LGBTQIA2S+ Cancer Screening Considerations

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FINANCIAL DISCLOSURES

I have no financial disclosures to make.

LEARNING OBJECTIVES

1. Define important terms and concepts related to the LGBTQIA2S+ population, understand that these terms change frequently, and articulate how to figure out what terms to use with your patients.
2. Articulate how the medical management recommendations for cancer screenings change between the cisgender and gender diverse population, as well as what areas still need more research.
3. Feel comfortable implementing strategies for providing inclusive care to the LGBTQIA2S+ population in your practice.
4. Find resources for further provider and patient education.

DEFINITIONS

LGBTQIA2S+ = An acronym for different gender identities and sexual orientations; lesbian, gay, bisexual, transgender, questioning or queer, intersex, asexual, and Two-Spirit; the + indicates other identities that aren't explicitly included

- **There are many variations of this acronym!

Sex = A category often assigned at birth based on biological attributes (e.g., the appearance of genitalia or secondary sex characteristics)

- Female, male, intersex / variations of sexual characteristics (VSC)

Gender identity = A person's sense of self and how they fit into the world from the perspective of gender, which may or may not align with sex assigned at birth

- Female, male, transgender, cisgender, non-binary

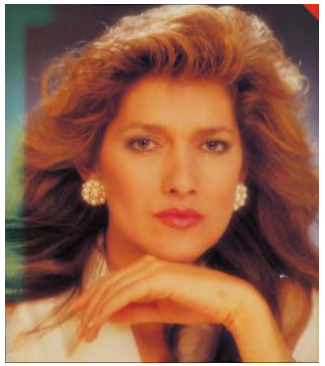
Gender expression = How someone expresses their gender identity (clothes, hair, name, **pronouns**, etc.)

Sexual orientation = An individual's attraction and identity related to romantic and sexual desire

- Lesbian, gay, bisexual, asexual, pansexual, aromantic, polyromantic, etc. …

Bennett, R. L., French, K. S., Resta, R. G., & Austin, J. (2022). Practice resource-focused revision: Standardized pedigree nomenclature update centered on sex and gender inclusivity: A practice resource of the National Society of Genetic Counselors. Journal of Genetic Counseling, 31(6), 1239. https://doi.org/10.1002/jgc4.1621

DEFINITIONS


Cisgender / Cis = An individual whose gender identity **aligns** with the sex they were assigned at birth

- Someone assigned male at birth (AMAB) who identifies as male (he/him)
- Someone assigned female at birth (AFAB) who identifies as female (she/her)

Gender diverse (GD) = An umbrella term used to describe gender identities beyond the binary framework

- **Transgender / Trans =** An individual whose gender identity **differs** from the sex assigned to them at birth
  - **Trans woman / Transfeminine** = Someone assigned male at birth who identifies as female (she/her)
  - **Trans man / Transmasculine** = Someone assigned female at birth who identifies as male (he/him)
- **Non-binary / Gender-nonconforming** = Someone who identifies as neither male nor female but somewhere in between
  - They/them, she/they, he/they
- **Intersex / Variations of Sexual Characteristics (VSC)** = Someone born with reproductive or sexual anatomy that does not fit typical definitions of male or female; could identify as any of the above

Bennett, R. L., French, K. S., Resta, R. G., & Austin, J. (2022). Practice resource-focused revision: Standardized pedigree nomenclature update centered on sex and gender inclusivity: A practice resource of the National Society of Genetic Counselors. Journal of Genetic Counseling, 31(6), 1239. https://doi.org/10.1002/jgc4.1621

DEFINITIONS

These definitions are constantly changing!

The best you can do is ask a patient how they would like to be addressed, if it’s not already listed in their chart.

HEREDITARY CANCER SYNDROMES (HCS)

- Hereditary Breast and Ovarian Cancer syndrome (*BRCA1/2*)
- Lynch syndrome (*MLH1, MSH2, MSH6, PMS2*, *EPCAM*)
- Li-Fraumeni syndrome (*TP53*)
- Polyposis syndromes
  - Familial Adenomatous Polyposis (*APC*)
  - *MUTYH*-Associated Polyposis (*MUTYH*)
  - Peutz-Jeghers syndrome (*STK11*)
  - Juvenile Polyposis syndrome (*BMPR1A, SMAD4*)
  - Serrated Polyposis syndrome (*RNF43*)
- Cowden syndrome (*PTEN*)
- Hereditary Diffuse Gastric Cancer (*CDH1*)
- *ATM, BRCA1/2, CDKN2A, PALB2*, *NF1*, *BLM, NTHL1, POLD1, POLE, etc.*

HEREDITARY CANCER SYNDROMES (HCS)

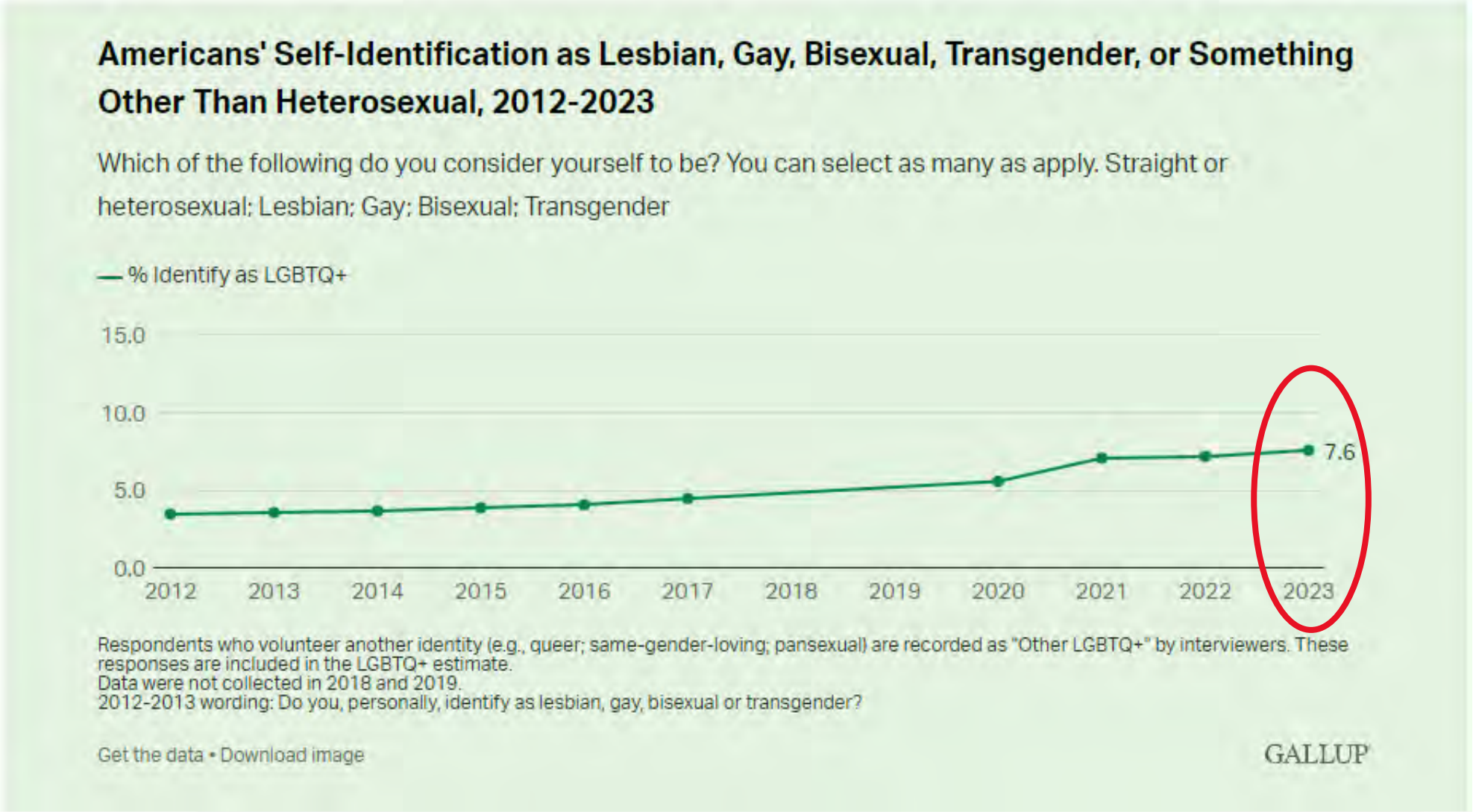
- Increased risk for:
  - Breast
  - Ovarian
  - Uterine
  - Prostate
  - Colon
  - Pancreatic
  - Melanoma
  - Brain
  - Kidney
  - Thyroid
  - Leukemia / Lymphoma
  - Etc.

INTRODUCTION

WHY IS THIS IMPORTANT?

- LGBTQIA2S+ community members face significant barriers to accessing quality healthcare
- Healthcare providers need to be aware of community-specific factors so they can provide culturally competent inclusive care
- The LGBTQIA2S+ population in the US is growing and will continue to do so

HOW MANY PEOPLE ARE LGBTQIA2S+?



Inc, G. (2024, March 13). *LGBTQ+ Identification in U. S. Now at 7.6%*. Gallup.com. https://news.gallup.com/poll/611864/lgbtq-identification.aspx

HOW MANY PEOPLE ARE LGBTQIA2S+?

LGBTQ+ Identity, by Generation, 2023

Which of the following do you consider yourself to be? You can select as many as apply. Straight or heterosexual; Lesbian; Gay; Bisexual; Transgender

	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation
All adult members of the generation	%	%	%	%	%
Total LGBTQ+	**22.3**	**9.8**	**4.5**	**2.3**	**1.1**
Lesbian	3.0	1.3	0.7	0.7	0.2
Gay	2.6	1.6	1.3	0.9	0.4
Bisexual	15.3	5.9	1.9	0.6	0.1
Transgender	2.8	1.1	0.5	0.2	0.4
Other LGBTQ+	1.0	0.4	0.2	0.0	0.0

Sum of categories may exceed the total because respondents can choose multiple identities.
Birth years for each generation: Generation Z (1997-2005), millennials (1981-1996), Generation X (1965-1980), baby boomers (1946-1964), Silent Generation (1945 and earlier).
Based on aggregated data from 2023 Gallup telephone polls.

Get the data • Download image

GALLUP

Inc, G. (2024, March 13). *LGBTQ+ Identification in U. S. Now at 7.6%*. Gallup.com. https://news.gallup.com/poll/611864/lgbtq-identification.aspx

BARRIERS TO INCLUSIVE CARE

- Many GD people don't regularly see a doctor due to stigmatization, discrimination, lack of insurance coverage, living in a rural area, and/or other socioeconomic factors
  - *" 19% [of transgender patients] have reported refusal of care, 28% reported harassment, and 50% were turned off of the healthcare system due to a lack of gender nonconforming providers"* (Sterling & Garcia, 2020, p. 2)
  - This population has a lot of general medical mistrust and anxiety, as well as discomfort around organs associated with gender identity
  - Many patients may only seek gender-affirming care and not primary care
- GD patients are often unaware of and less likely to complete preventative screenings like colonoscopies, mammograms, and pap smears
- GD people have higher rates of advanced cancer and poorer survival, in addition to other health disparities

Sterling, J., & Garcia, M. M. (2020). Cancer screening in the transgender population: A review of current guidelines, best practices, and a proposed care model. *Translational Andrology and Urology,* 9(6), 2771785–2772785. https://doi.org/10.21037/tau-20-954

BARRIERS TO INCLUSIVE CARE

- Many medical providers know less about GD topics and may feel unprepared to see these patients
- There are very few clinical guidelines for cancer screenings for this population
  - Mostly focused on *BRCA1/2* and Lynch syndrome
  - No set guidelines for any other HCSs, or for cancer screenings for this population in general
- ***We don't know how gender-affirming care and other factors in the GD community may affect cancer risk and risk management***

GENDER-AFFIRMING CARE

- Can include
  - Psychological support,
  - Hormonal treatments,
  - Surgery, and/or
  - Voice therapy
  - **Or some or none** of the above
- Is highly individualized

- Gender-affirming care = GAC
- Gender-affirming surgery = GAS
- Gender-affirming hormone therapy = GAHT

GENDER-AFFIRMING CARE

Transmasculine patients:

- Usual goals:
  - Voice deepening
  - Amenorrhea
  - Increased facial and body hair
  - Redistribution of fat and muscle for more masculine body shape
- Usually achieved through testosterone and/or surgery

Transfeminine patients:

- Usual goals:
  - Breast growth
  - Decreased libido and erections
  - Reduced muscle mass and body hair
  - Skin softening
  - Body fat redistribution
- Usually achieved through androgen blockers, estrogen, progesterone, and/or surgery

- *Some changes are irreversible, some are not*
- *Hormone therapy can be lifelong*
- *Non-binary people might choose lower doses or shorter treatments, ending once desired irreversible results are achieved*

ISSUES TO CONSIDER

- Genetic testing is recommended when results will impact medical decision-making
- Many people with an HCS will have testing in early adulthood long before screenings begin, BUT…
- *GD people often start gender-affirming care long before they consider their future cancer risks*
  - Ex. Puberty blockers, which can be reversible and buy more time for teens to make decisions and provide informed consent
- You might be the first provider who has brought up cancer risk reduction to them; allow for this discussion and/or refer to genetics
  - Having an HCS affects their own care, family members' care, and future family planning considerations

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 911–917. https://doi.org/10.1097/AOG.0000000000004597

McKenna, D. (2024, September 4). *Gender inclusive counseling for hereditary cancer risk with Danielle McKenna, MS, LCGC* [Webinar]. https://www.ambrygen.com/providers/webinar/252/gender-inclusive-counseling-for-hereditary-cancer-risk-with-danielle-mckenna-ms-lcgc

ISSUES TO CONSIDER

- Genetic testing CAN be done for adult-onset HCSs in children / adolescents **<u>if there is an appropriate clinical reason / intervention</u>**, such as gender-affirming care
  - This can ensure patient knows carrier status before transitioning
  - Both ACOG and ASHG agree with this
  - Could also help with insurance coverage for GAS
- If there is a question about whether a patient with an HCS should be on hormones or not…
  - **<u>We have no definitive research to say GAHT increases or decreases cancer risk</u>**
  - Weigh the potential for increased cancer risk versus the intolerable distress of gender dysphoria
    - Keep in mind this population has much higher rates of attempted suicide, poor mental health, drug and alcohol abuse, etc.

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 911–917. https://doi.org/10.1097/AOG.0000000000004597

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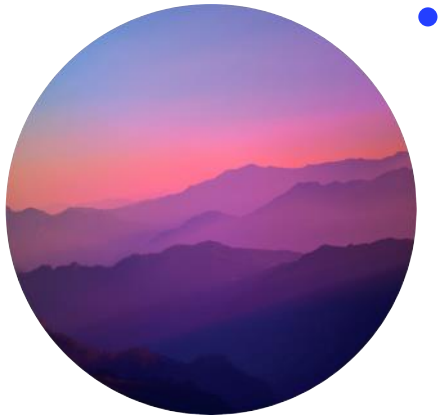
CANCER RISK, SURVEILLANCE, AND GAHT FOR GD INDIVIDUALS

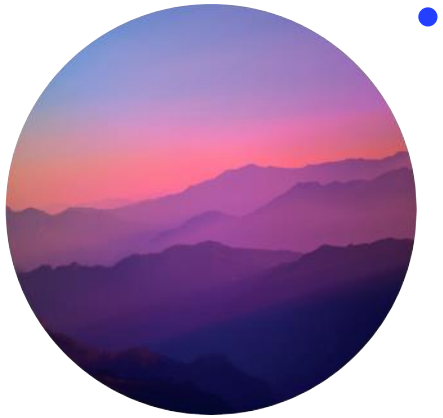


GENERAL RECOMMENDATIONS

“There are no prospective data on appropriate cancer risk reduction and/or screening options for transgender, non-binary, or gender diverse individuals who are at average or high risk, regardless of average risk or increased risk.

“Recommendations for risk reduction must be made on a case-by-case basis depending on all of the variables involved.” - NCCN

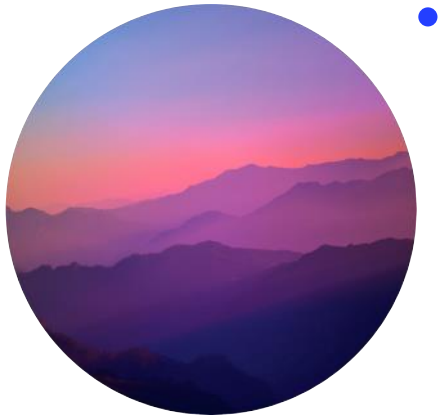
Daly, M., Pal, T., et. al (2025, March 6). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate—Version 3.2025. NCCN. https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545*



GENERAL RECOMMENDATIONS

- Healthcare provider needs to know:
  - What decisions / thought has the patient given to GAC?
  - Have they undergone any GAC yet? If so, what?
  - What age did their GAC start, or will start?
  - Use, dosage, and duration of GAHT?
  - Types of GAS done, and with what tissue(s)?
  - Any additional risk factors like family history, smoking, etc.?
    - Have they had genetic testing?

Daly, M., Pal, T., et. al (2025, March 6). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate—Version 3.2025. NCCN. https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545*



GENERAL RECOMMENDATIONS

- Take an ORGAN INVENTORY
  - “Primary care providers should conduct an organ based routine cancer screening for all transgender patients in accordance with current guidelines as a component of comprehensive primary care. **As a rule, if an individual has a particular body part or organ and otherwise meets criteria for screening based on risk factors or symptoms, screening should proceed regardless of hormone use**. Therefore, an ongoing and thorough medical and surgical history is crucial to determine an individual patient's screening needs.” – UCSF Transgender Cancer Screening Guidelines

General approach to cancer screening in transgender people | Gender Affirming Health Program. (n.d.). Retrieved March 10, 2025, from https://transcare.ucsf.edu/guidelines/cancer-screening

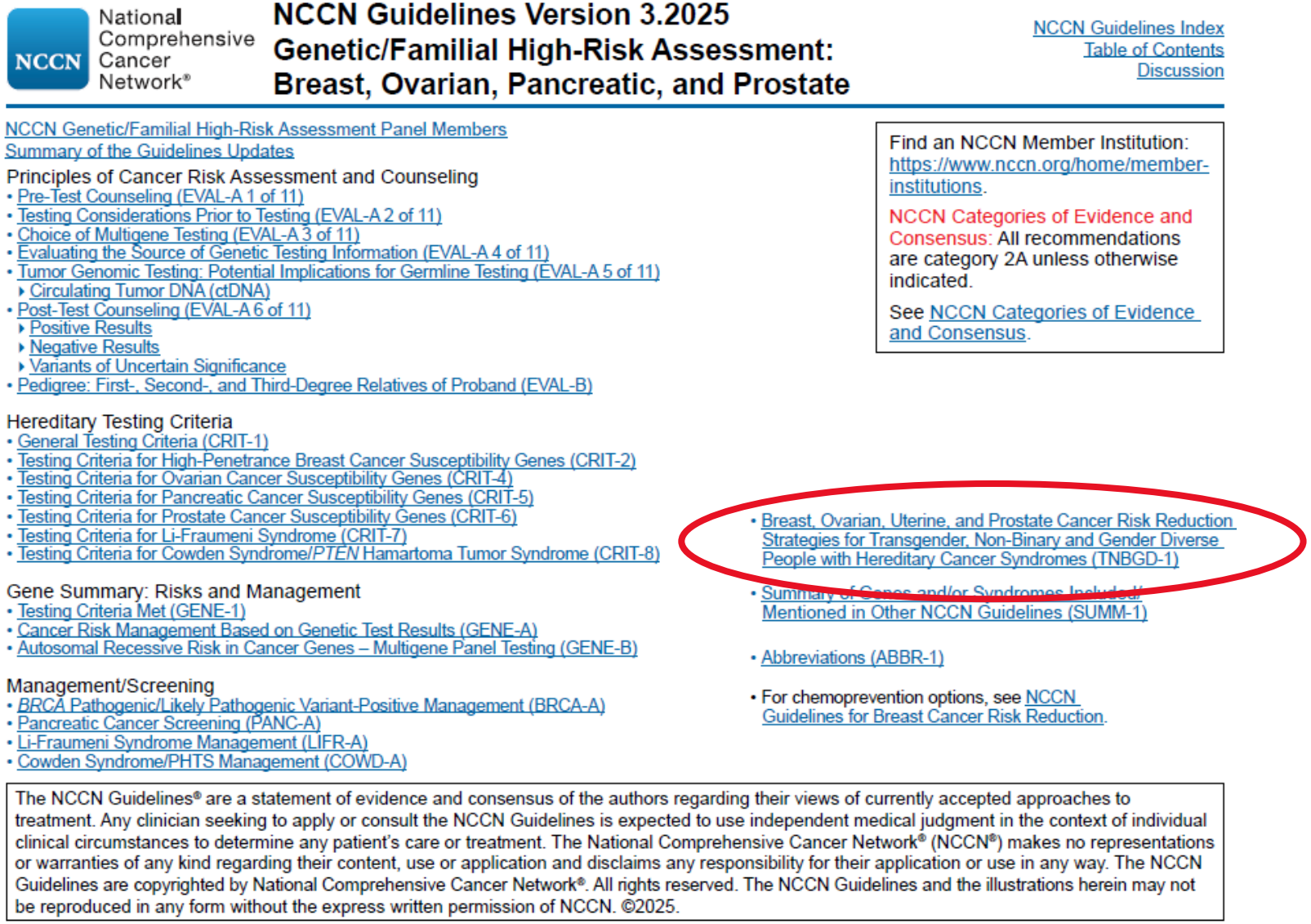
CANCER-SPECIFIC RECOMMENDATIONS

Hereditary

- Breast
- Ovarian
- Uterine
- Prostate
- Colon
- Neovagina
- Urothelial

Not Hereditary

- Cervical
- Testicular
- Vulvar
- Penile
- Esophageal
- Anal



National Comprehensive Cancer Network®

NCCN Guidelines Version 3.2025
Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate

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Find an NCCN Member Institution: https://www.nccn.org/home/member-institutions.

NCCN Categories of Evidence and Consensus: All recommendations are category 2A unless otherwise indicated.

See NCCN Categories of Evidence and Consensus.

- Breast, Ovarian, Uterine, and Prostate Cancer Risk Reduction Strategies for Transgender, Non-Binary and Gender Diverse People with Hereditary Cancer Syndromes (TNBGD-1)
- Summary of Genes and/or Syndromes Included/Mentioned in Other NCCN Guidelines (SUMM-1)
- Abbreviations (ABBR-1)
- For chemoprevention options, see NCCN Guidelines for Breast Cancer Risk Reduction.

Daly, M., Pal, T., et. al (2025, March 6). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate—Version 3.2025. NCCN. https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545*

- Breast, Ovary, Uterine, and Prostate Cancer Risk Reduction Strategies for Transgender, Non-Binary and Gender Diverse People with Hereditary Cancer Syndromes (TNBGD-1)
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Creating Breast and Gynecologic Cancer Guidelines for Transgender Patients With *BRCA* Mutations

Bronwyn S. Bedrick, MD MSCI, Timothee F. Fruhauf, MD MPH, Stephen J. Martin, MD, and James S. Ferriss, MD

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

BREAST CANCER

- General risk to get breast cancer:

Cisgender men < GD people < Cisgender women
Lowest risk — Highest risk

- There is insufficient evidence to say whether GAHT alters breast cancer risk
  - *But we also don't have long-term GAHT usage data
- Breast cancer risk models can still be considered for care management regardless of GAHT for trans men / those AFAB; no risk models for GD people at this time

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

Smith, C. (n.d.). *Cancer Risk Assessment Models* [PowerPoint].

BREAST CANCER – TRANS WOMEN

Table 1. Breast Screening Guidelines for Transgender Individuals

Population	Gender-Affirming Care	*BRCA1* or *BRCA2* Carrier Status	RRM	Breast Cancer Screening Recommendation
Transgender women	None	Not carrier	NA	NA
		Carrier	No	Follow NCCN screening for cisgender male *BRCA1* or *BRCA2* mutation carriers
			Yes	Consider yearly clinical examination
	Hormonal, surgical, or both	Not carrier	NA	Screening mammography every other year starting at age 50 y and after 5–10 years of hormonal treatment
		Carrier	No	Individualized based on transition age, family history, preexisting gynecomastia
			Yes	Yearly clinical examinations

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

BREAST CANCER – TRANS WOMEN

- GAS could include breast augmentation
  - Bedrick et al (2021) recommends offering trans women who are *BRCA1/2+* risk-reducing mastectomy to remove native breast tissue before breast augmentation
- GAHT with estrogens and anti-androgens increases breast tissue; this should not be described as gynecomastia
- Trans women are more likely to have dense breast tissue, an independent breast cancer risk factor
- Absolute risk for breast cancer is still relatively low
- Estrogen and anti-androgens are not contraindicated even though they may increase breast cancer risk
- Very little data exists about screening trans women on GAHT with an HCS; NCCN says to screen them similarly to cis males with an HCS

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

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BREAST CANCER – TRANS MEN

Table 1. Breast Screening Guidelines for Transgender Individuals

Population	Gender-Affirming Care	*BRCA1* or *BRCA2* Carrier Status	RRM	Breast Cancer Screening Recommendation
Transgender men	None	Not carrier	NA	Follow NCCN screening for cisgender women
		Carrier	No	Follow NCCN screening for cisgender female *BRCA1* or *BRCA2* mutation carriers
			Yes	Follow NCCN screening for cisgender female *BRCA1* or *BRCA2* mutation carriers
	Hormonal, surgical, or both	Not carrier	NA	If postmastectomy, consider annual examination, breast ultrasonogram[8]; otherwise, follow screening for cisgender women
		Carrier	No	Follow NCCN screening for cisgender female *BRCA1* or *BRCA2* mutation carriers
			Yes	Yearly clinical examinations starting at 35 y

RRM, risk-reducing mastectomy; NA, not applicable; NCCN, National Comprehensive Cancer Network.

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

BREAST CANCER – TRANS MEN

- Most common GAS is chest surgery of some sort
  - When discussing with the patient, may want to call it “chest cancer” instead of “breast cancer”
- “Top surgery” ≠ Risk-reducing mastectomy (RRM)
- **Top surgery** can include several options, but usually some breast tissue is left for cosmetic purposes
  - Still have potential to get breast cancer in that tissue
  - If patient only has top surgery and then finds out he has a HCS, further surgery may be needed to remove remaining tissue
- **Risk-reducing mastectomy** gets rid of as much of the breast tissue as possible
  - If patient has had RRM, there is very little tissue left to screen; have discussion with patient about unknown residual risks of breast cancer / limitations of screening
- For trans men and non-binary individuals with an HCS who have had top surgery or no surgery at all, NCCN recommends breast screening begin at an earlier age and include mammography and breast MRI
- ER+ tumors have been linked to long-term estrogen exposure in postmenopausal cis women; could also apply to trans men

Chowdhury, A., Saad Eddin, A., Kim Hsieh, S., & Policeni, F. C. (2024). Review of breast imaging in transgender and gender-diverse patients: Gender-affirming care, histopathologic findings, breast cancer risk, and screening recommendations. *Journal of Breast Imaging*, 6(3), 238–245. https://doi.org/10.1093/jbi/wbae016

Daly, M., Pal, T., et. al (2025, March 6). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate—Version 3.2025. NCCN. https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545*

ACR APPROPRIATENESS CRITERIA

The American College of Radiology has released a transgender breast cancer screening guide that can be used to guide care

Expert Panel on Breast Imaging, Brown, A., Lourenco, A. P., Niell, B. L., Cronin, B., Dibble, E. H., DiNome, M. L., Goel, M. S., Hansen, J., Heller, S. L., Jochelson, M. S., Karrington, B., Klein, K. A., Mehta, T. S., Newell, M. S., Schechter, L., Stuckey, A. R., Swain, M. E., Tseng, J., ... Moy, L. (2021). ACR Appropriateness Criteria® Transgender Breast Cancer Screening. Journal of the American College of Radiology: JACR, 18(11S), S502–S515. https://doi.org/10.1016/j.jacr.2021.09.005

Variant 1: **Breast cancer screening. Transfeminine (male-to-female) patient, 40 years of age or older with past or current hormone use equal to or greater than 5 years. Average-risk patient.**

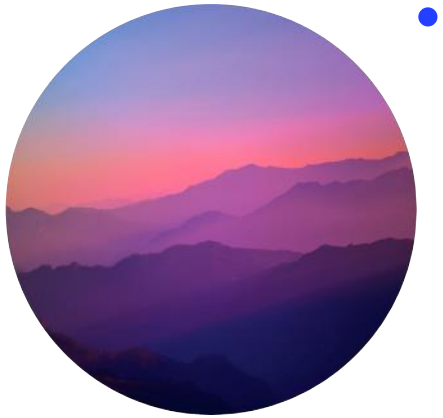
Procedure	Appropriateness Category	Relative Radiation Level
Digital breast tomosynthesis screening	May Be Appropriate	☢☢
Mammography screening	May Be Appropriate	☢☢
US breast	Usually Not Appropriate	O
MRI breast without and with IV contrast	Usually Not Appropriate	O
MRI breast without IV contrast	Usually Not Appropriate	O

Variant 2: **Breast cancer screening. Transfeminine (male-to-female) patient, 25 to 30 years of age or older with past or current hormone use equal to or greater than 5 years. Higher-than-average risk (patient with personal history of breast cancer or chest irradiation at 10 to 30 years of age, patient with genetic predisposition to breast cancer, patient with family history of breast or ovarian cancer, and untested patient with first-degree relative with genetic predisposition to breast cancer).**

Procedure	Appropriateness Category	Relative Radiation Level
Digital breast tomosynthesis screening	Usually Appropriate	☢☢
Mammography screening	Usually Appropriate	☢☢
US breast	Usually Not Appropriate	O
MRI breast without and with IV contrast	Usually Not Appropriate	O
MRI breast without IV contrast	Usually Not Appropriate	O

Variant 3: **Breast cancer screening. Transfeminine (male-to-female) patient with no hormone use (or hormone use less than 5 years) at any age. Average-risk patient.**

Procedure	Appropriateness Category	Relative Radiation Level
US breast	Usually Not Appropriate	O
Digital breast tomosynthesis screening	Usually Not Appropriate	☢☢
Mammography screening	Usually Not Appropriate	☢☢
MRI breast without and with IV contrast	Usually Not Appropriate	O
MRI breast without IV contrast	Usually Not Appropriate	O



UTERINE & OVARIAN CANCER

- ACOG recommends hysterectomy (TAH) with or without bilateral salpingo-oophorectomy (BSO) for those with gender dysphoria who want it; however, many trans men do not do this
  - Very important to know if your patient still has their uterus &/or ovaries or not!
- There are no effective screening guidelines for uterine or ovarian cancer for cis women
  - Transvaginal ultrasound with or without random endometrial biopsies is sometimes done; utility is questionable
- The effect of GAHT on uterine tissue is unknown, BUT additional androgens may increase circulating estrogen levels and “pose a risk” to the uterus, per NCCN (TNBGD-2)
- There is no data on the effect of medical uterine or ovarian suppression on uterine or ovarian cancer risk

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

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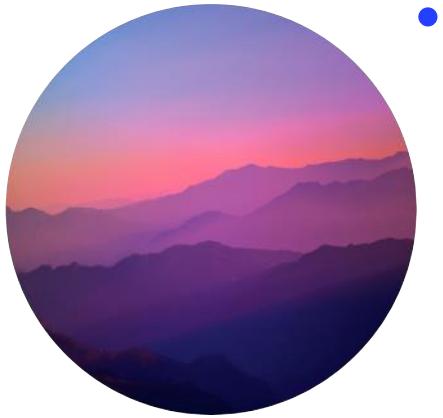
Gupta, S., et. al. (2025, April 2). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Colorectal, Endometrial, and Gastric Cancers, Version 4.2025. NCCN.* https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1544



UTERINE & OVARIAN CANCER

- If someone has a HCS that increases their risk for uterine or ovarian cancer, risk-reducing TAH &/or BSO is recommended (ex. *BRCA1/2*) or should be strongly considered (ex. Lynch) depending on the HCS/gene & organ
- If a trans man still has his uterus, he should be counseled on the early warning signs of uterine cancer
  - Endometrial biopsy recommended for bleeding occurring after GAHT-induced amenorrhea
- RR TAH/BSO can be considered at an earlier age to alleviate gender dysphoria
  - Patients should be counseled about adverse effects of RRSO before natural menopause (outlined in NCCN)
  - Would have to be on hormone therapy for life to mitigate negative bone / cardiovascular effects

Bedrick, B. S., Fruhauf, T. F., Martin, S. J., & Ferriss, J. S. (2021). Creating breast and gynecologic cancer guidelines for transgender patients with BRCA mutations. Obstetrics and Gynecology, 138(6), 914. https://doi.org/10.1097/AOG.0000000000004597

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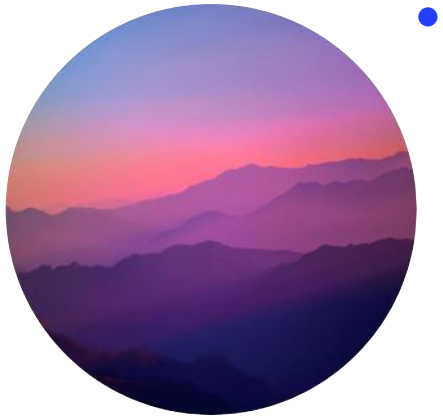

UTERINE & OVARIAN CANCER

- Screening guidelines for *BRCA1/2*+ cis women after BSO include annual abdominal and pelvic exam and serum CA-125 for 10 years (debatable effectiveness)
  - Offer trans men the same screening
- If transvaginal ultrasound isn't possible due to vaginal atrophy, consider transrectal ultrasound and/or use of topical vaginal estradiol before exam
- Other ovarian cancer risk factors to consider:
  - Trans men often have less childbearing, oral contraceptive pill use
  - Trans men's risk may be similar to nulliparous cis women's risk

Daly, M., Pal, T., et. al (2025, March 6). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate—Version 3.2025. NCCN. https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545*

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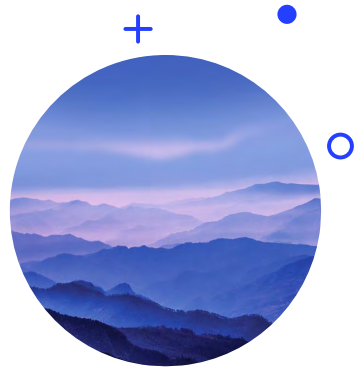
McKenna, D. (2024, September 4). *Gender inclusive counseling for hereditary cancer risk with Danielle McKenna, MS, LCGC* [Webinar]. https://www.ambrygen.com/providers/webinar/252/gender-inclusive-counseling-for-hereditary-cancer-risk-with-danielle-mckenna-ms-lcgc

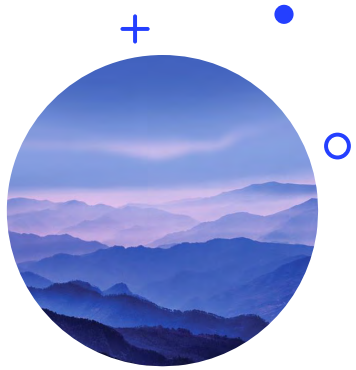


PROSTATE CANCER

- Prostate is usually not removed during GAC
  - Internal location can shift due to neovagina
  - Estrogen causes the prostate to shrink
- Cis men are screened via prostate specific antigen (PSA) level & digital rectal exam (DRE)
- NCCN still recommends using PSA even though GAHT can reduce effectiveness
  - The abnormal PSA threshold is lowered to 1.0 ng/ml for trans women
  - This number is somewhat arbitrary; each patient should establish their own baseline PSA to identify future deviations
- Prostate cancer incidence is lower in trans women than in cis men

Crowley, F., Mihalopoulos, M., Gaglani, S., Tewari, A. K., Tsao, C.-K., Djordjevic, M., Kyprianou, N., Purohit, R. S., & Lundon, D. J. (2023). Prostate cancer in transgender women: Considerations for screening, diagnosis and management. British Journal of Cancer, 128(2), 177–189. https://doi.org/10.1038/s41416-022-01989-y

Daly, M., Pal, T., et. al (2025, March 6). *NCCN Clinical Practice Guidelines in Oncology: Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate—Version 3.2025. NCCN. https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545*



PROSTATE CANCER

- Follow gene-specific screening guidelines for cis men who have a hereditary cancer risk
  - Ex. Consider MRI for someone with Lynch syndrome with elevated PSA or abnormal prostate exam
- DRE may be harder to do if the prostate is inaccessible; can try to access transvaginally, but transrectally or transperineally may work better
- There are conflicting reports on whether estrogen is protective against prostate cancer or not
- For *BRCA1/2*+ trans women, Crowley et. al (2023) argues that any change in DRE or detectable PSA should prompt a diagnostic prostate biopsy

Crowley, F., Mihalopoulos, M., Gaglani, S., Tewari, A. K., Tsao, C.-K., Djordjevic, M., Kyprianou, N., Purohit, R. S., & Lundon, D. J. (2023). Prostate cancer in transgender women: Considerations for screening, diagnosis and management. British Journal of Cancer, 128(2), 177–189. https://doi.org/10.1038/s41416-022-01989-y

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Sterling, J., Carbonella, J., Jones, T., Hanchuk, S., Kelly, P., & Garcia, M. M. (2023). Cancer screening for transgender individuals: Guidelines, best practices, and a proposed care model. The Urologic Clinics of North America, 50(4), 563–576. https://doi.org/10.1016/j.ucl.2023.06.014

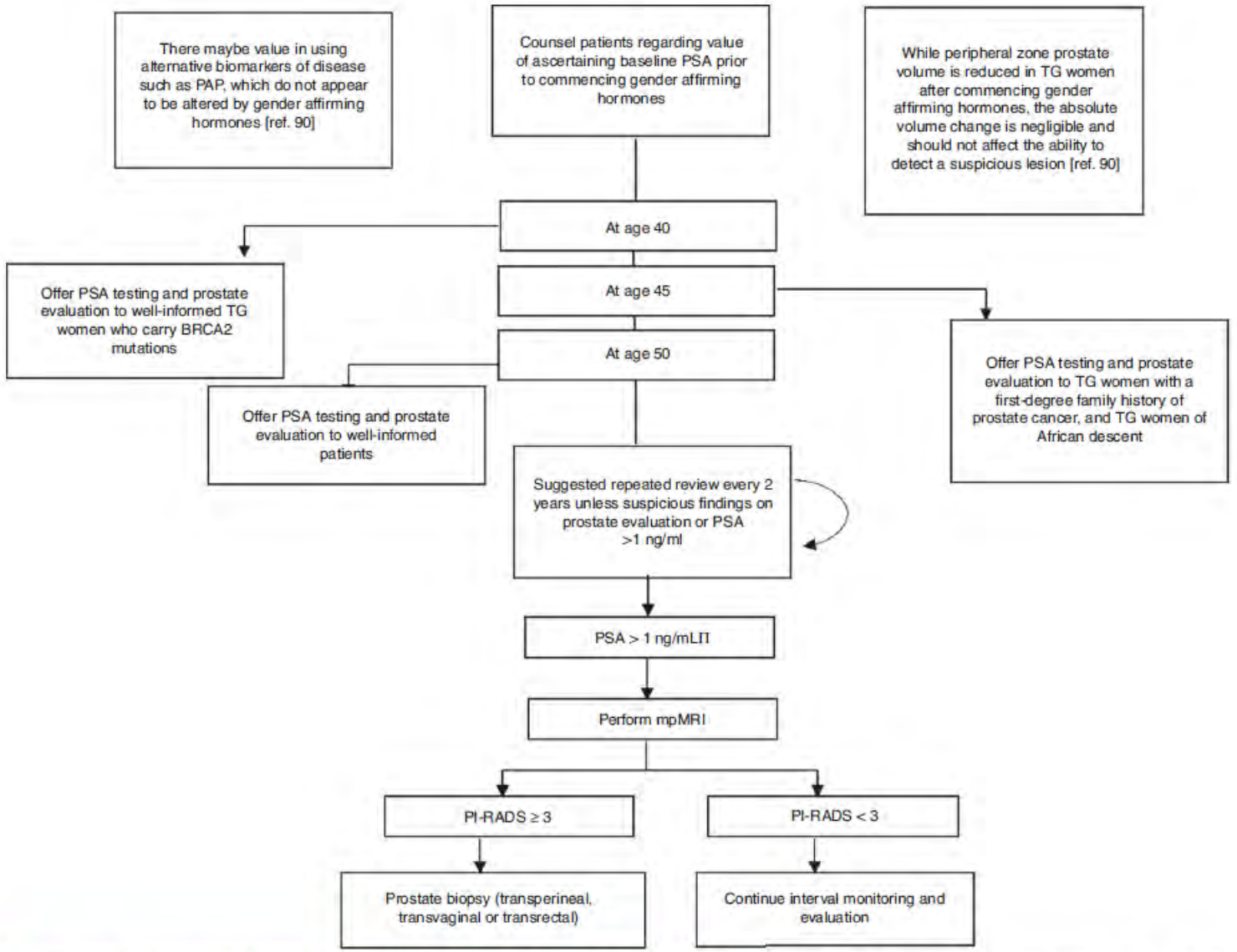

Fig. 2 Proposed approach to prostate cancer screening in transgender women. Π = the choice of a PSA threshold of 1.0 ng/ml is an arbitrary one widely in use, and should be revised as a broader evidence base is established. Establishing a baseline PSA in each individual and identifying deviations from baseline, is likely to be of greater utility than an absolute cut-off value applied to everybody.

Crowley, F., Mihalopoulos, M., Gaglani, S., Tewari, A. K., Tsao, C.-K., Djordjevic, M., Kyprianou, N., Purohit, R. S., & Lundon, D. J. (2023). Prostate cancer in transgender women: Considerations for screening, diagnosis and management. British Journal of Cancer, 128(2), 183. https://doi.org/10.1038/s41416-022-01989-y

Familial Cancer (2023) 22:437–448
https://doi.org/10.1007/s10689-023-00341-4

REVIEW

Cancer surveillance for transgender and gender diverse patients with Lynch syndrome: a practice resource of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer

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Abstract

Transgender and gender diverse (TGD) populations with hereditary cancer syndromes face unique obstacles to identifying and obtaining appropriate cancer surveillance and risk-reducing procedures. There is a lack of care provider knowledge about TGD health management. Lynch syndrome (LS) is one of the most common hereditary cancer syndromes, affecting an estimated 1 in 279 individuals. There are no clinical guidelines specific for TGD individuals with LS, highlighting a need to improve the quality of care for this population. There is an urgent need for cancer surveillance recommendations for TGD patients. This commentary provides recommendations for cancer surveillance, risk-reducing strategies, and genetic counseling considerations for TGD patients with LS.

Keywords Transgender and gender diverse · Cancer · Lynch syndrome · Surveillance · Management

Table 1 Surveillance and management recommendations for TGD individuals with Lynch Syndrome

	LS management for CG patients[a]		Additional considerations for TGD patients	
General	Elicit organ inventory before making recommendations			
	Apply principles of trauma-informed care [127]			
Site/Organ	*MLH1/MSH2/EPCAM*	*MSH6/PMS2*	Transfeminine	Transmasculine
CRC	Colonoscopy at age 20-25y or 2-5y prior to earliest CRC and repeat every 1-2y Consider chemoprevention	Colonoscopy at age 30-35y or 2-5y prior to earliest CRC and repeat every 1-3y Consider chemoprevention	Use of sigmoid colon for neovagina creation is contraindicated. For those who are diagnosed with LS after GAS with use of sigmoid colon, pelvic exam and colposcopy recommended at interval paralleling colorectal surveillance	Gynecologic screening can be offered at the time of colonoscopy sedation to minimize pelvic exam anxiety
Endometrial	Consider EMB at age 30-35y and repeat every 1-2y Consider post-menopausal transvaginal ultrasound Consider TAH Education on symptoms[b]		N/A	EMB for bleeding after GAHT induced amenorrhea Consider short-term vaginal estradiol to reduce vaginal atrophy and discomfort
Ovarian	Consider BSO[c]		N/A	If undergoing gender-affirming hysterectomy, consider BSO concurrently
Urothelial	Annual urinalysis beginning age 30-35y			
Gastric/small bowel	EGD at age 30–40 and repeat every 2-4y			

Table 1 Surveillance and management recommendations for TGD individuals with Lynch Syndrome

	LS management for CG patients[a]		Additional considerations for TGD patients	
General	Elicit organ inventory before making recommendations			
	Apply principles of trauma-informed care [127]			
Site/Organ	*MLH1/MSH2/EPCAM*	*MSH6/PMS2*	Transfeminine	Transmasculine
Pancreas	Alternate annual MRI/MRCP and/or EUS beginning at age 50y if there is a family history of pancreatic cancer in a 1st or 2nd degree relative (or 10y young than the youngest age of pancreatic cancer diagnosis in the family)			
Prostate	Consider annual PSA and DRE beginning at age 40		Awareness of vaginoplasty, intestinal interposition, or perineal flap which may affect palpation during DRE Consider MRI for elevated PSA or abnormal prostate exam or finding raising concern for prostate malignancy PSA > 1 ng/mL is considered abnormal with testosterone suppression	N/A
Breast	Not enough evidence to support increased screening		Follow local breast cancer screening guidelines[d] developed for CG women for those who have taken estradiol for ≥ 5 years	No imaging indicated after bilateral mastectomies. Otherwise, follow local breast cancer screening guidelines[d] and/or based on family history

BSO bilateral salpingo-oophorectomy, *CG* cisgender, *CRC* colorectal cancer, *DRE* digital rectal exam, *EGD* Esophagogastroduodenoscopy, *EMB* endometrial biopsy, *EUS* endoscopic ultrasound, *GAHT* gender affirming hormone therapy, *GAS* gender affirming surgery, *LS* Lynch syndrome, *mpMRI* multiparametric magnetic resonance imaging, *MRCP* Magnetic resonance cholangiopancreatography, *MRI* Magnetic resonance imaging, *N/A* not applicable, *PSA* prostate specific antigen, *TAH* total abdominal hysterectomy, *y* year(s)

[a]Adapted from NCCN Genetic/Familial High-Risk Assessment: Colorectal Version 2.2022[21]

[b]Warning signs of endometrial cancer include abnormal vaginal bleeding, especially postmenopausal bleeding, bloating, changes to bowel or bladder habits, weight loss, abdominal or pelvic pain, increased satiety, increased abdominal girth

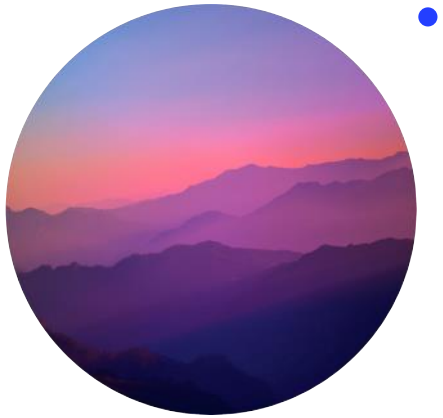
[c]There is not enough evidence to recommend BSO for individuals with *MSH6/PMS2* mutations

[d][102]

COLORECTAL CANCER

- **Transfeminine** patients with LS or increased CRC risk:
  - Don’t use the sigmoid colon for **neovaginal creation**
    - If already done, pelvic exam & colposcopy at time of colonoscopy may be necessary
  - Intestinal mucosa tissue may be more susceptible to STIs
  - Persistent HPV infection has been reported in patients with a neovagina
- **Transmasculine** patients:
  - Gynecologic screening can be offered at time of colonoscopy sedation to decrease pelvic exam discomfort / anxiety
- No current data suggest that GAHT increases or decreases risk for CRC

Brown, B., Poteat, T., Marg, L., & Galea, J. T. (2017). Human papillomavirus-related cancer surveillance, prevention, and screening among transgender men and women: Neglected populations at high risk. LGBT Health, 4(5), 315–319. https://doi.org/10.1089/lgbt.2016.0142
Hodan, R., Rodgers-Fouche, L., Chittenden, A., Dominguez-Valentin, M., Ferriss, J., Gima, L., Hamnvik, O.-P. R., Idos, G. E., Kline, K., Koeller, D. R., Long, J. M., McKenna, D., Muller, C., Thoman, M., Wintner, A., Bedrick, B. S., & on behalf of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. (2023). Cancer surveillance for transgender and gender diverse patients with Lynch syndrome: A practice resource of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. Familial Cancer, 22(4), 437–448. https://doi.org/10.1007/s10689-023-00341-4



NEOVAGINAL CANCER

- Of note, another possible contribution besides HCSs can be chemical stimulants and irritants in semen
- Some say neovaginas are prone to precancerous lesions and so patients should get appropriate cancer screening
  - Routine gynecological examination to assess for HPV
  - HPV vaccine is recommended for everyone by age 26

Sterling, J., Carbonella, J., Jones, T., Hanchuk, S., Kelly, P., & Garcia, M. M. (2023). Cancer screening for transgender individuals: Guidelines, best practices, and a proposed care model. The Urologic Clinics of North America, 50(4), 563–576. https://doi.org/10.1016/j.ucl.2023.06.014

UROTHELIAL CANCER

- Patients with *MSH2*-associated Lynch syndrome are at an increased risk for kidney, ureter, and/or bladder cancer
- In general (not related to Lynch syndrome),
  - Trans women have a higher incidence of bladder cancer than cis women, but a similar incidence to cis men
  - GD patients have a poorer bladder cancer survival rate than cis counterparts
- Possible contributors to this could include:
  - Non-genetic factors like tobacco use
  - Androgenic hormones
  - An X-linked gene, *KDM6A*, acting as a protective factor

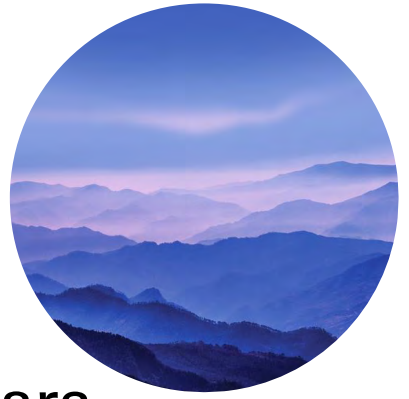
Hodan, R., Rodgers-Fouche, L., Chittenden, A., Dominguez-Valentin, M., Ferriss, J., Gima, L., Hamnvik, O.-P. R., Idos, G. E., Kline, K., Koeller, D. R.,, J. M., McKenna, D., Muller, C., Thoman, M., Wintner, A., Bedrick, B. S., & on behalf of the Collaborative Group of the Americas on InhLongerited Gastrointestinal Cancer. (2023). Cancer surveillance for transgender and gender diverse patients with Lynch syndrome: A practice resource of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. Familial Cancer, 22(4), 437–448. https://doi.org/10.1007/s10689-023-00341-4

CERVICAL CANCER

- Not hereditary; usually caused by HPV
  - LGBTQIA2S+ population has higher HPV+, HIV+ rates
- If a trans man still has a uterus, he will usually require cervical cancer screening
- Many trans men will avoid gynecological care such as pap smears as it is dysphoric for them
- Testosterone can cause vaginal atrophy which makes pap smears even more uncomfortable and more likely to fail

Hodan, R., Rodgers-Fouche, L., Chittenden, A., Dominguez-Valentin, M., Ferriss, J., Gima, L., Hamnvik, O.-P. R., Idos, G. E., Kline, K., Koeller, D. R., Long, J. M., McKenna, D., Muller, C., Thoman, M., Wintner, A., Bedrick, B. S., & on behalf of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. (2023). Cancer surveillance for transgender and gender diverse patients with Lynch syndrome: A practice resource of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. Familial Cancer, 22(4), 437–448. https://doi.org/10.1007/s10689-023-00341-4

Iwamoto, S. J., Grimstad, F., Irwig, M. S., & Rothman, M. S. (2021). Routine screening for transgender and gender diverse adults taking gender-affirming hormone therapy: A narrative review. Journal of General Internal Medicine, 36(5), 1380–1389. https://doi.org/10.1007/s11606-021-06634-7



CERVICAL CANCER

- Can offer to do gynecological procedures such as pap smears, pelvic exams, endometrial biopsies, etc. during colonoscopies / endoscopies…
  - Can offer topical vaginal estradiol 2 weeks prior to soften area (won't affect their hormone therapy)
  - Can administer an anxiolytic prior to exam
  - Offer patients use of a mirror and/or to have a support person in the room
- Can offer high-risk HPV DNA primary screening to patients over age 25; patients can self-swab if necessary

Hodan, R., Rodgers-Fouche, L., Chittenden, A., Dominguez-Valentin, M., Ferriss, J., Gima, L., Hamnvik, O.-P. R., Idos, G. E., Kline, K., Koeller, D. R., Long, J. M., McKenna, D., Muller, C., Thoman, M., Wintner, A., Bedrick, B. S., & on behalf of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. (2023). Cancer surveillance for transgender and gender diverse patients with Lynch syndrome: A practice resource of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. Familial Cancer, 22(4), 437–448. https://doi.org/10.1007/s10689-023-00341-4

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TESTICULAR CANCER

- Not hereditary
- If a trans woman still has testicles, follow the same guidelines as cis men (annual physical exam)

VULVAR / PENILE CANCER

- Not hereditary
- No screening guidelines exist for cis people; only one case of vulvar cancer in a trans man has been reported and none of penile cancer

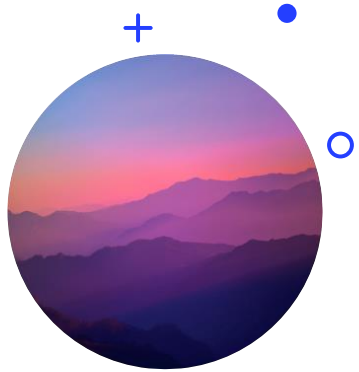
Sterling, J., Carbonella, J., Jones, T., Hanchuk, S., Kelly, P., & Garcia, M. M. (2023). Cancer screening for transgender individuals: Guidelines, best practices, and a proposed care model. The Urologic Clinics of North America, 50(4), 563–576. https://doi.org/10.1016/j.ucl.2023.06.014

ESOPHAGEAL CANCER

- HPV is a possible mechanism for esophageal squamous cell carcinoma
- Since HPV infection is more prevalent in the LGBTQIA2S+ population, they could be eligible for an esophageal screening program

Coelho, R., Gonçalves, R., Mendes, F., & Macedo, G. (2024). Gastroenterology healthcare in LGBTQ+ individuals. European Journal of Gastroenterology & Hepatology, 36(9), 1059–1067. https://doi.org/10.1097/MEG.0000000000002808

ANAL CANCER



- Usually caused by HPV / HIV
  - Men who have sex with men, especially if they are HIV+, are at highest risk
  - Also at risk: those with HPV+, higher # sexual partners, genital warts
- No standard guidelines for anal cancer screening, but…
- HPV vaccination is recommended for everyone by age 26
- All HIV+ adults should have an annual digital anorectal exam (DARE)
  - People <35 who show signs of anal cancer during DARE should undergo standard anoscopy
  - Older people should undergo high resolution anoscopy (HRA) if they are…
    - Men who have sex with men
    - Transfeminine people over 35
    - All other HIV+ people over 45
- Can perform surveillance annually for HIV+ males and every 3-6 months for people with low- or high-grade squamous intraepithelial lesions

Coelho, R., Gonçalves, R., Mendes, F., & Macedo, G. (2024). Gastroenterology healthcare in LGBTQ+ individuals. European Journal of Gastroenterology & Hepatology, 36(9), 1059–1067. https://doi.org/10.1097/MEG.0000000000002808

HIV clinical guidelines now recommend high resolution anoscopy as part of anal cancer screening program for people with HIV. (n.d.). National Institutes of Health. Retrieved October 10, 2024, from https://oar.nih.gov/update-clinical-guidelines-high-resolution-anoscopy-anal-cancer-screening

OTHER RISK FACTORS

Other risk factors for cancer can be higher in LGBTQIA2S+ populations:

- Smoking / Tobacco use
  - 16% of LGB adults, 4% of LGB youth, and 5% of trans youth smoke compared to 12% heterosexual adults and 1% heterosexual / cisgender youth
- Excessive alcohol use
  - 14% bi women consume >7 drinks/wk vs. 6% heterosexual women
- Higher BMI
  - 68% of LB women vs 61% of heterosexual women
- HPV or HIV infections

Kratzer, T. B., Star, J., Minihan, A. K., Bandi, P., Scout, N. F. N., Gary, M., Riddle-Jones, L., Giaquinto, A. N., Islami, F., Jemal, A., & Siegel, R. L. (2024). Cancer in people who identify as lesbian, gay, bisexual, transgender, queer, or gender-nonconforming. *Cancer*, *130*(17), 2948–2967. https://doi.org/10.1002/cncr.35355

MORE RESEARCH IS NEEDED

- That is all the info we currently have about how to change screenings for LGBTQIA2S+ patients with an increased risk for cancer.
- More equitable research is needed, particularly around hormone therapy!

INCREASING SAFETY AND COMFORT

BEFORE THE APPOINTMENT

- Intake forms should include *"chosen name, pronouns, gender identity, sex assigned at birth, sexual orientation as well as marital, partnership, and family status*" (Hodan et. al, p. 442)

Hereditary Cancer Clinic Family History Questionnaire

UNMC

Part A: Basic Information

Last Name	First Name	M.I.	Maiden Name	Sex assigned at birth

Date of Birth	Phone Number		Pronouns
	Home:	Cell:	

Mailing Address	City	State	Zip Code

E-mail address	Referring Physician	Hospital or Clinic

What do you consider to be your race/ethnicity? (check all that apply)

- ☐ African-American/Black
- ☐ East/Southeast Asian
- ☐ Latinx/Hispanic
- ☐ Middle Eastern/North African/West Asian
- ☐ Native American/Alaska Native/First Nations
- ☐ Native Hawaiian/Pacific Islander
- ☐ South Asian
- ☐ White/Caucasian
- ☐ Prefer not to answer
- ☐ Other_____

BEFORE THE APPOINTMENT

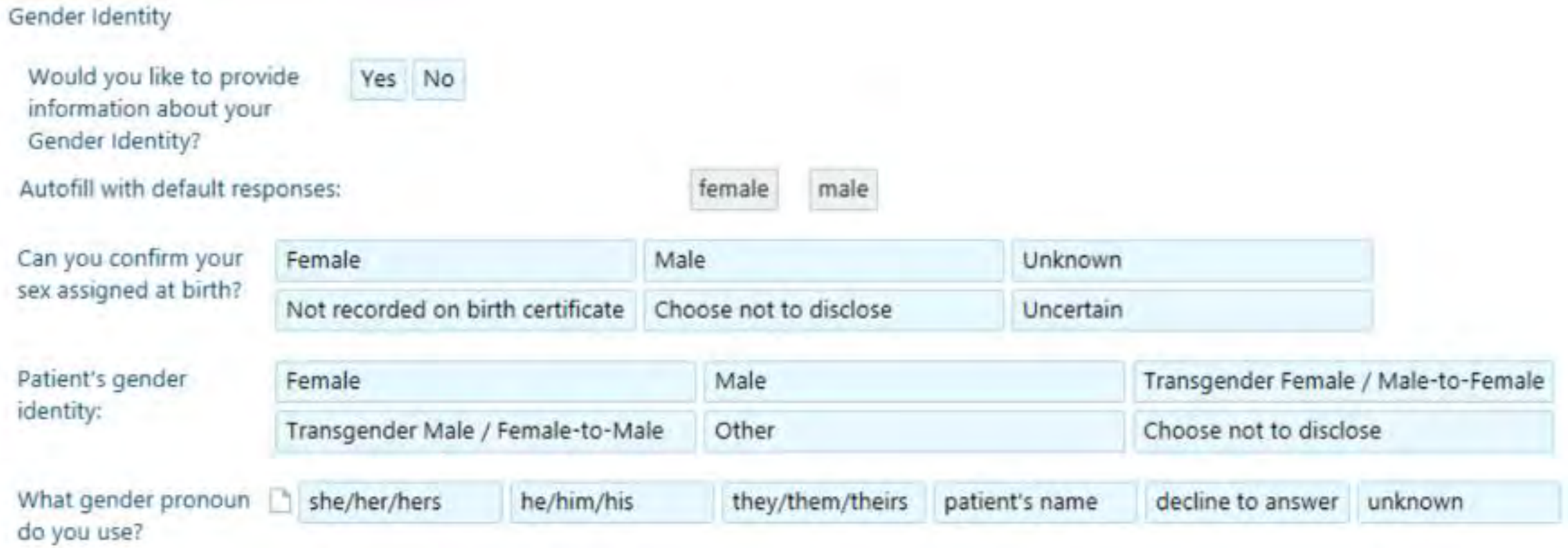
Part E: Family History Information

What is your **mother's** ancestry/country of origin? (German, Dominican Republic, Nigerian, Russian, etc.)	What is your **father's** ancestry/country of origin? (German, Dominican Republic, Nigerian, Russian, etc.)
Are any of your relatives of Ashkenazi Jewish decent? ☐ Yes ☐ No	
How many biological children do you have? _____	Number of sons _____ Number of daughters _____ Number of non-binary children _____
Please list the first name, age, and any health concerns/diagnoses for your children:	
How many biological siblings do you have? _____ Number of brothers_____ Number of sisters_____ Number of non-binary siblings_____	**If any siblings have a different mother or father:** How many have the same mother as you? _____ _____ _____ (brothers) (sisters) (non-binary) How many have the same father as you? _____ _____ _____ (brothers) (sisters) (non-binary)
How many biological siblings does your **mother** have? _____	Number of brothers _____ Number of sisters _____ Number of non-binary siblings _____
How many biological siblings does your **father** have? _____	Number of brothers _____ Number of sisters _____ Number of non-binary siblings _____

Part D: For Female Patients an Patients assigned Female at birth

BEFORE THE APPOINTMENT

- Use EHRs that allow inclusive documentation of GD patients



McKenna, D. (2024, September 4). *Gender inclusive counseling for hereditary cancer risk with Danielle McKenna, MS, LCGC* [Webinar]. https://www.ambrygen.com/providers/webinar/252/gender-inclusive-counseling-for-hereditary-cancer-risk-with-danielle-mckenna-ms-lcgc

Sexual Orientation and Gender Identity SmartForm

Inform the patient that anything entered here will be visible to anyone with access to this legal medical record.

Sexuality

Patient's sexual orientation: Straight | Bisexual | Something else | Don't know | Choose not to disclose | Gay | Lesbian

Legal Information

Legal first name: [redacted]

Legal last name: [redacted]

Legal sex: **Female** | Male | Unknown

Gender Identity

Autofill with default responses for: Cisgender female | Cisgender male

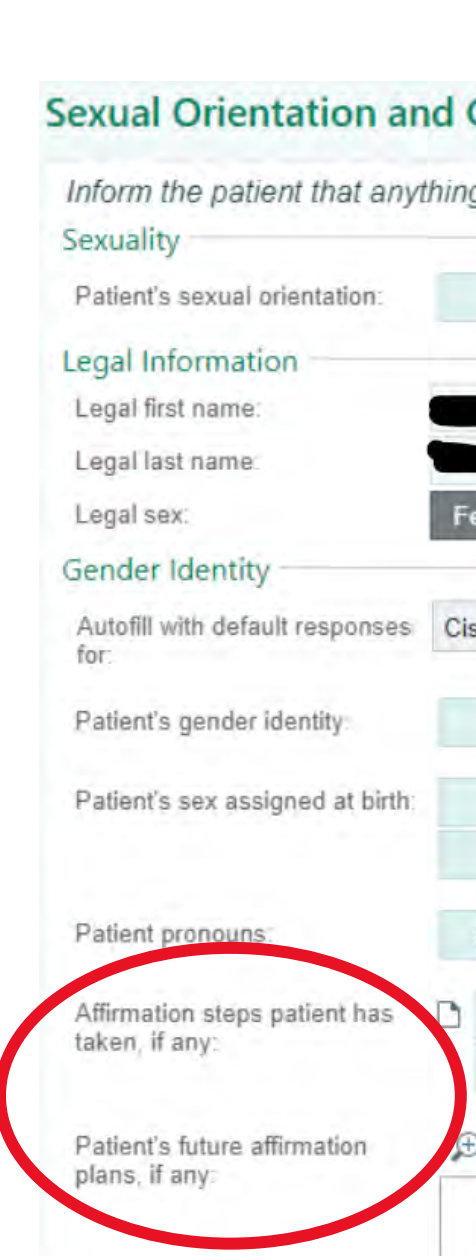
Patient's gender identity: Female | Male | Transgender Female | Transgender Male | Other | Choose not to disclose | Non-Binary

Patient's sex assigned at birth: Female | Male | Unknown | Not recorded on birth certificate | Choose not to disclose | Uncertain

Patient pronouns: she/her/hers | he/him/his | they/them/theirs | patient's name | decline to answer | unknown | not listed

Affirmation steps patient has taken, if any: presentation aligned with gender identity | preferred name aligned with gender identity | legal name aligned with gender identity | legal sex aligned with gender identity | medical or surgical interventions

Patient's future affirmation plans, if any:

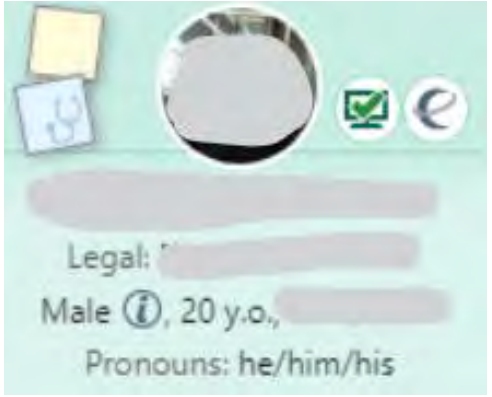


BEFORE THE APPOINTMENT

Gender identity: Male
Legal sex: Male
Sex assigned at birth: Female
It may be possible for this patient to become pregnant

Legal Sex	Gender Identity	Sex Assigned at Birth
Male	Non-Binary	Male
Sexual Orientation		
Bisexual		

Gender identity: Male
Legal sex: Female
Sex assigned at birth: Female
It may be possible for this patient to become pregnant



- GD patients may have **lower insurance coverage** and/or **higher rates of insurance denials** for services (why would a guy need a pap smear? etc.)
  - Additional documentation may be necessary

BEFORE THE APPOINTMENT

- Educate patients about:
  - The importance of sharing their sexual orientation / gender identity (SOGI) data
  - Institutional privacy policies
- Ask if patient has medical records under a different name rather than asking what their name was prior to transitioning (“deadname”)
- Avoid gendered terms / places / items like “women’s health” or “men’s health,” feminine artwork or pink gowns in the OB/GYN office, etc.

DURING THE APPOINTMENT

- Train ALL STAFF who will interact with the patient (schedulers, valet parking, admin, billing, doctors, nurses, etc.) to use inclusive language
- Call a patient from the waiting room using their last name
- Physical things:
  - Have pronouns on your badge
  - Have a pride flag / safe space sticker / some other indication that you're LGBTQIA2S+ friendly
  - Have diverse posters on the walls of the waiting room / exam room

DURING THE APPOINTMENT

- Pronouns: Give them the option to tell you their pronouns but don’t force it
  - “My name is _ and my pronouns are _”
- Ask what name they go by
- Don’t assume a patient has a partner, or that their partner is of the opposite sex
- If someone else is with them, ask, “and who do you have with you today?” – don’t assume it’s their partner

DURING THE APPOINTMENT

- Mirror a patient's language when possible; use the organ terminology they prefer
- Use medical terminology rather than gendered terms, i.e. "estrogen" and "testosterone" rather than "female hormone" or "male hormone"
- Acknowledge that you have limited experience working with this population (cultural humility)
- If you do end up misgendering someone in person, correct it and move on; **don't dwell on it**
- Be clear about WHY you're asking a question and how it will help you provide appropriate medical care

DURING THE APPOINTMENT

- Collect an organ inventory, surgical history, and vaccination history
  - Explain that it's important to discuss these organs to understand and reduce their cancer risk…
  - …BUT, stick to what's relevant

Transfeminine patients:			**Transmasculine patients:**	
HPV vaccination?	Y/N		HPV vaccination?	Y/N
HPV+?	Y/N		HPV+?	Y/N
HIV+?	Y/N		HIV+?	Y/N
Neovaginal surgery?	Y/N		Would pt want gyn care during colonoscopies?	Y/N
Tissue used?				
Surgery date?				

Estrogen	How long?	Testosterone	How long?
Progesterone	How long?	Oophorectomy	Y/N
Breast augmentation	Operative report	Salpingectomy	Y/N
Removal of testicles	Y/N	Hysterectomy	Y/N
Vaginoplasty	Y/N	Mastectomy	Operative report
		Pregnancies	How many?
		Birth control pills	How long?

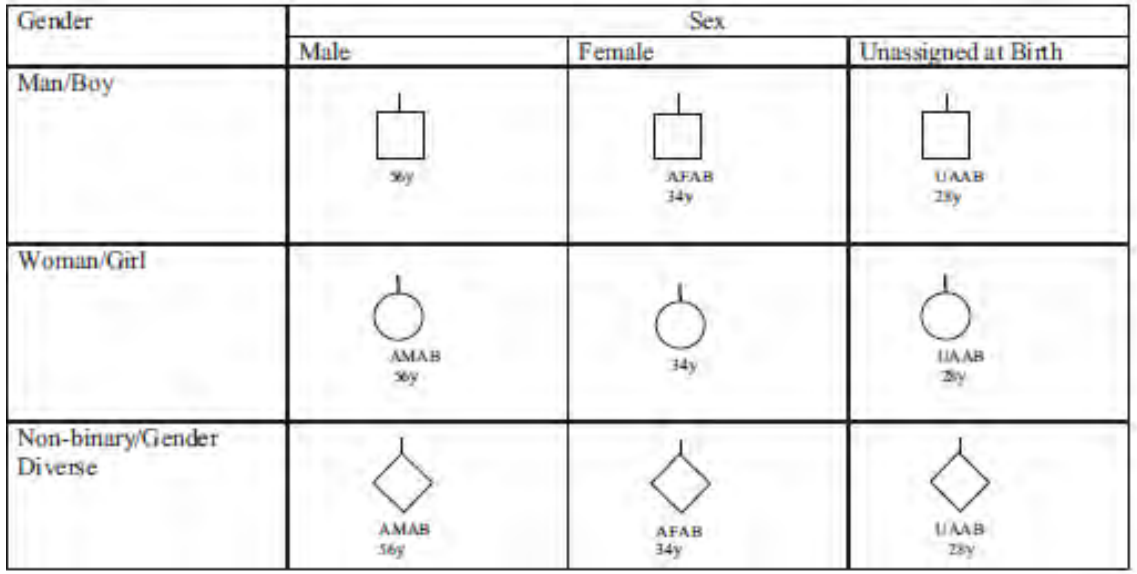
Green pictures from Romero, I. (2022, October). Slides 13, 21. *Hereditary cancer considerations in transgender patients. The US Oncology Network 12th Annual Genetics Conference.*

DURING THE APPOINTMENT

- Don’t forget to discuss non-genetic factors like tobacco and alcohol use
- Be mindful that GD patients are less likely to follow through with screening; ask how you can support them to continue their care?
- Ask permission before touching the patient, describe the exam in detail, and make sure they are comfortable with every step of what’s happening as it happens

AFTER THE APPOINTMENT

- Avoid misgendering, blaming, or stigmatizing patients in notes
  - This erodes trust and contributes to minority stress and adverse health outcomes
- Be thoughtful when making referrals to other providers; are they LGBTQIA2S+-friendly? Do they know how to treat these patients?
- Use standard inclusive pedigree nomenclature



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RESOURCES

RESOURCES FOR GD PEOPLE WITH LS

Table 2 Additional resources for TGD individuals with Lynch Syndrome

Organization	Resource
The Gay, Lesbian, Bisexual and Transgender (GLBT) Health Access Project, a collaborative, community-based program funded by the Massachusetts Department of Public Health (MDPH)	*Community standards of practice for provision of quality health care services for Gay, Lesbian, Bisexual and Transgendered Clients* http://www.glbthealth.org/documents/SOP.pdf
National LGBTQIA +Education Center, a program of the Fenway Institute	*10 strategies for creating inclusive health care environments* https://www.lgbtqiahealtheducation.org/wp-content/uploads/2021/05/Ten-Strategies-for-Creating-Inclusive-Health-Care-Environments-for-LGBTQIA-People-Brief.pdf
The World Professional Association for Transgender Health (WPATH), formerly known as the (Harry Benjamin International Gender Dysphoria Association (HBIGDA)	*Standard of care version 8* https://www.wpath.org/soc8

Hodan, R., Rodgers-Fouche, L., Chittenden, A., Dominguez-Valentin, M., Ferriss, J., Gima, L., Hamnvik, O.-P. R., Idos, G. E., Kline, K., Koeller, D. R., Long, J. M., McKenna, D., Muller, C., Thoman, M., Wintner, A., Bedrick, B. S., & on behalf of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. (2023). Cancer surveillance for transgender and gender diverse patients with Lynch syndrome: A practice resource of the Collaborative Group of the Americas on Inherited Gastrointestinal Cancer. Familial Cancer, 22(4), 437–448. https://doi.org/10.1007/s10689-023-00341-4

RESOURCES FOR LGBTQIA2S+ PATIENTS

- UNMC Gender Care Clinic: https://www.nebraskamed.com/transgender-care
- Find an LGBTQIA2S+ welcoming provider:
  - https://cancer-network.org/providerdatabases/
  - https://lgbtqhealthcaredirectory.org/
- National LGBT Cancer Network: https://colorectalcancer.cancer-network.org/risk-reduction/
- The National LGBT Cancer Project: https://www.lgbtcancer.org/
- Do Ask, Do Tell: https://www.lgbtqiahealtheducation.org/publication/dadt/
- FORCE: https://www.facingourrisk.org/portal/lgbtq
- CancerCare: https://www.cancercare.org/tagged/lgbtq+
- Patient Handout: How can breast and chest cancer screening help trans and gender diverse people protect themselves? (CONTACT GRACE FOR PDF)
- The Breasties - https://thebreasties.org/
- TGD CanScreen Project http://tgd.dfci.harvard.edu/main
- Gay & Lesbian Medical Association (GLMA): https://www.glma.org/resources.php
- GLAAD Transgender Resources: https://glaad.org/transgender/resources/
- Fenway Health: https://fenwayhealth.org/
  - National LGBTQIA+ Health Education Center: https://www.lgbtqiahealtheducation.org/
- InterACT: https://interactadvocates.org/resources/
- Queering Cancer - www.queeringcancer.ca/

RESOURCES FOR PROVIDERS

- **(Add yourself)** Find an LGBTQIA2S+ welcoming provider:
  - https://cancer-network.org/providerdatabases/
  - https://lgbtqhealthcaredirectory.org/
- UNMC Gender Care Clinic: https://www.nebraskamed.com/transgender-care
- UNMC SafeSpace Training: https://unmc.campuslabs.com/engage/organization/gsrc (UNMC) or on Apollo for Nebraska Medicine colleagues
- Provider Cultural Competency Training: https://cancer-network.org/cultural-competency-training/
- **NCCN Guidelines**: Bookmark the WEBPAGE, not the PDF itself (as that is updated often)
  - Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate (including the GD section): https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1545
  - Genetic/Familial High-Risk Assessment: Colorectal, Endometrial, and Gastric: https://www.nccn.org/guidelines/guidelines-detail?category=2&id=1544
- Increasing CRC Screening Among LGBTQ+ Communities Brief: https://nccrt.org/resource/80-in-every-community-lgbt/
- CGA-IGC LGBTQI+ Toolkit for Providers: https://www.cgaigc.com/toolkits
- Variations of Sex Characteristics Cancer Providers Guide: https://www.cgaigc.com/_files/ugd/96b355_37f310d9ef4545a5bd7ce1f2e4e2b7bd.pdf
- LGBTQ+ Cancer Fact Sheet for Providers: https://www.cancer.org/content/dam/cancer-org/cancer-control/en/booklets-flyers/lgbtq-people-with-cancer-fact-sheet.pdf
- Collecting SOGI Data: https://www.whitehouse.gov/wp-content/uploads/2023/01/SOGI-Best-Practices.pdf
- Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People: https://transcare.ucsf.edu/guidelines
- Fenway Health: https://fenwayhealth.org/
- InterACT: https://interactadvocates.org/resources/
- The Gay and Lesbian Medical Association (GLMA): https://www.glma.org/resources.php

CONCLUSIONS

- The LGBTQIA2S+ population in the US is growing and you are going to see these patients in your practice.
- These patients face health disparities, higher rates of advanced cancer, and lower rates of survival than cis individuals.
- We need more cancer guidelines for this population to provide better care!
- Further studies are needed to determine the impact of hormones and other cancer risks in this population.
- There are many resources and ways you can make this patient population feel welcome and safe.

THANK YOU

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