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**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE**

STATE OF WASHINGTON, et al.,

Plaintiffs,

v.

DONALD J. TRUMP, in his official  
capacity as President of the United States of  
America, et al.,

Defendants.

NO.

EXPERT DECLARATION OF  
DANIEL SHUMER, MD

1 I, Daniel Shumer, hereby declare and state as follows:

2 1. I am over 18 years of age, of sound mind, and in all respects competent to testify.

3 2. I have been retained by counsel for Plaintiffs as an expert in connection with the  
4 above-captioned litigation. The opinions expressed herein are my own and do not express the  
5 views or opinions of my employer.

6 3. I have actual knowledge of the matters stated herein. If called to testify in this  
7 matter, I would testify truthfully and based on my expert opinion.

8 **I. BACKGROUND AND QUALIFICATIONS**

9 **A. Qualifications**

10 4. I am a Pediatric Endocrinologist, Associate Professor of Pediatrics, and the  
11 Clinical Director of the Child and Adolescent Gender Clinic at Mott Children's Hospital at  
12 Michigan Medicine. I am also the Medical Director of the Comprehensive Gender Services  
13 Program at Michigan Medicine, University of Michigan.

14 5. I am Board Certified in Pediatrics and Pediatric Endocrinology by the American  
15 Board of Pediatrics and licensed to practice medicine in the state of Michigan.

16 6. I received my medical degree from Northwestern University in 2008. After  
17 completing a Residency in Pediatrics at Vermont Children's Hospital, I began a Fellowship in  
18 Pediatric Endocrinology at Harvard University's Boston Children's Hospital. Concurrent with  
19 the Fellowship, I completed a Master of Public Health from Harvard's T.H. Chan School of  
20 Public Health. I completed both the Fellowship and the MPH degree in 2015.

21 7. I have extensive experience in working with and treating children and adolescents  
22 with endocrine conditions including differences in sex development (DSD) (also referred to as  
23 intersex conditions), gender dysphoria, type 1 diabetes, thyroid disorders, growth problems, and  
24 delayed or precocious puberty. I have been treating patients with gender dysphoria since 2015.

25 8. A major focus of my clinical, teaching, and research work pertains to the  
26 assessment and treatment of transgender adolescents.

1           9.     I have published extensively on the topic of gender identity in pediatrics and the  
2 treatment of gender dysphoria. I have also reviewed the peer-reviewed literature concerning  
3 medical treatments for gender dysphoria, the current standards of care for the treatment of gender  
4 dysphoria, and research articles on a variety of topics with a focus on mental health in  
5 transgender adolescents.

6           10.    I am involved in the education of medical trainees. I was previously the  
7 Fellowship Director in the Division of Pediatric Endocrinology and the Education Lead for the  
8 Division of Pediatric Endocrinology, and I am currently Course Director for a medical student  
9 elective in Transgender Medicine. My additional academic duties as an Associate Professor  
10 include teaching several lectures, including those entitled “Puberty,” “Transgender Medicine,”  
11 and “Pediatric Growth and Development.”

12           11.    As a Fellow at Harvard, I was mentored by Dr. Norman Spack. Dr. Spack  
13 established the Gender Management Services Clinic (GeMS) at Boston Children’s Hospital.  
14 While working and training at GeMS, I became a clinical expert in the field of transgender  
15 medicine within Pediatric Endocrinology and began conducting research on gender identity,  
16 gender dysphoria, and the evaluation and management of gender dysphoria in children and  
17 adolescents.

18           12.    Based on my work at GeMS, I was recruited to establish a similar program  
19 assessing and treating gender diverse and transgender children and adolescents at the C.S. Mott  
20 Children’s Hospital in Ann Arbor. In October 2015, I founded the hospital’s Child and  
21 Adolescent Gender Services Clinic.

22           13.    The Child and Adolescent Gender Services Clinic has treated over 1,500 patients  
23 since its founding. The clinic provides comprehensive assessment, and when appropriate,  
24 treatment with pubertal suppression and hormonal therapies, to patients diagnosed with gender  
25 dysphoria. I have personally evaluated and treated over 600 patients with gender dysphoria. The  
26 majority of the patients receiving care range between 10 and 21 years old. As the Clinical

1 Director, I oversee the clinical practice, which currently includes 7 physicians, 1 nurse  
2 practitioner, 2 social workers, as well as nursing and administrative staff. I also actively conduct  
3 research related to transgender medicine, gender dysphoria treatment, and mental health  
4 concerns specific to transgender youth.

5 14. I also provide care in the Differences/Disorders of Sex Development (DSD)  
6 Clinic at Michigan Medicine at Mott Children's Hospital. The DSD Clinic is a multidisciplinary  
7 clinic focused on providing care to infants and children with differences in the typical path of  
8 sex development, which may be influenced by the arrangement of sex chromosomes, the  
9 functioning of our gonads (i.e. testes, ovaries), and our bodies' response to hormones. The clinic  
10 is comprised of members from Pediatric Endocrinology, Genetics, Psychology, Urology,  
11 Gynecology, Surgery, and Social Work. In this clinic I have assessed and treated over 100  
12 patients with DSD.

13 15. In my role as Medical Director of the Comprehensive Gender Services Program  
14 (CGSP), I lead Michigan Medicine's broader efforts related to transgender services. CGSP is  
15 comprised of providers from across the health system including Pediatric Care, Adult Hormone  
16 Provision, Gynecologic Services, Adult Surgical Services, Speech and Language Therapy,  
17 Mental Health Services, and Primary Care. I run monthly meetings with representatives from  
18 these areas to help coordinate communication between Departments. I coordinate strategic  
19 planning aimed to improve care within the health system related to our transgender population.  
20 I also serve as the medical representative for CGSP in discussions with health system  
21 administrators and outside entities.

22 16. I have authored numerous peer-reviewed articles related to treatment of  
23 transgender youth. I have also co-authored chapters of medical textbooks related to medical  
24 management of transgender patients. I have been invited to speak at numerous hospitals, clinics,  
25 and conferences on topics related to clinical care and standards for treating transgender children  
26 and youth.

1           17.     The information provided regarding my professional background, experiences,  
2 publications, and presentations is detailed in my curriculum vitae, a true and correct copy of the  
3 most up-to-date version of which is attached as **Exhibit A**.

4     **B.     Prior Testimony**

5           18.     In the past four years, I have been retained as an expert and provided testimony  
6 at trial or by deposition in the following cases: *Dolney v. Wrigley*, No. 08-2023-CV-2189  
7 (Burleigh Cnty. Dist. Ct., North Dakota); *Misanin v. Wilson*, No. 2:24-cv-4734-RMG (D.S.C.);  
8 *Noe v. Parson*, No. 23AC-CC04530 (Cole Cnty. Cir. Ct., Mo.); *Voe v. Mansfield*, No. 1:23-cv-  
9 00864 (M.D.N.C.); *Roe v. Herrington*, 4:20-cv-00464 (D. Ariz.); *Doe v. Ladapo*, No. 4:23-cv-  
10 00114 (N.D. Fla.); *Loe v. Texas*, No. GN-23-003616 (Travis Cnty. Dist. Ct., Tex.); *Koe v.*  
11 *Noggle*, No. 1:23-cv-02904 (N.D. Ga.); *Dekker v. Weida*, No. 4:22-cv-00325 (N.D. Fla.); *K.C.*  
12 *v. The Individual Members of the Medical Licensing Board of Indiana*, No. 1:23-cv-00595 (S.D.  
13 Ind.); *Boe v. Marshall*, No. 2:22-cv-184 (M.D. Ala.); *Roe v. Utah High School Activities*  
14 *Association et al* (Third District Court in and for Salt Lake County, UT); and *Cooper v. USA*  
15 *Powerlifting and Powerlifting Minnesota*, No. 62-CV-21-211 (Ramsey Cnty. Dist. Ct., Minn.).

16     **C.     Compensation**

17           19.     I am being compensated at an hourly rate for the actual time that I devote to this  
18 case, at the rate of \$400 per hour for any review of records, preparation of reports, declarations,  
19 and deposition and trial testimony. My compensation does not depend on the outcome of this  
20 litigation, the opinions that I express, or the testimony that I provide.

21     **D.     Bases for Opinions**

22           20.     This report sets forth my opinions in this case and the bases for my opinions.

23           21.     In preparing this report, I reviewed the Executive Order 14187, titled “Protecting  
24 Children from Chemical and Surgical Mutilation,” issued on January 28, 2025, and Executive  
25 Order 14168, titled “Defending Women from Gender Ideology Extremism and Restoring  
26 Biological Truth to The Federal Government,” issued on January 20, 2025.



1 does not align with the sex assigned at birth, and *cisgender* refers to individuals whose gender  
2 identity does align with the sex assigned at birth (Shumer, et al., 2013)<sup>1</sup>.

3 29. *Gender identity* does not refer to socially contingent behaviors, attitudes, or  
4 personality traits. It is an internal and largely biological phenomenon.

5 30. Living consistent with one's gender identity is critical to the health and well-  
6 being of any person, including transgender people (Hidalgo, et al., 2013; Shumer, et al., 2013;  
7 White Hughto, et al., 2015).

8 31. A person's understanding of their gender identity may evolve over time in the  
9 natural course of their life. However, attempts to force transgender people to align their gender  
10 identity with their birth sex have been found to be both harmful and ineffective. In one study,  
11 transgender adults who recall previous attempts from healthcare professionals to alter their  
12 gender identity reported an increase in lifetime suicide attempts and higher rates of severe  
13 psychological distress in the present (Turban, et al., 2020a). In another study, exposure to these  
14 types of attempts were found to increase the likelihood that a transgender adolescent will attempt  
15 suicide by 55% and more than double the risk for running away from home (Campbell, et al.,  
16 2002). Those practices have been denounced as unethical by all major professional associations  
17 of medical and mental health professionals, such as the American Medical Association, the  
18 American Academy of Pediatrics ("AAP"), the American Psychiatric Association, and the  
19 American Psychological Association, among others (Fish, et al., 2022).

20 32. Scientific research and medical literature across disciplines demonstrates that  
21 gender identity, like other components of sex, has a strong biological foundation. For example,  
22 there are numerous studies detailing the similarities in the brain structures of transgender and  
23 non-transgender people with the same gender identity (Luders, et al., 2009; Rametti, et al., 2011;

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24 <sup>1</sup> The term transgender is often described as an umbrella term for all individuals who have a gender identity  
25 which does not align with the sex assigned at birth. Within the transgender population some individuals identify as  
26 the sex opposite from the one assigned at birth while others describe their gender identity along a spectrum between  
male and female or have other ways to describe their identity. Terms such as non-binary, two-spirit, genderqueer  
are all terms by individuals to describe their gender identity under the transgender umbrella (Kuper, et al., 2012).

1 Berglund, et al., 2008). In one such study, the volume of the bed nucleus of the *stria terminalis*  
2 (a collection of cells in the central brain) in transgender women was equivalent to the volume  
3 found in cisgender women (Zhou, et al., 1995).

4 33. There are also studies highlighting the genetic components of gender identity.  
5 Twin studies are a helpful way to understand genetic influences on human diversity. Identical  
6 twins share 100% of the same DNA, while fraternal twins share roughly 50% of the same DNA.  
7 However, both types of twins share the same environment. Therefore, studies comparing  
8 differences between identical and fraternal twin pairs can help isolate the genetic contribution of  
9 human characteristics. Twin studies have shown that if an identical twin is transgender, the other  
10 twin is much more likely to be transgender compared to fraternal twins, a finding which points  
11 to genetic underpinnings to gender identity development (Heylens, et al., 2012).

12 34. Note that not *all* identical twins are concordant with gender identity, i.e. gender  
13 identity is not a Mendelian trait. For some human characteristics there is a clear inheritance  
14 pattern whereby a particular gene is responsible for the presence or absence of the characteristic  
15 and people with identical DNA (such as identical twins) will *always* be concordant with the  
16 characteristic. These characteristics are called Mendelian traits. For example: the presence or  
17 absence of freckles or a chin dimple; having medical conditions such as Huntington's disease or  
18 Duchenne muscular dystrophy; these are Mendelian traits and identical twins will be concordant  
19 with these characteristics 100% of the time (Klug, et al., 2012). Other human characteristics are  
20 not at all genetically based (non-heritable), and in these cases identical twins would be no more  
21 likely to be concordant in having or not having the characteristic than fraternal twins or siblings.  
22 An example of a non-heritable condition is a cancer caused by a mutation that occurs after  
23 fertilization (Forsberg, et al., 2013). Clearly gender identity is not a Mendelian trait, but the fact  
24 that more identical twins are concordant for gender identity than fraternal twins *does* in fact  
25 suggest a biological underpinning.  
26



1           35. There is also ongoing research on how differences in fetal exposures to hormones  
2 may influence gender identity. This influence can be examined by studying a medical condition  
3 called congenital adrenal hyperplasia. Female fetuses affected by congenital adrenal hyperplasia  
4 produce much higher levels of testosterone compared to fetuses without the condition. While  
5 most females with congenital adrenal hyperplasia have a female gender identity in adulthood,  
6 the percentage of those with gender dysphoria is higher than that of the general population. This  
7 suggests that fetal hormone exposures contribute to the later development of gender identity  
8 (Dessens, et al, 2005).

9           36. There has also been research examining specific genetic differences that appear  
10 associated with gender identity formation (Rosenthal, 2014). For example, one study examining  
11 differences in the estrogen receptor gene among transgender women and cisgender male controls  
12 found that the transgender individuals were more likely to have a genetic difference in this gene  
13 (Henningsson, et al., 2005).

14           37. The above studies are representative examples of scientific research  
15 demonstrating biological influences on gender identity. Gender identity, like other complex  
16 human characteristics, is rooted in biology with important contributions from neuroanatomic,  
17 genetic and hormonal variation (Roselli, 2018).

#### 18 **B. Assessment of Gender Dysphoria in Children and Adolescents**

19           38. Due to the incongruence between their assigned sex and gender identity,  
20 transgender people experience varying degrees of gender dysphoria, a serious medical condition  
21 defined in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental*  
22 *Disorders, Fifth Edition, Text Revision (DSM-5-TR)* (APA, 2022).

23           39. *Gender Dysphoria* is defined as an incongruence between a patient's assigned  
24 sex and their gender identity present for at least six months, which causes clinically significant  
25 distress in the person's life. This distress is further defined as impairment in social, occupational,  
26 or other important areas of functioning (APA, 2022). Additional features may include a strong

1 | desire to be rid of one’s primary or secondary sex characteristics, a strong desire to be treated as  
2 | a member of the identified gender, or a strong conviction that one has the typical feelings of  
3 | identified gender (APA, 2022). Patients presenting to pediatric gender clinics who do in fact  
4 | meet criteria for the diagnosis of gender dysphoria invariably have had symptoms of gender  
5 | dysphoria much longer than 6 months.

6 |         40.     The *Standards of Care for the Health of Transgender and Gender Diverse*  
7 | *People, Version 8* (“SOC 8”), published by the World Professional Association for Transgender  
8 | Health (“WPATH”), provides guidance to providers on how to provide comprehensive  
9 | assessment and care to this patient population based on medical evidence. These standards  
10 | recommend involving relevant disciplines, including mental health and medical professionals,  
11 | to reach a decision with families about whether medical interventions are appropriate and remain  
12 | indicated through the course of treatment.

13 |         41.     In children and adolescents, a comprehensive biopsychosocial assessment is  
14 | typically the first step in evaluation, performed by a mental health provider with experience in  
15 | gender identity. The goals of this assessment are to develop a deep understanding of the young  
16 | person’s experience with gender identity, to consider whether the child or adolescent meets  
17 | criteria for a diagnosis of gender dysphoria, and to understand what options may be desired and  
18 | helpful for the adolescent (Coleman, et al., 2022; Coleman, et al., 2012; Hembree, et al., 2017;  
19 | Hembree, et al., 2009).

20 |         42.     In children and adolescents, the diagnosis of gender dysphoria is made by a  
21 | qualified health care provider, usually a mental health provider including but not limited to a  
22 | psychiatrist, psychologist, social worker, or therapist, with expertise in gender identity concerns.  
23 | It is recommended that children and adolescents diagnosed with gender dysphoria engage with  
24 | a multidisciplinary team of mental health and medical professionals to formulate a treatment  
25 | plan, in coordination with the parent(s) or guardian(s), with a goal of reduction of gender  
26 | dysphoria.

1 43. For children younger than pubertal age, the only recommended treatments do not  
2 involve medications. For adolescents, additional treatments involving medications may be  
3 appropriate.

4 44. For transgender adolescents, all treatment decisions are made in consultation with  
5 the adolescent and the adolescent’s parent or guardian with the parent or guardian providing  
6 ultimate consent for treatment.

7 **C. Evidence-Based Clinical Practice Guidelines for the Treatment of Gender in**  
8 **Children and Adolescents**

9 45. The goal of any intervention for gender dysphoria is to reduce dysphoria, improve  
10 functioning, and prevent the harms caused by untreated gender dysphoria.

11 46. Gender dysphoria is highly treatable and can be effectively managed. If left  
12 untreated, however, it can result in severe anxiety and depression, eating disorders, substance  
13 abuse, self-harm, and suicidality (Reisner, et al., 2015).

14 47. Based on longitudinal data, and my own clinical experience, when transgender  
15 adolescents are provided with appropriate medical treatment and have parental and social  
16 support, they are more likely to thrive and grow into healthy adults (de Vries, et al., 2014).

17 48. For pre-pubertal children with gender dysphoria, treatments may include  
18 supportive therapy, encouraging support from loved ones, and assisting the young person  
19 through elements of a social transition. Social transition may include adopting a new name and  
20 pronouns, appearance, and clothing, and correcting identity documents.

21 49. Options for treatment after the onset of puberty include the use of gonadotropin-  
22 releasing hormone agonists (“GnRHa”) commonly referred to as “puberty blockers”, for  
23 purposes of preventing progression of pubertal development, hormonal interventions such as  
24 testosterone and estrogen administration, and on rare occasion, gender-affirming chest surgery  
25 for older adolescents and genital surgeries for adults (18-years-old or older). These treatment  
26

1 options are based on robust research and clinical experience, which consistently demonstrate  
2 safety and efficacy.

3 50. Clinical practice guidelines have been published by several long-standing and  
4 well-respected medical bodies: WPATH and the Endocrine Society (Coleman, et al., 2022;  
5 Coleman, et al., 2012; Hembree, et al., 2017; Hembree, et al., 2009). The clinical practice  
6 guidelines and standards of care published by these organizations provide a framework for  
7 treatment of gender dysphoria in adolescents.

8 51. The tenets set forth by WPATH and the Endocrine Society are supported by the  
9 major professional medical and mental health associations in the United States, including the  
10 American Academy of Pediatrics, the American Medical Association, the American  
11 Psychological Association, the American Psychiatric Association, and American Academy of  
12 Family Physicians, among others (e.g., Rafferty, et al., 2018 (American Academy of Pediatrics);  
13 AMA, 2019; American Psychological Association, 2015; Drescher, et al., 2018 (American  
14 Psychiatric Association); Klein, et al., 2018 (AAFP); National Academies, 2020).

15 52. WPATH has been recognized as the standard-setting organization for the  
16 treatment of gender dysphoria since its founding in 1979. The most recent WPATH Standards  
17 of Care (“SOC 8”) were published in 2022 and represent expert consensus for clinicians related  
18 to medical care for transgender people, based on the best available science and clinical  
19 experience (Coleman, et al., 2022).

20 53. The purpose of the WPATH Standards of Care is to assist health providers in  
21 delivering necessary medical care to transgender people, to maximize their patients’ overall  
22 health, psychological well-being, and self-fulfillment. The WPATH Standards of Care serve as  
23 one of the foundations for the care provided in my own clinic.

24 54. The WPATH SOC 8 is based on rigorous review of the best available science and  
25 expert professional consensus in transgender health. International professionals were selected to  
26 serve on the SOC 8 writing committee. Recommendation statements were developed based on

1 data derived from independent systemic literature reviews. Grading of evidence was performed  
2 by an Evidence Review Team which determined the strength of evidence presented in each  
3 individual study relied upon in the document (Coleman, et al., 2022).

4 55. In addition, the Endocrine Society is a 100-year-old global membership  
5 organization representing professionals in the field of adult and pediatric endocrinology. In 2017,  
6 the Endocrine Society published clinical practice guidelines on treatment recommendations for  
7 the medical management of gender dysphoria, in collaboration with the Pediatric Endocrine  
8 Society, the European Societies for Endocrinology and Pediatric Endocrinology, and WPATH,  
9 among others (Hembree, et al, 2017).

10 56. The Endocrine Society Clinical Guidelines were developed through rigorous  
11 scientific processes that “followed the approach recommended by the Grading of  
12 Recommendations, Assessment, Development, and Evaluation group, an international group  
13 with expertise in the development and implementation of evidence-based guidelines.” The  
14 guidelines affirm that patients with gender dysphoria often must be treated with “a safe and  
15 effective hormone regimen that will (1) suppress endogenous sex hormone secretion determined  
16 by the person’s genetic/gonadal sex and (2) maintain sex hormone levels within the normal range  
17 for the person’s affirmed gender.” (Hembree, et al., 2017).

18 57. The AAP is the preeminent professional body of pediatricians in the United  
19 States, with over 67,000 members. The AAP endorses a commitment to the optimal physical,  
20 mental, and social health and well-being for youth. The 2018 policy statement titled *Ensuring*  
21 *Comprehensive Care and Support for Transgender and Gender-Diverse Children and*  
22 *Adolescents* further lends support to the treatment options outlined in the WPATH Standards of  
23 Care and the Endocrine Society’s Clinical Practice Guidelines (Rafferty, et al., 2018).

24 58. As a board-certified pediatric endocrinologist, I follow the Endocrine Society  
25 Clinical Practice Guidelines and the WPATH Standards of Care when treating my patients.  
26 Indeed, I have an ethical obligation to do so.

1 **D. Treatment Protocols for Gender Dysphoria**

2 59. Undergoing treatment to alleviate gender dysphoria is commonly referred to as a  
3 transition. The transition process in adolescence typically includes (i) social transition and/or (ii)  
4 medications, including puberty-delaying medication and hormone therapy. The steps that make  
5 up a person's transition and their sequence will depend on that individual's medical and mental  
6 health needs and decisions made between the patient, family, and multidisciplinary care team.

7 60. There are no medications considered for transition until after the onset of puberty.  
8 Puberty is a process of maturation heralded by production of sex hormones—testosterone and  
9 estrogen—leading to the development of secondary sex characteristics. Secondary sex  
10 characteristics include testosterone-induced effects such as deepening of the voice, muscular  
11 changes, facial and body hair, and estrogen-induced effects such as breast development. There  
12 is diversity in the age of pubertal onset; however, most adolescents begin puberty between ages  
13 10 and 12 years.

14 61. Gender exploration in childhood is expected and healthy. The majority of  
15 prepubertal children exploring their gender do not develop gender dysphoria and are not  
16 expected to become transgender adolescents or adults. In contrast, data and personal experience  
17 shows that children whose gender dysphoria persists into adolescence are highly likely to be  
18 transgender (van der Loos, et al., 2022). Some individuals in this field misinterpret older studies  
19 showing that a large percentage of children diagnosed with gender identity disorder did not grow  
20 up to be transgender. Those studies include children who would not fulfill the current diagnostic  
21 criteria for gender dysphoria and, in any case, bear little relevance because no medications are  
22 prescribed to prepubertal children.

23 62. After the onset of puberty, puberty-delaying medication and hormone-  
24 replacement therapy—both individually and in combination—can significantly improve the  
25 mental health of adolescents diagnosed with gender dysphoria. These treatments allow for a  
26 patient's physiological characteristics to more closely align with gender identity and decreases

1 the likelihood that the young person will be incorrectly identified with their assigned sex, further  
2 alleviating their gender dysphoria.

3 63. At the onset of puberty, adolescents begin to experience the onset of secondary  
4 sex characteristics. Adolescents with differences in gender identity may have intensification of  
5 gender dysphoria during this time due to development of secondary sex characteristics  
6 incongruent with gender identity. Persistence or intensification of gender dysphoria as puberty  
7 begins is used as a helpful diagnostic tool as it becomes more predictive of gender identity  
8 persistence into adolescence and adulthood (de Vries, et al., 2012).

9 **1. Treatment with puberty-delaying medications**

10 64. Adolescents diagnosed with gender dysphoria who have entered puberty (Tanner  
11 Stage 2) may be prescribed puberty-delaying medications (GnRHa) to prevent the distress of  
12 developing permanent, unwanted physical characteristics that do not align with the adolescent's  
13 gender identity. Tanner Stage 2 refers to the stage in puberty whereby the physical effects of  
14 testosterone or estrogen production are first apparent on physical exam. Specifically, this is  
15 heralded by the onset of breast budding in an individual assigned female at birth, or the onset of  
16 testicular enlargement in an individual assigned male at birth. For individuals assigned male at  
17 birth, Tanner Stage 2 typically occurs between age 9–14, and for those assigned female at birth  
18 between age 8–12.

19 65. The treatment works by pausing endogenous puberty at whatever stage it is at  
20 when the treatment begins, limiting the influence of a person's endogenous hormones on their  
21 body. For example, a transgender girl will experience no progression of physical changes caused  
22 by testosterone, including facial and body hair, an Adam's apple, or masculinized facial  
23 structures. And, in a transgender boy, those medications would prevent progression of breast  
24 development, menstruation, and widening of the hips (Coleman, et al., 2022; de Vries, et al.,  
25 2012; Deutsch (ed.), 2016; Hembree, et al., 2017; Rosenthal, 2014).

1           66.     GnRHa have been used extensively in pediatrics for several decades. Prior to their  
2 use for gender dysphoria, they were used (and still are used) to treat precocious puberty, puberty  
3 that begins at a younger-than-normal age. GnRHa work by suppressing the signal hormones from  
4 the pituitary gland, luteinizing hormone (LH) and follicle stimulating hormone (FSH), that  
5 stimulate the testes or ovaries to produce sex hormones. Upon discontinuation of GnRHa, LH  
6 and FSH production resume and puberty will also resume.

7           67.     GnRHa have no long-term implications on fertility. In transgender youth, it is  
8 most typical to use GnRHa from the onset of puberty (Tanner Stage 2) until mid-adolescence.  
9 While treating, the decision to continue treatment will be continually evaluated. Should pubertal  
10 suppression no longer be desired, GnRHa would be discontinued, and puberty would re-  
11 commence.

12           68.     Prior to initiation of GnRHa, providers counsel patients and their families  
13 extensively on potential benefits and risks. The designed benefit of treatment is to reduce the  
14 risk of worsening gender dysphoria and mental health deterioration. More specifically, use of  
15 GnRHa in transmasculine adolescents allows for decreased chest development, reducing the  
16 need for breast binding and surgical intervention in adulthood. For transfeminine adolescents  
17 GnRHa limits facial and body hair growth, voice deepening, and masculine bone structure  
18 development, which greatly reduce distress both at the time of treatment and later in life and  
19 reduce the need for later interventions such as voice therapy, hair removal, and facial  
20 feminization surgery.

21           69.     The goal in using GnRHa is to minimize the patient's dysphoria related to  
22 progression of puberty and allow for later initiation of puberty consistent with gender identity.  
23 When a patient presents for care, the provider assesses the patient's pubertal stage, pubertal  
24 history, and individual needs. A patient may present prior to the onset of puberty (Tanner  
25 Stage 1), at the onset of puberty (Tanner Stage 2), or further along in puberty (Tanner  
26 Stages 3–5). The pubertal stage and individual needs of the patient then direct conversations



1 regarding care options. A patient at Tanner Stage 2 may benefit from GnRHa, while an older  
2 patient who has completed puberty may benefit from pubertal initiation with hormones, as  
3 described below. I have observed that providing individualized care based on individual patient  
4 characteristics, using the WPATH Standards of Care as the foundation of this care, provides  
5 significant benefit to patients, minimizes gender dysphoria, and can eliminate the need for  
6 surgical treatments in adulthood.

7 70. As an experienced pediatric endocrinologist, I treat patients with these same  
8 medications for both precocious puberty and gender dysphoria and in both cases the side effects  
9 are comparable and easily managed; for both patient populations the risks are greatly outweighed  
10 by the benefits of treatment.

11 71. In addition, I regularly prescribe GnRHa for patients who do not meet criteria for  
12 precocious puberty but who require pubertal suppression. Examples include patients with  
13 disabilities who are unable to tolerate puberty at the typical age due to hygienic or behavioral  
14 concerns (Yaylacı, 2020); adolescents with short stature who despite growth hormone treatment  
15 will have a very short adult height (Pasquino, 2000); and young women with endometriosis  
16 (Shim, 2023). As with gender dysphoria, the prescription of GnRHa to treat these conditions is  
17 “off-label,” yet it is widely accepted within the field of endocrinology, supported by published,  
18 peer-reviewed literature, and not considered experimental. The same holds true for other  
19 common medications used in pediatric endocrinology: metformin for weight loss; growth  
20 hormone for short stature not caused by growth hormone deficiency; and countless medications  
21 used to control type 2 diabetes which have an adult indication but whose manufacturers have not  
22 applied for a pediatric indication.

## 23 **2. Treatment with hormone therapy**

24 72. In mid-adolescence, the patient, their parents, and the patient’s care team may  
25 discuss the possibility of beginning the use of testosterone or estrogen. In my practice we discuss  
26 these treatments for a patient who is currently receiving GnRHa, or patients who have already

1 gone through their endogenous puberty and either did not have access to, desire, or elect for  
2 GnRHa treatment. In adult patients, use of GnRHa is uncommon, and instead medical decisions  
3 are focused more on testosterone or estrogen therapy.

4 73. These hormone therapies are used to treat gender dysphoria in adolescents and  
5 adults to facilitate development of sex-specific physical changes congruent with their gender  
6 identity. For example, a transgender man prescribed testosterone will develop a lower voice as  
7 well as facial and body hair, while a transgender woman prescribed estrogen will experience  
8 breast growth, female fat distribution, and softer skin.

9 74. Under the Endocrine Society Clinical Guidelines and SOC 8, hormone therapy is  
10 an appropriate treatment for transgender adolescents with gender dysphoria when the experience  
11 of dysphoria is marked and sustained over time, the adolescent demonstrates emotional and  
12 cognitive maturity required to provide an informed consent/assent<sup>2</sup> for treatment, other mental  
13 health concerns (if any) that may interfere with diagnostic clarity and capacity to consent have  
14 been addressed, and the adolescent has discussed reproductive options with their provider.  
15 SOC 8 also highlights the importance of involving parent(s)/guardian(s) in the assessment and  
16 treatment process for minors (Coleman, et al., 2022; Hembree, et al., 2017).

17 75. Under the Endocrine Society Clinical Guidelines and SOC 8, hormone therapy is  
18 an appropriate treatment for transgender adults (age 18 or older) with gender dysphoria when  
19 the experience of dysphoria is marked and sustained, other possible causes of apparent gender  
20 dysphoria are excluded, any mental and physical health conditions that could negatively impact  
21 the outcome of treatment are assessed, and the adult has the capacity to understand the risks and  
22 benefits of treatment and provide consent for treatment. There is no special differentiation, or

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23 <sup>2</sup> Assent, in this context, refers to an adolescent patient younger than the age of legal consent who is  
24 participating in decision-making commensurate with their development. This includes providing the patient with  
25 information about the nature of their condition, proposed treatments, potential risks, benefits and uncertainties of  
26 the proposed treatment and alternative treatments, including the option of no treatment, assessment of the patient's  
understanding and medical decision-making capacity, and agreement with the care plan. Consent, in this context,  
describes the above process for an adult patient, or the process by which parents or other legally responsible  
surrogates provide informed permission for the proposed treatment on behalf of their minor child (Katz, et al., 2016).

1 justification for differentiation, for adults aged 18 compared with adults aged 19 and older  
2 (Coleman, et al., 2022; Hembree, et al., 2017).

3 76. Similar to GnRHa, the risks and benefits of hormone treatment are discussed with  
4 patients (and families, if the patient is a minor) prior to initiation of testosterone or estrogen.  
5 When treated with testosterone or estrogen, the goal is to maintain the patient's hormone levels  
6 within the normal range for their gender. Laboratory testing is recommended to ensure proper  
7 dosing and hormonal levels. If starting hormonal care after completing puberty, discussion of  
8 egg or sperm preservation prior to starting treatment is recommended.

9 77. Regardless of the treatment plan prescribed, at every encounter with the care team  
10 there is a re-evaluation of the patient's gender identity and their transition goals. Should a patient  
11 desire to discontinue a medical intervention, the intervention is discontinued. Discontinuation of  
12 GnRHa will result in commencement of puberty. Findings from studies in which participants  
13 have undergone comprehensive evaluation prior to gender care show low levels of regret (de  
14 Vries, et al., 2011; van der Loos, et al., 2022; Wiepjes, et al., 2018). These extremely low rates  
15 of regret are in contrast to the high rates of poor psychological functioning in untreated  
16 adolescents (van der Miesen, et al., 2020). The findings of these studies match my own clinical  
17 experience. Patients and families undergo thoughtful and comprehensive assessment and  
18 counselling prior to initiation of any medical intervention. Treatment follows when appropriate,  
19 and always with fully informed patient assent and parental consent. Goals of care are re-  
20 evaluated at every visit. By practicing according to these evidenced-based principles, I have  
21 witnessed the dramatic improvement in the lives of hundreds of patients initially suffering from  
22 debilitating gender dysphoria. Patients and parents often describe the care received as "life-  
23 saving" and regret regarding care decisions is incredibly low, lower than I experience in other  
24 areas of pediatric endocrine care.

1           **3. Treatment with gender-affirming surgery**

2           78. As a pediatric endocrinologist, I don't personally perform gender-affirming  
3 surgery. However, the clinical guidelines do contemplate surgeries as gender-affirming  
4 treatment for a patient's gender dysphoria in appropriate circumstances. In the adolescent patient  
5 population, gender-affirming chest surgery (specifically removal of breast tissue in transgender  
6 young men) may be recommended as part of an individualized gender-affirming treatment plan  
7 for adolescents, although with less regularity than hormonal interventions (Tang, et al., 2022).  
8 Genital surgeries, however, are typically reserved for adults (age 18 and older, inclusive of  
9 patients who are 18 years old). Safety and Efficacy of Medical Interventions to Treat Gender  
10 Dysphoria

11           79. GnRHa, prescribed for delaying puberty in transgender adolescents, is both a safe  
12 and effective treatment. Patients under consideration for treatment are working within a  
13 multidisciplinary team of providers all dedicated to making informed and appropriate decisions  
14 with the patient and family in the best interest of the adolescent. Physicians providing this  
15 intervention are trained and qualified in gender identity concerns and childhood growth and  
16 development and are participating in this care out of a desire to improve the health and wellness  
17 of transgender youth and prevent negative outcomes such as depression and suicidality.

18           80. GnRHa, including injectable leuprolide and implantable histrelin, have rare side  
19 effects which are discussed with patients and families prior to initiation. Mild negative effects  
20 may include pain at the injection or implantation site, sterile abscess formation, weight gain, hot  
21 flashes, abdominal pain, and headaches. These effects can be seen in patients receiving GnRHa  
22 for gender dysphoria, or for other indications such as precocious puberty. I counsel patients on  
23 maintaining a healthy diet and promote physical activity, and regularly document height and  
24 weight during treatment. Nutritional support can be provided for patients at risk for obesity.

25           81. Risk of lower bone mineral density in prolonged use of GnRHa can be mitigated  
26 by screening for, and treating, vitamin D deficiency when present, and by limiting the number

1 of years of treatment based on a patient's clinical course (Rosenthal, 2014). An exceptionally  
2 rare but significant side effect, increased intracranial pressure, has been reported in six patients  
3 (five treated for precocious puberty, one for transgender care), prompting an FDA warning in  
4 July 2022 (AAP, 2022). These cases represent an extremely small fraction of the thousands of  
5 patients who have been treated with GnRHa over decades. Symptoms of this side effect  
6 (headache, vomiting, visual changes) are reviewed with families and if they occur the medication  
7 is discontinued. The rarity of this side effect was described by Karamanis et al. (2023) as zero  
8 cases of increased intracranial pressure were reported in the 410 adolescents prescribed GnRHa  
9 for gender dysphoria in Sweden between 2006 and 2016.

10 82. GnRHa do not have long-term implications on fertility. This is clearly proven  
11 from decades of use in the treatment of precocious puberty (Guaraldi, et al., 2016; Martinerie, et  
12 al, 2021). Progression through natal puberty is required for maturation of egg or sperm. If  
13 attempting fertility after previous treatment with GnRHa followed by hormone therapy is  
14 desired, an adult patient would withdraw from hormones and allow pubertal progression.  
15 Assistive reproduction could be employed if needed (T'Sjoen, et al., 2013).

16 83. Patients who initiate hormones after completing puberty are offered gamete  
17 preservation prior to hormonal initiation (Coleman, et al., 2022), but even when not undertaken,  
18 withdrawal of hormones in adulthood often is successful in achieving fertility when it is desired  
19 (Light, et al., 2014; Knudson, et al., 2017).

20 84. Discussing the topic of fertility is important, and not specifically unique to  
21 treatment of gender dysphoria. Medications used for other medical conditions, such as  
22 chemotherapeutics used in cancer treatment, can affect fertility. For all medications with  
23 potential impacts on fertility, the potential risks and benefits of both treatment and non-treatment  
24 should be reviewed and data regarding risk for infertility clearly articulated prior to the consent  
25 or assent of the patient. Risk for fertility changes must be balanced with the risk of withholding  
26 treatment.

1           85. Review of relevant medical literature clearly supports the benefits of GnRHa  
2 treatment on both short-term and long-term psychological functioning and quality of life (e.g.,  
3 Achille, et al., 2020; Carmichael, et al., 2021; Costa, et al., 2015; de Vries, et al., 2014; de Vries,  
4 et al., 2011; Kuper, et al., 2020; Turban, et al., 2020b; van der Miesen, et al., 2020; McGregor,  
5 et al., 2024). For example, a 2014 long-term follow-up study following patients from early  
6 adolescence through young adulthood showed that gender-affirming treatment allowed  
7 transgender adolescents to make age-appropriate developmental transitions while living as their  
8 affirmed gender with positive outcomes as young adults (de Vries, et al., 2014). A cross-sectional  
9 study comparing 272 adolescents not yet receiving medical treatment, 178 adolescents receiving  
10 pubertal suppression, and 651 adolescents from the general population demonstrated that  
11 transgender adolescents have poorer psychological well-being before treatment but similar or  
12 better psychological functioning when compared to cisgender peers from the general population  
13 after the start of specialized gender-affirming care involving pubertal suppression (van der  
14 Miesen, et al., 2020). A longitudinal study followed adolescents with gender dysphoria who  
15 received psychological support alone followed by continued psychological support plus pubertal  
16 suppression. Participants had significantly better psychological functioning after 12 months of  
17 GnRHa treatment compared with when they had received psychological support alone (Costa,  
18 2015).

19           86. In my own practice, adolescent patients struggling with significant distress at the  
20 onset of puberty routinely have dramatic improvements in mood, school performance, and  
21 quality of life with appropriate use of GnRHa. Side effects encountered are similar to those seen  
22 in other patients treated with these medications and easily managed.

23           87. Hormone therapy (testosterone or estrogen) is prescribed to older adolescents  
24 with gender dysphoria. As is the case with GnRHa, the need for hormone therapy is not unique  
25 to transgender adolescents. Patients with conditions such as delayed puberty, hypogonadism,  
26 Turner Syndrome, Klinefelter Syndrome, agonism, premature ovarian failure, and disorders of

1 sex development all require treatment with these hormones, often times starting in adolescence  
2 and continuing lifelong. Without testosterone or estrogen treatment, these patients would be  
3 unable to progress through puberty normally, which would have serious medical and social  
4 consequences. Whether used in adolescents to treat gender dysphoria, or to treat any of these  
5 other conditions, testosterone and estrogen are prescribed with a goal to raise the testosterone or  
6 estrogen level into the normal male or female range for the patient's age. Careful monitoring of  
7 blood levels and clinical progress are required, however abnormal laboratory results are rare in  
8 adolescents prescribed gender-affirming hormones (Millington, 2024). Side effects are also rare,  
9 and most are often related to overtreatment, which can be minimized with laboratory monitoring.  
10 Additionally, side effects are considered, discussed, and easily managed in all individuals  
11 needing hormone therapy regardless of the diagnosis necessitating these medications.

12 88. Venous thromboembolism (blood clotting) is a known side effect of estrogen  
13 therapy in all individuals prescribed it, including transgender women. Risk is increased in old  
14 age, in patients with cancer, and in patients who smoke nicotine. This side effect is mitigated by  
15 careful and accurate prescribing and monitoring. In my career, none of my patients have suffered  
16 a thromboembolism while on estrogen therapy.

17 89. Elevated red blood cell concentration (hematocrit) can occur with treatment with  
18 testosterone in all individuals prescribed it, including transgender men. When present, elevated  
19 hematocrit is easily managed with reduction of the dose of testosterone.

20 90. Treatment of gender dysphoria with testosterone or estrogen is highly beneficial  
21 for both short-term and long-term psychological functioning of adolescents with gender  
22 dysphoria and withholding treatment from those who need it is harmful (e.g., Achille, et al.,  
23 2020; Allen, et al., 2019; Chelliah, et al., 2024; Chen, et al., 2023; de Lara, et al., 2020; de Vries,  
24 et al., 2014; Grannis, et al., 2021; Green, et al., 2022; Kaltiala, et al., 2020; Kuper, et al., 2020;  
25 Turban, et al., 2022).

1           91. Research demonstrating the benefits of hormonal intervention is robust,  
2 consisting of large cross-sectional studies and also evaluation of longitudinal cohorts of patients  
3 across time. Green, et al., (2022) presented cross-sectional data from 11,914 adolescents and  
4 demonstrates that gender-affirming hormone therapy is correlated with reduced rates of  
5 depression and suicidality among transgender adolescents. Turban et al. (2022) analyzed cross-  
6 sectional data from 27,715 transgender adults and found that access to gender-affirming hormone  
7 therapy in adolescence is associated with favorable mental health outcomes in adulthood, when  
8 compared to individuals who desired but could not access hormonal interventions.

9           92. Chen, et al. (2023), a longitudinal study that followed 315 adolescents for 2 years  
10 after starting gender-affirming hormonal treatment, demonstrated improved appearance  
11 congruence and psychosocial functioning as a result of treatment. Chelliah, et al. (2024)  
12 presented longitudinal data from 115 transgender youth and demonstrated reductions in body  
13 dissatisfaction, victimization, depression, and anxiety along with improvements in psychosocial  
14 functioning when measured one year after initiating medical treatment at a multidisciplinary  
15 gender-affirming program.

16           93. The efficacy of hormone treatment in transgender adults is similarly robust. At  
17 least 11 longitudinal studies document improvement in various mental health parameters  
18 including depression, anxiety, self-confidence, body image and self-image, and general  
19 psychological functioning (e.g., Colizzi, et al., 2013; Colizzi, et al., 2014; Corda, et al., 2016;  
20 Defreyne, et al., 2019; Fisher, et al., 2016; Heylens, et al., 2014; Keo-Meier, et al., 2015; Manieri,  
21 et al., 2014; Motta, et al., 2018; Oda, et al., 2017; Turan, et al., 2018). Nolan, et al. (2023)  
22 presented a randomized controlled trial demonstrating reduction in gender dysphoria,  
23 depression, and suicidality in transgender adults prescribed testosterone therapy compared to  
24 those awaiting treatment.

25           94. Recently conducted systematic reviews have examined the effects of  
26 gender-affirming hormone therapy on psychosocial functioning in adolescents and adults. Doyle,



1 et al., (2023) and Baker, et al. (2021) included data from both adults and adolescents when  
2 presenting their findings. Doyle concluded that the body of literature consistently demonstrates  
3 that gender-affirming hormone therapy reduces depressive symptoms and psychological distress.  
4 The systematic review published by Baker, et al., commissioned by WPATH, concluded that the  
5 body of literature indicates hormone therapy is associated with increased quality of life,  
6 decreased depression and decreased anxiety.

7 95. Other systematic reviews restricted their analyses to studies of adolescents only,  
8 not including adult data. Taylor, et al. (2024) and RAND (Dopp, et al., 2024) both conducted  
9 systematic reviews of pubertal suppression and hormonal interventions in adolescents. The  
10 Taylor reviews were commissioned by the Cass Review and National Health Service in England.  
11 The RAND Review was published by the RAND Corporation, a nonprofit, nonpartisan United  
12 States-based research organization aiming to improve policy and decision-making through  
13 research and analysis. Both of these reviews analyzed a very similar and overlapping body of  
14 evidence.

15 96. Taylor and colleagues reviewed scientific literature related to the use of pubertal  
16 suppression (Taylor 2024a) and gender-affirming hormones (Taylor 2024b). These systematic  
17 reviews draw upon data from 50 studies related to pubertal suppression and 53 studies related to  
18 gender-affirming hormone treatment. Using the Newcastle-Ottawa Scale, a validated scale for  
19 evaluating cohort studies, the Taylor reviews found there were 26 and 34 studies, respectively,  
20 of high (one each) to moderate quality documenting outcomes of adolescent patients receiving  
21 these treatments. The studies described in these reports are the same studies that I rely upon to  
22 make medical decisions with patients and families. It is also the same body of literature that I  
23 use when stating that these interventions are safe and effective in treating gender dysphoria in  
24 adolescence. Indeed, the findings of these studies, as documented in the Taylor reviews, are  
25 consistent with the opinions I have expressed in this case. The Taylor reviews conclusion,  
26 however, was that there was insufficient data to make conclusions on the effect of pubertal

1 suppression and moderate-quality evidence suggesting mental health may be improved during  
2 hormonal treatments.

3 97. The RAND review (Dopp, et al., 2024), on the other hand, concluded that, “the  
4 available research evidence – although limited – can inform recommendations on interventions  
5 for gender dysphoria and related health problems in TGE<sup>3</sup> youth . . . .” With regards to puberty-  
6 suppressing medications like GnRHa, the RAND review documented that the studies showed  
7 that the medications did suppress the pubertal changes targeted, improved gender dysphoria, and  
8 improved mental health functioning. With regards to hormones, the RAND review found that  
9 “the available evidence suggests that HRT produced expected changes in hormone levels and  
10 related physical changes targeted for initiation, with associated improvements in body  
11 satisfaction and gender dysphoria in each of the studies measuring that outcome.” It also showed  
12 that hormones were associated with increases in mental health functioning and increases in bone  
13 density following puberty-suppressing hormones.

14 98. Notably, the review points out what is clear to clinicians across all areas of  
15 pediatric medicine as it states,

16 challenges with certainty of evidence are not unique to interventions for gender  
17 dysphoria and related health problems in TGE youth; many fields of study  
18 encounter such challenges when using research evidence to inform standards of  
19 care. In fact, systemic reviews of the application of GRADE (Fleming et al., 2016;  
20 Howick et al., 2020) have found that 22-24 percent of evidence summaries for  
21 the primary study outcome were rated as very low certainty, and 81 percent of  
22 reviews included no outcomes with evidence that was high certainty . . . . Yet  
23 such guidelines have been developed and are used to inform widely applicable  
24 population health assessments . . . . Absence of high-certainty evidence on  
25 effectiveness is not equivalent to evidence that effects are absent.

26 99. The RAND review also speaks specifically about “policies to ban or restrict  
interventions.” The review advises,

evidence-based policymaking decisions about banning or restricting gender  
dysphoria interventions for TGE youth ought to consider the certainty of whether  
the policy is preventing harm that exceeds the potential harm of withholding

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<sup>3</sup> In the cited reference the abbreviation TGE is used for “transgender and gender expansive” and further defines gender expansive as inclusive of “nonbinary and other identities outside of male and female” (Dopp, et al., 2024).

1 clinical standards of care (Barbee, Deal, and Gonzales, 2022). In this review, the  
2 intervention for which harms were most clearly documented was GIECE [gender  
3 identity and expression change efforts, i.e. conversion therapy], an alternative to  
4 the standards of care. This finding is consistent with a much larger body of  
5 research documenting the harmful mental health effects of a broader category of  
6 interventions called sexual orientation and gender identity and expression change  
7 efforts (SOGIECE; see, e.g., Comer et al., 2024; Daniel and Butkus, 2015;  
8 Forsythe et al., 2022; Goodyear et al., 2023; Panozzo, 2013; Przeworski,  
9 Peterson, and Piedra, 2021). Therefore, policymakers could consider policies  
10 regarding GIECE as a high priority for preventing harm to TGE youth.

11 100. A note here regarding jargon related to the grading of evidence. Authors of  
12 practice guidelines and systematic reviews often employ standardized scales to denote the  
13 strength of evidence. Examples of these scales include GRADE and Newcastle-Ottawa. These  
14 scales help authors and readers consider the quantity and quality of evidence used in determining  
15 recommendations for care. Each scale utilizes its own jargon, such that a recommendation based  
16 on “low” quality evidence according to GRADE may be ranked “moderate” evidence according  
17 to Newcastle-Ottawa. As the authors of the RAND report explain, this jargon should not be used  
18 to determine what is good care, appropriate care, or the standard of care. For example,  
19 recommendations based on what is labeled “low” quality evidence may be, and often is, the  
20 recommended standard of care.

21 101. In fact, across all aspects of care, including pubertal suppression, gender-  
22 affirming hormones, and surgical interventions, the RAND report findings indicated low regret,  
23 low dissatisfaction levels, and low side effects and complications in the adolescent patient  
24 population across the entire body of literature in the field. This is in keeping with my own clinical  
25 experience.

26 102. In sum, the use of GnRHa, hormones, and chest surgery in adolescents for the  
treatment of gender dysphoria is the current standard of care and certainly not experimental. This  
is due to robust evidence of safety and efficacy. The sum of the data supports the conclusion that  
treatment of gender dysphoria with these interventions promotes wellness and helps to prevent

1 negative mental health outcomes, including suicidality. The data to support these interventions  
2 are so strong that withholding such interventions would be negligent and unethical.

### 3 III. RESPONSE TO THE EXECUTIVE ORDER

#### 4 A. Response to Section 2 (Policy and Definitions) of Executive Order 14168: 5 “Defending Women from Gender Ideology Extremism and Restoring Biological 6 Truth to the Federal Government”

7 103. Section 2 (Policy and Definitions) presents scientific and medical inaccuracies  
8 and misstatements that the order says will “govern all Executive interpretation of and application  
9 of Federal law and administration policy.” The order defines “sex” as “an individual’s immutable  
10 biological classification as either male or female” and does not include the concept of “gender  
11 identity”. This definition is both an oversimplification and inaccurate. As described in  
12 section II.A above, sex is comprised of several components, sometimes discordant with one  
13 another. Defining sex in an infant with a disorder of sex development is often times far from  
14 straightforward. When the chromosomal sex, external genitals, and internal reproductive organs  
15 are not aligned as all male or all female, multidisciplinary DSD teams, consisting of pediatric  
16 endocrinologists, geneticists, urologists, and psychologists work with parents and families to  
17 determine a sex assignment. That assignment must be and is re-evaluated when the infant  
18 becomes a child and expresses a gender identity. To exclude gender identity from the  
19 definition of sex ignores the biological foundation to which gender identity is derived, as  
20 described in paragraphs 32–37 above.

21 104. “Gender ideology” is not a medical term. The order claims this term “replaces the  
22 biological category of sex with an ever-shifting concept of self-assessed gender identity,  
23 permitting the false claim that males can identify as and thus become women and vice versa, and  
24 requiring all institutions of society to regard this false claim as true.” It is fact that some  
25 individuals identify as a sex different from what was assigned at birth (their chromosomal,  
26 anatomic sex). Acceptance or lack-of-acceptance of this fact by any “institutions of society” does  
not make it any more or less true.

1 105. “Gender dysphoria” is defined as “disconnected from biological reality” and  
2 again ignores the biological underpinning of gender identity. Gender identity is not used as “a  
3 replacement for sex” but rather an important component of sex.

4 **B. Response to Section 1 (Policy and Purpose) of Executive Order 14187: “Protecting  
5 Children from Chemical and Surgical Mutilation”**

6 106. Section 1 contains gross mischaracterizations and falsehoods related to the  
7 provision of gender-affirming care for adolescents with gender dysphoria. The order claims that  
8 medical professionals are “maiming and sterilizing” patients and that the professionals  
9 themselves are changing a child’s sex. Adolescents with gender dysphoria have a medical  
10 problem for which safe, effective, and evidence-based treatment exists, as described throughout  
11 this report. Furthermore, the statement omits the critical importance of the informed consent  
12 discussions that must occur between medical providers, patients and their parents at every stage  
13 of medical decision making.

14 107. This section proceeds to hyperbolically misconstrue the rate of regret amongst  
15 adolescents receiving gender-affirming care, a rate that is exceedingly low, especially compared  
16 to the extremely high rates of depression and suicidality in untreated patients.

17 108. The order suggests that “vulnerable youths’ medical bills may rise throughout  
18 their lifetimes, as they are often trapped with lifelong medical complications, a losing war with  
19 their own bodies, and, tragically, sterilization.” While the meaning of this sentence is unclear to  
20 me, I contend that just like any chronic medical problem, appropriate treatment of gender  
21 dysphoria, especially in adolescence, reduces the cumulative expense of health care costs  
22 throughout one’s life. A patient never developing unwanted secondary sex characteristics won’t  
23 require surgical interventions in adulthood. A patient spending a \$10 co-pay for estrogen each  
24 month may save a lifetime worth of mental health treatments, including hospital admissions to  
25 address suicidality. Patients appropriately treated for gender dysphoria are not “losing a war with  
26

1 their own bodies” but rather receiving care which allows them to love their bodies. The flippant  
2 comment regarding sterilization is misleading and oversimplifies a complex and important topic.

3 **C. Response to Section 2 (Definitions) of Executive Order 14187: “Protecting Children  
4 from Chemical and Surgical Mutilation”**

5 109. Section 2 defines “child” or “children” to mean “an individual or individuals  
6 under 19 years of age.” The basis for this definition is not provided, however, in the United  
7 States, individuals aged 18 are characterized as adults for purposes of providing informed  
8 consent for medical interventions, including gender-affirming care. This section proceeds to  
9 relabel gender-affirming care as “chemical and surgical mutilation,” a term not only offensive  
10 to transgender adolescents and medical providers dedicated to improving their health and  
11 well-being, but medically and scientifically inaccurate for reasons made clear throughout this  
12 report. Finally, prohibiting medical care to individuals under 19 that “attempt to alter or remove  
13 an individual’s sexual organs to minimize or destroy their natural biological functions” is written  
14 in a way that unintentionally includes care unrelated to gender affirmation. It is medically  
15 ambiguous as to whether this order would impact medical management of menstrual  
16 irregularities, surgeries to treat testicular or ovarian cancer, use of GnRH agonists to treat  
17 precocious puberty, and management of disorders of sex development, for example.

18 **D. Response to Section 3(a) (Ending Reliance on Junk Science) of Executive Order  
19 14187: “Protecting Children from Chemical and Surgical Mutilation”**

20 110. This section attacks the credibility of WPATH, which as described above is  
21 recognized as the standard-setting organization for the treatment of gender dysphoria, and whose  
22 recommendations receive broad support from a wide spectrum of medical professional  
23 organizations including the American Academy of Pediatrics, the American Medical  
24 Association, the American Psychological Association, the American Psychiatric Association,  
25 and American Academy of Family Physicians.  
26

1 111. The call to action contained in this paragraph, commissioning a review while  
2 simultaneously dictating what the result of the review must be, is contrary to the foundation of  
3 science and scientific integrity.

4 **IV. CONCLUSION**

5 112. In summary, banning gender-affirming medical care for adolescents regardless of  
6 individual patient need runs counter to evidence-based best practices and standards of care for  
7 the treatment of gender dysphoria.

8 113. Prohibiting gender-affirming medical care, and coverage thereof, for adolescents  
9 with gender dysphoria is likely to have devastating consequences and will result in worse  
10 outcomes for countless young persons. I am concerned that by conditioning federal funding for  
11 healthcare institutions on refusing to provide medical treatment for gender dysphoria for people  
12 under 19 or threatening to criminalize that care, Executive Order 14187 might lead to a  
13 staggering increase in mental health problems, including depression, anxiety, and suicidality, for  
14 adolescents with gender dysphoria across the United States.

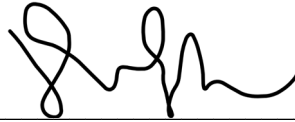
15 114. In my own clinical practice in Michigan, I have seen an influx of patients from  
16 states banning medically proven treatments for gender dysphoria who report not feeling safe  
17 living in the community that they have always called home. These patients unfortunately often  
18 have to wait long periods of time to resume care and when they are seen, the impact of this delay  
19 is devastating on their mental health. They have described themselves as “refugees” in their own  
20 country, moving to avoid discriminatory laws which they know would clearly harm their health  
21 or the health of their child. Executive Order 14187 now seeks to make these medical  
22 interventions, consistent with established and medically guidelines, largely unattainable for  
23 people under the 19 in the United States.

24 115. Barring effective treatment for gender dysphoria will not eliminate transgender  
25 people, but will, unfortunately, lead to an increase in mental health problems and suicidality in  
26 an already vulnerable population.

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I declare under penalty of perjury that the foregoing is true and correct.

DATED this 3rd day of February 2025.



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Daniel Shumer, MD