagulable (Hemorrhagic)

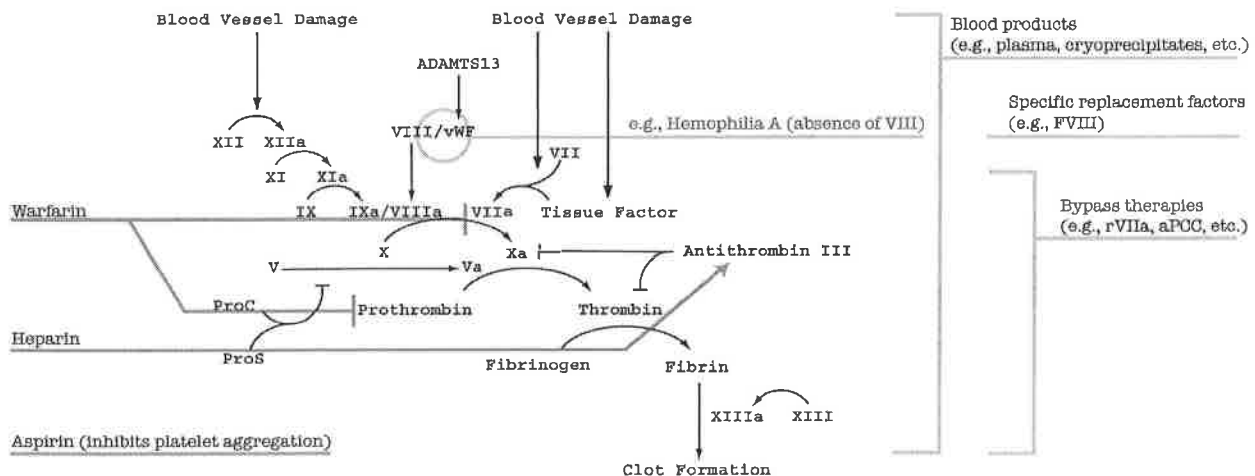


Fig. 2. Action of blood products and replacement factors on the coagulation cascade.

diate the initial adhesion of platelets and transport factor VIII to the site of vascular injury, promoting the activation of thrombin. The disease is typically characterized by defects in von Willebrand factor that cause low platelet adhesion and increased turnover of factor VIII, which results in the inhibition of normal blood-clotting mechanisms and an increased risk of bleeding.^{51,52} Defects in von Willebrand factor can be attributable to a variety of mutations and/or abnormal multimer patterns.⁵¹ After initial coagulation tests have been performed, specific tests for diagnosing or excluding the disease include von Willebrand factor ristocetin cofactor activity, von Willebrand factor antigen, and factor VIII activity. Additional tests may include evaluation of the ratio of von Willebrand factor activity (von Willebrand factor ristocetin cofactor activity and/or von Willebrand factor collagen binding) to von Willebrand factor antigen, ristocetin-induced platelet aggregation, and analysis of von Willebrand factor multimers.^{16,53}

Von Willebrand disease cannot be attributed to one particular defect, as several distinct mechanisms have been identified, resulting in different forms of the disease. Three main types of the disease have been defined: type 1, the most common form, represents partial deficiency of von Willebrand factor; type 2 variants represent qualitative abnormalities of von Willebrand factor; and type 3 represents severe deficiency of von Willebrand factor (Table 3).⁵¹ It is important to identify the type of von Willebrand disease, as each has important clinical features requiring specific therapeutic approaches.

Table 3. Classification of von Willebrand Disease*

Type	Description
1	Partial quantitative deficiency of vWF
2	Qualitative vWF defects
A	Decreased vWF-dependent platelet adhesion and a selective deficiency of high-molecular-weight vWF multimers
B	Increased affinity for platelet glycoprotein Ib
M	Decreased vWF-dependent platelet adhesion without a selective deficiency of high-molecular-weight vWF multimers
N	Markedly decreased binding affinity for factor VIII
3	Virtually complete deficiency of vWF

vWF, von Willebrand factor.

*From Sadler JE, Budde U, Eikenboom J, et al. Update on the pathophysiology and classification of von Willebrand disease: A report of the Subcommittee on von Willebrand Factor. *J Thromb Haemost.* 2006;4:2103–2114.

Hemophilia

Hemophilia is an inherited X-chromosome-linked disorder characterized by deficiencies of factor VIII (hemophilia A) and factor IX (hemophilia B). These factors normally act to promote the formation of active thrombin. Hemophilia results in decreased thrombin activation, which can inhibit normal blood-clotting mechanisms, thus increasing the risk of bleeding. Hemophilia is diagnosed with initial coagulation tests and specific factor assays, and is classified by bleeding risk (mild, moderate, or severe), which typically correlates with coagulation factor activity (Table 4).^{54,55}

Prophylaxis and Treatment for von Willebrand Disease and Hemophilia

Desmopressin

1-Deamino-8-D-arginine vasopressin (desmopressin) is the first-line approach to prophylaxis and treatment in patients with von Willebrand disease and hemophilia A.^{16,56} A synthetic analogue of vasopressin, desmopressin releases bound stores of von Willebrand factor and factor VIII from the vascular endothelium, thereby increasing the plasma concentration of these coagulation factors. Approximately 80 percent of patients with the disease respond favorably to desmopressin⁵⁷; however, the response depends on the specific type and location of mutations and the multimeric pattern of von Willebrand factor.^{52,58} Desmopressin is effective in most type 1 and some type 2 patients. Because type 3 patients are completely deficient in von Willebrand factor and have no bound stores to release, they are completely unresponsive to desmopressin.^{16,57} In patients with hemophilia, response rates depend on the type and severity of disease. Patients with mild hemophilia A respond

Table 4. Classification of Hemophilia*

Classification	Residual Factor Concentration	Description
Mild	0.05–0.35 IU/ml or 5–35%	No spontaneous bleeding; delayed-onset bleeding after trauma, surgery, or dental extractions
Moderate	0.01–0.05 IU/ml or 1–5%	Bleeding into joints or muscles with minor trauma; excessive bleeding with surgery
Severe	<0.01 IU/ml or <1%	Spontaneous joint, muscle, and internal bleeding; excessive bleeding with trauma or surgery

*From Israels S, Schwetz N, Boyar R, McNicol A. Bleeding disorders: Characterization, dental considerations and management. *J Can Dent Assoc.* 2006;72:827.

favorably to the drug; patients with moderate to severe hemophilia A or any form of hemophilia B typically are unresponsive.^{56,57}

The standard dosing of injectable desmopressin is 0.3 µg/kg administered intravenously in 30 to 50 ml of normal saline over 30 minutes, with peak increments of factor VIII and von Willebrand factor 30 to 90 minutes after infusion. Although desmopressin is also available in a nasal spray, intravenous administration is recommended for surgical procedures. Before surgery, a test infusion should be considered to evaluate the patient's response to desmopressin.^{16,52,59}

Coagulation Factor Replacement

For patients who do not respond to desmopressin, the next approach involves replacement of deficient coagulation factors. Patients with von Willebrand disease often receive von Willebrand factor, typically by infusion of exogenous von Willebrand factor contained in plasma-derived von Willebrand factor/factor VIII concentrates.^{22,27,28,30–32,50,60–62} Perioperative management with von Willebrand factor concentrates depends on the invasiveness of surgery. Table 5 lists the National Heart, Lung, and Blood Institute evidence-based guidelines for the perioperative use of von Willebrand factor concentrate in major and minor surgery.

Patients with hemophilia can be treated with plasma-derived or recombinant factor VIII or factor IX concentrates.^{18,21,33,34,36–38,63–65} For perioperative management, recommended dosages vary by product but generally are 35 to 50 U/kg for factor VIII and 70 to 100 U/kg for factor IX, both with a target factor activity level of 0.7 to 1.0 U/ml (70 to 100 percent).⁵⁷

Adjunctive Agents

Adjunctive agents, such as antifibrinolytics (e.g., tranexamic acid or ε-aminocaproic acid)

and topical thrombin and fibrin sealants, can be used with desmopressin or replacement factors and may further facilitate hemostasis.^{26,57} In some cases (dental and minor skin wounds), these agents may even be used alone to treat local bleeding.⁶⁶

Patients with Inhibitors

Development of inhibitors against coagulation factors is the most common and serious complication of replacement therapy in patients with bleeding disorders. Although rare in patients with von Willebrand disease and hemophilia A, inhibitors develop in approximately 25 to 33 percent of patients with hemophilia B.^{24,56,67} Newly and previously treated patients can develop inhibitors, justifying the need for frequent screening, especially before surgical procedures. Patients are diagnosed by inhibitor type (low or high-responding) and titer [measured in Bethesda units (BU)] as follows^{24,67}:

- Low responders: patients have low titers (≤5 BU), even despite immunologic challenges.
- High responders, low titer: patients have low titers at evaluation that become high (>5 BU) in response to immunologic challenges.
- High responder, high titer: patients have high titer on evaluation; titers can decrease over time in some patients.

There are several hemostatic products available for patients with inhibitors; however, treatment depends on the type and current titer of the inhibitor. Typically, low-responding inhibitors can be overcome by high doses of plasma-derived or recombinant factor VIII or factor IX. High-responding inhibitors of low or high titer typically require bypassing agents including activated pro-

Table 5. NHLBI Evidence-Based Guidelines for the Perioperative Use of vWF Concentrate*

Perioperative Period	Type of Surgery	
	Major	Minor
Loading dose (vWF:RCo IU/dl)	40–60 U/kg	30–60 U/kg
Maintenance dose	20–40 U/kg every 8–24 hr	20–40 U/kg every 12–48 hr
Monitoring	vWF:RCo and factor VIII trough and peak, at least daily	vWF:RCo and factor VIII trough and peak, at least once
Therapeutic goal	Trough vWF:RCo and factor VIII >50 IU/dl for 7–14 days	Trough vWF:RCo and factor VIII >50 IU/dl for 3–5 days
Safety parameter	Do not exceed vWF:RCo 200 IU/dl or factor VIII 250–300 IU/dl	Do not exceed vWF:RCo 200 IU/dl or factor VIII 250–300 IU/dl
Other	May alternate with DDAVP for latter part of treatment	May alternate with DDAVP for latter part of treatment

NHLBI, National Heart, Lung, and Blood Institute; vWF, von Willebrand factor; RCo, ristocetin cofactor; DDAVP, desmopressin.

*Modified from Nichols W; Expert Panel, and National Hemophilia Foundation. The diagnosis, evaluation and management of von Willebrand disease. Available at: <http://www.nhlbi.nih.gov/guidelines/vwd/vwd.pdf>. Accessed September 22, 2008.

thrombin complex concentrates, such as factor VIII inhibitor bypassing activity (factor VIII inhibitor bypassing activity)^{39,42,68} or recombinant factor VIIa, alone or in combination with antifibrinolytic agents.^{23,29,35,40–46,66,69–72} The recommended starting dose for factor VIII inhibitor bypassing activity is 50 to 100 $\mu\text{g}/\text{kg}$; for recombinant factor VIIa, 90 $\mu\text{g}/\text{kg}$. Additional doses should be administered perioperatively as needed.²⁴

Thrombocytopenia

Thrombocytopenias are characterized by reduced levels of blood platelets, and can be inherited or acquired. Inherited thrombocytopenias are often attributed to defects in platelet size, whereas acquired forms typically result from an autoimmune condition, drug toxicity, or underlying disease. Normally, the level of platelets is maintained by the balance of production in the bone marrow and removal by the spleen. When this balance is disrupted, thrombocytopenia develops. Management of the condition depends on cause, but most thrombocytopenias are effectively managed by increasing the total number of platelets before surgery, usually by platelet transfusion, total plasma exchange, or immunosuppressant therapy.

In patients with idiopathic thrombocytopenia, platelet concentrate, red blood cells, fresh frozen plasma,^{48,49} corticosteroids, and immunoglobulin G^{73,74} have been used to control bleeding during surgery. Vinca alkaloids have been used successfully in idiopathic thrombocytopenia patients who fail to respond to corticosteroids.⁷⁴ Of note, acute heart failure may represent an extremely important clinical risk in patients with thrombotic thrombocytopenia who are undergoing surgery. Therefore, thrombotic thrombocytopenia patients with active-phase disease should undergo a preoperative cardiac workup, including an electrocardiogram, echocardiogram, determination of cardiac enzymes levels, and invasive arterial blood pressure monitoring.⁷⁵

HYPERCOAGULABLE (THROMBOTIC) STATES

Hypercoagulable, or thrombotic, states are characterized by an increased risk of inappropriate or excessive blood clot formation. These conditions may be attributable to lifestyle risks, such as obesity, smoking, and inadequate exercise; prothrombotic states such as malignancy or pregnancy; or genetic risk factors. Table 6 lists genetic conditions associated with thrombosis formation.

In patients with hypercoagulation, the risk of venous thromboembolism is the greatest periop-

Table 6. Genetic Hypercoagulable (Thrombotic) States

Characteristic	Condition
Anticoagulant deficiency or defect	Antithrombin Protein C Protein S
Abnormal coagulant protein	Factor V Leiden Prothrombin gene mutation (20210)
Increased procoagulant Abnormal metabolism	Dysfibrinogenemia Prothrombin factor VIII Hyperhomocysteinemia

erative concern.^{76–78} Several studies support preoperative testing for heritable thrombophilic defects to aid in the prediction of first-time and recurrent venous thromboembolism episodes. One study showed that venous thromboembolism recurrence rates were significantly increased in patients with hypercoagulable disorders.⁷⁶ In another study, patients who had thrombotic events after total hip arthroplasty were more likely than matched control patients to have hypercoagulable disorders, including the prothrombin gene mutation, protein C deficiency, or antithrombin III deficiency.⁷⁷ In addition, patients with polycythemia vera and essential thrombocythemia were five times as likely as patients without blood disorders to develop venous thromboembolism after major surgery.⁷⁸

The literature includes case reports of plastic surgery patients who developed venous thromboembolism events that may have been related to the prothrombin gene mutation. One patient undergoing reconstruction for squamous cell carcinoma developed multiple thromboses, resulting in venous microvascular anastomotic failure.¹² Another developed pulmonary thromboembolism after a face lift, despite normal preoperative coagulation tests.⁷⁹ Consideration should be made, however, to one study reporting that venous thromboembolism recurrence rates were not related to the presence of heritable thrombophilia ($p = 0.187$).⁸⁰

Use of oral contraceptives or hormone replacement therapy may further increase venous thromboembolism risk in patients with hypercoagulable disorders. For oral contraceptive use, significant associations of venous thromboembolism risk were found in women with factor V Leiden; deficiencies of antithrombin, protein C, or protein S; elevated levels of factor VIIIc; and factor V Leiden and prothrombin G20210A.^{17,81} In addition, use of oral contraceptives in patients with factor V Leiden, the prothrombin gene mutation, or hyperhomocysteinemia may increase risk of re-

current thrombi formation.⁷⁶ A significant association was also found between factor V Leiden and use of hormone replacement therapy.¹⁷ In general, it is up to the physician to decide whether to discontinue usage of hormone replacement therapy and oral contraceptives and to discuss this with his or her patients when discussing these risks.

In patients with hypercoagulable states, the use of prophylactic anticoagulants (e.g., heparin, warfarin) constitutes the primary management approach before, during, and after surgery (Fig. 2). Because anticoagulant therapy can lead to excessive bleeding, patients receiving such prophylaxis must be monitored closely. As mentioned previously, activated partial thromboplastin time, thrombin generation assays, and thromboelastographic assessment represent the spectrum of available monitoring modalities.^{18–20,82} As with normal patients, postoperative graduated compression stockings, intermittent pneumatic compression devices, and early mobilization are used in hypercoagulable patients to prevent thrombosis.^{77,83,84} For more information on prophylaxis, see Haeck et al., “Evidence-Based Patient Safety Advisory: Patient Selection and Procedures in Ambulatory Surgery,” in this issue.

Additional therapeutic measures may include coagulation factor replacement (e.g., total volume exchange transfusions, plasmapheresis, or fresh frozen plasma)^{19,85,86}; however, coagulation factor/blood product replacement therapy is not typically performed for patients with hypercoagulable disorders (as they are in hypocoagulable states) because of the inherent risks associated with blood products and the possibility of inhibitor formation.⁸⁷ Intravenous immunoglobulin G can also be used in the case of hypercoagulable states derived from autoimmune disorders.⁸⁷ Patients with myeloproliferative disorders that result in increased platelet counts can be treated with phlebotomy and/or cytoreductive therapy (e.g., hydroxyurea, anagrelide, and interferon).^{78,88,89}

CONCLUSIONS

Patients with blood dyscrasias can safely undergo elective surgical procedures; however, because of their inherent bleeding and thrombotic risks, these patients may or may not be suitable candidates for outpatient surgery. The surgeon should conduct a thorough medical history, including family history, to identify any possible blood disorders, and refer patients for further coagulation testing as needed. It is recommended that the surgeon consult with a hematologist to determine whether a patient is suitable for out-

patient surgery, to develop an appropriate plan for perioperative treatment/monitoring, and to ensure proper hemostasis and prevention of thrombi formation.

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ACKNOWLEDGMENTS

The Patient Safety Committee thanks Morgan Tucker, Ph.D., for assistance with literature searches, data extraction, and article preparation; and DeLaine Schmitz, R.N., M.S.H.L., and Patti Swakow at the ASPS for assistance with article review.

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Volume 124, Number 4S • Blood Dyscrasias

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Volume 124, Number 4S • Blood Dyscrasias

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Appendix A. Summary of Recommendations

Recommendation	Supporting Evidence	Grade
PATIENT SELECTION		
Medical history (see Appendix B) It is recommended that the medical history include questions about: <ul style="list-style-type: none"> • Personal and family history of recurrent bleeding, bruising, or thrombosis • In women, a history of menorrhagia and/or pregnancy complications • Previous excessive posttraumatic or postsurgical bleeding • Use of antithrombotic drugs and other drugs/supplements that may affect coagulation (i.e., herbal remedies, HRT, oral contraceptives). 	8–17	B
PREOPERATIVE TESTING		
<ul style="list-style-type: none"> • If bleeding and thrombosis history is negative, preoperative coagulation testing is not recommended. • If bleeding and thrombosis history is positive or there is a clear clinical indication (e.g., liver disease), preoperative coagulation testing is recommended. • For patients requiring coagulation tests, first-line clotting tests may include activated partial thromboplastin time and prothrombin time. Bleeding time may or may not be helpful, depending on severity of blood disorder. 	8, 16, 17	B
PERIOPERATIVE MANAGEMENT		
Hypocoagulable (hemorrhagic) states		
von Willebrand disease		
<ul style="list-style-type: none"> • Determine type of vWD: type 1, type 2 (A, B, M, or N), or type 3. 	16, 52, 58	B
<ul style="list-style-type: none"> • Consider desmopressin as first approach to bleeding prophylaxis (most type 1; some type 2 patients; type 3 patients do not respond to desmopressin). 	16, 25, 50, 52, 57, 58, 90	B
<ul style="list-style-type: none"> • For patients who do not respond to desmopressin (most type 2 and all type 3), consider replacement factors, vWF/VIII plasma-derived concentrates. 	16, 27, 30, 32, 50, 57, 60, 90–98	B
<ul style="list-style-type: none"> • If patients have an inadequate response to factor concentrates, additional tests should be considered to test for inhibitors. 	16, 57	B
<ul style="list-style-type: none"> • Adjunctive agents (e.g., antifibrinolytics, topical thrombin or fibrin) can be considered, as needed. 	16, 26, 50, 57, 99	D
<ul style="list-style-type: none"> • Before surgery, the patient's response to therapies should be evaluated to ensure adequate hemostasis. 	16, 52, 57, 58	B
Hemophilia		
<ul style="list-style-type: none"> • For patients with hemophilia A, consider desmopressin as first approach to bleeding prophylaxis (desmopressin is not effective in patients with hemophilia B). 	56, 57	D
<ul style="list-style-type: none"> • For patients who do not respond to desmopressin, consider plasma-derived or recombinant replacement factor concentrates, factor VIII (hemophilia A), and factor IX (hemophilia B). 	18, 29, 33–38, 56, 57, 64, 65, 72	B
<ul style="list-style-type: none"> • If patients have an inadequate response to factor concentrates, additional tests should be considered to test for inhibitors. 	24, 56, 57	B
<ul style="list-style-type: none"> • Adjunctive agents (e.g., antifibrinolytics, topical thrombin or fibrin) can be considered, as needed. 	24, 46, 56, 65, 66	D
<ul style="list-style-type: none"> • Before surgery, the patient's response to therapies should be evaluated to ensure adequate hemostasis. 	56, 57	D

(Continued)

Appendix A. (Continued)

Recommendation	Supporting Evidence	Grade
Patients with inhibitors		
• For patients with low-responding inhibitors, consider high doses of recombinant factor concentrates, or plasma-derived concentrates if recombinant forms are unavailable.	24, 57	D
• For high-responding inhibitors, either low or high titer, consider recombinant factor VIII or factor IX, or bypass therapies, aPCC (e.g., FEIBA) or recombinant factor VIIa.	12, 23, 24, 39–46, 57, 66, 69–72, 100	B
• Adjunctive agents (e.g., antifibrinolytics, topical thrombin or fibrin) can be considered, as needed.	24, 44, 46, 57	D
• Before surgery, the patient's response to therapies should be evaluated to ensure adequate hemostasis.	24, 57	D
Thrombocytopenias		
• Increase platelet count preoperatively.	48	D
• Consider the use of corticosteroids or IgG.	73	D
• Consider vinca alkaloids for patients who do not respond to corticosteroids.	74	D
• Consider platelet concentrate, red blood cells, fresh frozen plasma, and plasmapheresis.	48, 49, 75	D
Hypercoagulable (thrombotic) states		
• Presence of thrombophilia disorders is considered a significant risk for the development of VTE.	12, 17, 77–79	B
• It is unclear whether presence of thrombophilia increases risk for recurrent VTE.	76, 80	C
• Prophylactic anticoagulants (e.g., heparin, warfarin, aspirin) should be considered before, during, and after surgery; medications should be adjusted as needed to prevent hemorrhage.	18–20, 82, 83	D
• Postoperative graduated compression stockings, intermittent pneumatic compression devices, and early mobilization are recommended after surgery to prevent thrombosis.	77, 83, 84	D
<i>For more information on DVT/PE prophylaxis, consult "Evidence-Based Patient Safety Advisory: Patient Selection and Procedures in Ambulatory Surgery," in this issue.</i>		

HRT, hormone replacement therapy; vWD, von Willebrand disease; vWF, von Willebrand factor; aPCC, activated prothrombin complex concentrates; FEIBA, factor VIII inhibitor bypassing activity; IgG, immunoglobulin G; VTE, venous thromboembolism; DVT, deep vein thrombosis; PE, pulmonary embolism.

APPENDIX B. SUGGESTED QUESTIONS FOR SCREENING PERSONS FOR A BLEEDING DISORDER*

*Adapted from Nichols W; Expert Panel, and National Hemophilia Foundation. The diagnosis, evaluation and management of von Willebrand disease. Available at: <http://www.nhlbi.nih.gov/guidelines/vwd/vwd.pdf>. Accessed September 22, 2008.

1. Have you or a blood relative ever needed medical attention for a bleeding problem or been told you have a bleeding disorder or problem:
 - During/after surgery?
 - With dental procedures, extractions?
 - With trauma?
 - During childbirth or for heavy menses?
 - Ever had bruises with lumps?
2. Do you have or have you ever had:
 - Liver or kidney disease, a blood or bone marrow disorder; a high or low platelet count?

3. Do you take aspirin, NSAIDs (provide common names), clopidogrel (Plavix; Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership, Bridgewater, N.J.), warfarin, heparin, or other drugs/supplements (i.e., other over-the-counter and/or herbal remedies)?

If any of the answers to question questions *and* obtain history of treatment and examine patient for signs of bleeding or underlying disease.

1. Do you have a blood relative who has a bleeding disorder, such as von Willebrand disease or hemophilia?
2. Have you ever had prolonged bleeding from trivial wounds, lasting more than 15 minutes or recurring spontaneously during the 7 days after the wound?
3. Have you ever had heavy, prolonged, or recurrent bleeding after surgical procedures, such as tonsillectomy?
4. Have you ever had bruising, with minimal or

Volume 124, Number 4S • Blood Dyscrasias

no apparent trauma, especially if you could feel a lump under the bruise?

5. Have you ever had a spontaneous nosebleed that required more than 10 minutes to stop or needed medical attention?
6. Have you ever had heavy, prolonged, or recurrent bleeding after dental extractions that required medical attention?
7. Have you ever had blood in your stool, unexplained by a specific anatomical lesion (such as an ulcer in the stomach or a polyp in the colon), that required medical attention?

8. Have you ever had anemia requiring treatment or received blood transfusion?

9. For women, have you ever had heavy menses, characterized by the presence of clots greater than 1 inch in diameter and/or changing a pad or tampon more than hourly, or resulting in anemia or low iron level?

If the bleeding history is positive, initial laboratory tests and possible referral are recommended.