Provincial Adult Gender-Affirming Primary Care Clinical Pathway

Quick Links: Primer & Expanded details | Provider resources | Patient pathway | Provide feedback

1. Applies to all patients >18 years old:
- Who want to explore gender diversity.
- Who request gender-affirming care.
- Where the provider anticipates a need for gender-affirming care.

For all patients, provide an inclusive environment where patients will feel safe. Including:
- Asking, using, and supporting patients with pronouns & affirmed name(s).
- Gender-inclusive facilities.
- Gender-neutral language.
- Only test & assess what is clinically indicated by presenting complaint.
- Ensure trauma-informed care practices.

2. History
- Take a gender history (discussing incongruence between one's experienced/expressed gender and their sex characteristics).
- Past medical, surgical and family history.
- Any medication or gender-affirming care past or present.
- Understand support systems, socio-economic stability, and barriers to care.
- Determine overall gender-affirmation goals.

3. Assessment
- Confirm gender dysphoria diagnosis (gender incongruence)
- Address mental health concerns which may interfere with diagnostic clarity, capacity to consent or medical treatments.

4. Red Flag(s)
Active psychosis, imminent risk of self-harm or suicide, impaired capacity?

Yes → Assess and stabilize. Refer to urgent psychiatry if required.

No

Stable medical or mental health co-morbidities should be managed concurrently, aiming to reduce any negative impact on the outcomes of gender-affirming care.

5. Non-Medical Options
- Community supports
- Education & resources (e.g., gender-affirming gear, voice training)
- Name and documentation changes
- Counselling

Follow options 6, 7, 8 as appropriate and end at box 9

6. Medical Options – Hormone Therapy

Ensure discussion on fertility considerations is had.

6a. Estrogen/Androgen blocker (Caution: VTE risk)

Investigations

Baseline: Total testosterone, CBC, ALT, A1C/fasting glucose, lipids, prolactin. If considering spironolactone: CR, electrolytes.

Following dose changes: Total testosterone, estradiol, and if on spironolactone: CR & electrolytes.

Goal: Maintain testosterone in female range (<2mmol/L), estrogen 300-800pmol/L range, minimal side effects & maintain expected physical changes.

Medication	Dose
Androgen Blockers	
Spironolactone	Starting: 50mg po daily Usual: 100-200mg daily. (Max 300mg)
Cyproterone	Starting: 12.5mg po q2days. Usual: 12.5-25mg po daily. (Max 50mg)
Estrogen	
17-beta estradiol	Starting: 1-2mg po daily Usual: 4-8mg daily. (Max 8mg)
Estradiol patch	Starting: 50mcg patch twice/week Usual: 100-200mcg twice/week. (Max 400mcg)
Estradiol valerate* (injectable)	Starting: 3-5mg IM/SC weekly. Usual: 5-10mg IM/SC weekly. (Max 20mg)
Estradiol (transdermal gel)	Starting: 2.5g daily (2 pumps) Usual: 2.5-6.25g (2-5pumps) daily. (Max 6.25g)

*Adjust to target levels

6b. Testosterone (Caution: Rule out risk of pregnancy)

Investigations

Baseline: Testosterone, CBC, ALT, A1C/fasting glucose, lipids.

Following dose changes: Mid-injection cycle testosterone, CBC. Trough testosterone if no amenorrhea >6 months.

Goals: Maintain mid-injection cycle levels in mid-high end of male range (8-35mmol/L), minimize side-effects & maintain expected physical changes.

Medication	Dose
Testosterone	
Testosterone cypionate/enanthate	Starting: 25mg IM or SC q weekly Usual: 50-100mg weekly
Androgel 1%	Starting: 1-2 pumps (1.25-2.5g of gel daily) Usual: 2-4 (2.5-5g of gel daily)

For challenges achieving therapeutic goals, contact transgender-care specialized provider or endocrinology

7. Publicly Funded Gender-Affirming Surgery

Surgery	Criteria	Referral
Mastectomy / Chest masculinization (top surgery)	Request for breast surgery form*. No criteria for being on hormones/ psych letter. BMI under 35 & smoking cessation but criteria may vary by surgeon.	Plastic surgery
Hysterectomy	No criteria for hormones or psychiatry letter.	Gynecology
Phalloplasty & Metoidioplasty (bottom surgery)	12 months lived experience and hormone therapy. Out of province (OOP) funding package requires 2 signatures for public funding. Hysterectomy performed at least 6 months prior. BMI under 40*.	Gynecology for hysterectomy Gender-specialized Psychiatry Plastics GRS Clinic Montreal
Orchiectomy	Diagnosis of gender dysphoria.	Urology
Vaginoplasty with or without cavity (bottom surgery)	12 months lived experience and hormone therapy. Letter from gender-specialized psychiatry. BMI under 40*.	Gender-specialized Psychiatry Plastics GRS Clinic Montreal
Breast Augmentation (top surgery)	Request for breast surgery form*. 12 months lived on hormones with no or negligible breast development. BMI under 35 & smoking cessation but criteria may vary by surgeon.	Plastic surgery

***See expanded detail for specific requirement**

8. Discuss informed consent including considerations for anticipated changes and timelines, risk mitigation, and potential side effects.

9. Support as needed, include ongoing screening based on organ inventory

This primary care pathway was co-designed provincially by Primary Care Providers, Specialist Physicians (Psychiatry), Patient and Family Advisors, community partners and the Provincial Pathways Unit (PPU). Relevant surgical specialties were also consulted. It is intended to be used in conjunction with specialty advice services, when required, to support care within the medical home.

EXPANDED DETAILS

Pathway Primer

Transgender and non-binary people represent between 0.5-1.4% of the population [1] [2], or 24,000-68,000 Albertans [1], yet healthcare professional are in consensus that these communities are currently underserved [2]. The (non-surgical) healthcare needs of transgender and non-binary people can be effectively managed within the primary care setting. Given the relationship primary healthcare providers have with their patients, they are ideally placed to facilitate and support gender-affirming care. In most cases it should be considered within the scope of primary care to support non-medical options, to provide hormone-therapy for a patient's transition and help with coordinating referrals for gender-affirming surgeries [3]. Historically, a well cited barrier for providing gender-affirming care for those working in primary care is a lack of education or confidence on the subject [2]. This clinical pathway is one of several tools supporting providers on care within Alberta and is intended to offer greater confidence to those navigating the system in our province and as a result, help support a patient's journey with timely access to care. While contributing to gender-affirming primary care, this clinical pathway is not a comprehensive standard of care nor an all-encompassing guideline. It is largely informed by Canadian guidelines from Trans Care BC [4] and Rainbow Health Ontario [2], as well as the World Professional Association for Transgender Health [5].

It is important to note the scope of this pathway supports care of adults (those 18 years of age or greater) who want to explore gender diversity or those who present to primary care wanting gender-affirming care. It also attempts to reflect care in the present day within Alberta.

It should also be stressed that supporting a patient through gender-affirming care is a process done over time, not just in one session. The flow through the algorithm can be fluid, at a pace that everyone is comfortable with and does not need everything done in one visit.

For example:

Visit 1 – Initial questions, overview of process and information on options.

Visit 2 – Gender history, gender incongruence/gender dysphoria diagnosis, gender goals.

Visit 3 – Medical visit to review baseline measures and lab work.

Visit 4 – Review of informed consent, expected changes, associated risks etc. and begin prescription.

Aspects of this clinical pathway may not be considered ideal, but rather a best-effort to guide users in navigating the system in the province.

1. A critical aspect of providing gender-affirming care is taking pro-active measures to create a safe and inclusive environment. Appreciating the importance of language within this clinical pathway and across practice should be noted and the reader is encouraged to refer to Glossary of Terms within Appendix of this document. Additionally, suggestions on gender inclusive language can be found through Trans Care BC. Taking steps to actively work on implementing core principles of inclusivity requires the buy-in from all staff and workplace training can help align with best-practice. Starting with '9 Pillars for building more trans inclusive spaces' provides a starting block and includes:

- Asking, using and supporting patients with pronouns & affirmed name(s).
- Gender-inclusive facilities, including washrooms.
- Gender-neutral language.

- Only test & assess what is clinically indicated by the patient's presenting complaint. This is a saliant point relating to what colloquially is known as "trans broken arm syndrome", where providers should be mindful about questioning patients on what is truly relevant to their presenting health condition and being mindful of incorrectly invading a patient's privacy or assuming a medical condition results from a patient's gender identify/medical transition [6].

Experience of gender-based abuse is common and there is great importance in ensuring principles of trauma informed care are being delivered by all staff. These include (but are not limited to) bearing witness to the patient's experience of trauma, including patients in the healing process with choice, showing belief in the patient's resilience and incorporating processes that are sensitive to the patient into their care [7].

2. History

Taking a gender history should be a fluid conversation where the focus is on understanding the patient's experience of gender and recognizing that there is no universal or correct experience. Framing the conversation on wanting to better understand their experience to date and how this relates to their expressed gender goals can help the primary care provider gain the information they need to facilitate affirming care for the patient. This may also start to highlight a discrepancy between a person's gender identify and their sex that was assigned at birth. Therefore, incongruence and fulfilling Standards of Care for clinical criteria can be ascertained in a flexible fashion by listening to their experience, rather than from directly questioning [5].

Possible questions to explore gender identity and expression are [4]:

- "How would you describe your gender identity?" If prompting is needed: For example, "some people identify as a man, a transmasculine individual, genderqueer, etc."
- "Do you remember the time when you realized that your gender was different from the one you were assigned at birth?" Or: "Do you remember when you first started to see your gender as…?"
- "Can you tell me a bit about what's happened since realizing this?" If prompting is needed: "Some people find this to be a difficult realization and may not feel comfortable discussing it, while other people are fortunate to have people in their life they feel safe talking with—what was it like for you?"
- "Have you taken any steps to express your gender differently/to feel more comfortable in your gender?" If prompting is needed: "Some people ask others to use a different name and pronoun, or make changes to their hair or clothing styles".
- (If they have taken steps to express their gender differently) "What was that like for you? How did that feel?"

Past medical history should help the primary care provider better understand any relevant health conditions that would need to be managed in conjunction with supporting the patient's gender-affirming goals. Reassuring the patient that optimally managing co-morbidities will set up for greater success in any transition-related medical care, rather than these being seen as barriers to transition-related care [4].

Relevant surgical history should note any previous transition-related surgeries or any current or previous hormone-related treatment that the patient has experienced to date.

Understanding the patient's social context is important in determining the support they may benefit from during their gender-affirming care. Explore the potential impact on aspects of their life such employment, housing, relationships and economic well-being [2]. This can be an early opportunity to also explore potential barriers to prepare and better support the patient. This can be an excellent opportunity to direct the patient to some of the Patient Resources listed in this pathway.

Listening to the patient's experience with gender leads into a conversation on what their overall gender-affirming goals are. It is important to explore whether the patient intends to change their legal documentation, if their goals include gender-affirming hormones and if they have any transition-related surgery goals. This is also a good place to talk about reasonable expectations of the effects of these interventions. Developing a care plan should be individualized to the patient and directly linked to their goals.

- Examples of care plans can be found on Trans Care BC.

3. Assessment

Based on their goals, the provider should gauge how much information is necessary within the assessment and only assess what is needed to safely support their care plan. For example, if the patient is only interested in non-medical options, then many aspects of a gender assessment are not relevant to their journey and therefore should not be covered. Conversely, if certain medical options are identified as goals, then the provider should *respectfully* gain the information necessary to confirm a diagnosis of gender dysphoria according to DSM-5-TR criteria [8]. There is great debate around the appropriateness of a psychiatric diagnosis within this space given a need to destigmatize gender diversity [2], however, this pathway (as noted above) attempts to support the navigation and access to care within the current Alberta context. At this time, several surgical interventions require documentation of a diagnosis of gender dysphoria in order to qualify for funding in Alberta.

Gender dysphoria [8] is defined as a marked incongruence between one's experienced/expressed gender and their assigned gender, lasting at least 6 months with at least two of the following:

- A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics)
- A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)
- A strong desire for the primary and/or secondary sex characteristics of the other gender
- A strong desire to be of the other gender (or some alternative gender different from one's assigned gender)
- A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender)
- A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender)

A gender dysphoria diagnosis does not always apply automatically to all patients in this pathway, nor to all patients who identify as transgender [9]. Gender incongruence may be a more accurate diagnosis whereby the person's gender is different to the sex that was assigned at birth. Although providing a diagnosis of gender dysphoria may in cases be relatively 'straight-forward' based on DSM-5 criteria, there are other times where primary care providers may be unsure or question if a different diagnosis is more clinically relevant, requiring further expertise. In these cases, seeking advice would be highly beneficial.

To best support patients in any gender-affirming goals, screening for mental health concerns can help with care planning. This may include if they have experienced any negative impacts resulting from their gender incongruence, as well as screening for depressive symptoms, anxiety, self-harm and/or suicidal ideation or previous attempts. This is important to note given that the period between planning to medically transition and starting treatment sees the highest risk of suicide among transgender people [2]. Reassuring the patient that proactively managing mental health concerns should be in conjunction with their gender-affirming care (not seen as a barrier to it) and doing so helps to improve overall outcomes. It can be important to keep mental health concerns at the forefront for review during their care plan given that mental health is dynamic and can change in response to new changes or development in one's health journey.

4. Red Flag(s)

In cases where there is concern of active psychosis, imminent risk of self-harm or suicide, or impaired capacity, urgent psychiatric care is needed. Primary care providers should assess and stabilize patient where appropriate to do so. Often primary care providers are well-equipped to provide this support and consistency of care for patience. However, this may also require arranging for the patient to go to Emergency Department, referring for urgent psychiatry consult by calling RAAPID and/or utilizing conveyance forms under the Mental Health Act | AHS.

- In cases where there may concern on suicidal ideation, patients should also be made aware of the Suicide Crisis Helpline by calling 988, or the Trans Lifeline.

Additional Mental Health Supports Include:

- **ACCESS 24/7 and Access Mental Health:**
  - Access Addiction and Mental Health (AAMH) is the telephone screening service for North, Central, and South Zones that that will support Albertans to access addiction and mental health resources.
- **For 24/7 mental health support:**
  - The Mental Health Line is a 24-hour, 7 day a week confidential service that provides support, information and referrals to Albertans experiencing mental health concerns.
  - The line is staffed by a multidisciplinary team comprised of nurses, psychiatric nurses, social workers, occupational therapists, and psychologists.
  - 1-877-303-2642 (Toll free).
- **For non-urgent access to local Addiction and Mental Health (AAMH) services and to book an appointment:**
  - Access Addiction and Mental Health (AAMH) North Zone: AMHAccessNorth@ahs.ca
  - Access Addiction and Mental Health (AAMH) Central Zone: AMHAccessCentral@ahs.ca
  - Access Addiction and Mental Health (AAMH) South Zone: AMHAccessSouth@ahs.ca
- **To refer an individual to Access Addiction and Mental Health (AAMH):**
  - Complete the AHS Generic Referral Form.
  - Ensure client is aware of the referral.
  - Ensure client contact information and reason for referral are completed.

Patients lacking cognitive capacity to make safe decisions should be supported appropriately, often through referral to psychiatry, prior to continuing on this pathway.

As noted above, stable medical or mental health co-morbidities should be managed *concurrently*, aiming to reduce any negative impact on the outcomes of gender-affirming care. The patient ultimately should be the one making decisions about the care they receive (criteria permitting); the narrative around stable co-morbidities is one of setting them up for success, or the better any adjacent condition can be managed, the more optimal any gender-affirming care that the patient decides to receive will be.

5. Non-Medical Options

There are many flagship resources within Alberta to support people with non-medical options. Skipping Stone houses many of these resources, along with *(but not limited to)* Trans Equality Society of Alberta, Alberta Transgender Map, Trans Wellness Initiative and End of the Rainbow.

- **Gender-affirming services** are available through Alberta Health Services which has various gender-affirming programs. These include the Gender Program at the University of Alberta Hospital, the Adult Gender Clinic at Foothills Medical Centre, those available through student health services at Alberta academic institutions and others that can be searched through Alberta Referral Directory.
- **Community resources** include practical support, guidance on 'coming out', in-person and virtual support groups across Alberta, Indigenous and Two-Spirit resources, as well as support for parents, caregivers and family. Guidance around sports, recreation and arts support can be found on Skipping Stone Foundation.

- **Name and documentation change** guidance in Alberta can be found through Skipping Stone Foundation.
- **Affirming voice programs** exist through various programs depending on where patients are in the province. There are various affirming voice services for Albertans.
    - Publicly these include the Voice Clinic in Edmonton, the Calgary Voice Program in Calgary. There are also virtual and in-person options through Skipping Stone Foundation, Trans Care BC and various other private options, including Trans Voice Teacher Directory.
- **Gender-affirming gear** are available within Alberta, including guidance on fitting, wearing tips and care instructions through Skipping Stone.
- **Psychological and counselling services** can be beneficial at all stages of a patient's journey and affirming providers should be well-versed with the unique needs of transgender and non-binary patients [5]. Searching gender-affirming providers can be done via the Psychologists' Association of Alberta or Trans Wellness Initiative Providers.

6. Medical Options

Hormone Therapy

Hormone therapy can be used to change a person's hormone levels to harmonize to their affirmed gender characteristics. Broadly this can be split into either estrogen-based or testosterone-based approaches. Regardless of which hormone therapy, the provider should refer to 8. Informed Consent and review with the patients wherever applicable. The following section includes guidance on:

- Medication and dosing – common first-line therapy including starting and maintenance dosing.
- Dose titration – guidance on titrating to get to maintenance dose.
- Lab monitoring – what baseline and during-therapy labs to monitor and target blood hormone levels.
- Managing side-effects – counselling and pro-actively managing possible side-effects of hormones.
- Screening implications – guidance on health screening during and after therapy.
- What changes the patient can expect – the common questions on what the intended changes are of hormones and how long they should last.
- Potential risks associated with hormone therapy – high level guidance on levels of risk associated with hormone therapy.

Fertility Considerations

If the patient wants to have a genetically-related child at some point, discuss the effects of hormone therapy on fertility. Counselling regarding fertility preservation should occur prior to starting hormone therapy.

- Estrogen-based/androgen-blocking hormone therapy results in reduced testicular volume and affects sperm motility and function. This may be irreversible.
- Fertility may be permanently affected by testosterone hormone therapy.

If a patient wants to keep their options open for having a genetically-related child in the future, discuss options for banking their sperm or eggs prior to starting any hormone therapy. While many transmasculine people have intentionally become pregnant after discontinuing testosterone therapy, patients may wish to postpone hormone therapy if pregnancy is something they would like to pursue in the near future. Fertility preservation involves cryopreservation of either ova or of embryos created via fertilization with sperm from a partner or donor. This involves harvesting of ova following ovarian stimulation through administration of female hormones, as well as multiple transvaginal ultrasounds and a transvaginal procedure to aspirate the ova. This can represent a substantial physical and psychological impact, hence the need for sufficient counselling, before starting therapy. [2]

6a. Estrogen-based hormone therapy

Estrogen in combination with testosterone-blocking (androgen) medication is used to reduce testosterone-related features and induce estrogen-related features. While there is variation in dosing for hormone therapy based on the clinical situation, the following guidance is reproduced from Trans Care BC (pg 9) and accepted by the authors of this pathway as consistent for practice within Alberta.

Before commencing estrogen therapy, risk considerations should include venous thromboembolism (VTE) risk, unstable cardiovascular disease, active hormone-sensitive cancer and end-stage liver disease.

Medication for estrogen/androgen-blocking therapy [4]

Medication	Dose
Androgen Blockers	
Spironolactone First-line due to lower cost, effectiveness & tolerability. May not significantly lower T levels alone.	Starting dose: 50 mg po daily. Usual Maintenance dose: 100-200 mg daily. Max 300 mg daily. Can be divided bid.
Cyproterone Second-line, see potential risks in table below.	Starting dose: 12.5 mg po q2days. Usual Maintenance dose: 12.5-25 mg daily. Max 50 mg daily. Use in lowest effective dose & try dose reductions where possible.
Finasteride An anti-androgen with primarily peripheral action.	1.25 mg po every other day/2.5 mg EOD.
Alternative: not using a blocker A higher dose of estradiol may effectively suppress testosterone production.	Maintain estrogen levels in physiologic range.
Estrogen	
17-beta estradiol Lowest risk of all oral estrogens & first choice.	Starting dose: 1-2 mg po daily. Usual Maintenance dose: 4-8 mg daily. Max 8 mg daily. Can be divided bid.
Estradiol patch	Starting dose: 50 mcg patch twice per week. Usual Maintenance dose: 100-200 mcg twice per week. Max 400 mcg twice per week.
Estradiol valerate (injectable) Only available compounded.	Starting dose: 3-5 mg IM/SC weekly. Usual Maintenance dose: 5-10 mg IM/SC weekly. Max 20 mg IM/SC weekly. Weekly dosing is preferred to minimize peak/trough variation.
Estradiol (transdermal gel) Recommended preferentially for patients over 40 years old or those with risk factors for CV or thromboembolic disease.	Starting: 2.5g daily (2 pumps). Usual: 2.5-6.25g (2-5pumps) daily (Max 6.25g).
Progesterone – not routinely recommended but may be included based on patient preference. No clear evidence of benefit and possible increased risk. Potential role in breast/nipple development (unproven).	
Micronized progesterone First choice but more expensive.	Starting dose: 100 mg po daily. Usual maintenance dose: 100-400 mg po daily.

Dose-titration: Titrate dose of estrogen and testosterone-blockers q4-6 weeks until maintenance dose is achieved. Slower titration may be preferred based on clinical presentation. For example, some patients may not desire full feminization effects or may prefer to take a slower approach, others may not pursue full feminine serum levels of estradiol or fully suppressed testosterone levels.

Lab Monitoring:

- **Baseline**: Total testosterone, CBC, ALT, HbA1C/fasting glucose, lipids, prolactin. If considering spironolactone: CR, electrolytes.
- **Following dose changes**: Total testosterone, estradiol, and if on spironolactone: CR & electrolytes.
- **Goal:** Maintain testosterone in female range (<2mmol/L), estrogen 300-800pmol/L range, minimal side effects & maintain expected physical changes.

What are the intended changes from estrogen/androgen-blocking hormone therapy [5]

Estrogen/androgen-blockers related changes may include:	Expected onset	Expected maximum effect
***Breast growth**	3-6 months	2-3 years
***Smaller genitals (testes)**	3-6 months	2-3 years
Decreased fertility	Variable	Variable
Fat redistribution & potentially weight gain or loss	3-6 months	2-5 years
Decreased muscle mass	3-6 months	1-2 years
Mood changes	Variable	Variable
Decreased spontaneous genital arousal (erections)	1-3 months	3-6 months
Changes to sex drive, sexual interests or sexual function	Variable	Variable
Skin changes including softening & decreased oiliness	1-6 months	Unknown
Decreased growth of body & facial hair	6-12 months	3 years
Decreased scalp hair loss (balding)	No regrowth, loss stops 1-3 months	1-2 years

*Change is permanent & will remain even if hormone therapy is stopped.

Managing side-effects of estrogen/androgen-blocking hormone therapy [4]

Persistent dizziness/postural hypertension	Caused by spironolactone, usually temporary and mild. If severe or persistent switch to cyproterone.
Low libido	Consider maintaining testosterone at higher level. Trial progesterone.
Difficult having/maintaining physical arousal (erections)	Consider maintaining testosterone at higher level. Trials of PDE5 inhibitor (e.g. Cialis™, Viagra™).
Elevated prolactin	Common and typically benign with estrogen therapy. Some guidelines recommend routine measurements of prolactin whilst others do not. Consider pituitary imaging if level is >80 mcg/L or if symptoms (headaches, visual changes, excessive galactorrhea).
Elevated transaminases	Usually transient unless another cause of hepatic dysfunction identified.
Increase in and/or malodorous vaginal discharge post-vaginoplasty	The lining of the vagina is created from the inverted penile/scrotal skin and oral antibiotics are therefore usually ineffective at treating bacterial overgrowth. User intravaginal metronidazole gel and plain water douching until symptoms resolve.

Screening implications for estrogen/androgen blocking hormone therapy

Cardiovascular risk	Estrogen may increase cardiovascular risk. If using a risk calculator, use female scores if hormones were started early in life, male scores if hormones were started later (or both to estimate range).
Breast cancer	Average risk, estrogen use >5 years & ages 45-74. Higher risk (e.g. family history, BMI>35, progestin use) – consider early or more frequent screening.
Osteoporosis	Screen as per national guidelines (ages 65 and up) or earlier if higher risk. For example: • Long-term low levels of estrogen post gonadectomy, or • Long-term use of androgen-blocker without estrogen. Encourage vitamin D and calcium intake and exercise. Maintain hormone therapy post-gonadectomy.
Colon cancer	Screen as per Alberta guidelines.
Prostate cancer	Long term androgen suppression likely lowers the risk of prostate cancer, however, follow asymptomatic routine PSA testing pathway where appropriate. PSA may be less reliable/falsely low in low androgen settings.
Sexual health	Some trans people may be at higher risk for sexually transmitted infection (STI). Screen for STIs and consider HIV pre-exposure prophylaxis based on patient-specific risk factors.

Levels of risk from estrogen/androgen-blocking hormone therapy

Potential Risks	
Increased risk of blood clots, pulmonary embolism, stroke or heart attack **Gall stones**	Likely increased risk
Changes to cholesterol which may increase risk for pancreatitis, heart attack or stroke Liver inflammation Nausea Headaches Increased incidence of meningiomas (if using cyproterone)	Possible increased risk
Diabetes **Heart and circulation problems** **Changes to kidney function** (if using spironolactone) **Increased potassium** which can lead to heart arrhythmias if using spironolactone **Increased blood pressure** **Breast cancer** **Increased prolactin and possibility of benign pituitary tumors**	Possible increased risk if you have additional risk factors

Precautions with estrogen/androgen-blocking therapy and considerations in minimizing associated risks [4]

Precautions to estrogen / androgen-blocking therapy	**Considerations in minimizing associated risks**
Strong family history of abnormal clotting	Rule out genetic clotting disorder, if affected see 'hypercoagulable state', consider transdermal route of administration, consider spironolactone as preferred anti-androgen.
Metabolic syndrome	Dietary and medical management of component disorders, consider cardiac stress test, consider transdermal route of administration.

Severe, refractory or focal migraine	Consider referral to neurology, consider daily migraine prophylaxis, ensure all other cerebrovascular risk factors are optimized, consider transdermal route of administration, consider spironolactone as preferred anti-androgen.
Seizure disorder	Consider referral to neurology, consult with a pharmacist re: possible estrogen interaction with anticonvulsant medication.
Other cardiac disease	Consider referral to cardiology.
Hyperprolactinemia	Determine etiology and manage as indicated, if prolactin > 80 mcg/L or symptomatic - rule out prolactinoma, refer to endocrinology as needed, consider spironolactone as preferred anti-androgen.
History of benign intracranial hypertension	Consider referral to neurology/neurosurgery.
Hepatic dysfunction	Dependent on etiology, e.g. minimize alcohol consumption, weight loss in NAFLD, consider referral to hepatology/gastroenterology, use transdermal, sublingual, or injectable route of administration, consider spironolactone as preferred anti-androgen.
Strong family history of breast cancer	Refer to genetics/familial breast cancer program for further risk stratification and genetic testing as indicated.
Prior history of estrogen sensitive cancer	Refer to oncology.
Autoimmune conditions	Start low dose, titrate slowly in collaboration with any involved specialists.
Personal or Family history of porphyria	Consider referral to porphyria clinic or internist with experience in porphyria.
Stable ischemic cardiovascular disease	Consider referral to cardiology, ensure optimal medical (including prophylactic antiplatelet agent(s) if indicated per national guidelines) and/or surgical management as indicated, risk factor optimization, use transdermal route of administration +/- lower dose, consider spironolactone as preferred anti-androgen.
Cerebrovascular disease	Consider referral to neurology, ensure optimal medical management (including prophylactic antiplatelet agent(s) if indicated per current national guidelines) and risk factor optimization, use transdermal route of administration +/- lower dose.
Hypercoagulable state or personal history of DVT or PE	Identify and minimize existent risk factors, prophylactic anti-coagulation if indicated per current national guidelines, consider referral to hematology/thrombosis clinic, use transdermal route of administration +/- lower dose, consider spironolactone as preferred anti-androgen.
Marked hypertriglyceridemia	Identify and address barriers to optimal lipid control, refer to dietitian, minimize alcohol consumption, consider anti-lipemic pharmacologic therapy, consider endocrinology referral, use transdermal route of administration.
Uncontrolled high blood pressure	Identify and address barriers to optimal BP control, use spironolactone as preferred anti-androgen, add additional antihypertensives as needed (avoid ACEs/ARBs with spironolactone), consider cardiac stress test, consider transdermal route of administration, consider referral to cardiology.
Uncontrolled diabetes	Identify and address barriers to optimal glycemic control, refer to dietitian, encourage lifestyle modification, initiate antiglycemic agent(s) per national guidelines, consider cardiac stress test, consider transdermal route of administration.
Smoker	Encourage and support smoking cessation, consider referral to smoking cessation program/offer NRT and/or bupropion/varenicline, or negotiate a decrease in smoking, consider cardiac stress test, use transdermal route of administration +/- lower dose, consider spironolactone as preferred anti-androgen, consider low-dose ASA prophylaxis.

6b. Testosterone-based hormone therapy

Testosterone is used to reduce estrogen-related features and induce testosterone-related features. While there is variation in dosing for home therapy based on the clinical situation, the following guidance is reproduced from Trans Care BC (pg 6) and accepted by the authors of this pathway as consistent for practice within Alberta.

Before commencing testosterone therapy, risk considerations should include ruling out the risk of pregnancy, unstable cardiovascular disease, chest feeding, unstable psychosis or active hormone-sensitive cancer.

Medication for testosterone therapy [4]

Medication	Dose
Testosterone	
Testosterone cypionate 100mg/mL (injectable, suspended in cottonseed oil). **Testosterone enanthate 200mg/mL** (injectable, suspended in sesame oil).	Starting dose: 25 mg IM or SC q weekly. Usual maintenance dose: 50-100 mg weekly. If local skin reaction occurs, switch oils. Weekly dosing is preferred to minimize peak/trough variation. Biweekly injection (of 2x the weekly dose) may be tolerated in some individuals.
Androgel 1% (gel) 12.5 mg/pump or 25mg/2.5g or 50 mg/5g packet.	Starting dose: 1-2 pumps or 1 x 2.5 g packet (25 mg daily). Usual maintenance dose: 2-4 pumps or 1-2 x 5 g packet (50-100 mg daily).
Progestins: May be used for contraception or to assist with suppression of monthly bleeding (menses)	
Medroxyprogesterone IM (Depo-Provera™)	150 mg IM q 12 weeks.
Progesterone releasing IUD Higher dose progesterone preferred for suppression of monthly bleeding (menses).	Inserted by MD or NP. Devices effective for 5-8 years.
Progestin implant (Nexplanon™)	Inserted sub-dermally by trained MD, NP or RN(C), effective up to 3 years.

Dose titration: Titrate q4-6 weeks until maintenance dose is achieved. Slower titration may be preferred based on clinical presentation.

Lab Monitoring:

- **Baseline:** Testosterone, CBC, ALT, HbA1C/fasting glucose, lipids.
- **Following dose changes:** Mid-injection cycle testosterone, CBC. Trough testosterone if amenorrhea delayed more than 6 months.
- **Goals:** Maintain mid-injection cycle levels in mid-high end of male range (8-35mmol/L), minimize side-effects & maintain expected physical changes.

What are the intended changes from testosterone hormone therapy [5]

Testosterone related changes may include:	Expected onset	Expected maximum effect
***Deeper voice**	3-12 months	Years
***Growth of body and facial hair**	3-6 months	3-5 years
***Growth of the external genitals (clitoris)**	3-6 months	1-2 years
***Scalp hair loss**	>12 months	Variable
Decreased fertility	Variable	Variable

Fat redistribution & possible weight gain or loss	3-6 months	2-5 years
Increased muscle	6-12 months	2-5 years
Mood changes	Variable	Variable
Changes to sex drive, sexual interests or sexual function	Variable	Variable
Skin changes including increased oil & acne	1-6 months	1-2 years
Dryness of internal genitals (vagina)	3-6 months	1-2 years
Stopping of monthly bleeding (period)	2-6 months	n/a

*Change is permanent & will remain even if hormone therapy is stopped.

Managing side-effects of testosterone hormone therapy [4]

Acne	Typically most problematic in first year or hormone therapy. Treat as per usual, consider lower dose or switching testosterone type if persistent.
Scalp hair loss	Minoxidil – will not impact facial hair growth. Finasteride – may inhibit facial hair growth.
Polycythemia	Usually a misinterpretation due to lab using "female" ranges. Ensure the hemoglobin and hematocrit are being interpreted based on "male" lab ranges. If hemoglobin >180 g/L or hematocrit >0.54 or if symptomatic (headaches, facial flushing) increase frequency of dosing to weekly, reduce dose, or switch to a patch or gel to minimize peak/trough variation.
Elevated transaminases	Usually transient unless another cause of hepatic dysfunction is identified.
Unexpected (menstrual) bleeding	Bleeding is typically suppressed within 6 months of starting testosterone. Evaluate for missed, inconsistent or excessive testosterone dosing (missed or inconsistent doses can cause spotting, excess testosterone can convert to estrogen with theoretical risk of endometrial proliferation). Check trough testosterone levels, estradiol, LH, FSH. Consider more frequent dosing (weekly at half the q2 week dose) or dose adjustment. Persistent, unexplained bleeding should be evaluated with pelvic ultrasound +/- endometrial biopsy.
Internal genital (vaginal) dryness	Internal genital atrophy is fairly common for those on long-term testosterone. It can be treated with over-the-counter internal genital moisturizers or topical estrogen: estradiol cream 0.5-1g daily for 2 weeks then twice weekly or estradiol tablet 10mcg daily for 2 weeks then twice weekly. It can be helpful to advise patients that product names may not be affirming.

Screening implications for testosterone hormone therapy

Cardiovascular risk	Testosterone use does not appear to significantly increase cardiovascular risk. If using a risk calculator, use male scores if hormones were started early in life, female scores if hormones were started later (or both to estimate range).
Chest/Breast cancer	If the patient has not had chest surgery, screen as per Alberta Cancer guidelines. The risk of cancer related to residual tissue after chest construction (double mastectomy) is unknown. If high risk or patient concern, consider physical exam and diagnostic ultrasound or other modality when appropriate.
Cervical cancer	Screen as per Alberta guidelines.
Sexual health	Some trans people may be at higher risk for sexually transmitted infection (STI). Screen for STIs and consider HIV pre-exposure prophylaxis based on patient-specific risk factors.

Osteoporosis	Screen as per national guidelines (aged 65 and up) or earlier if higher risk (e.g. long-term low levels of testosterone post-oophorectomy). Encourage vitamin D and calcium intake and weight bearing exercise. Maintain hormone therapy post-gonadectomy.
Colon cancer	Screen as per Alberta guidelines.

Levels of risk from testosterone hormone therapy

Potential Risks	
Increased red blood cells (polycythemia) **Sleep apnea** **Scalp hair loss (androgenic alopecia)**	Likely increased risk
Changes to cholesterol which may increase risk for heart attack or stroke **Liver inflammation**	Possible increased risk
Diabetes **Heart and circulation problems (cardiovascular disease)** **Increased blood pressure**	Possible increased risk if you have additional risk factors

Precautions with testosterone therapy and considerations in minimizing associated risks [4]

Precautions to testosterone therapy	Considerations in minimizing associated risks
Stable ischemic cardiovascular disease	Consider referral to cardiology, ensure optimal medical (including prophylactic antiplatelet agent(s) if indicated per national guidelines) and/or surgical management as indicated, optimize risk factors, consider transdermal route of administration, and/ or low dose/slow titration with monitoring.
Uncontrolled high blood pressure	Identify and address barriers to optimal BP control, initiate antihypertensive(s) as needed, consider cardiac stress test, consider low dose/slow titration with monitoring, consider referral to cardiology.
Uncontrolled diabetes	Identify and address barriers to optimal glycemic control, refer to dietitian, encourage lifestyle modification, initiate antiglycemic agent(s) per national guidelines, consider endocrinology referral, consider cardiac stress test, consider low dose/slow titration with monitoring.
Uncontrolled dyslipidemia	Identify and address barriers to optimal lipid control, refer to dietitian, initiate antilipemic pharmacologic therapy per national guidelines, consider endocrinology referral, consider cardiac stress test, consider low dose/slow titration with monitoring.
Hepatic dysfunction	Dependent on etiology, e.g., minimize alcohol consumption, weight loss in nafld, consider referral to hepatology/gastroenterology, consider low dose/slow titration with monitoring.
Polycythemia	Identify etiology and address contributing factors, consider referral to hematology, consider transdermal route of administration and/ or low dose/slow titration with monitoring.
History of DVT/PE or hypercoagulable state	Identify and minimize existent risk factors, prophylactic anti-coagulation if indicated per current national guidelines, consider referral to hematology/thrombosis clinic, consider transdermal route of administration, and/or low dose/ slow titration with close monitoring for polycythemia.
Chronic respiratory disease that may be worsened by erythrocytosis/ polycythemia	Consider transdermal route of administration, and/ or low dose/slow titration with monitoring, consider referral to respirology.
Severe/ uncontrolled sleep apnea	initiate CPAP or oral device, refer to dietitian and encourage lifestyle changes if overweight, monitor for changes in CPAP pressure requirements.

Androgensensitive epilepsy	Refer to neurology.
Smoker	Encourage and support smoking cessation, consider referral to smoking cessation program/offer NRT and/ or bupropion/varenicline, or negotiate a decrease in smoking, consider cardiac stress test.
Migraines	Consider daily migraine prophylaxis, consider transdermal route of administration.
Inter-menstrual bleeding/ menorrhagia	Work up per national guidelines, gynecology referral as needed.
Oligo-/ Amenorrhea	Identify etiology (e.g. PCOS, rule out pregnancy), consider pelvic ultrasound (transvaginal if possible), consider progesterone-induced menstrual bleed prior to testosterone initiation.
Autoimmune conditions (e.g., RA, MS, IBD)	Consider low dose/slow titration with monitoring in collaboration with any involved specialists.

7. Transition-Related Surgeries

Primary care providers play an important role in supporting patients who wish to pursue gender-affirming transition-related surgeries. There are various options that are eligible for public funding through Alberta healthcare system that are noted in this pathway. There are also a growing number of privately covered transition-related surgeries that are not detailed within this pathway. For further information on private options, see Overview of gender-affirming surgeries (pg 13), although it should be noted that the information is provided for context in British Columbia. It should also be noted that the criteria outlined is set out to help prepare the reader to navigate the health system available for Albertan's, not necessarily intended to inform what the criteria should be.

Surgery	Criteria	Referral
Mastectomy/chest masculinization (top surgery)	Request for breast surgery form, with an independent assessment from provider with extensive training/experience*. No criteria for being on hormones or having psych letter. BMI under 35 & smoking cessation but criteria may vary by surgeon.	Plastic surgery
Hysterectomy	No criteria for hormones or psychiatry letter	Gynecology
Phalloplasty & Metoidioplasty (bottom surgery)	12 months lived experience and hormone therapy. Out of province (OOP) funding package requires 2 signatures for public funding. Hysterectomy performed at least 6 months prior. BMI under 40*** & smoking cessation.	Gynecology for hysterectomy Gender specialized Psychiatry** Plastics GRS Clinic Montreal
Orchiectomy	Diagnosis of gender dysphoria.	Urology
Vaginoplasty with or without cavity (bottom surgery)	12 months lived experience and hormone therapy. Letter from gender-specialized psychiatry. BMI under 40*** & smoking cessation.	Gender specialized Psychiatry** Plastic GRS Clinic Montreal
Breast Augmentation (top surgery)	Request for breast surgery form, with 1 independent assessment from provider with extensive training/experience*. 12 months lived on hormones with no or negligible breast development. BMI under 35 & smoking cessation but criteria may vary by surgeon.	Plastic surgery

* Independent assessment by psychiatrist or other physicians with extensive training or clinical experience in assessing and managing the mental health needs of the transgender population [10].

**Request for Out of Province Funding Final Stage Gender Reassignment Surgery form must be completed by psychiatrist, who has special interest in the area of gender identify [11].

***BMI cut off may be lower for individuals based on application, the surgery being requested and the specific surgeon. However, a BMI greater than 40 is the absolute upper limit and would not be accepted by GRS Montreal or Alberta Health for funding.

Guidance on information to include in referral letter

- Patient legal name, preferred name, pronouns.
- Context on their gender incongruence.
- Confirmation that you have followed the AHS Provincial Gender-Affirming Primary Care Clinical Pathway for Adults.
- By independent evaluation, patient diagnosed with gender dysphoria (ICD-10 F64.1) – if applicable.
- Non-medical transition details – if applicable.
- Hormone therapy details – if applicable.
- Medical and psychological status – e.g. stable, BMI of X, non-smoker, medically fit to undergo surgery – if applicable.
- Risks, benefits and alternatives to this surgery have been discussed.
- Available and prepared to support ongoing care post-operatively as the patient's primary care provider.
- Meets WPATH criteria for X surgery if applicable.

8. Informed Consent

Risk mitigation:

Patients may choose to start or continue treatments despite higher risks. Careful informed consent during this process is an important part of gender-affirming care. After presenting treatment options to the patient, it is important to ensure that the patient understands what to expect from treatment to ensure they are able to weigh up the risks vs benefits of different options. This should include both the potential desired outcomes, along with what the expected effects of medication, potential risks, side-effects and adverse reactions that could occur. Additionally, guidance should be given on the different ways each medication can be given, along with the costs associated with each. For examples of consent forms, see Progesterone Consent Form from Trans Care BC (pg 27) or Estrogen/ Testosterone-Blocker Consent Form from Trans Care BC (pg 23).

Areas to review in follow up:

History	Physical
☐ Effects of hormones: physically and emotionally ☐ Current dose/desire for dose change ☐ Side effects/concerns ☐ Mental health: mood, body image, libido ☐ Social: partners, support, acceptance, safety, housing, finances ☐ Lifestyle: exercise, nutrition, smoking, substance use	☐ Blood pressure ☐ Weight (baseline and q 6 months prn) ☐ Mental status (brief assessment) ☐ Cardiovascular and abdominal exam (baseline and yearly) ☐ Labs ☐ Other investigations as indicated

9. Support as needed, include ongoing screening based on organ inventory

Options for discontinuation of transition-related care.

Discontinuation of hormone therapy may be necessary in certain situations such as fertility preservation, pregnancy, health issues, old age or financial issues etc. Information on the impact and duration of hormone changes are detailed in 6. Medical Options above. Additional considerations that should be noted to patients that are going through/have gone through transition-related surgeries of removing the body's ability to produce sex hormones, are that they would require some form of ongoing hormone therapy after the procedure.

Ongoing screening

While it has been underlined throughout this pathway of a need to affirm gender choices in healthcare, screening and prevention of health conditions is a paramount priority within primary care. 6. Medical Options covers screening considerations, however, it is also important to note a need to continue health screening for any organs that the patient has regardless of their transition journey.

Advice Options

You can request non-urgent advice at any point when uncertain about medications, next steps in treatment, imaging or resources available.

Zone	Program	Online Request	Phone Number
Urgent Telephone			
All Zones	RAAPID	N/A	**North:** 1-800-282-9911 or 780-735-0811 **South:** 1-800-661-1700 or 403-944-4486
Non-Urgent Electronic			
All Zones	Netcare eReferral		N/A
Non-Urgent Telephone			
Calgary	Specialist Link	Online Request	403-910-2551
Edmonton, North	ConnectMD	Online Request	1-844-633-2263

Referral Process

Referral pathways are guidelines to help referring providers know what information, labs and diagnostic imaging are required with their referral to a specialty. These pathways are co-designed with Primary and Specialty Care, AHS Operations, and patients to ensure the right amount of information is included throughout the referral process to triage the patient as quickly as possible.

To ensure referring providers have referral information at their fingertips, referral pathways may link to clinical pathways when available. AHS manages referral pathways and extensive work is ongoing as part of the Alberta Surgical Initiative. If you have questions or want to know more about the referral pathway development process, please email access.ereferral@ahs.ca.

- **Urgent Referral** – Call surgeon on call via RAAPID or call 911.
- Provincial Referral Pathways are available on Alberta's Pathway Hub:
  - Provincial **Urology**, Adult Referral Pathway
  - Provincial **Gynecology**, Adult Referral Pathway
  - Provincial **General Surgery**, Adult Referral Pathway
  - Provincial **Plastic Surgery**, Adult Referral Pathway
- For referrals to Psychiatry and Endocrinology, please use the Alberta Referral Directory.

Glossary of terms

The following definitions are intended to support the reader as a resource for being more articulate and sensitive to the language used in creating a safer and more inclusive environment. This list is not exhaustive and it should be noted that language is constantly evolving. Definitions are also rarely unanimously agreed upon and so should be used as a guide rather than as absolute [2] [12] [9].

Assigned female at birth/Assigned male at birth (noun) – Refers to the sex that is assigned to an infant, most often based on the infant's anatomical and other biological characteristics. Commonly abbreviated as AFAB (assigned female at birth) or AMAB (assigned male at birth).

Binding (verb) – The process of tightly wrapping one's chest in order to minimize the appearance of having breasts. This is achieved through use of constrictive materials such as cloth strips, bandages, or specially designed undergarments, called binders.

Bisexual (adjective) – A sexual orientation that describes a person who is emotionally and physically attracted to women/females and men/males. Some people define bisexuality as attraction to all genders.

Bottom surgery – A type of transition-related surgery (TRS). These are a variety of genital modification procedures, typically vaginoplasty for transfeminine individuals and metoidioplasty or phalloplasty for transmasculine individuals.

Cisgender (adjective) – A person whose gender identity is consistent in a traditional sense with their sex assigned at birth; for example, a person assigned female sex at birth whose gender identity is woman/female. The term cisgender comes from the Latin prefix cis, meaning "on the same side of."

Coming out (verb) – The process of identifying and accepting one's own sexual orientation or gender identity (coming out to oneself), and the process of sharing one's sexual orientation or gender identity with others (coming out to friends, family, etc.).

Experienced gender – One's sense of belonging or not belonging to a particular gender, aka gender identity.

Expressed gender – How one expresses one's experienced gender.

Gender-affirming hormone therapy (noun) – Feminizing and masculinizing hormone treatment to align secondary sex characteristics with gender identity.

Drag (noun) – The theatrical performance of a gender or multiple genders that are not your own. Performers are called Drag Kings and Drag Queens. Most drag performers are cisgender. The terms Drag King and Drag Queen can also be used as an insult.

Gender (noun) – The characteristics and roles of women and men according to social norms. While sex is described as female, male, and intersex, gender can be described as feminine, masculine, androgynous, and much more.

Gender affirmation (noun) – The process of making social, legal, and/or medical changes to recognize, accept, and express one's gender identity. Social changes can include changing one's pronouns, name, clothing, and hairstyle. Legal changes can include changing one's name, sex designation, and gender markers on legal documents. Medical changes can include receiving gender-affirming hormones and/or surgeries. Although this process is sometimes referred to as transition, the term gender affirmation is recommended.

Gender-affirming surgery (GAS) (noun) – Surgeries to modify a person's body to be more aligned with that person's gender identity. Types of GAS include chest and genital surgeries, facial feminization, body sculpting, and hair removal.

Gender-diverse (adjective) – Describes the community of people who fall outside of the gender binary structure (e.g., non-binary, genderqueer, gender fluid people).

Gender dysphoria (noun) – Distress experienced by some people whose gender identity does not correspond with their sex assigned at birth. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) includes gender dysphoria as a diagnosis for people whose distress is clinically significant and impairs social, occupational, or other important areas of functioning. The degree and severity of gender dysphoria is highly variable among transgender and gender-diverse people.

Gender expression (noun) – The way a person communicates their gender to the world through mannerisms, clothing, speech, behavior, etc. Gender expression varies depending on culture, context, and historical period.

Gender fluid (adjective) – Describes a person whose gender identity is not fixed. A person who is gender fluid may always feel like a mix of more than one gender, but may feel more aligned with a certain gender some of the time, another gender at other times, both genders sometimes, and sometimes no gender at all.

Gender identity (noun) – A person's inner sense of being a girl/woman/female, boy/man/male, something else, or having no gender.

Hormone therapy – The medical management of trans persons with sex hormones. For transmasculine individuals, this is typically testosterone; for transfeminine individuals this may include estrogen and/or anti-androgens.

Intersex (adjective) – Describes a group of congenital conditions in which the reproductive organs, genitals, and/or other sexual anatomy do not develop according to traditional expectations for females or males. Intersex can also be used as an identity term for someone with one of these conditions. The medical community sometimes uses the term differences of sex development (DSD) to describe intersex conditions; however, the term intersex is recommended by several intersex community members and groups.

Legal transition – The various legal identity and document changes to affirm and validate one's gender identity. This includes legal names and changes in documents and pieces of identification, such as health card, birth certificate, passport, driver's license, school transcripts, etc.

Medical transition – The process of seeking and receiving various medical interventions including, but not limited to hormone therapy (including anti-androgens for transfeminine individuals), transition-related surgeries and other related surgeries (including hair transplants), and hair removal (e.g. electrolysis).

Misgender (verb) – To refer to a person by a pronoun or other gendered term (e.g., Ms./Mr.) that incorrectly indicates that person's gender identity.

Outing (verb) – Involuntary or unwanted disclosure of another person's sexual orientation or gender identity.

Non-binary (adjective) – Describes a person whose gender identity falls outside of the traditional gender binary structure of girl/woman and boy/man. Sometimes abbreviated as NB or enby.

Pangender (adjective) – Describes a person whose gender identity is comprised of many genders or falls outside the traditional cultural parameters that define gender.

Social transition – The various non-medical components of one's transition that help one affirm and realize one's gender identity. For example, this may include: changing one's legal identification with changes to sex markers and name; changing the clothes one wears, and changing one's voice, posture, and gait.

Top surgery (noun) – Colloquial term for gender-affirming chest surgery.

Transgender (adjective) – Describes a person whose gender identity and sex assigned at birth do not correspond based on traditional expectations; for example, a person assigned female sex at birth who identifies as a man; or a person assigned male sex at birth who identifies as a woman. Transgender can also include people with gender identities outside the girl/woman and boy/man gender binary structure; for example, people who are gender fluid or non-binary. Sometimes abbreviated as trans.

Trans feminine (adjective) – Describes a person who was assigned male sex at birth and identifies with femininity to a greater extent than with masculinity.

Transition – The sum total of changes involved in moving from living as one gender identity to another. Typically a stage in a trans person's life. Includes medical transition, legal transition and social transition.

Trans masculine (adjective) – Describes a person who was assigned female sex at birth and identifies with masculinity to a greater extent than with femininity.

Tucking (noun) – The process of hiding one's penis and testes with tape, tight shorts, or specially designed undergarments.

Two-Spirt (adjective) – Describes a person who embodies both a masculine and a feminine spirit. This is a culture-specific term used among some Native American, American Indian, and First Nations people.

BACKGROUND

About this pathway

- This pathway was developed in collaboration with gender-specialized psychiatrists, primary care physicians, patient and family advisors, community partners and the Provincial Pathways Unit (PPU).
- Condition-specific clinical pathways are intended to offer evidence-based guidance to support primary care providers in caring for patients with a range of clinical conditions.

Authors and conflict of interest declaration

- The authors represent a multi-disciplinary team. Names of the content creators and their conflict-of-interest declarations are available on request by emailing albertapathways@primarycarealberta.ca.

Co-Design Team Project Membership	
Name	**Organization**
Dr. Jane Gainer (she/her)	Psychiatrist
Dr. Jillian Demontigny (she/her)	Primary Care, South Zone
Dr. Joe Raiche (he/him)	Psychiatrist
Jon Gabbai (he/him)	Senior Consultant, Provincial Pathways Unit
Dr. Julia Chronopoulos (she/her)	Primary Care, Edmonton Zone
Julie Robison (she/her)	Senior Consultant, Provincial Pathways Unit
Lindsay Peace (she/her)	Skipping Stone Alberta
QC GU (he/they)	Patient and Family Advisor, Edmonton Zone, Community Health Manager
Scotty Kupsch (he/him)	Patient and Family Advisor, Calgary Zone
Dr. Ted Jablonski (he/him)	Primary Care, Calgary Zone

Pathway review process, timelines

Primary care pathways undergo scheduled review every three years or earlier if there is a clinically significant change in knowledge or practice. The next scheduled review is December 2027. However, we welcome feedback at any time. Please send us your feedback here.

PROVIDER RESOURCES

Resource	Link
Trans Care BC Primary Care Toolkit	Primary-Care-Toolkit.pdf (transcarebc.ca)
Rainbow Health Guidelines for Gender-Affirming Care	Guidelines for Gender-Affirming Primary Care with Trans and Non-Binary Patients (rainbowhealthontario.ca)
World Professional Association for Transgender Health Standards of Care	WPATH Standards of Care (wpath.org)
Trans Wellness Initiative	Primary Care Resource Guide
UCSF guidelines	Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People

PATIENT RESOURCES

Resource	Link
Patient Pathway on MyHealthAlberta > A webpage and two PDF formats are available to allow for easy printing, download, or scanning a QR code with the patient's smart phone for more information at their convenience	Your Journey with Adult Gender-Affirming Care myhealth.alberta.ca/HealthTopics/gender-affirming-care-pathway/Documents/gender-affirming-care-pathway-summary.pdf
Skipping Stone Name & ID change support	www.skippingstone.ca/id-clinics
Skipping Stone ID change support	Web (squarespace.com)

REFERENCES

[1] S. Canada, "Canada is the first country to provide census data on transgender and non-binary people," Government of Canada, 27 April 2022. [Online]. Available: www150.statcan.gc.ca/n1/en/daily-quotidien/220427/dq220427b-eng.pdf?st=7wq0Psqd. [Accessed 6 November 2024].

[2] A. Bourns, S. Health and R. H. Ontario, "Guidelines for gender-affirming primary care with trans and non-binary patients," 2020. [Online]. Available: www.rainbowhealthontario.ca/wp-content/uploads/2021/06/Guidelines-FINAL-4TH-EDITION-c.pdf. [Accessed 28 October 2024].

[3] K. Wylie, G. Knudson, S. Khan and M. Bonierbale, " Serving transgender people: clinical care considerations and service delivery models in transgender health.," *Lancet,* vol. 388, no. 10042, pp. 401-411, 2016.

[4] Trans Care BC, "Gender-affirming Care for Trans, Two-Spirit, and Gender Diverse Patients in BC: A Primary Care Toolkit," Trans Care BC, March 2023. [Online]. Available: www.transcarebc.ca/sites/default/files/2024-03/Primary-Care-Toolkit.pdf. [Accessed 29 10 2024].

[5] World Professional Association for Transgender Health, "Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People," 2011. [Online]. Available: www.wpath.org/media/cms/Documents/SOC%20v7/SOC%20V7_English.pdf. [Accessed 25 October 2024].

[6] C. Wall, A. Patev and E. Benotsch, "Trans broken arm syndrome: A mixed-methods exploration of gender-related medical misattribution and invasive questioning.," Soc Sci Med, vol. March, no. 320, p. 115748, 2023.

[7] E. Purkey, R. Patel and S. Phillips, "Trauma-informed care: Better care for everyone," *Can Fam Physician,* vol. 64, no. 3, pp. 170-172, 2018.

[8] A. P. Association, Diagnostic and statistical manual of mental disorders (5th Edition), 2022.

[9] W. Byne, D. Karasic, E. Coleman, A. Eyler, J. Kidd, H. Meyer-Bahlburg, R. Pleak and J. Pula, "Gender Dysphoria in Adults: An Overview and Primer for Psychiatrists.," *Transgend Health,* vol. 3, no. 1, pp. 57-70, 2018.

[10] Alberta Health Services, "Funding for transition surgeries," AHS, 2024. [Online]. Available: www.ahs.ca/dvi/Page15676.aspx. [Accessed 6 December 2024].

[11] A. Health, "Alberta Health Care Insurance Plan," Alberta Health, 12 August 2012. [Online]. Available: https://open.alberta.ca/dataset/edc7a76a-df4c-4596-9a93-e5d16be1c22a/resource/2e4db6e9-b9b5-4a9e-9451-6e0265fe872c/download/ahcip-bulletin-med-166a-2012.pdf. [Accessed 03 December 2024].

[12] L. H. Education, "LGBTQIA+ Glossary of Terms for Health Care Teams," 30 August 2020. [Online]. Available: www.lgbtqiahealtheducation.org/wp-content/uploads/2020/10/Glossary-2020.08.30.pdf. [Accessed 15 November 2024].

[13] J. Smith, "Clinical pathways template," *ABC,* pp. 1-12, 2023.

[14] DynaMed, "Carpal Tunnel Syndrome," EBSCO, 2023. [Online]. Available: www.dynamed.com/condition/carpal-tunnel-syndrome. [Accessed 27 November 2023].

[15] HANDCARE The Upper Extremity Expert, "Carpal Tunnel Syndrome," American Society for Surgery of the Hand, 2024. [Online]. Available: www.assh.org/handcare/condition/carpal-tunnel-syndrome. [Accessed 2 February 2024].

PATHWAY UPDATE NOTES

May 2025

- Adjusted dosage for Estradiol valerate* (injectable) (pages 1, 7)