	• May cause the body to convert extra testosterone into estrogen that can slow down or stop me from appearing more masculine.
	Taking testosterone can cause changes that increase the risk of heart disease. These changes include: • Less good cholesterol (HDL) that may protect against heart disease and more bad cholesterol (LDL) that may increase the risk of heart disease; • Higher blood pressure; and • More deposits of fat around the internal organs
	Taking testosterone can damage the liver and possibly lead to liver disease.
	Taking testosterone can increase red blood cells and hemoglobin, which may increase my risk of life-threatening problems such as stroke or heart attack.
	Taking testosterone can increase the risk for diabetes (high blood sugars), which decrease the body's response to insulin, cause weight gain, and increase deposits of fat around internal organs increasing the risk of heart disease and stroke.
	Treatment with testosterone can cause ovaries to not release eggs and may cause infertility.
	Treatment with testosterone increases the risk of cancer to the uterus, ovaries, or breasts. It is unclear if taking testosterone plays any role in HPV infection or cervical cancer.
	Taking testosterone causes or worsen migraines.
	Taking testosterone can cause emotional changes, such as irritability, frustration, aggression, and anger.

Risks of Finasteride

Patient	Statement
	Finasteride may be an appropriate treatment option in individuals experiencing bothersome alopecia resulting from testosterone treatment.
	Finasteride may have side effects which include: • decreased libido • dry skin • acne • Breast swelling and tenderness • headache • irregular menstruation • dizziness • increased body hair
	Finasteride is not approved by the FDA for use in biological women and is forbidden in pregnant women due to birth defects.

Requirements of Treatment with HRT

Patient	Statement
	Compliance with the requirements explained above is a prerequisite to receive treatment with testosterone.
	The prescribing physician may stop prescribing testosterone if the prescribing physician or mental health care professionals providing treatment pursuant to this consent determine the benefit of treatment no longer outweighs the risks, there is insufficient social or psychological support, or the requirements in this consent are not met.
	I understand that I may decide to stop treatment at any time.

Prevention of Complications while under Treatment of HRT

Patient	Statement
	I agree to notify the prescribing physician if I suffer from any side effects during treatment or am unhappy with the treatment in any way, and if I have any concerns that I have worsening signs of depression or anxiety or wants to harm myself or attempt suicide or attempt suicide.
	The prescribing physician is required to monitor me for any side effects during treatment and may refer me to another physician or specialist for treatment.

CONSENT:

My signature below confirms that:

1. My prescribing physician has talked with me about:
    a. The benefits and risks of taking testosterone;
    b. The possible or likely consequences of hormone therapy; and
    c. Potential alternative treatments.

2. The information provided to me in this form and by the prescribing physician includes the known effects and risks of treatment with testosterone. I know that there may be other unknown short-term and long-term effects or risks.

3. I have had sufficient time and opportunity to discuss relevant treatment options with my prescribing physician.

4. All my questions have been answered to my satisfaction by my prescribing physician.

5. I know enough to give informed consent to take, refuse, or postpone taking testosterone.

6. The Florida Board of Medicine or the Florida Board of Osteopathic Medicine requires that your prescribing physician provide this form in accordance with section 456.52, F.S. This form contains information required to be disclosed to you by Florida law and does not necessarily reflect the views or opinions of your physician.

7. My signature below attests to my consent to begin treatment with testosterone.

Based on all this information:

_____ I want to begin or continue taking testosterone
_____ I want to begin or continue taking finasteride
_____ I do not wish to begin or continue taking masculinizing medication

_____
Patient's printed name (required)

_____ _____
Patient's signature (required) Date

PRESCRIBING PHYSICIAN:

My signature below attests to my compliance with 456.52, Florida Statutes.

_____
Prescribing physician's printed name (required)

_____ _____
Prescribing physician's signature (required) Date

WITNESS:

_____

Witness' printed name (required)

_____ _____

Witness' signature (required) Date

FOR PATIENTS WHOSE PRIMARY LANGUAGE IS NOT ENGLISH:

I certify that I am fluid in English and in the native language of the person indicating consent and/or assent on the above form. I certify that I have accurately and completely interpreted the contents of this form, and that the patient has indicated understanding of the contents of this form.

_____

Interpreter's printed name

_____ _____

Interpreter's signature Date

Surgical Treatment for Adults with Gender Dysphoria

Patient Information and Informed Consent

Before having surgery to treat gender dysphoria, you need to be aware of the effects and possible risks of these procedures. Your surgeon will make a medical decision, in consultation with you, about the procedures that are best for you, keeping in mind your overall health.

Your surgeon will discuss with you all the information relating to the surgery. You are asked to read and understand the following information and to discuss any questions you have with your surgeon. After your questions or concerns are addressed and you have decided to have surgery you must initial the statements below and sign this form in person with your surgeon.

What are the types of surgery to treat gender dysphoria?

Surgery to treat gender dysphoria may involve procedures on the face, chest, or genitalia. Common surgery options include:

- **Facial reconstructive surgery** to make facial features more masculine or feminine.
- **Chest or "Top" surgery** to remove breast tissue for a more masculine appearance or enhance breast size and shape for a more feminine appearance.
- **Genital or "Bottom" surgery** to transform and reconstruct the genitalia.
  - **Orchiectomy:** A bilateral orchiectomy is a procedure performed by a urologist that involves surgical removal of the testicles through a small scrotal incision. This procedure is done with a particular technique that allows for vaginoplasty later, if desired. Afterward, patients may adjust their dose of estrogens downward and no longer require spironolactone. Recovery takes approximately 2 weeks. Individuals seeking orchiectomy may wish to consider semen banking to preserve future fertility options.
  - **Vaginoplasty**: In addition to an orchiectomy, a person may elect to undergo a vaginoplasty, which is a surgical procedure that involves reconstructing the genitals to create external female genitalia with or without a vaginal cavity.
  - **Phalloplasty:** This surgery involves a multi-staged procedure for the creation of a penis, urinary channel to allow urination, scrotum, and the obliteration of the vaginal cavity with closure. The removal of the female genital organs such as the uterus and ovaries and fallopian tubes are required and usually performed separately and prior to the phalloplasty surgery. The creation of the penis is performed with use of tissue from other parts of the body, which could include, more commonly the radial forearm free flap, or anterolateral thigh flap, and latissimus dorsi (MLD) flap. Prosthetics such as silicone or saline testicles can be placed as well as inflatable penile prosthetics in the final stage.
  - **Metoidioplasty:** In this procedure, the surrounding tissue of the clitoris is released to achieve maximal length and a more natural-looking male position. A urethra is also

reconstructed using either local skin tissue or a graft from the mouth depending on the amount of tissue present. Construction of a scrotum with testicular prosthetics can also be performed at the same time.
- **Hysterectomy:** Removal of the uterus and cervix via laparoscopic or vaginal techniques.
- **Salpingo-oophorectomy:** Removal of the fallopian tubes and ovaries.
- **Vaginectomy:** Obliteration of the vaginal canal and opening.

Is surgery the only treatment for gender dysphoria?

Surgery is just one option. Not everyone who has gender dysphoria chooses to have surgery. Depending on your age and preferences, you may choose:

- Treatment by a licensed mental health care professional that has experience in treating people with gender dysphoria, which is recommend regardless of whether you undergo surgery due to the high risk of anxiety, depression, self-harm, and suicide.
- Hormone replacement therapy to increase masculine or feminine characteristics.
- Another option is _____.

What are some potential complications of surgery to treat gender dysphoria?

Potential complications include:
- Changes in sexual sensation
- Trouble with bladder emptying
- Bleeding
- Infection
- Nerve damage
- Decrease in function
- Poor healing
- Scarring that can cause pain, firmness, asymmetry
- Side effects of anesthesia, including death

What happens after surgery to treat gender dysphoria?

Recovery times vary based on what procedures or combination of procedures you have as follows:

- **Cheek and nose surgery:** Swelling lasts for around two to four weeks.
- **Chin and jaw surgery:** Most swelling fades within two weeks but may take up to four months for swelling to completely disappear.
- **Chest surgery:** Swelling and soreness lasts for one to two weeks with physical limitations lasting at least one month.

- **Bottom surgery:** Most people do not resume usual activities until at least six weeks after surgery and weekly follow-up visits with your surgeon for several months will be necessary.

When should I see my surgeon?

After surgery, you should see your surgeon if you experience:
- Bleeding for more than a few days.
- Pain that does not go away after several weeks.
- Signs of infection, such as a wound that changes color or does not heal.

Please initial each statement on this form to show that you understand the risks and changes associated with gender dysphoria surgeries.

Patient	Statement
	I understand that my surgeon will discuss with me during the preoperative process the available surgical procedures to treat gender dysphoria, the aftercare needs following surgery, and the importance of postoperative follow-up.
	I understand that these surgeries are permanent.
	I understand that if I have my breasts removed, I must undergo reconstructive surgery if I wish to have breasts in the future. If implants are used, complications may include pain, numbness, infection, bleeding, asymmetry, hardening, rippling, scarring, and the possible need for multiple surgeries.
	I understand that if I have my breasts removed that breast feeding will never be possible.
	I understand that if I my breast augmentation surgery, complications may include pain, numbness, infection, bleeding, asymmetry, hardening, rippling, scarring, and the possible need for multiple surgeries.
	I understand that my surgeon will assess me for risk factors associated with breast cancer prior to breast augmentation or mastectomy, including genetic mutations (i.e., BRCA1, BRCA2), family history, age, radiation, exposure to estrogen, and the amount of breast tissue anticipated to remain after surgery.
	I understand that if I undergo metoidioplasty/phalloplasty I will need lifelong urological treatment.
	I understand that complications following metoidioplasty/phalloplasty include: • urinary tract strictures and fistulas • mucoceles due to vaginal remnant • hair growth within the neourethra

	• compromised sexual function including absent tactile and/or erogenous sensation, difficulties achieving orgasm • complications with penile prosthetics
	I understand that if I undergo vaginoplasty I will need lifelong treatment with my surgeon, primary care physician, and/or gynecologist.
	I understand that if I undergo vaginoplasty, complications can include: • the formation of granulation tissue • intravaginal hair growth • delayed wound healing and/or wound disruption • introital stenosis (closing, narrowing, or closure) • painful sex
	I understand that my surgeon may stop further treatment because the risks of treatment outweigh the benefits of treatment.
	I understand that this treatment will not prevent serious psychiatric events, including suicide.
	I agree to tell my surgeon if I have any problems or side effects or am unhappy with the surgery, including if I have worsening signs of depression or anxiety or want to harm myself or attempt suicide.
	I understand that my surgeon may be required to refer me to one or more specialists for surgery-related complications, and I agree to go to those specialists as recommended.
	I acknowledge that surgery to treat gender dysphoria is only part of my overall health and that a range of preventative health activities are recommended including: • cervical/prostrate screening tests at appropriate intervals as recommended by my doctor • regularly checking my breasts for lumps, even if I have had a mastectomy • regular mammograms from an appropriate age in consultation with my doctor • quitting smoking • immunizations • regular STI screening, depending on my level of risk • HIV prevention, depending on my level of risk • regular physical activity, including resistance exercise for bone health • healthy eating

CONSENT:

My signature below confirms that:

1. My surgeon has talked with me about:
   a. the benefits and risks of surgery to treat gender dysphoria;
   b. the possible or likely consequences of surgery to treat gender dysphoria;
   c. potential alternative treatments.

2. The information provided to me in this form and by the surgeon includes the known effects and risks of surgery to treat gender dysphoria. I know that there may be other unknown short-term and long-term effects or risks

3. I have had sufficient time and opportunity to discuss relevant treatment options with my surgeon.

4. All my questions have been answered to my satisfaction by my surgeon.

5. I know enough to give informed consent to have, refuse, or postpone surgery to treat gender dysphoria.

6. The Florida Board of Medicine or the Florida Board of Osteopathic Medicine requires that your prescribing physician provide this form in accordance with section 456.52, F.S. This form contains information required to be disclosed to you by Florida law and does not necessarily reflect the views or opinions of your surgeon.

7. My signature below attests to my consent to surgery to treat gender dysphoria.

My signature below confirms the following:

_____ _____

Patient's signature (required) Date

_____ _____

Patient's signature (required) Date

SURGEON:

My signature below attests to my compliance with 456.52, Florida Statutes.

_____
Surgeon's printed name (required)

_____ _____
Surgeon's signature (required) Date

WITNESS:

_____
Witness' printed name (required)

_____ _____
Witness' signature (required) Date

FOR PATIENTS WHOSE PRIMARY LANGUAGE IS NOT ENGLISH:
I certify that I am fluid in English and in the native language of the person indicating consent on the above form. I certify that I have accurately and completely interpreted the contents of this form, and that the patient has indicated understanding of the contents of this form.

_____
Interpreter's printed name

_____ _____
Interpreter's Signature Date

DRAFT FOR JUNE 23, 2023 - JOINT COMMITTEE MEETING

64B8ER-XX/64B15ER-XX - Mandatory Standardized Informed Consent for Sex-reassignment Prescriptions or Procedures in Adults

Pursuant to Section 456.52, Florida Statutes, when sex-reassignment prescriptions or procedures are prescribed for or administered or performed on patients 18 years of age or older, the physician is required to obtain voluntary, informed consent while physically present in the same room as the patient. Consent is not required for renewal of such prescriptions if a physician and the physician's patient have met the requirements for consent for the initial prescription or renewal; however, a separate consent is required for any new prescription for a pharmaceutical product not previously prescribed to the patient.

(1) Informed Consent. The Board has approved the following mandatory informed consent forms for sex-reassignment prescriptions or procedures for patients 18 years of age or older:

(a) For patients prescribed sex-reassignment feminizing medication, form DOH-MQA-XXXX, (06/23), entitled "NAME," which is hereby incorporated by reference and available from http://www.flrules.org/Gateway/reference.asp?No=Ref- and from the Board's website at [DOH LINK].

(b) For patients prescribed sex-reassignment masculinizing medications, form DOH-MQA-XXXX, (06/23), entitled "NAME," which is hereby incorporated by reference and available from http://www.flrules.org/Gateway/reference.asp?No=Ref- and from the Board's website at [DOH LINK].

(c) For patients undergoing surgical treatment, form DOH-MQA-XXXX, (06/23), entitled "NAME," which is hereby incorporated by reference and available from http://www.flrules.org/Gateway/reference.asp?No=Ref- and from the Board's website at [DOH LINK].

(2) A Board-approved informed consent form is not executed until:

(a) The physician issuing the prescription or performing the procedure, while physically present in the same room as the patient, has informed the patient of the nature and risks of the prescription or procedure and has provided and received the patient's written acknowledgement before the prescription is prescribed, administered, or performed. The physician is prohibited from delegating this responsibility to another person. The physician is also required to sign the informed consent form.

(b) The patient is required to sign the informed consent form.

(c) A competent witness is also required to sign the informed consent form.

Rulemaking Authority 456.52 FS. Law Implemented 456.52 FS. History – New____.

Standard of Care for Medical Treatment of Transgender Youth and Adults

1) Background
    a. Treatment of children with gender dysphoria/gender incongruence most commonly begins with early social transition (but not in the original Dutch Protocol as early social transition was discouraged) or late social transition, followed by puberty blocking in Tanner 2-3 puberty, then by cross-sex hormones and in some cases, gender affirming surgeries in a minority of cases in childhood but typically after a child has reached the age of majority.
        i. *This phased approach is not based on a robust scientific evidence base, but rather consensus opinion and limited observational cohort studies with short periods of observation after the interventions. Further, these studies have all lacked control groups even though not all transgender children and adults opt for medical and or surgical treatments. The most recent guidelines from the Endocrine Society published in 2017 rated the existing published evidence to support these clearly risky interventional therapies as low or very low quality and urged the scientific community to conduct more robust research in this area.*
    b. Fundamentally, therefore all four of these treatment modalities are of an **experimental nature when used in adults and children.**
    c. All four of these treatments are experimental in nature because we lack long-term prospective controlled trials which would usually allow a robust detailed ascertainment of the risks and /or benefits of these four interventional, high risk-treatments for gender dysphoria/gender incongruence.
    d. Finally, there are no well-done comparative studies to no medical treatment, psychological support with hormones, or exploratory psychodynamic therapy alone or in combination with hormonal treatments.
2) Definitions
    a. Cisgender: This means not transgender
    b. Gender Reassignment: This refers to the treatment procedure for those who want to adapt their bodies to the experienced gender by means of hormones and/or surgery.
    c. Gender-reassignment surgery: These terms refer only to the surgical part of gender confirming\gender affirming treatment.
    d. Gender Dysphoria: This is the distress and unease experienced if gender identity and designated gender are not completely congruent.
    e. Gender Incongruence: This is an umbrella term use when the gender identity and/or gender expression differs from what is typically associated with the designated gender. Gender incongruence is also the proposed

name of the gender identity related diagnoses in ICD-11. **Not all individuals with gender incongruence have gender dysphoria or seek treatment**.

f. Transgender: This is an umbrella term for people who have a gender identity and/or gender expression that differs from what is typically associated with their sex designated at birth. Not all transgender individuals seek treatment.
g. Transgender males (Transmales): This refers to individuals assigned female at birth but who identify and live as men.
h. Transgender woman (Transfemales): This refers to individuals assigned male at birth but who identify and live as women.
i. Transition: This refers to the process during which transgender persons change their physical, social, and/or legal characteristics consistent with the affirmed gender identity. Prepubertal children may choose to transition socially (this was expressly discouraged in the Dutch protocol).

3) Psychiatric Support *(Adapted from the 2017 Endocrine Society Guidelines)*
   a. **Mental Health Providers (MHP) Adults**: We determine that only trained mental health professionals (MHPs) who meet the following criteria should diagnose gender dysphoria (GD)/gender incongruence in adults: (1) competence in using the Diagnostic and Statistical Manual of Mental Disorders (DSM) and/or the International Statistical Classification of Diseases and Related Health Problems (ICD) for diagnostic purposes, (2) the ability to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (e.g., body dysmorphic disorder), (3) training in diagnosing psychiatric conditions, (4) the ability to undertake or refer for appropriate treatment, (5) the ability to psychosocially assess the person's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) a practice of regularly attending relevant professional meetings. **Mental Health Providers (MHP) Children**: We determine that only MHPs who meet the following criteria should diagnose GD/gender incongruence in children and adolescents: (1) training in child and adolescent developmental psychology and psychopathology, (2) competence in using the DSM and/or the ICD for diagnostic purposes, (3) the ability to make a distinction between GD/gender incongruence and conditions that have similar features (e.g., body dysmorphic disorder, sexual trauma, internalized homophobia, autism spectrum disorder, etc.) (4) training in diagnosing psychiatric conditions, (5) the ability to undertake or refer for appropriate treatment, (6) the ability to psychosocially assess the person's understanding and social conditions that can impact gender-affirming hormone therapy, (7) a practice of regularly attending relevant professional meetings, and (8)

knowledge of the criteria for puberty blocking and gender-affirming hormone treatment in adolescents.

b. **Medical Treatment Standards**: **First,** we forbid puberty blocking and gender-affirming hormone treatment in prepubertal children with gender dysphoria/gender incongruence. **Second,** we mandate that clinicians inform and counsel all individuals seeking continuation of gender-affirming medical treatment regarding options for fertility preservation prior to continuing puberty suppression or cross-sex hormones or hormone antagonist therapy in adolescents. **Third,** in adolescents who request continuation of cross-sex hormone treatment (given this is a partly irreversible treatment), we mandate using a gradually increasing dosing schedule of testosterone or estrogen treatment only after a multidisciplinary team of medical and MHPs has confirmed the persistence of GD/gender incongruence and sufficient mental capacity to give informed consent, which adolescents have typically by the age of 16 years. It must be understood that earlier use of cross-sex hormones is based on very little empirical data. As an example, the Trans Youth Care Study which used cross sex hormones in younger transgender youth than the Dutch protocol where cross-sex hormones were used ~16 years of age documented rates of completed suicide and suicidal ideation that were ~21x higher than the general population of children/adolescents. **Fourth,** we mandate monitoring clinical pubertal development every 6 months and laboratory parameters every 3 months during sex hormone treatment in all youth. **Fifth,** at every visit we expect prescribing physicians to review all possible, unexpected and expected side effects and help these patients manage the consequences of any side effects related to medical treatment. **In adults treated with any hormonal therapy we**: **First,** we mandate that clinicians confirm the diagnostic criteria of GD/gender incongruence and the criteria for the endocrine phase of gender transition before beginning treatment. **Second**, we mandate that clinicians evaluate and address medical conditions that can be exacerbated by hormone depletion and treatment with sex hormones of the affirmed gender before beginning treatment. **Third,** we mandate that clinicians measure hormone levels during treatment to ensure that endogenous sex steroids are suppressed and administered sex steroids are maintained in the normal physiologic range for the affirmed gender. **Fourth,** we mandate that prescribing physicians or endocrinologists provide education to transgender individuals undergoing treatment about the onset and time course of physical changes induced by sex hormone treatment and review possible, unexpected and expected side effects and help these patients manage the consequences of any and all side effects possibly related or reasonably related to treatment. These discussions and review of side effects must be noted in the medical record as well.

c. **Informed consent (IC) and assent:** must be obtained in all children at 2-4 weeks before initiation and every 6 months thereafter. These consents must be signed by all legal guardians and verbal assent of the child before continuing therapy. All subsequent visits must include a system wide review of all adverse effects and plans to care for any complications or side effects that arise during treatment. In adults only IC will need to occur yearly with review of any side effects in each clinic visit and noted in the record of follow up care as well.
d. **The IC process should be occurring simultaneously while non-judgmental exploratory psychotherapy** has been ongoing for at least 6-12 months with multiple sessions each month before any escalation of therapy.
e. **Ongoing medical treatment:** cannot continue to occur if the child or adult with gender dysphoria is suffering from any other active psychopathology. As in the Dutch protocol these children and adults must be stable psychologically with adequate treatment of any ongoing psychiatric co-morbidities and under adequate control to continue with medical treatment.
f. **It must be explicit that all medical treatment with gonadotropin releasing hormone agonists, or any cross-sex hormones or other hormonal therapies used in children are experimental in nature:** and may not be safe nor effective in alleviating all symptoms of gender dysphoria/gender incongruence while potentially:
    i. predisposing the child to persist in their gender dysphoria long-term (classic boys with early onset dysphoria have very high desistance rates near 85% according to the 2017 Endocrine Society guidelines).
    ii. lead to physical changes in their body which are irreversible.
    iii. result in persistent medical risks that may increase over time, both in the short-term and long-term,
    iv. resulting in numerous multi-system health effects that could be life threatening.
    v. potentially lead to serious challenges in daily health, activities of daily living, psychological and social functioning. **They may die despite taking this gender affirming hormonal interventions.**

f) **Any physician in the state of Florida who prescribes any medical treatments for the purpose of sex-reassignment in children or medical and/or surgical treatments related to sex-reassignment in adults with gender dysphoria/gender incongruence** must: strive to follow that patient throughout their treatment course and serve as the "physician of record" to always help that individual patient for any reason that is reasonably related to the prescribed medical therapies they received even if: At 18 to 21 years of age they need to formally transfer

that care to an adult physician skilled in this area. *This continuity of care mandate always applies:*

vi. Even if they should decide to persist or desist in their gender dysphoria and any related medical treatments.
vii. Even if it is difficult for that physician to see these patients to deal with all adverse outcomes or complications of any hormonal treatments.
viii. Even if that prescribing physician needs to collaborate or coordinate and/or refer to any other licensed physician who agrees to see that patient, to deal with any complications that may arise from any medical treatment or treatments to align primary or secondary sexual characteristics with the preferred gender of the patient.
ix. While expecting that all physician complaints coming from anyone in the health care system, or from the patient, or their families, will need to be processed by the DOH and then the respective boards of medicine or osteopathic medicine will determine if there has been any poor adherence to the standards of practice elated to continuity of care for children and adults with gender dysphoria. *It is essential that any transgender patient be able to easily report to the DOH, if they are not getting adequate medical support and care for any clinical care or related complications reasonably resulting from medical treatments prescribed for gender dysphoria.*

h) **Medical therapy with gonadotropin releasing hormone agonists** in children may only occur in children for up to 24-months in total as they have not been studied robustly in children for this reason for more than that.

i) **All surgical procedures will be forbidden in children less than 18 years of age**. Separate adult consent forms will need to be signed before proceeding with any gender affirming surgeries of any kind.

j) **IC and assent document will be made to detail all known, potential and theoretical risks related to medical experimentation** with cross-sex hormones and puberty blockers in children and adults with gender dysphoria.

k) **The psychologist/psychiatrist must provide a letter 1)** documenting that the child or adult meets the criteria for gender affirming hormonal therapy for adolescents or adults. **Second,** they need to confirm that there are no active psychological conditions present in the patient which could be confounding a reliable diagnosis of gender dysphoria/gender incongruence and that the patient is stable psychologically to make an informed decision regarding these experimental therapies.

l) **Criteria for gender affirming hormone therapy for adults:** 1) persistent, well-documented gender dysphoria/gender incongruence 2) the capacity to make a fully

informed decision and to consent for treatment 3) the age of majority of at least 18 years of age 4) mental health concerns have been stable and well-controlled for the last 6 months.

m) ***Baseline and Follow Up-Protocol During Suppression of Puberty in Children****: These data must be collected*

Every 3 months	***Every 6 months***	***Yearly Assessments***
Anthropometry	*LH, FSH (Pediatric Highly Sensitive Assay)*	*Bone Density Lumbar Spine and Whole Body DEXA*
Height/Weight/Sitting Height	*Estradiol/Testosterone (LC/MS/MS)*	*Bone Age Left Hand Until Growth Plates Fused*
Blood Pressure	*25-hydroxyvitamin D*	***Depression Screening***
Tanner Staging	*CBC/CMP*	***PHQ-9***

n) **Baseline and Follow-up Protocol During Induction of Puberty**

Every 3 months	***Every 6 months***	***Yearly Assessments***
Anthropometry	Transmales: CBC, Lipid Panel, Testosterone (LC/MS/MS), 25-hydroxyvitamin D Transfemales: Prolactin, Estradiol (LC/MS/MS), 25-hydroxyvitamin D	DEXA BMD Lumbar Spine and Whole Body
Height/Weight/Sitting Height		Bone Age Until Growth Plates Fused
Blood Pressure	***Depression Screening*** ***PHQ-9***	
Tanner Staging		

o) **Follow Guidelines from the 2017 Endocrine Society Guidelines "Endocrine Treatment of Gender-Dysphoric/Gender Incongruent Persons: An Endocrine Society Clinical Practice Guideline" for all adults: (JCEM, November 2017, 102(11):3869-3903 noted in Tables 14 and 15**.

Informed Consent for Adults with Gender Incongruence Seeking Medical Treatment (See Table 1 Summary of Side Effects)

I. Medical Risks Associated with Sex Hormone Therapy
   a. **Transgender Female**: Estrogen
      i. It is important that you understand that the feminizing effects of estrogen can take several months to be noticeable and several years to be complete and **some of these changes will be permanent or irreversible**:
         1. Breast development will vary from person to person and after stopping estrogen the breasts may shrink but will not completely disappear.
         2. These hormones have not been studied in gender dysphoria and to transition in this way and the impacts of sex hormones on brain structures in your brain is impossible to predict.
         3. Changes in fertility and sperm production will occur and likely be permanent.
      ii. **Some changes may not be permanent** if stopping estrogen:
         1. Decreased acne.
         2. Male pattern balding stops or slows.
         3. Skin may be softer.
         4. Fat redistribution to a female pattern with less abdominal fat, with more fat on the buttocks and thighs
      iii. Estrogen may cause or contribute to depression, and it is important to stay in therapeutic relationship with your psychologist.
      iv. Estrogen treatment will not protect you from sexually transmitted diseases like HIV.
      v. Yearly breast exams after 40 years of age are mandatory. Please examine your breasts monthly and notify your physician if you feel any masses in the breasts.
      vi. Inform your physician of all medications you are taking, herbal supplements, hormones, or recreational drugs you are taking.
      vii. Individual responses to estrogen can be highly variable and it is important you take your estrogen as prescribed by your physician.
      viii. You will need yearly physical exams and labs about twice yearly to monitor you for side effects while on estrogen treatment and even after stopping.
      ix. If you ever want to stop estrogen it is important you do so as safely as possible and not abruptly, with guidance and monitoring of your physician.
      x. Estrogen treatment will shrink the testicles by about 40% and decrease natural testosterone levels causing these impacts on your brain, testicles and penis:

1. You will have fewer erections; morning erections and penetrative sex may be difficult or impossible.
2. Sperm may still be present, but they may not develop impacting your fertility potentially forever.
3. Your mental drive for sex will decrease.

xi. Very High Risk of Blood Clots which can lead to Thromboembolic Disease
1. This may result in your early death if you have a deep vein thrombosis or a pulmonary embolism.
2. You may develop chronic vein problems in the legs.
3. You may have a stroke which may lead to early death, brain damage, paralysis, blindness, or difficulty walking.
4. The highest risks with estrogen are as follow and if you have these please discuss with your physician:
   a. If you smoke cigarettes.
   b. Are overweight.
   c. Over 40 years of age
   d. Have a history of blood clots before estrogen treatment.
   e. Have high blood pressure already.
   f. Prior estrogen dependent cancer

xii. Moderate Risk of:
1. Macroprolactinoma (20%)
2. Breast Cancer
3. Prostate Cancer
4. Heart Attacks (greater risk if smoking)
5. Strokes (greater risk if smoking)
6. Gall Bladder Disease
7. Elevated Triglycerides
8. Increased Blood Pressure
9. Liver Disease and inflammation of the liver labs will need to be checked regularly.
10. Migraine Headaches may increase with estrogen treatment, and this may be a reason to discontinue estrogen after talking with your physician.
11. Nausea and vomiting like morning sickness in pregnancy. You could get dehydrated and must let your physician know if this happens.
12. Estrogen may prevent prostate problems, but it may also cause growth of the prostate. Some transwomen have had prostate cancer diagnosed later and at a later stage with poorer survival when compared to cisgender men.

b. **Transgender Male**: Testosterone:
   i. This may cause changes in brain structures, and this has not been scientifically studied and effects are impossible to predict.
   ii. You should follow your prescribed dose of testosterone to try and keep levels in the normal range for men.
   iii. Please keep your appointments, physical exams and get the labs done or this could jeopardize prescription refills.
   iv. There are medical conditions that could make testosterone therapy dangerous or physically damaging. This should be reviewed with your prescribing physician.
   v. You may stop your testosterone at any time, but this should be done with adequate medical supervision and not abruptly. You should discuss stopping at any visit with your prescribing physicians help to do so safely.
   vi. Very High Risk of Adverse Outcomes
      1. Elevated Red Blood Cells (Hematocrit > 50%)
   vii. Moderate Risk of Adverse Outcomes:
      1. Severe Liver Dysfunction and Damage
      2. Heart Attacks
      3. Strokes
      4. Hypertension
      5. Breast or Uterine Cancer
      6. Infertility (undergo egg banking if you want to preserve fertility) you may be unable to ever get pregnant.
      7. Increased Risk of Diabetes Mellitus
      8. This will not protect you from sexually transmitted diseases.
      9. Treatment may increase estrogen in your body and impact potential risk of breast cancer.
      10. Cholesterol and Lipids: lower HDL your good cholesterol and raise the LDL your bad cholesterol.
      11. Increase Risks of Heart Attacks and Strokes
      12. May make changes in your mood and emotions and you may need psychological support to deal with these changes.

II. **Testosterone Treatment in Transgender Males** may take up to 5 years to be complete and some of these changes will be permanent (irreversible) and some may not be permanent including:
   a. Increased muscle mass
   b. Changes in fat mass-fat may look more like a male pattern with increased abdominal fat, with decreases in breast, buttock and thigh fat)
   c. Increased facial hair and acne (irreversible)
   d. Male-pattern baldness (irreversible)
   e. Increased sexual desire.
   f. Enlargement of your clitoris (irreversible)

g. Temporary or permanent decrease in fertility or infertility (irreversible)
h. Deepening of the voice (irreversible)
i. Cessation of menses
j. Increase in body hair on the face, chest, and abdomen (irreversible)
k. Heavy Uterine Bleeding
l. Hair loss especially in my temples and crown of your head (permanent)

III. **Estrogen Treatment in Transgender Females** is much more complex:
   a. Harder to suppress testosterone levels to female physiological range.
   b. Often, other medications are used to reduce testosterone concentrations to the female range.
      i. Progestins
      ii. GnRH agonists (puberty blockers)
      iii. Cyproterone Acetate (not in the USA)
      iv. 5 alpha-reductase inhibitors do not lower testosterone well.
   c. Oral or Transdermal Estrogen Risks:
      i. Increased Risk of blood clots with oral more so than transdermal
      ii. Avoid ethinyl estradiol.
      iii. Oral or transdermal 17-β Estradiol may be safer.
   d. Physiological Concentrations of Sex Hormones is mandated in both genders.
   e. Parenteral or Transdermal Testosterone is Safer for Liver Toxicity
   f. Synthetic Forms of Testosterone should be avoided particularly 17-alkylated forms which are more slowly degraded by the liver including danazol, methandrostenolone, methyltestosterone, oxymethalone and stanozol.

IV. Risk of Venous Thromboembolism in Transfemales
   a. 20-fold increased risk in a Dutch study using ethinyl estradiol but this has not been consistently observed in other studies when compared to that seen in cisgender women
   b. Those with a history of VTE should get screening like the general population.

V. Estrogen can increase growth or pituitary lactotroph cells increasing risk of a large prolactinoma or just elevated prolactin.
   a. Prolactin should be measured at baseline and then every 6 months to 12 months thereafter.
   b. Those treated with psychotropic medications this may also lead to higher prolactin levels.

VI. Testosterone administration to transmales leads to a more atherogenic lipid profile that may increase the risk of heart attacks or strokes.
   a. Higher LDL or bad cholesterol
   b. Lower HDL
   c. Higher triglycerides

d. While the rates of CVD in transmales is not clear more data is needed to better understand these risks
e. Avoiding smoking and getting regular exercise and a healthy low fat, low saturated fat diet may help modify these risks.

VII. Estrogen administration to transfemales leads to more favorable changes in lipid profle with increased HDL, and decreased LDL.
a. However, increased weight, blood pressure and markers of insulin resistance may counteract the changes in lipid profile and increase risks of cardio-vascular diseases long-term.

VIII. Adequate testosterone treatment in transmales may help maintain bone mass and low levels of sex hormones may be associated with bone loss. Testosterone conversion to estrogen may be a reason why bone health with adequate testosterone treatment is possibly protective.

IX. Transfemales more commonly have low BMD T-scores of -2.5 in about 20% of cases.

X. Fracture Data is not available in transmales or transfemales. Further many now starts these transitions earlier in childhood which may confound fracture predictions models like FRAX.

XI. Transfemales are at risk for Breast Cancer and Prostate Cancer, and you should be screened. Rates of prostate cancer are lower than cisgender males but some cases in transgender people were found at later stage of disease so early screening and exams seem important to assess this risk. It has been shown that transfemales may survive prostate cancer less frequently than cisgender males.

XII. Breast Cancer does occur in transfemales and even less commonly in transmales. Longer term studies are needed to better understand these risks.

XIII. Sexual Function is certainly a complication of manipulation of these hormonal systems. Further, the sexual orientation and type of sexual practices you desire to participate in will be important to discuss with your physicians and surgeons should you consider gender affirming surgery.

XIV. Table 1 details the potential, known and theoretical risks related to treatment in children and adults who proceed through typical treatment protocols with hormones such as GnRH agonists and cross-sex hormones but do not include risks of surgeries.

XV. Lastly one of the longest-term studies looked back al all adults who had gender affirming surgery and hormonal treatments in Sweden and reported on their health over a 30-year period. This study showed death that was much earlier in the transmale and transfemale population and their lifespan was much shorter than the general population in Sweden (See Figure 1).

Informed Consent for Children and Adolescents Seeking Medical Therapy of Gender Dysphoria or Gender Incongruence

Background:

a. Treatment of children with gender dysphoria/gender incongruence most commonly begins now with early social transition (but not in the original Dutch Protocol as early social transition was discouraged) or late social transition, followed by puberty blocking in Tanner 2-3 puberty, then by cross-sex hormones and in some cases, gender affirming surgeries in a minority of cases in childhood but typically after a child has reached the age of majority.
    x. *This phased approach is not based on a robust scientific evidence base, but rather consensus opinion and limited observational cohort studies with short periods of observation after the interventions. Further, these studies have all lacked control groups despite the fact that not all transgender children and adults opt for medical and or surgical treatments. The most recent guidelines from the Endocrine Society published in 2017 rated the existing published evidence to support these clearly risky interventional therapies as low or very low quality and urged the scientific community to conduct more robust research in this area.*
b. Fundamentally, therefore all four of these treatment modalities are of an experimental nature when used in children.
c. All four of these treatments are experimental in nature because we lack long-term prospective controlled trials which would usually allow a robust detailed ascertainment of the risks and /or benefits of these four interventional, high risk-treatments for gender dysphoria/gender incongruence.
d. Finally, there are no well-done multi-arm controlled comparative studies to no medical treatment, psychological support with hormones, or exploratory psychodynamic therapy alone or in combination with hormonal treatments compared with current gender affirmative care.

Summary of Potential Risks and Benefits:

Possible Benefits: The psychological benefits of medical transition among youth with gender dysphoria and gender incongruence is not entirely clear. The recent trans youth care study (See Figure 2) which was following a group of children and adolescents for about 2 years after initiation of gonadotropin releasing hormone agonist followed by cross sex hormones showed very modest changes (See Figure 3) in psychological and social functioning. Furthermore, they noted a large portion of their study population who had suicidal ideation and 2 out of 300 patients who had completed suicide numbers that are much higher than what is seen in the general adolescent population (See Figure 4).

Possible Risks: (Bone) Medical treatment in children with gender dysphoria by utilizing gonadotropin releasing hormone agonist as well as cross sex hormones has significant risks associated with it. First it can have a significant adverse impact on bone mineralization. At baseline studies have shown that children with gender dysphoria have lower than average bone mineral density in both genders. Furthermore, data in the trans female population does not show full recovery and risks of spinal fracture and long bone fractures as well as osteoporosis remains a long-term risk of these treatments. **(Fertility):** Long-term studies on fertility in children treated with gonadotropin releasing hormone agonist and cross sex hormones is unclear. There is a high risk of infertility and polycystic ovarian syndrome among trans males. There is also a very high risk of infertility in trans females as high doses of estrogen will likely impact testicular function long-term.

Table 1: Potential, Known and Theoretical Side Effects in Children and Adults with Gender Dysphoria related to GnRH agonists, Cross Sex Hormones and Other Hormone Related Treatments

Transmale Side-Effects	**Treatment Related Symptoms**	**Transfemale Side-Effects**	**Treatment Related Symptoms**
Infertility	Unable to or Harder to Get Pregnant	Smaller Testicles & Infertility	Unable to or Harder to get Partner Pregnant
Severe Liver Dysfunction	Cessation of Menses	Increased Risk of Thromboembolic Disease	Decreased Sexual Desire
Erythrocytosis	Increased Facial and Body Hair	Macroprolactinoma (20%)	Decreased Spontaneous Erections
Increased Coronary Artery Disease	Increased Skin Oils	Breast Cancer	Decreased Facial and Body Hair
Increased Cerebrovascular Disease	Increased Muscle Mass	Coronary Artery Disease	Decreased Oily Skin
Hypertension	Reduced Fat Mass	Cerebrovascular Disease	Increased Breast Growth
Breast and Uterine Cancer	Deeper Voice	Cholelithiasis	Reduced Fat Mass
Death by Suicide	Clitorimegaly	Hypertriglyceridemia	
Death by Cardiovascular Disease	Male Pattern Hair Loss	Death by Cardiovascular Disease	Decreased Testosterone
Death by Neoplasm		Death by Neoplasm	Decreased Sperm Production
Need for Psychiatric Hospitalization		Need for Psychiatric Hospitalization	Scalp Hair Changes
Substance Abuse		Substance Abuse	Voice Changes
Smoking		Smoking	
Suicide Attempt		Suicide Attempt	
Criminal Activity		Criminal Activity	

Detailed Explanation and Expectations of Hormonal Treatments in Gender Incongruence

I. This informed consent form is based largely on the 2017 Endocrine Society Clinical Practice Guidelines which rated the evidence related to the medical care of children and adults with gender dysphoria and gender incongruence. **They stated that the purpose of these guidelines was to make detailed recommendations and suggestions based on "existing medical literature and clinical experience that will enable treating physicians to maximize benefit and minimize risk".**
   a. You must realize that the science in this area is unsettled and there are very high health risks associated with these treatments. Most of the recommendations in the Endocrine Society 2017 guidelines are based on mostly low and very low-quality data.
   b. Fundamentally, these treatments are of major physical health and mental health consequences, while posing serious risk of side effects with little data supporting major clinically significant improvements in future potential of the treated gender dysphoric individuals to thrive physically, emotionally, socially, and sexually as a person (See Figures 2-4).
   c. These same guidelines stated when they were written: **"in the future, we need more rigorous evaluation of the effectiveness and safety of endocrine and surgical protocols (pp.3874)".**
   d. Multiple robust systematic reviews of the safety and efficacy data in this area have not confirmed support for these same medical and surgical treatments.
   e. Recently in the last year or two, the United Kingdom, Sweden, Finland, and other nations have heavily restricted the clinical use of gonadotropin releasing hormone agonists to research protocols in children with gender dysphoria while calling for more robust safety and efficacy data which should only then form the basis for more widespread use in children of what remains experimental therapy.
   f. *We have seen widespread clinical diffusion and premature application of these therapies worldwide since 2014 before there was good data that they were safe and effective both in the short term and the long term*.

II. Unknowns in the use of these medications in adults and children with gender incongruence are:
   a. The effects of prolonged pubertal delay in adolescents on bone health, ovarian and testicular function, and brain development including the effects on cognitive, emotional, social, and sexual development.
   b. The effects of treatment in adults or children on sex hormone levels
   c. The requirement for and effects of progestins and other agents to suppress your own sex hormones during treatment.
   d. The risks and benefits of gender-affirming hormone treatment in adult and pediatric transgender people (Table 1 Lists Potential Side Effects)

III. From the 2017 Endocrine Society Guidelines, **"In cases where severe psychopathology, circumstances or both seriously interfere with the diagnostic work up or make satisfactory treatment unlikely, clinicians should assist the adolescent in managing the other issues. Literature on postoperative regret suggests that besides poor quality of surgery, severe psychiatric comorbidity and lack of support may interfere with positive outcomes."**

IV. Earlier data suggests that about 85% of prepubertal children with childhood onset gender dysphoria were not gender incongruent in adolescence. However, most of these reported cases were in boys (2-6 boys for every female). Now we are seeing older adolescent girls (3 girls to every 1 boy) or young adults, presenting to clinics with gender incongruence and we are not sure if these same rates of desistance will be observed in what is a different population now.

V. Significant mental health problems at baseline were forbidden in the Dutch protocol to allow a gender incongruent person to proceed with medical treatment. Now we are seeing reports of individuals with gender incongruence with serious mental health issues and neurodevelopmental issues such as autism and ADHD being frequently transitioned. These other aspects of a person's psychological state may unnecessarily complicate the diagnosis of gender dysphoria and subsequent treatment trajectory. The safety and efficacy are unclear because the populations are different than those studied by the Dutch protocol which forms the bases of gender affirming hormonal treatments.

VI. There has been a marked increase in the numbers of people presenting to gender clinics worldwide since 2014. Possible reasons exist for why we are seeing such a rapid growth in cases:

a. Increased acceptance of gender diversity (Nature Review Steven Rosenthal 2021)
b. Transgender and Gender Diverse now has much broader meaning than previously.
c. There are cases reported which highlight that the massive epidemiological changes in the prevalence and incidence of new cases is buried in maladaptive coping mechanisms of individuals coupled with social and peer influences (Sarah Jorgensen Archives of Sexual Behavior 2023).
d. It is important for you to understand that sometimes a transgender identity can form in the context of family dysfunction, psychosocial issues, sexual assault, and other related trauma. **Further heavy engagement in social media has contributed to people of the same peer group all presenting with gender dysphoria. This is the reason that long term psychological support and non-judgmental psychotherapy is an important part of your evaluation before proceeding with medical**

treatments which have major long term and short-term side effects. Some of these side effects are permanent.

e. Feeling uncomfortable in your body is not uncommon in adolescence and is commonly seen in autism, anxiety disorders, eating disorders or other traumas. This further supports the need for thorough psychological evaluation before considering medical treatments. Hillary Cass in 2022 called this "diagnostic overshadowing". Many young people have fluid identities in other areas that evolve over time in response to various biological, psychological, and social factors (Sarah Jorgensen Archives of Sexual Behavior 2023).

VII. Many individuals are simply same sex attracted as adults and were gender dysphoric in childhood. There are published cases where these people had serious regret and/or desistance after medical therapy, and they still have problems with medical complications, social and sexual functioning as same sex attracted adults.

VIII. The Dutch protocol avoided early social transition because they did not want to reduce the natural desistance rates of 61-98% observed in studies of mostly early onset boys with gender dysphoria. **Living your life as a transgender person may be the right option for some people, but it is important you understand the risks and challenges of this life and these treatments for you lifelong.**

IX. Those of you who start gonadotropin releasing hormone agonists existing data supports the concept that almost all of you (>95%) will progress to cross-sex hormones which then also have their own set of additional and permanent and/or transient side effects with very serious life-threatening consequences.

X. Regret and Desistance: While historical data suggests that rates of regret and desistance after medical treatment of gender dysphoria are < 1% it is important you realize that these published rates occurred during a time when the protocols to treat made it harder to do so. In the Dutch protocol mostly, boys were treated who had early onset gender dysphoria and no co-morbid mental health issues followed by serious dysphoria at pubertal initiation. These stricter protocols are no longer the normative applied standard in many gender clinics. In these earlier studies, regret was defined by interviews of patients or chart reviews looking for expressed regret by patients or those asking for surgical reversals. This may have underestimated the frequency of regret and desistance observed in these earlier studies. Since then, more recent data supports the notion that:

a. many studies have 20-60% of patients lost to long term follow up, so it is hard to be certain of long-term side effects such as medical or surgical complications or certainty about how common regret or desistance is after medical therapy.

b. more recent data looking at more adolescent onset gender dysphoria reports much higher rates of regret and desistance. Rates of desistance range from 6.9-30% where it has been observed that stopping hormone therapy is much more frequent and as many as 22% disengaged from care altogether. If this happens to you, we want you to feel the courage to get continued support from your gender clinic so they can help you deal with any complications which may arise from your treatment whether they be medical, surgical or psychological.
c. A study from the US military healthcare system found that among 952 children and adults treated with hormones for gender dysphoria 29% discontinued medical treatment within four years.
d. The meaning of the terms "regret" and "desistance" can mean different things to different people.:
    i. For many people who have *transient desistance* they express *external forces* that have pushed them to this such as discrimination, family pressure, difficulty finding employment, loss of health insurance, and some of these people decided to reidentify as transgender. This is a possibility for you.
    ii. A second group of people who desist and return to their birth sex identity because of their own *internal factors* which have included things like worsening mental health, realization that gender dysphoria was a maladaptive response to trauma, misogyny, internalized homophobia, or pressures from on-line communities or social media. Unique to this second group of patients is the recollection that these people deeply regretted their transition and expressed that they were harmed by the medical system and hospitals that treated them (Sarah Jorgensen Archives of Sexual Behavior 2023). This is a possibility for you as well.
        1. **Many of these patients are now in litigation against those doctors and hospitals who they feel have harmed them with too cursory of mental health evaluations and observed diagnostic overshadowing that maximized clinical focus on gender over other equally important aspects of a person's being.**
    iii. Other studies have reported reasons for regret and desistance as well to include:
        1. Physical or mental health concerns
        2. Surgical complications
        3. Postoperative pain
        4. Unsupportive parents or romantic partner
        5. Employment difficulties
        6. Challenges Accessing Healthcare
        7. Gender Dysphoria was related to other issues (71%)

8. Health Concerns (62%)
9. Transition Failed to Help with Dysphoria (50%)
10. Found Other Ways to manage Dysphoria (45%)
11. Unhappiness with Social Changes (44%)
12. Change in Political Views (43%)

iv. As many as 60% of detransitioners requested psychological support to deal with the consequences of their regret

XI. Among long term studies in adults after surgical and medical treatment of gender dysphoria it took about 10 years for regret to develop and similarly there were differences in mortality when compared to the general population that were not seen until about 10 years after surgical treatment in adults. (See Figure 1).

XII. <u>It is not known whether detransition can be prevented or whether inappropriate transition can be avoided with current knowledge. The current model is affirmation without question, and this will likely lead to harm for as many as ~33% of you with these therapies.</u>

XIII. Medical Complications and Side Effects in Children and Adolescents:

a. <u>Fertility:</u> Treating youth with puberty blockers will temporarily impair your ability to make sperm or mature eggs for future fertility. In other words, by taking these therapies, you may be unable or have difficulty in having your own biological children one day. Going through later puberty could help with fertility but this will also lead to what may be for you unwanted secondary sexual characteristics.
   i. It may take 0.7 to 3 years after stopping puberty blockers for boys to produce sperm. Further, as stated earlier almost all children who start puberty blockers will proceed to cross sex hormones and estrogen treatment will impact sperm production as well.
   ii. There are no studies looking at ovarian function after puberty blockers are stopped in girls.
   iii. There is an increased risk of polycystic ovarian syndrome in transgender males both prior to and because of testosterone treatment.
   iv. It is much harder to preserve eggs than sperm for later use in reproduction.
   v. It is thought that earlier use of puberty blockers may help with the physical appearance after transition, but the data is of very low quality in this regard and may not outweigh the side effects.

b. <u>Bone Health:</u> Adverse effects on bone mineralization are seen with GnRH agonists and they also effect the rates your bones increase their minerals. We know that about 30% of your bone mineralization happens during puberty and using puberty blockers may slow this leading to osteoporosis in later life.

i. Cross Sex Hormone treatment for about 5.8 years did not appear to completely reverse these differences on bone mineral density or accrual.
ii. Treating adults with puberty blockers also negatively impacts bone density.
iii. **Physical Activity, calcium supplementation and vitamin D supplementation may help if you are on these treatments to help protect your bone health.**

c. BMI and Body Mass: BMI will not likely change though weight gain is reported in studies using puberty blockers for other reasons. Fat Mass will increase in your body and muscle mass may decrease while only using puberty blockers.
d. Arterial Hypertension: This has been seen in adults and children medically treated for gender dysphoria. Elevated blood pressure is a major risk factor increasing the chance of a stroke or a heart attack in later life.
e. Hot flashes, fatigue and mood alterations: These are likely to occur with isolated puberty suppression.
f. Required Monitoring Children Puberty Blockers: Height, Weight, Sitting Height, Blood pressure and Tanner Staging every 3 months. Every 6-month labs include LH, FSH, Estradiol/Testosterone, Vitamin D. Yearly Bone Age until growth plates are fused and yearly bone density by DEXA scan of the spine and whole body.
g. Required Monitoring Children Puberty Induction: Every 3 months height, weight, sitting height, blood pressure and Tanner staging. Every 6 months in transgender males: CBC, Lipids, Testosterone, Vitamin D. In transgender females every 6 months: prolactin, estradiol, Vitamin D. Yearly bone mineral density in all children and adults until 30 years of age of the lumbar spine, hip and whole body.

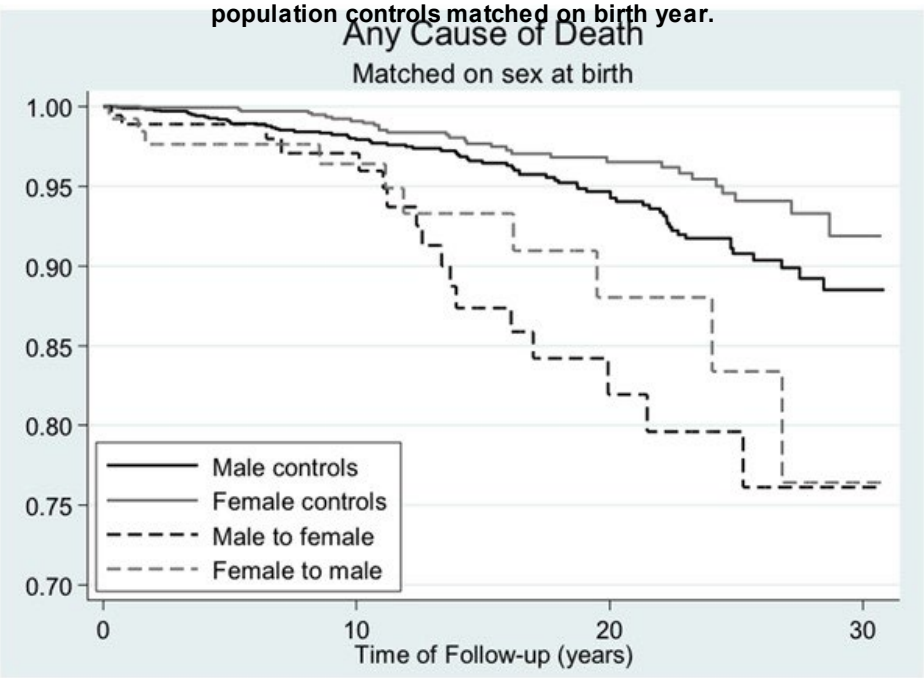
XIV. A table of potential side effects in children with gender dysphoria and incongruence is noted in Table 2:

XV. All legal guardians need to sign informed consent for children and separate assent from the child as well.

Table 2 Potential, Known and Theoretical Risks Unique to Children & Adolescents with Gender Dysphoria related to GnRH agonists, Cross-Sex Hormones and Other Hormone Related Antagonist Treatments

Treatment Related Side-Effects	**Potential Treatment Related Outcomes**
Decreased Bone Mineral Density	Osteoporosis and Fractures
Decreased Linear Growth	Short Stature
Compromised Fertility	Inability to Have Your Own Biological Children
Primary Hypogonadism	Testicular or Ovarian Failure
Abnormal Brain Development	Differences Related to Your Functioning with Peers at work and school
Decreased Cognitive Function	School & Career Challenges
Increased Fat Mass	Obesity
Decreased Lean Body Mass	Obesity and Increased Diabetes Risk
Arterial Hypertension	Increased Risk of Stroke and Heart Attack, greater risk if smoking
Dyslipidemia	Increased Risk of Stroke and Heart Attack, greater risk if smoking
Arterial Hypertension	Increased Risk of Stroke and Heart Attack, greater risk if smoking
Hot Flashes/Fatigue/Mood Alterations	Inability to work and hold a job or go to school.
Milky breast discharge or breast cancer (transfemales)	Get prolactin measured. Breast cancer is very rare in young people.
Fat changes	Distribution of your fat will change with testosterone and estrogen discuss with your physician
Vaginal Atrophy (transmales with testosterone)	Lead to your cervix and vagina becoming fragile leading to tears or abrasions, pelvic infections, and increased risk of sexually transmitted disease if you have vaginal sex. Painful intercourse is often seen with vaginal atrophy.
Sperm will not mature, decrease in erections, penetrative sex difficult, testicles shrink by 25-50%, less interest in sex.	These are seen in transfemales.
Migraine Headaches	Seen with estrogen or testosterone treatment talk with your physician if you start getting bad headaches.
Emotional Changes (with estrogen or testosterone treatment)	Stay in touch with your psychotherapist as you may get irritable, more easily frustrated, angry, think about killing yourself or even committing suicide (see Figure 4 attached)
Decreased Bone Mineral Accrual	Increased Pain with Spinal and Long Bone Fractures in early adulthood as opposed to elderly years in the general population

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.



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. https://doi.org/10.1371/journal.pone.0016885
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0016885

(Figure 2)

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Psychosocial Functioning in Transgender Youth after 2 Years of Hormones

Diane Chen, Ph.D., Johnny Berona, Ph.D., Yee-Ming Chan, M.D., Ph.D., Diane Ehrensaft, Ph.D., Robert Garofalo, M.D., M.P.H., Marco A. Hidalgo, Ph.D., Stephen M. Rosenthal, M.D., Amy C. Tishelman, Ph.D., and Johanna Olson-Kennedy, M.D.

ABSTRACT

Figure 3):

The NEW ENGLAND JOURNAL of MEDICINE

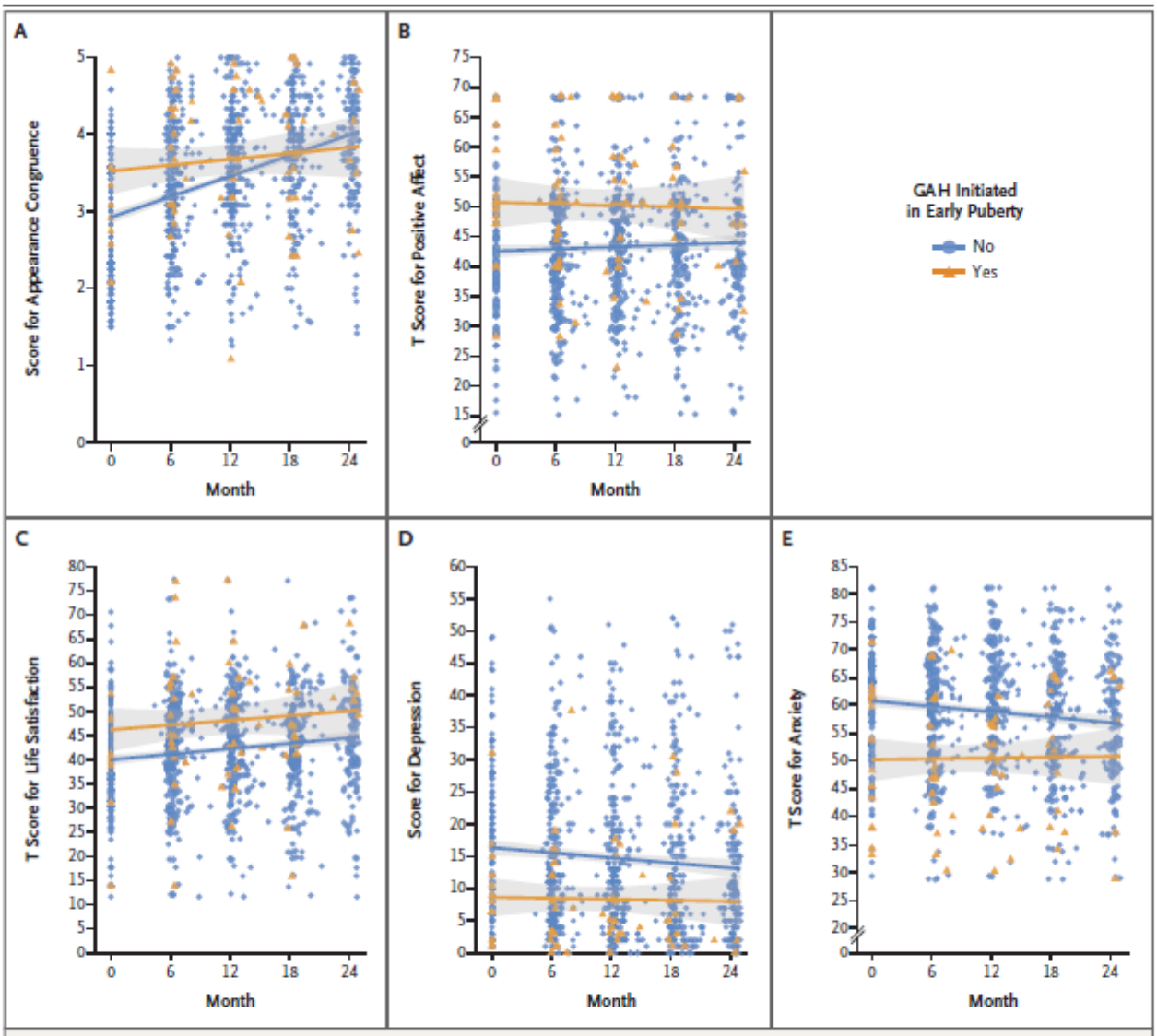


Figure 2. Psychosocial Outcomes during 2 Years of GAH.

Shown are changes in participant-reported measures over a period of 2 years of treatment with gender-affirming hormones (GAH). Scores on the Appearance Congruence subscale of the Transgender Congruence Scale (Panel A) range from 1 to 5, with higher scores indicating greater appearance congruence. T scores for the Positive Affect measure from the NIH (National Institutes of Health) Toolbox Emotion Battery (Panel B) range from 0 to 100, with higher scores indicating greater positive affect. T scores for the Life Satisfaction measure from the NIH Toolbox Emotion Battery (Panel C) range from 0 to 100, with higher scores indicating greater life satisfaction. Scores on the Beck Depression Inventory–II (Panel D) range from 0 to 63, with higher scores indicating greater depression. T scores on the Revised Children's Manifest Anxiety Scale (Second Edition) (Panel D), range from 0 to 100, with higher scores indicating greater anxiety. Individual scores are depicted with orange triangles for youth initiating GAH in early puberty ("Yes") and with blue circles for youth who did not initiate GAH in early puberty ("No"). Lines indicate mean scores for each group, with gray shaded bands for 95% confidence intervals.

Figure 4)

Table 2. Adverse Events.

Event	No. of Events in Sample
Any event	15
Death by suicide	2
Suicidal ideation reported during study visit	11
Severe anxiety triggered by study visit	2

Effects of Racial and Ethnic Identity

At baseline, youth of color had higher scores for appearance congruence, lower scores for de-

instruments. Our findin
those of other longitud
transgender and nonbi
GAH, which showed red
and anxiety[6] and increase
with small-to-moderate e
period of up to 1 year. W
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ments over a period of 2

Increasing appearanc
mary goal of GAH, and w

Physician Name:	License Number:	Date of Signature:
Patient Name:	DOB:	Date of Assent:
Parent Guardian Name 1:	Signature:	Date of Signature:
Parent Guardian Name 2:	Signature:	Date of Signature:

Feminizing Medications for Patients with Gender Dysphoria

Patient Information and Informed Consent and Assent for Minors

Before starting or continuing medications to transition your adolescent to their affirmed gender, you need to be aware of the effects and possible risks of these medications.

After your questions or concerns are addressed and you have decided to start or continue medications for your child, a parent/legal guardian and your child will need to initial the statements of this form as well as sign the consent form. Both the parent/legal guardian and your child will need to sign in person. If there is more than one parent/legal guardian, both will have to sign. The second parent or guardian can give verbal content via video (by presenting photo ID) or by notarized document. Your child will also need to assent this form.

What are the different medications that can feminize one's appearance?

Part of transition for many transgender people involves taking hormones, this is also called hormone replacement therapy or HRT. HRT in transgender girls and women means taking estrogens (female hormones), as well as medicines to block their body from producing or utilizing testosterone (male hormones). Use of these medications in adolescents with gender dysphoria, is considered if specific criteria listed below is met, but these medications do not have the FDA indication to be used in this population, in other words, it is "off label use".

Different forms of the hormone estrogen are used to feminize appearance in transgender females. Estrogen can be given as an injection to be given weekly or every other week, as a pill to be taken daily or twice a day, or as a patch to be changed weekly or every three or four days. Medications that block the production or effects of testosterone are called androgen blockers. Androgen is another term for male sex hormones. Spironolactone is the androgen blocker that is most commonly used in the United States. Other medicines are sometimes used, but because spironolactone is relatively safe, inexpensive, and effective to block testosterone, it is the primary androgen blocker used for transgender girls. In some cases, Bicalutamide is a cancer treatment drug and is also known by its brand name, Casodex. It is approved for the treatment for prostate cancer. Bicalutamide belongs to the group of medicines called antiandrogens. It works by blocking the effects of testosterone (a male hormone), which helps stop the growth and spread of cancer cells. Bicalutamide blocks the effects of testosterone, but does not reduce testosterone levels.

Every medication has risks, benefits, and side effects that are important to understand before starting or continuing treatment. The effects and side effects of medicines used for transition need to be monitored with laboratory studies and regular visits to your child's provider, to make sure that there are no negative medical and mental health effects.

Both these medicines, as well as the process of transitioning can affect your adolescents' mood. It is important that your child is under the care of a gender-qualified therapist while undergoing transition. The therapist can work with your child, your family and friends and your school staff.

What are my other options if I do not wish to start my child or continue medical treatments?

The other option available is psychological therapy with a mental health provider that has experience in treating youth with gender dysphoria. We recommend this regardless of whether your child undergoes suppression of puberty or not, due to the high risk of anxiety, depression, self-harm and even suicide.

What are the requirements to receive hormone replacement therapy (HRT) in our program?

In order to receive hormone replacement therapy (HRT), there are specific requirements that need to be met before and during the treatment. These requirements will allow us to monitor your child's medical as well as mental health wellbeing during HRT. If these requirements are not met, HRT may be discontinued in the best interest and safety of your child.

Before beginning or continuing HRT your child needs to undergo a thorough psychological and social evaluation performed by a licensed psychiatrist or psychologist. We also require your child has participated in at least 6 months of psychological therapy. We will need a letter from your child's therapist confirming this as well as a letter from the a licensed psychiatrist or psychologist.

After all this has taken place, HRT can be initiated or continued if your child meets the criteria, which includes ALL of the following:

1. Fulfill the current DSM or ICD criteria for gender dysphoria or transsexualism.
2. Have pubertal changes that have resulted in an increase in gender dysphoria.
3. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment.
4. Have adequate psychological and social support during treatment.
5. Have experienced puberty to at least Tanner stage 2 (first stage of puberty)
6. Demonstrate knowledge and understanding of the expected outcomes of HRT, as well as the medical and social risks and benefits of sex reassignment.

AND EITHER:

7. Your child is ≥16 years old and has experienced a full social transition to the desired gender for ≥ 2 year.

OR

8. Your child is 14-15 years of age, has experienced a full social transition to the desired gender for ≥4 years.

After HRT has been initiated, the following will be required:

1. Visits with the endocrinologist or adolescent medicine physician every 3 months.
2. Suicide risk assessment performed during each clinic visit every 3 months.
3. Laboratory testing every 3-6 months.
4. X ray of the hand (bone age) once a year if your child is still growing.
5. Bone mineral density scan (DXA) once a year: this will allow us to monitor your child's bone density (bone strength) during treatment, which can be altered by HRT.
6. Yearly mental health assessments by a licensed psychiatrist or psychologist. This will allow us to monitor your child's psychological wellbeing and adjustment while on HRT.
7. Continued counseling with a therapist during the treatment period, with the frequency recommended by the therapist.

Please initial each statement on this form to show that you understand the benefits, risks, and changes that may occur from giving these medications to your child.

Effects of Feminizing Medications

_____ _____ _____ I know that estrogen, anti-androgens, or both may be prescribed to feminize my adolescent's appearance.

_____ _____ _____ I know it can take several months or longer for the effects to become noticeable. I know that no one can predict how fast – or how much – change will happen.

_____ _____ _____ I know that taking estrogen will cause the following changes in my adolescent's breasts:

- Will develop breasts.
- It takes several years for breasts to get to their full size.
- The breasts will remain, even if estrogen is stopped.
- A milky discharge from the nipples may appear. If this happens, this should be checked by my adolescent's provider. It could be caused by the estrogen or by something else.

- The risk of breast cancer can be increased to as high as if your adolescent had been born female.

_____ _____ _____ I know that the following changes may or may not occur if the medicines are stopped:

- If body hair is present, it will become less noticeable and will grow more slowly although it won't stop completely, even after taking medicines for years.
- There might be less fat on the abdomen and more on the buttocks, hips, and thighs. The fat will be redistributed to a more female shape — changing from —apple shape to —pear shape.
- Your child will lose muscle and strength in the upper body.
- The skin may become softer.

_____ _____ _____ I know that my adolescent's body will make less testosterone. This may affect sex life in different ways and the future ability to cause a pregnancy:

- The testicles may shrink.
- The penis may never fully develop if previously on a puberty blocker.
- There will be fewer spontaneous erections.
- Sperm may no longer get to mature. This could makes your adolescent less likely to cause a pregnancy while taking hormones and may be a permanent change even hormone therapy is discontinued.
- There is a risk your child will never produce mature sperm again and this risk is further increased if your child took puberty suppressing hormones ("puberty blockers"), prior to starting feminizing medications.However, it is also possible that the sperm could still mature even while taking hormones. So, I know that my adolescent may get someone pregnant.
- The options for sperm banking have been explained.

_____ _____ _____ I know that some parts of the body will not change much by using these medicines.

- If present, the hair of the beard and moustache may grow more slowly than before. It may become less noticeable, but it will not go away.
- If your child went through a "male puberty" and has a "male voice", the pitch of the voice will not rise, and the speech patterns will not become more like a woman's.
- If present, the "Adam's apple" will not shrink.

_____ _____ _____ **I know that there can be mood changes with these medicines. I agree to have my adolescent continue therapy with a qualified therapist.**

_____ _____ _____ I know that using these medicines to feminize is an off-label use. This means it is not approved by the Food and Drug Administration (FDA). I know that the medicine and dose that is recommended is based on the judgment and experience of my adolescent's health care provider and there is no data in the medical literature or controlled research studies that supports the timing, dosing and type of administration of HRT.

Risks of Feminizing Medications

Estrogen should not be used by anyone who has a history of

- An estrogen-dependent cancer
- A disorder that makes them more likely to get blood clots that could travel to the lungs (unless they are also taking blood thinners and are followed by a specialist)

Estrogen should be used with caution and only after a full discussion of risks by anyone with:

- strong family history of breast cancer or other cancers that grow quicker when estrogens are present
- diabetes
- heart disease
- chronic hepatitis or other liver disease
- high cholesterol
- migraines or seizures
- obesity
- cigarettes/nicotine use

_____ _____ _____ I know that the side effects and safety of these medicines are not completely known. There may be long-term risks that are not yet known.

_____ _____ _____ **I realize that this treatment will not prevent serious psychiatric events such as a suicidal attempt.**

_____ _____ _____ I know that my child should not take more medicine than prescribed. Taking too much medication:

- Will increase health risks
- Won't make changes happen more quickly or more significantly.

_____ _____ _____ I know these medicines can damage the liver and may lead to liver disease. Therefore, I should be checked for possible liver damage as long as my child takes them.

_____ _____ _____ I know these medicines cause changes that other people will notice. Some transgender people hie experienced discrimination. I know my child's clinician can help me find support resources.

Risks of Estrogen

_____ _____ ____ I know that taking estrogen increases the risk of blood clots or problems with blood vessels that can result in:

- Chronic problems with veins in the legs, which may require surgery.
- Heart attack which may cause permanent damage or death.
- Pulmonary embolism - blood clot to the lungs- which may cause permanent lung damage or death
- Stroke, which may cause permanent brain damage or death.

_____ _____ ____ I know that the risk of blood clots is much worse if my child smokes cigarettes. The danger is so high that your child should stop smoking completely if estrogen is started.

_____ _____ ____ I know taking estrogen can increase the deposits of fat around internal organs. This can increase the risk for diabetes (blood sugar problems) and heart disease. Both of these disorders further increase the risk of heart attack and stroke.

_____ _____ ____ I know taking estrogen can raise blood pressure which also further increase the risk of heart attack and stroke.

_____ _____ ____ I know that taking estrogen increases the risk of gallstones (stones in the gallbladder), and I will talk our child's physician if severe or long-lasting pain in the abdomen occurs.

_____ _____ ____ I know that estrogen can cause nausea and vomiting, and I should talk with our child's clinician if long-lasting nausea or vomiting occurs.

_____ _____ ____ I know that estrogen can cause migraines or make them worse if your child already has them.

_____ _____ ____ I know that estrogen can cause hot flahes

_____ _____ ____ I know that estrogen can cause my child to feel tired or have difficulty in focusing.

_____ _____ ____ I know taking estrogen increases the risk of elevated prolactin level and/or a prolactinomas. These are non-cancerous tumors of the pituitary gland. I know they are not usually life threatening, but they can damage vision and cause headaches if they are not treated properly. Therefore, if my child has changes in vision, headaches that are worse when waking up in the morning, and/or a milky discharge from the nipples, these can be signs of a prolactinoma, and I will talk to my child's

provider. There is a blood test that can check for this.

Risks of Androgen Antagonists (spironolactone and/or bicalutamide)

_____ _____ ____ I know that spironolactone affects the balance of water and salt balance in the kidneys. This may:

- Increase the amount of urine produced, making it necessary to urinate more frequently.
- Increase thirst.
- Increase risk of dehydration (not having enough water), and your child should make sure to drink plenty of water. If your child is peeing less that usual or have dark, strong smelling pee, feel thirsty or feel dizzy or light-headed – these can be signs of dehydration.

_____ _____ ____ I know that spironolactone affects the balance of potassium balance in the kidneys. This may cause high levels of potassium which:

- Can cause changes in heart rhythms that may be life threatening.
- Reduce blood pressure or cause low blood pressure which can cause fatigue, lightheadedness
- tingling feeling
- muscle weakness
- shortness of breath

_____ _____ ____ I understand that my child's doctor will perform a blood test to monitor this risk while on the medication.

_____ _____ ____ I know that bicalutamide may cause side effects. I agree to contact my child's physician if my child is experiencing:

- hot flashes or flushing
- bone, back, or pelvic pain
- muscle weakness
- muscle or joint pain
- headache
- shortness of breath
- increased blood pressure
- swelling of the hands, feet, ankles, or lower legs
- cough
- constipation
- nausea
- vomiting
- abdominal pain
- diarrhea
- gas

- change in weight (loss or gain)
- loss of appetite
- dizziness
- pain, burning, or tingling in the hands or feet
- difficulty sleeping
- feeling of uneasiness or dread
- rash
- sweating
- need to urinate frequently during the night
- bloody urine
- painful or difficult urination
- frequent and urgent need to urinate
- difficulty emptying bladder
- painful or swollen breasts
- yellowing of the skin or eyes
- pain in the upper right part of the stomach
- extreme tiredness
- unusual bleeding or bruising
- lack of energy
- upset stomach
- loss of appetite
- flu-like symptoms
- dull or sharp side pain
- chest pain

Requirements of Treatment with HRT

_____ _____ _____ I understand and agree with all the requirements explained above, in order to receive HRT.

_____ _____ _____ I know that the mental health team and/or treating physician may recommend to stop treatment because it no longer outweighs the risks, there is insufficient social or psychological support, or our program requirements to treat are not met.

_____ _____ _____ I know that I am responsible for the cost of the medical management, including medical appointments, psychological evaluations, laboratory and imaging tests, as well as drug therapy.

_____ _____ _____ I know that I or my child can change our mind and decide to stop treatment at any time.

_____ _____ _____ I agree to tell my physician if I think my child has any problems or is unhappy with the treatment.

_____ _____ _____ I know that after my child turns 18, medical care will have to be transitioned to an adult endocrinologist or physician.

Prevention of Complications while under Treatment of HRT

_____ _____ _____ I agree to tell my health care provider if my child has any problems or side effects or is unhappy with the medication, and in particular, **if I have concerns that my child has worsening signs of depression or anxiety, or wants to harm themselves or attempt suicide.**

_____ _____ _____ I know my child needs periodic medical evaluations clinic to make sure that my child is responding appropriately. This includes clinic visits with the pediatric endocrinologist or adolescent medicine every 3 months, laboratory and imaging tests.

_____ _____ _____ I agree to have my child on continued psychological therapy or counseling with the frequency recommended by his therapist.

_____ _____ _____ I understand that my physician will be required to monitor for side effects and that my child may have to be referred to another specialist if complications. I agree to take my child to those specialists as recommended.

_____ _____ _____ I understand that my physician will be required to continue to provide care in the event I may not have the ability to pay for visits.

_____ _____ _____ I understand if my child no longer meets criteria for treatment, has significant side effects that the physician or specialist feel that treatment must stopped, or my child wishes to discontinue treatment, the physician will continue to provide care through the detransition

Our signatures below confirm that:

- My clinician has talked with me and my child about:
  - The benefits and risks of taking feminizing medication
  - The possible or likely consequences of hormone therapy
  - Potential alternative treatments
- I understand the risks that may be involved.
- I know that the information in this form includes the known effects and risks. I also know that there may be unknown long-term effects of risks.
- I have had enough opportunity to discuss treatment options with our child's clinician.
- My child is in agreement with this treatment and the signature of my child on the assent form attests to this agreement.
- All of my questions have been answered to my satisfaction.
- I believe I know enough to give informed consent to take, refuse, or postpone therapy for my adolescent child with feminizing medications.

Based on all this information:

_____ _____ I want my adolescent child to begin taking estrogen.

_____ _____ I want my adolescent child to begin taking androgen antagonists (e.g., spironolactone).

_____ _____ I do not wish my adolescent child to begin taking feminizing medication at this time.

_____
Parent or legal guardian's name

_____ _____
Parent or legal guardian's signature Date

_____
Parent or legal guardian's name

_____ _____
Parent or legal guardian's signature Date

Prescribing clinician's name

Prescribing clinician's signature Date

ASSENT OF A MINOR:

I have discussed the benefits and risks of treatment with feminizing medication with my parent(s) or legal guardian(s), and I wish to receive it.

Minor's name (printed)

Minor's signature Date

For patients whose primary language is not English:

I certify that I am fluid in English and in the native language of the person indicating consent and/or assent on the above form. I certify that I have accurately and completely interpreted the contents of this form, and that the patient and/or adult(s) legally responsible for the minor child has indicated understanding of the contents of this form.

Interpreter's Name (Print)

Interpreter's signature Date

Testosterone Treatment for Patients with Gender Dysphoria

Patient Information and Informed Consent and Assent for Minors

Before starting or continuing medications to transition your adolescent to their affirmed gender, you need to be aware of the effects and possible risks of these medications.

After your questions or concerns are addressed and you have decided to start or continue medications for your child, a parent/legal guardian and your child will need to initial the statements of this form as well as sign the consent form. Both the parent/legal guardian and your child will need to sign in person. If there is more than one parent/legal guardian, both will have to sign. The second parent or guardian can give verbal content via video (by presenting photo ID) or by notarized document. Your child will also need to assent this form.

What are the medications that can masculinize one's appearance?

Part of transition for many transgender people involves taking hormones, this is also called hormone replacement therapy or HRT. HRT in transgender males means taking testosterone. This is the sex hormone that makes certain features appear typically male. It builds muscle and causes the development of facial hair and a deeper voice.

Use of these testosterone in adolescents with gender dysphoria, is used if specific criteria listed below are met, but these medications do not have the FDA indication to be used in this population, in other words, it is "off label use".

What are my other options if I do not wish to start my child or continue medical treatments?

The other option available is psychological therapy with a mental health provider that has experience in treating youth with gender dysphoria. We recommend this regardless of whether your child undergoes suppression of puberty or not, due to the high risk of anxiety, depression, self-harm and even suicide.

How is testosterone taken?

It is usually injected every one to four weeks. It is not used as a pill because the body may not absorb it properly and may cause potentially fatal liver problems. Some people use skin creams and patches, but they tend to be more expensive and aren't recommended for initiating puberty or for use in teenagers and young adults.

The doses used for injection differ from product to product and from patient to patient. They may range from 50 to 400mg. The injections are given in the muscle (intramuscular). It can also be given with a smaller needle under the skin (subcutaneous), this method is also effective in practice although it is considered "off label". Your child may experience unwanted swings in hormone levels. They swings might be affected by how often the dose is given and how much of a dose is given.

Every medication has risks, benefits, and side effects that are important to understand before starting. The effects and side effects of medicines used for transition need to be monitored with laboratory studies and regular visits to your child's provider to make sure that there are no negative medical or mental health effects.

Both testosterone, as well as the process of transitioning can affect your child's mood. It is important that your child is under the care of a gender-qualified therapist while undergoing transition. The therapist can work with your child, your family and friends and your school staff.

What are the requirements to receive hormone replacement therapy (HRT)?

In order to receive hormone replacement therapy (HRT) in our program, there are specific requirements that need to be met before and during the treatment. Although this therapy is considered standard of care, this is a new area of medicine for adolescents, and we want to provide the safest treatment possible. These requirements will allow us to monitor your child's medical as well as mental health wellbeing during HRT. If these requirements are not met, HRT may be discontinued in the best interest and safety of your child.

Before beginning or continuing HRT your child needs to undergo a thorough psychological and social evaluation performed by licensed psychiatrist or psychologist. We also require your child has participated in at least 6 months of psychological therapy. We will need a letter from your child's therapist confirming this as well as a letter from the a licensed psychiatrist or psychologist.

After all this has taken place, HRT can be continued if your child meets the criteria, which includes ALL of the following:

1. Fulfill the current DSM or ICD criteria for gender dysphoria or transsexualism.
2. Have pubertal changes that have resulted in an increase in gender dysphoria.
3. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment.
4. Have adequate psychological and social support during treatment.
5. Have experienced puberty to at least Tanner stage 2 (first stage of puberty)

6. Demonstrate knowledge and understanding of the expected outcomes of HRT and sex reassignment surgery, as well as the medical and social risks and benefits of sex reassignment.

AND EITHER:

7. Your child is ≥16 years old and has experienced a full social transition to the desired gender for ≥2 year.

OR

8. Your child is 14-15 years of age, has experienced a full social transition to the desired gender for ≥ 4 years and has been on a puberty blocker for ≥ 1 year.

After HRT has been started, the following will be required:

1. Visits with the endocrinologist in our program every 3 months.

2. Suicide risk assessment performed by our social worker during each clinic visit every 3 months.

2. Laboratory testing every 3-6 months.

3. X ray of the hand (bone age) once a year if your child is still growing.

4. Bone (DXA) scan once a year: this will allow us to monitor your child's bone density (bone strength) during treatment, which can be altered by HRT.

5. Yearly mental health assessments by a licensed psychiatrist or psychologist. This will allow us to monitor your child's psychological wellbeing and adjustment while on HRT.

6. Continued counseling with a therapist during the treatment period, with the frequency recommended by the therapist.

Effects of testosterone

Who should not take testosterone?

It should *not* be used by anyone who is pregnant or has uncontrolled coronary artery disease as it could increase your risk for a fatal heart attack:

It should be used with caution and only after a full discussion of risks by anyone who

- Has acne

- Has a family history of heart disease or breast cancer
- Has had a blood clot
- Has high levels of cholesterol
- Has liver disease
- Has a high red-blood-cell count
- Is obese
- Smokes cigarettes

Periodic blood tests to check on the effects of the hormone will be needed. Routine breast exams and pelvic exams with Pap tests should be continued, when applicable.

Summary of Testosterone Benefits and Risks

BENEFITS	RISKS
• Appearing more like a man • Bigger clitoris • Coarser skin • Lower voice • More body hair • More facial hair • More muscle mass • More strength • No or minimal menstrual periods • More physical energy • More sex drive	• Acne (may permanently scar) • Blood clots (thrombophlebitis), risk significantly increased by • Emotional changes, for example, more aggression • Headache • High blood pressure (hypertension) • Increased red-blood-cell count • Infertility o Inflamed liver • Interaction with drugs for diabetes • and blood thinning for example • Coumadin and Warfarin • Male pattern baldness More abdominal fat — redistributed to a male shape risk of heart disease Swelling of hands, feet, and legs • Weight gain

Please initial each statement on this form to show that you understand the benefits, risks, and changes that may occur from taking testosterone.

Masculinizing Effects

_____ _____ _____ I know that testosterone may be prescribed to make my adolescent appear less like a female and more like a male.

_____ _____ _____ I know it can take several months or longer for the effects to become noticeable. I know that no one can predict how fast – or how much – change will happen. I know that the changes may not be complete for two to five years after started.

_____ _____ _____ I know that the following changes likely to be permanent even if testosterone is discontinued:

- Bigger clitoris — typically about half an inch to a little more than an inch
- Deeper voice
- Gradual growth of moustache and beard
- Hair loss at the temples and crown of the head — possibility of being completely bald
- More, thicker, and coarser hairs on abdomen, arms, back, chest, and legs

_____ _____ _____ I know that the following changes could be permanent. They could improve if I stop taking testosterone:

- Acne (although there may be permanent scars)
- Menstrual periods (if present), typically stop one to six months after starting
- More abdominal fat – redistributed to a male shape: decreased on buttocks, hips, and thighs; increased in abdomen – changing from "pear shape" to "apple shape"
- More muscle mass and strength
- More sexual interest
- Vaginal dryness

_____ _____ _____ I know that this treatment will not change my genetic sex (chromosomes).

_____ _____ _____ I know that testosterone may reduce my child's ability to become pregnant, but it does not completely eliminate the risk of pregnancy. Transgender men can become pregnant while on testosterone. I agree to inform my child's physician if my child becomes pregnant.

_____ _____ _____ I know that some aspects of the body will not be changed:

- Losing some fat may me breasts appear slightly smaller (if present), but that will not shrink

very much.

- The voice will deepen, but other aspects of the way your adolescent speaks may not sound more masculine.

_____ _____ _____ **I know that there can be mood changes with these medicines. I agree to have my adolescent continue therapy with a qualified therapist.**

_____ _____ _____ I know that using these medicines to feminize is an off-label use. This means it is not approved by the Food and Drug Administration (FDA). I know that the medicine and dose that is recommended is based on the judgment and experience of my adolescent's health care provider and there is no data in the medical literature or controlled research studies that supports the timing, dosing and type of administration of HRT.

Risks of Testosterone

_____ _____ _____ I know the medical effects and the safety of testosterone are not completely known. There may be long-term risks that are not yet known.

_____ _____ ____ I know these medicines cause changes that other people will notice. Some transgender people hie experienced discrimination. I know my child's clinician can help me find support resources.

_____ _____ ____ **I realize that this treatment will not prevent serious psychiatric events such as a suicidal attempt.**

_____ _____ ____ I know that my child should not take more testosterone than prescribed. Taking too much:

- Will increase health risks
- Won't make changes happen more quickly or more significantly
- Can cause the body to convert extra testosterone into estrogen, and that can slow down or stop my appearing more masculine.

_____ _____ ____ I know that testosterone can cause changes that increase the risk of heart disease into adulthood. These changes include:

- Less good cholesterol (HDL) that may protect against heart disease and more bad cholesterol (LDL) that may increase the risk of heart disease
- Higher blood pressure
- More deposits of fat around the internal organs

_____ _____ _____ I know testosterone can damage the liver and possibly lead to liver disease and my child should be checked for possible liver damage while taking testosterone.

_____ _____ _____ I know testosterone can increase red blood cells and hemoglobin. This increase is usually only to what is normal for a biological man. However, there is a possibility that higher level of red blood cells and hemoglobin may increase my risk of life-threatening problems such as stroke or heart attack.

_____ _____ _____ I know that taking testosterone can increase the risk for diabetes (high blood sugars). It may decrease the body's response to insulin, cause weight gain, and increase deposits of fat around internal organs. This increases the risk of heart disease and stroke.

_____ _____ _____ I understand that continued treatment with testosterone can cause difficulties for your child's ovaries to release eggs or my child may become infertile and not be able to become pregnant.

_____ _____ _____ I understand that testosterone increases the risk of cancer to the uterus, ovaries, or breasts. It is unclear if testosterone therapy plays any role in HPV infection or cervical cancer.

_____ _____ _____ I know that testosterone causes or worsen migraines.

_____ _____ _____ I know that testosterone can cause emotional changes. For example, my child could become more irritable, frustrated, more aggressive or angry.

Requirements of Treatment with HRT

_____ _____ _____ I understand and agree with all the requirements explained above, in order to receive HRT.

_____ _____ _____ I know that the mental health team and/or treating physician may recommend to stop treatment because it no longer outweighs the risks, there is insufficient social or psychological support, or our program requirements to treat are not met.

_____ _____ _____ I know that I am responsible for the cost of the medical management, including medical appointments, psychological evaluations, laboratory and imaging tests, as well as drug therapy.

_____ _____ _____ I know that I or my child can change our mind and decide to stop treatment at any time.

_____ _____ _____ I agree to tell my physician if I think my child has any problems or is

unhappy with the treatment.

_____ _____ _____ I know that after my child turns 18, medical care will have to be transitioned to an adult endocrinologist or physician.

Prevention of Complications while under Treatment of HRT

_____ _____ _____ I agree to tell my health care provider if my child has any problems or side effects or is unhappy with the medication, and in particular, **if I have concerns that my child has worsening signs of depression or anxiety, or wants to harm themselves or attempt suicide.**

_____ _____ _____ I know my child needs periodic medical evaluations clinic to make sure that my child is responding appropriately. This includes clinic visits with the pediatric endocrinologist or adolescent medicine every 3 months, laboratory and imaging tests.

_____ _____ _____ I agree to have my child on continued psychological therapy or counseling with the frequency recommended by his therapist.

_____ _____ _____ I understand that my physician will be required to monitor for side effects and that my child may have to be referred to another specialist if complications. I agree to take my child to those specialists as recommended.

_____ _____ _____ I understand that my physician will be required to continue to provide care in the event I may not have the ability to pay for visits.

_____ _____ _____ I understand if my child no longer meets criteria for treatment, has significant side effects that the physician or specialist feel that treatment must stopped, or my child wishes to discontinue treatment, the physician will continue to provide care through the detransition.

PARENTAL CONSENT:

Our signatures below confirm that:

- My clinician has talked with me about:
  - The benefits and risks of taking testosterone
  - The possible or likely consequences of hormone therapy
  - Potential alternative treatments
- I understand the risks that may be involved.
  - I know that the information in this form includes the known effects and risks. I also know that there may be unknown long-term effects of risks.
  - I have had enough opportunity to discuss treatment options with our child's clinician.
  - My child is in agreement with this treatment and the signature of my child on the assent form attests to this agreement.
  - All of my questions have been answered to my satisfaction.
  - I believe I know enough to give informed consent to take, refuse, or postpone testosterone therapy for my child.

Based on all this information:

_____ _____ _____ I want my adolescent to begin or continue taking testosterone.

_____ _____ _____ I do not wish my adolescent to begin or continue taking testosterone at this time.

_____
Parent or legal guardian's name

_____ _____
Parent or legal guardian's signature Date

_____
Parent or legal guardian's name

_____ _____
Parent or legal guardian's signature Date

Prescribing clinician's name

Prescribing clinician's signature Date

ASSENT OF A MINOR:

I have discussed the benefits and risks of treatment with feminizing medication with my parent(s) or legal guardian(s), and I wish to receive it.

Minor's name (printed)

Minor's signature Date

For patients whose primary language is not English:

I certify that I am fluid in English and in the native language of the person indicating consent and/or assent on the above form. I certify that I have accurately and completely interpreted the contents of this form, and that the patient and/or adult(s) legally responsible for the minor child has indicated understanding of the contents of this form.

Interpreter's Name (Print)

Interpreter's signature Date

Puberty Suppression Treatment for Patients with Gender Dysphoria

Patient Information and Informed Parental Consent and Assent for Minors

Before continuing treatment to your child to suppress puberty (put puberty "on hold" with "puberty blockers"), you need to be aware of the possible risks.

After your questions or concerns are addressed and you have decided to continue with puberty suppression for your child, a parent/legal guardian and your child will need to initial the statements of this form as well as sign the consent form. Both the parent/legal guardian and your child will need to sign in person . If there is more than one parent/legal guardian, both will have to sign. The second parent or guardian can give verbal content via video (by presenting photo ID) or by notarized document. Your child will also need to assent this form.

What are my other options if I do not wish to have my child to continue treatment for suppression of puberty?

The other option available is psychological therapy with a mental health provider that has experience in treating youth with gender dysphoria. We recommend this regardless of whether your child undergoes suppression of puberty or not, due to the high risk of anxiety, depression, self-harm and even suicide.

What are the different medications that are used to suppress puberty?

The main mechanism by which physical changes of puberty can be put on hold is by blocking the signal from the brain to the organs that make the hormones of puberty. These hormones are estrogen and testosterone. Estrogen is made by the ovaries. Testosterone is made by the testicles.

The medications are also called "pubertal blockers" and are effective for both males and females. They should have been started only after the early physical changes of puberty. None of the medications have been approved by the Food and Drug Administration (FDA) to be used in adolescents with gender dysphoria, in other words, this is an "off label" use. This pediatric endocrinologists (children's doctors who specialize in hormones and puberty), use these medications frequently to suppress puberty in children with precocious (early) puberty which is the FDA approved indication.

Lupron and Histrelin are called GnRH analogs and are the most effective forms of treatment. Lupron is given as a monthly or every 3 month intramuscular injection and is approved for children with precocious (early) puberty. Histrelin is an implant that is placed under the skin surgically, and needs to be replaced yearly to every 2 years. Histrelin is approved

for children with precocious puberty with the brand name of Supprelin.

Provera is a pill that needs to be taken twice a day and is approved to be used in female adolescents with abnormal uterine bleeding. Provera was used for early puberty before Lupron and Histrelin were available, and is less effective in suppressing puberty. The Depo Provera injection has been approved for the use for female with abnormal bleeding as well as birth control.

What are the requirements to receive suppression of puberty for gender dysphoria?

In order to receive therapy to put puberty on "hold", there are specific requirements that should have met before and during the treatment. These requirements will allow your physician to monitor your child's medical as well as mental health wellbeing during hormone therapy. If these requirements were not met or are still not met, treatment with puberty blockers may be discontinued in the best interest and safety of your child.

Specific criteria include ALL of the following:

1. Fulfill the current DSM or ICD criteria for gender dysphoria or transsexualism.
2. Have pubertal changes that have resulted in an increase in gender dysphoria.
3. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment.
4. Have adequate psychological and social support during treatment.
5. Have experienced puberty to at least Tanner stage 2 : this is the first stage of puberty and refers to breast or testicle growth; has to be confirmed by a physician.
6. Demonstrate knowledge and understanding of the expected outcomes of suppression of puberty, future cross-sex hormone treatment, as well as the medical and social risks and benefits of sex reassignment.

After treatment for suppression of puberty has been initiated, the following will be required:

1. Visits with the endocrinologist or adolescent medicine physician in our program every 3 months.

2. Suicide risk assessment performed by our social worker during each clinic visit every 3 months.

3. Laboratory testing every 3-4 months.

4. Xray of the hand (bone age) once a year.

5. Bone (DXA) scan: this will allow us to monitor your child's bone density (bone strength) during treatment, since puberty blockers may decrease bone density if given for long periods of time.

6. Yearly mental health assessment by a licensed psychiatrist or psychologist. This will

allow us to monitor your child's psychological wellbeing and adjustment while on puberty blockers.

7. Continued counseling with a therapist during the treatment period, with the frequency recommended by the therapist.

Please initial each statement on this form to show that you understand the benefits, risks, and changes that may occur from giving treatment for suppression of puberty to your child.

Effects of Treatment of Suppression of Puberty

_____ _____ _____I know that puberty blockers are used to temporarily suspend or block the physical changes of puberty for my child.

_____ _____ _____ I know that the effect of this medication should not permanent. If my child stops treatment, in a few months my child's body will restart the changes of puberty at the developmental stage they were at when they started the treatment.

_____ _____ _____ I know that it can take several months for the medication to be effective. I know that no one can predict how quickly or slowly or even if my child's body will respond.

_____ _____ _____ I know that by taking these medications, my child's body will not be making the hormones of puberty, testosterone or estrogen.

_____ _____ _____ I understand by using a puberty blocker, it will not will not make my child's body appear to be more male-like or female-like.

_____ _____ _____ I know that this treatment will not change my genetic sex (chromosomes), and it will not change my internal reproductive structures (ovaries, uterus, and vagina).

_____ _____ _____ I understand that puberty blockers can interferes with fertility, but it does not affect the ability to get a sexually transmitted infection. Precautions against getting an STI must still be taken.

_____ _____ _____ I know that the use of these medications in adolescents with gender dysphoria are off- label use. I know this means it they are not approved by the FDA for this specific diagnosis.

Risks of Treatment of Suppression of Puberty

_____ _____ _____ I know that information on adverse effects and safety of these medications used in transgender youth is not well known.

_____ _____ ____ I realize that this treatment will not prevent serious psychiatric events such as a suicidal attempt.

_____ _____ ____ I understand that some people taking pubertal blockers have had new or worsened mental (psychiatric) problems. Mental (psychiatric) problems may include emotional symptoms such as:

- Crying
- Irritability
- Restlessness (impatience)
- Anger
- Acting aggressive

_____ _____ ____ I agree to call my child's doctor right away if your child has any new or worsening mental symptoms or problems while taking this medication.

_____ _____ ____ I understand that during the first 2 to 4 weeks of treatment, puberty blockers can cause an increase in some hormones. During this time, you may notice more signs of puberty in your child, including vaginal bleeding.

_____ _____ ____ I understand that some people taking puberty blockers have had seizures. The risk of seizures may be higher in people who:

- Have a history of seizures
- Have a history of epilepsy
- Have a history of brain or brain vessel (cerebrovascular) problems or tumors
- Are taking a medicine that has been connected to seizures, such as bupropion or selective serotonin reuptake inhibitors (SSRIs)

Seizures have also happened in people who have not had any of these problems.

_____ _____ ____ I agree to call my child's doctor right away if your child has a seizure while on these medications.

_____ _____ ____ I understand increased pressure in the fluid around the brain can happen in children taking puberty blockers. I agree to call my child's doctor right away if your child has any of the following symptoms during treatment:

- Headache
- Eye problems including blurred vision, double vision, and decreased eyesight
- Eye pain
- Ringing in the ears
- Dizziness
- Nausea

_____ _____ ____ I understand that a puberty blocker should not be used taken if my child is:

- Allergic to GnRH, GnRH agonist medicines, or Progesterones.
- Pregnant or becomes pregnant. These medications can cause birth defects or loss of the baby. If your child becomes pregnant, I will notify my child's doctor.

_____ _____ ____ I understand the most common side effects of puberty blockers include:

- Injection site reactions such as pain, swelling, and abscess- which may result in surgery
- Weight gain
- Pain throughout body
- Headache
- Acne or red, itchy rash and white scales (seborrhea)
- Serious skin rash (erythema multiforme)
- Mood changes
- Swelling of vagina (vaginitis), vaginal bleeding, and vaginal discharge
- Upper stomach pain
- Diarrhea
- Bleeding
- Nausea and vomiting
- Fever
- Itching
- Pain in extremities
- Rash
- Back pain
- Ligament sprain
- Weight gain
- Fracture
- Breast tenderness
- Difficulty sleeping
- Chest pain
- Excessive sweating

_____ _____ ____ I know that the treatments to suppress puberty may decrease bone density.

_____ _____ _____ I know that my child may grow less than his/her peers while on these medications.

_____ _____ _____ I realize there may be a stalling of typical adolescent cognitive or brain development while on these medications.

_____ _____ _____ I know that stopping the development of puberty for my child may have social consequences.

Requirements of Treatment of Suppression of Puberty

_____ _____ _____ I understand and agree with all the requirements explained above, in order to receive suppression of puberty therapy in our program.

_____ _____ _____ I know that the mental health team and/or treating physician may recommend to stop treatment because it no longer outweighs the risks, there is insufficient social or psychological support, or our program requirements to treat are not met. In this case, we will not continue to prescribe drug therapy.

_____ _____ _____ I know that I am responsible for the cost of the medical management, including medical appointments, psychological evaluations, laboratory and imaging tests, as well as drug therapy.

_____ _____ _____ I know that I can change my mind and decide to stop treatment at any time.

_____ _____ _____ I agree to tell a member of our GENECIS team if you think your adolescent has any problems or is unhappy with the treatment.

_____ _____ _____ I know that after my child turns 21, medical care will have to be transitioned to an adult endocrinologist.

Prevention of Complications while under Treatment of Suppression of Puberty

_____ _____ _____ I agree to tell my health care provider if my child has any problems or side effects or is unhappy with the medication, and in particular, if you have concerns that your child has worsening signs of depression or anxiety, or wants to harm him/herself or attempt suicide.

_____ _____ _____ I know my child needs periodic medical evaluations clinic to make sure that my child is responding appropriately. This includes clinic visits with the pediatric endocrinologist or adolescent medicine every 3 months, laboratory and imaging tests.

_____ _____ _____ I agree to have my child on continued psychological therapy or counseling with the frequency recommended by his therapist.

_____ _____ _____ I understand that my physician will be required to monitor for side effects and that my child may have to be referred to another specialist if complications.

_____ _____ _____ I understand that my physician will be required to continue to provide care in the event I may not have the ability to pay for visits.

_____ _____ _____ I understand if my child no longer meets criteria for treatment, has significant side effects that the physician or specialist feel that treatment must stopped, or my child wishes to discontinue treatment, the physician will continue to provide care through the detransition.

PARENTAL CONSENT:

Our signatures below confirm that

- My child's health care provider has talked with me about:
  a) the benefits and risks of puberty blockers for my child.
  b) the possible or likely consequences of using puberty blockers.
  c) potential alternative treatments.
- I understand the risks that may be involved.
- I know that the information in this form includes the known effects and risks. I also know that there may be unknown long-term effects or risks.
- I agree with the requirements to receive puberty blockers in this program.
- I have had enough opportunity to discuss treatment options with my child's health care provider.
- All of my questions have been answered to my satisfaction.
- I believe I know enough to give informed consent for my child to take, refuse, or postpone using puberty blocking medications.
- My child is in agreement with this treatment and the signature of my child on the assent form attests to this agreement.
- My signature attests to my consent for my child to begin treatment for suppression of puberty.

Based on all this information:

_____ I want my child to receive puberty suppression treatment as prescribed.

_____ I do not wish my child to receive puberty suppression treatment at this time.

_____
Parent or legal guardian's name

_____ _____
Parent or legal guardian's signature

_____
Parent or legal guardian's name

_____ _____
Parent or legal guardian's signature Date

_____
Prescribing clinician's name

_____ _____
Prescribing

clinician's signature Date

ASSENT OF A MINOR:

I have discussed the benefits and risks of treatment to suppress puberty with my parent(s) or legal guardian(s), and I wish to receive it.

Minor's Name (printed)

Minor's Signature Date

Feminizing Medications for Patients with Gender Dysphoria

Patient Information and Informed Consent and Assent for Minors

Before starting or continuing medications to transition your affirmed gender, you need to be aware of the effects and possible risks of these medications.

Your doctor will make a medical decision, in consultation with you, about the medications that are best for you, keeping in mind your overall health during your gender affirmation process. Your doctor will discuss with you all of the information relating to starting hormone therapy. You are asked to read and understand the following information, and raise any questions you have with your doctor.

After your questions or concerns are addressed and you have decided to start or continue medications you will need to initial the statements of this form as well as sign the consent form in person with your physician.

What are the different medications that can feminize one's appearance?

Part of transition for many transgender people involves taking hormones, this is also called hormone replacement therapy or HRT. HRT in transgender girls and women means taking estrogens (female hormones), as well as medicines to block their body from producing or utilizing testosterone (male hormones). Use of these medications in adolescents with gender dysphoria, is considered if specific criteria listed below is met, but these medications do not have the FDA indication to be used in this population, in other words, it is "off label use".

Different forms of the hormone estrogen are used to feminize appearance in transgender females. Estrogen can be given as an injection to be given weekly or every other week, as a pill to be taken daily or twice a day, or as a patch to be changed weekly or every three or four days.

Medications that block the production or effects of testosterone are called androgen blockers. Androgen is another term for male sex hormones. **Spironolactone** is the androgen blocker that is most commonly used in the United States. Other medicines are sometimes used, but because spironolactone is relatively safe, inexpensive, and effective to block testosterone, it is the primary androgen blocker used for transgender girls. In some cases, **Bicalutamide** is a cancer treatment drug has been used. It is approved for the treatment for prostate cancer. Bicalutamide blocks the effects of testosterone, but does not reduce testosterone levels. Fulminant hepatotoxicity resulting in death has been described with bicalutamide. Given that bicalutamide has not been adequately studied in trans feminine populations, WPATH does not recommend its routine use. In many countries, **cyproterone acetate,** a synthetic progestogen with strong anti-androgen activity is commonly used. When paired with estrogens for transgender women, the progestin cyproterone acetate is associated with elevated prolactin, decreased HDL cholesterol, and rare meningiomas. Cyproterone has been associated with uncommon episodes of fulminant

hepatitis. The administration of **finasteride** (5α-reductase inhibitor) blocks the conversion of testosterone to the more potent androgen dihydrotestosterone. The Food & Drug Administration (FDA) approved indications of administration include benign prostatic hypertrophy and androgenetic alopecia. WPATH also does not recommend their routine use in trans feminine populations. Various forms of **progestins** have also been used. This class includes micronized bioidentical progesterone (Prometrium) as well as oral medroxyprogesterone acetate (Provera). Although there are anecdotal reports of progesterone use for breast development and mood management, there is currently insufficient evidence that the potential benefits of progesterone administration outweigh the potential risks. There is also a theoretical risk of breast cancer associated with long-term exogenous progesterone.

Every medication has risks, benefits, and side effects that are important to understand before starting or continuing treatment. The effects and side effects of medicines used for transition need to be monitored with laboratory studies and regular visits to your physician to make sure that there are no negative medical and mental health effects.

All these medicines, as well as the process of transitioning can affect your mood. It is important that are under the care of a gender-qualified therapist while undergoing transition.

What are my other options if I do not wish to start or continue medical treatments?

The other option available is psychological therapy with a mental health provider that has experience in treating people with gender dysphoria. We recommend this regardless of whether you undergoes suppression of puberty or not, due to the high risk of anxiety, depression, self-harm and even suicide.

What are the requirements to receive hormone replacement therapy (HRT)?

In order to receive hormone replacement therapy (HRT), there are specific requirements that need to be met before and during the treatment. These requirements will allow us to monitor your medical as well as mental health wellbeing during HRT. If these requirements are not met, HRT may be discontinued in the best interest and safety.

Before beginning or continuing HRT you need undergo a thorough psychological and social evaluation performed by a licensed psychiatrist or psychologist. We are also required to have participated in at least 6 months of psychological therapy. We will need a letter from your therapist confirming this as well as a letter from the a licensed psychiatrist or psychologist.

After all this has taken place, HRT can be initiated or continued if ALL of the following criteria is met:

1. Fulfill the current DSM or ICD criteria for gender dysphoria or transsexualism dysphoria (a condition of feeling one's emotional and psychological identity as male or female to be opposite to one's biological sex) diagnosed by licensed psychiatrist or psychologist and that has been persistent and well documented.
2. Mental health and physical conditions that could negatively impact the outcome of treatment have been assessed, with risks and benefits discussed
3. Gender incongruence is marked and sustained
4. Demonstrates capacity to consent for the specific gender-affirming hormone treatment
5. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment.
6. Have adequate psychological and social support during treatment.
7. Demonstrate knowledge and understanding of the expected outcomes of HRT, as well as the medical and social risks and benefits of sex reassignment.
8. Understands the effect of gender-affirming hormone treatment on reproduction and they have explored reproductive options

After HRT has been initiated, the following will be required:

1. Visits with the physician every 3 months for the first year, then every 6 months.
2. Suicide risk assessment performed during each clinic visit.
3. Laboratory testing every 3-6 months.
4. Bone mineral density scan (DXA) once a year: this will allow us to monitor your bone density (bone strength) during treatment, which can be altered by HRT.
5. Yearly mental health assessments by a licensed psychiatrist or psychologist. This will allow us to monitor your psychological wellbeing and adjustment while on HRT.
6. Continued counseling with a therapist during the treatment period, with the frequency recommended by the therapist.

Please initial each statement on this form to show that you understand the benefits, risks, and changes that may occur from taking these medications.

Effects of Feminizing Medications

_____ I know that estrogen, anti-androgens, or both may be prescribed to feminize my adolescent's appearance.

_____ I know it can take several months or longer for the effects to become noticeable. I know that no one can predict how fast – or how much – change will happen.

_____ I know that taking estrogen will cause the following changes in my breasts:

- I will develop breasts.
- It takes several years for breasts to get to their full size.
- The breasts will remain, even if estrogen is stopped.
- A milky discharge from the nipples may appear. If this happens, this should be checked by my physician. It could be caused by the estrogen or by something else.
- The risk of breast cancer can be increased to as high as if your adolescent had been born female.

_____ I know that the following changes may or may not occur if the medicines are stopped:

- If body hair is present, it will become less noticeable and will grow more slowly although it won't stop completely, even after taking medicines for years.
- There might be less fat on the abdomen and more on the buttocks, hips, and thighs. The fat will be redistributed to a more female shape — changing from —apple shape to —pear shape.
- You will lose muscle and strength in the upper body.
- The skin may become softer.

_____ I know that my body will make less testosterone. This may affect my sex life in different ways and the future ability for me to cause a pregnancy or have biological chicldren:

- The testicles will shrink.
- There will be fewer spontaneous erections.
- Sperm may no longer get to mature. This could makes you less likely to cause a pregnancy while taking hormones and may be a permanent change even hormone therapy is discontinued.
- There is a risk you may never produce mature sperm again and this risk is further increased if you took puberty suppressing hormones ("puberty blockers"), prior to starting feminizing medications. However, it is also possible that the sperm could still mature even while taking hormones.
- The options for sperm banking have been explained.

_____ I know that some parts of the body will not change much by using these medicines.

- If present, the hair of the beard and moustache may grow more slowly than before. It may become less noticeable, but it will not go away.

- If you went through a "male puberty" and has a "male voice", the pitch of the voice will not rise, and the speech patterns will not become more like a woman's.

If present, the "Adam's apple" will not shrink.

_____ **I know that there can be mood changes with these medicines. I agree to continue therapy with a qualified therapist.**

____ I know that using these medicines to feminize is an off-label use. This means it is not approved by the Food and Drug Administration (FDA). I know that the medicine and dose that is recommended is based on the judgment and experience of my physician and there is no data in the medical literature or controlled research studies that supports the timing, dosing and type of administration of HRT.

Risks of Feminizing Medications

Estrogen should not be used by anyone who has a history of

- An estrogen-dependent cancer
- A disorder that makes them more likely to get blood clots that could travel to the lungs (unless they are also taking blood thinners and are followed by a specialist)

Estrogen should be used with caution and only after a full discussion of risks by anyone with:

- strong family history of breast cancer or other cancers that grow quicker when estrogens are present
- diabetes
- heart disease
- chronic hepatitis or other liver disease
- high cholesterol
- migraines or seizures
- obesity
- cigarettes/nicotine use

_____ I know that the side effects and safety of these medicines are not completely known. There may be long-term risks that are not yet known.

____ **I realize that this treatment will not prevent serious psychiatric events such as a suicidal attempt.**

____ I know that I should not take more medicine than prescribed. Taking too much medication:

- Will increase health risks
- Won't make changes happen more quickly or more significantly.

____ I know these medicines can damage the liver and may lead to liver disease. Therefore, I should be checked for possible liver damage as long as my child takes them.

____ I know these medicines cause changes that other people will notice. Some transgender

people hie experienced discrimination. I know my physician can help me find support resources.

Risks of Estrogen

____ I know that taking estrogen increases the risk of blood clots or problems with blood vessels that can result in:

- Chronic problems with veins in the legs, which may require surgery.
- Heart attack which may cause permanent damage or death.
- Pulmonary embolism - blood clot to the lungs- which may cause permanent lung damage or death
- Stroke, which may cause permanent brain damage or death.

____ I know that the risk of blood clots is much worse if I smoke cigarettes. The danger is so high that I should stop smoking completely if estrogen is started.

____ I know taking estrogen can increase the deposits of fat around internal organs. This can increase the risk for diabetes (blood sugar problems) and heart disease. Both of these disorders further increase the risk of heart attack and stroke.

____ I know taking estrogen can raise blood pressure which also further increase the risk of heart attack and stroke.

____ I know that taking estrogen increases the risk of gallstones (stones in the gallbladder), and I will talk to my physician if severe or long-lasting pain in the abdomen occurs.

____ I know that estrogen can cause nausea and vomiting, and I should talk with my physician if long-lasting nausea or vomiting occurs.

____ I know that estrogen can cause migraines or make them worse if I already have them.

____ I know that estrogen can cause hot flashes

____ I know that estrogen can cause me to feel tired or have difficulty in focusing.

____ I know taking estrogen increases the risk of elevated prolactin level and/or a prolactinomas. These are non-cancerous tumors of the pituitary gland. I know they are not usually life threatening, but they can damage vision and cause headaches if they are not treated properly. Therefore, if I have changes in vision, headaches that are worse when waking up in the morning, and/or a milky discharge from the nipples, these can be signs of a prolactinoma, and I will talk to my physician. There is a blood test that can check for this.

Risks of Androgen Antagonists

____ I know that spironolactone affects the balance of water and salt balance in the kidneys. This may:

- Increase the amount of urine produced, making it necessary to urinate more frequently.
- Increase thirst.
- Increase risk of dehydration (not having enough water), and you should make sure to drink plenty of water. If you are peeing less that usual or have dark, strong smelling pee, feel thirsty or feel dizzy or light-headed – these can be signs of dehydration.

_____ _____ ____ I know that spironolactone affects the balance of potassium balance in the kidneys. This may cause high levels of potassium which:

- Can cause changes in heart rhythms that may be life threatening.
- Reduce blood pressure or cause low blood pressure which can cause fatigue, lightheadedness
- tingling feeling
- muscle weakness
- shortness of breath

____ I understand that my doctor will perform a blood test to monitor this risk while on the medication.

Requirements of Treatment with HRT

_____ I understand and agree with all the requirements explained above, in order to receive HRT.

_____ I know that the mental health team and/or treating physician may recommend to stop treatment because it no longer outweighs the risks, there is insufficient social or psychological support, or our program requirements to treat are not met.

_____ I know that I am responsible for the cost of the medical management, including medical appointments, psychological evaluations, laboratory and imaging tests, as well as drug therapy.

_____ I know that I can change our mind and decide to stop treatment at any time.

Prevention of Complications while under Treatment of HRT

_____ I agree to tell my health care provider if I have any problems or side effects or am unhappy with the medications, and in particular, **if I have concerns that I have worsening signs of depression or anxiety, or wants to harm myself or attempt suicide.**

_____ I know I need periodic medical evaluations clinic to make sure that I am responding appropriately. This includes clinic visits with my physician every 3 months in the first year and every 6 months thereafter as well as laboratory and imaging tests.

_____ I acknowledge that gender affirming hormones are only a part of my overall health, and that a range of preventative health activities are recommended so that I remain happy and healthy in my affirmed gender. These include but are not limited to:

- Monthly breast self-examination. I should tell my doctor if I discover any new lumps
- Regular breast mammograms from an appropriate age, in consultation with my doctor
- Prostate examination per guidelines
- Immunizations
- Regular STI screening, depending on my level of risk
- HIV prevention, depending on my level of risk
- Regular physical activity, including resistance exercise for bone health
- Healthy eating
- Quitting smoking

_____ I agree to continue with psychological therapy or counseling with the frequency recommended by my therapist.

_____ I understand that my physician will be required to monitor for side effects and that my may have to be referred to another specialist if complications. I agree to go to the specialists as recommended.

_____ I understand that my physician will be required to continue to provide care in the event I may not have the ability to pay for visits.

_____ I understand if I no longer meet criteria for treatment, have significant side effects, my physician or specialist feel that treatment must stopped, or I wish to discontinue treatment, my physician will continue to provide care through the detransition

My signature below confirms that:

- My clinician has talked with me about:
  - The benefits and risks of taking feminizing medication
  - The possible or likely consequences of hormone therapy
  - Potential alternative treatments
- I understand the risks that may be involved.
- I know that the information in this form includes the known effects and risks. I also know that there may be unknown long-term effects of risks.
- I have had enough opportunity to discuss treatment options with my physician.
- All of my questions have been answered to my satisfaction.
- I believe I know enough to give informed consent to take, refuse, or postpone therapy for myself with feminizing medications.

Based on all this information:

_____ I want to begin or continue taking estrogen.

_____ I want to begin or continue taking androgen antagonists.

_____ I do not wish to begin or continue taking feminizing medication at this time.

_____
Legal name

_____ _____
Legal signature Date

_____
Prescribing clinician's name

_____ _____
Prescribing clinician's signature Date

For patients whose primary language is not English:

I certify that I am fluid in English and in the native language of the person indicating consent and/or assent on the above form. I certify that I have accurately and completely interpreted the contents of this form, and that the patient and/or adult(s) legally responsible for the minor child has indicated understanding of the contents of this form.

_____
Interpreter's Name (Print)

_____ _____
Interpreter's signature Date

Testosterone Treatment for Patients with Gender Dysphoria

Patient Information and Informed Consent

Before starting or continuing medications to transition your affirmed gender, you need to be aware of the effects and possible risks of these medications.

Your doctor will make a medical decision, in consultation with you, about the medications that are best for you, keeping in mind your overall health during your gender affirmation process. Your doctor will discuss with you all of the information relating to starting hormone therapy. You are asked to read and understand the following information, and raise any questions you have with your doctor.

After your questions or concerns are addressed and you have decided to start or continue medications you will need to initial the statements of this form as well as sign the consent form in person with your physician.

What are the medications that can masculinize one's appearance?

Part of transition for many transgender people involves taking hormones, this is also called hormone replacement therapy or HRT. HRT in transgender males means taking **testosterone.** This is the sex hormone that makes certain features appear typically male. It builds muscle and causes the development of facial hair and a deeper voice. It is usually injected every one to four weeks. It is not used as a pill because the body may not absorb it properly and may cause potentially fatal liver problems. Some people use skin creams and patches.

The doses used for injection differ from product to product and from patient to patient. They may range from 50 to 400 mg. Injections are given in the muscle (intramuscular). It can also be given with a smaller needle under the skin (subcutaneous), this method of practice although it is considered "off label". You may experience unwanted swings in hormone levels. The swings might be affected by how often the dose is given and how much of a dose is given.

Finasteride may be an appropriate treatment option in trans masculine individuals experiencing bothersome alopecia resulting from higher dihydrotestosterone levels. The administration of 5α-reductase inhibitors block the conversion of testosterone to the more potent androgen dihydrotestosterone. The Food & Drug Administration (FDA) approved indications of finasteride administration include benign prostatic hypertrophy and androgenetic alopecia. The use of 5α-reductase inhibitors in trans feminine populations is very sparse but treatment with a may impair clitoral growth and the development of facial and body hair in trans masculine individuals. Studies are needed to assess the efficacy and safety of 5α-reductase inhibitors in transgender populations.

Use of testosterone with gender dysphoria is used if specific criteria listed below are met, but these medications do not have the FDA indication to be used in this population, in other words,

it is "off label use".

Every medication has risks, benefits, and side effects that are important to understand before starting. The effects and side effects of medicines used for transition need to be monitored with laboratory studies and regular visits to your physician to make sure that there are no negative medical or mental health effects.

Both testosterone, as well as the process of transitioning can affect your mood. It is important that you are under the care of a gender-qualified therapist while undergoing transition. The therapist can work with your child, your family and friends and your school staff.

What are my other options if I do not wish to start or continue medical treatments?

The other option available is psychological therapy with a mental health provider that has experience in treating people with gender dysphoria. We recommend this regardless of whether you undergoes suppression of puberty or not, due to the high risk of anxiety, depression, self-harm and even suicide.

What are the requirements to receive hormone replacement therapy (HRT)?

In order to receive hormone replacement therapy (HRT), there are specific requirements that need to be met before and during the treatment. These requirements will allow us to monitor your medical as well as mental health wellbeing during HRT. If these requirements are not met, HRT may be discontinued in the best interest and safety.

Before beginning or continuing HRT you need undergo a thorough psychological and social evaluation performed by a licensed psychiatrist or psychologist. We are also required to have participated in at least 6 months of psychological therapy. We will need a letter from your therapist confirming this as well as a letter from the a licensed psychiatrist or psychologist.

After all this has taken place, HRT can be initiated or continued if ALL the following criteria is met:

1. Fulfill the current DSM or ICD criteria for gender dysphoria or transsexualism dysphoria (a condition of feeling one's emotional and psychological identity as male or female to be opposite to one's biological sex) diagnosed by licensed psychiatrist or psychologist and that has been persistent and well documented.
2. Mental health and physical conditions that could negatively impact the outcome of treatment have been assessed, with risks and benefits discussed.
3. Gender incongruence is marked and sustained.
4. Demonstrates capacity to consent for the specific gender-affirming hormone treatment.
5. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment.
6. Have adequate psychological and social support during treatment.
7. Demonstrate knowledge and understanding of the expected outcomes of HRT, as well as the medical and social risks and benefits of sex reassignment.
8. Understands the effect of gender-affirming hormone treatment on reproduction and they have explored reproductive options.

After HRT has been initiated, the following will be required:

1. Visits with the physician every 3 months for the first year, then every 6 months.
2. Suicide risk assessment performed during each clinic visit.
3. Laboratory testing every 3-6 months.
4. Bone mineral density scan (DXA) once a year: this will allow us to monitor your bone density (bone strength) during treatment, which can be altered by HRT.
5. Yearly mental health assessments by a licensed psychiatrist or psychologist. This will allow us to monitor your psychological wellbeing and adjustment while on HRT.

Continued counseling with a therapist during the treatment period, with the frequency recommended by the therapist.

Effects of testosterone

Who should not take testosterone?

It should *not* be used by anyone who is pregnant or has uncontrolled coronary artery disease as it could increase your risk for a fatal heart attack:

It should be used with caution and only after a full discussion of risks by anyone who

- Has acne
- Has a family history of heart disease or breast cancer

- Has had a blood clot
- Has high levels of cholesterol
- Has liver disease
- Has a high red-blood-cell count
- Is obese
- Smokes cigarettes

Periodic blood tests to check on the effects of the hormone will be needed. Routine breast exams and pelvic exams with Pap tests should be continued, when applicable.

Summary of Testosterone Benefits and Risks

BENEFITS	RISKS
• Appearing more like a man • Bigger clitoris • Coarser skin • Lower voice • More body hair • More facial hair • More muscle mass • More strength • No or minimal menstrual periods • More physical energy • More sex drive	• Acne (may permanently scar) • Blood clots (thrombophlebitis), risk significantly increased by • Emotional changes, for example, more aggression • Headache • High blood pressure (hypertension) • Increased red-blood-cell count • Infertility o Inflamed liver • Interaction with drugs for diabetes • and blood thinning for example • Coumadin and Warfarin • Male pattern baldness More abdominal fat — redistributed to a male shape risk of heart disease Swelling of hands, feet, and legs • Weight gain

Please initial each statement on this form to show that you understand the benefits, risks, and changes that may occur from taking testosterone.

Masculinizing Effects

_____ I know that testosterone may be prescribed to make me appear less like a female and more like a male.

_____ I know it can take several months or longer for the effects to become noticeable. I know that no one can predict how fast – or how much – change will happen. I know that the changes may not be complete for two to five years after started.

_____ I know that the following changes likely to be permanent even if testosterone is discontinued:

- Bigger clitoris — typically about half an inch to a little more than an inch
- Deeper voice
- Gradual growth of moustache and beard
- Hair loss at the temples and crown of the head — possibility of being completely bald
- More, thicker, and coarser hairs on abdomen, arms, back, chest, and legs

_____ I know that the following changes could be permanent. They could improve if I stop taking testosterone:

- Acne (although there may be permanent scars)
- Menstrual periods (if present), typically stop one to six months after starting
- More abdominal fat – redistributed to a male shape: decreased on buttocks, hips, and thighs; increased in abdomen – changing from "pear shape" to "apple shape"
- More muscle mass and strength
- More sexual interest
- Vaginal dryness

_____ I know that this treatment will not change my genetic sex (chromosomes).

_____ I know that testosterone may reduce my ability to become pregnant, but it does not completely eliminate the risk of pregnancy. Transgender men can become pregnant while on testosterone. I agree to inform my physician if I become pregnant.

_____ I know that some aspects of the body will not be changed:

- Losing some fat may make my breasts appear slightly smaller, but that will not shrink very much.
- The voice will deepen, but other aspects of the way I speak may not sound more masculine.

_____ **I know that there can be mood changes with these medicines. I agree to continue therapy with a qualified therapist.**

_____ I know that using these medicines to feminize is an off-label use. This means it is not approved by the Food and Drug Administration (FDA). I know that the medicine and dose that is recommended is based on the judgment and experience of my physician and there is no data in the medical literature or controlled research studies that supports the timing, dosing and type of administration of HRT.

Risks of Testosterone

_____ I know the medical effects and the safety of testosterone are not completely known. There may be long-term risks that are not yet known.

____ I know these medicines cause changes that other people will notice. Some transgender people have experienced discrimination. I know my clinician can help me find support resources.

____ **I realize that this treatment will not prevent serious psychiatric events such as a suicidal attempt.**

____ I know that I should not take more testosterone than prescribed. Taking too much:

- Will increase health risks.
- Won't make changes happen more quickly or more significantly.
- Can cause the body to convert extra testosterone into estrogen, and that can slow down or stop my appearing more masculine.

____ I know that testosterone can cause changes that increase the risk of heart disease. These changes include:

- Less good cholesterol (HDL) that may protect against heart disease and more bad cholesterol (LDL) that may increase the risk of heart disease
- Higher blood pressure
- More deposits of fat around the internal organs

____ I know testosterone can damage the liver and possibly lead to liver disease and I should be checked for possible liver damage while taking testosterone.

____ I know testosterone can increase red blood cells and hemoglobin. This increase is usually only to what is normal for a biological man. However, there is a possibility that higher level of red blood cells and hemoglobin may increase the risk of life-threatening problems such as stroke or heart attack.

____ I know that taking testosterone can increase the risk for diabetes (high blood sugars). It