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Providing Comprehensive Primary Health Care for Trans Clients

Developed in partnership with
Kate Greenaway, MD CCFP
and the staff of Rainbow Health Ontario



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Presented by
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Background on provision of health care to trans populations

- International prevalence estimated at 1:12,000 (MTF) and 1:30,000 (FTM)
- Group of international experts have worked over the past 20 years to develop “Standards of Care” - *World Professional Association for Transgender Health (WPATH)* formerly known as *Harry Benjamin International Gender Dysphoria Association*
- Increasing research into management, morbidity, mortality with treatment in the medical literature



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Barriers trans people may face in accessing primary health care

- Historical mistreatment by medical and psychiatric communities
- Lack of identification (including OHIP cards)
- Coexisting psychiatric disease
- Social isolation
- Lack of income



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What is comprehensive health care?

- Culturally-competent
- Appropriate to the age, life-stage, gender, sex and needs of the client
- Preventative and responsive health maneuvers
- Provided by a multi-disciplinary team



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How does comprehensive health care differ for trans people?

- Requires awareness and competence around trans health and social issues
- Screening maneuvers based on both biological sex and on body systems that are present
- Preventative strategies based on body systems and hormone status
- There may be a focus on physical transition through surgeries and/or hormones



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Role of the primary care provider

- In many places, medical care for trans people provided by specialists only (e.g. endocrinologists, surgeons and psychiatrists)
- Our experience shows the importance of the primary care provider (e.g. family physician, nurse practitioner) - to provide general care and hormone assessment/ management



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Barriers to providing care to trans clients

- Providers often don't know transsexual/ transgender individuals personally
- Lack of knowledge about physical/ psychological spectrum of trans people
- Not a component of traditional medical or nursing education
- Rare enough that providers don't develop expertise
- Providers may be hesitant to administer controversial or specialized treatment – especially in isolation



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Experience at Sherbourne Health Centre

- Interdisciplinary team providing comprehensive primary health care
- Focus on LGBT health issues
- 8 years providing care for trans people
- Protocols surrounding the administration of hormones for trans people
- Client-centered, collaborative relationship between clients and providers



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Sherbourne's protocols

- Developed through a working group
- Based on research and other clinics' protocols
- First draft 2003
- Designed to be an internal document
- Frequently requested by external MDs to guide treatment of their patients



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Sherbourne's protocols

- Update: April 2009
- Working group of MDs, RNs, Counselors, and Community Resource Workers
- External and internal reviewers
- Integrates research with current practice at SHC
- Includes social resources and considerations
- 2 goals: for SHC providers; for external providers



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Sherbourne's protocols

- Focus is on assessment and provision of hormones for trans clients *because*:
 - This is often the reason clients are seeking care
 - It is what many providers find difficult to do



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Introduction to hormone provision

- Hormone assessment and provision may be decided on a case to case basis
- Providers may choose to
 - Start at lower or half dose
 - Continue a prescription another provider has started
 - “Bridge” clients between other providers
 - Prescribe hormones after surgery



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Decision-making around starting hormones

- Goal is to bring psychological sex in line with biological sex
- Guidelines around treatment are to maximize safety and efficacy
- “Gatekeeping” role
- Managing risk of “regret”



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Determining Readiness for Hormone Treatment (*Page 10*)

1. Gender Identity Disorder diagnosis
2. Psychosocial readiness
3. Period of evaluation (includes physical exam/
laboratory evaluation)
4. Absence of contraindications
5. Client's understanding of treatment



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Determining readiness for hormone treatment

- What are the risks of **not treating** a patient with gender dysphoria?
- Review the goals and expectations of the patient prior to starting hormones



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1. Diagnosis of Gender Identity Disorder, DSM-IV-TR – (*Page 10*)

1. There must be evidence of a strong and persistent cross-gender identification.
2. This cross-gender identification must not merely be a desire for any perceived cultural advantages of being the other sex.
3. There must also be evidence of persistent discomfort about one's assigned sex or a sense of inappropriateness in the gender role of that sex.
4. The individual must not have a concurrent physical intersex condition (e.g., androgen insensitivity syndrome or congenital adrenal hyperplasia).
5. There must be evidence of clinically significant distress or impairment in social, occupational, or other important areas of functioning.



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2. Determining psychosocial readiness (*Page 11*)

- Subjective evaluation
- May involve team assessment, referral to psycho-educational support group or trans-positive therapist
- “Real-life test”



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2. Determining psychosocial readiness (*Page 11*)

- Consider:
- Social supports
- Work/ school
- Family/ partner
- Cognitive capacity
- Economic capacity
- Emotional readiness
- Mental health



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2. Determining psychosocial readiness (*Page 11*)

- Possible questions:
- Who makes up your support system?
- Do you know anyone else who has transitioned?
- What challenges do you foresee with friends and family?
- With work or school?



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1. Diagnosis of Gender Identity Disorder

- Rule out other disorders:
 - Schizophrenia
 - Other psychotic disorders
 - Dissociative disorders

- Internalized homophobia



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3. Period of Evaluation (*Page 12*)

- At least 5 visits in 3 months
- Visit 1:
 - General medical intake
 - initial discussion of gender history
 - old records from previous physician if this is a new patient
- Visit 2:
 - More detailed gender history
 - Explore supports and reactions



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3. Period of Evaluation (*Page 12*)

- Visit 3:
- Physical exam - should include all PHE components commensurate with patient's age and birth sex
- Blood work - CBC, renal profile, liver profile, cholesterol panel, fasting BS, hormones (FSH, LH, testosterone, estradiol, prolactin), hepatitis screen, HIV testing



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3. Period of Evaluation (*Page 12*)

- Visit 4:
- Discuss expected physical changes with hormones
- Explain side effects and risks associated with hormone treatment
- Give consent form for patient to review and sign



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3. Period of Evaluation (*Page 12*)

- Visit 5:
- Review risks of treatment
- Obtain consent
- Choose initial hormone regimen



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4. Ruling out contraindications and precautions (Page 13-14)

- Hormone specific
- Consider general precautions:
- Uncontrolled conditions (psychiatric, metabolic, *etc.*)
- Lifestyle concerns
- Client's ability to return for follow-up
- Fertility
- Client's ability to understand risks/ benefits



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Checklist (*Page 15*)

Criteria for GID:

- | | | |
|---|---------|--------|
| 1. Persistent cross-gender identification | Yes () | No () |
| 2. Severe discomfort in assigned sex | Yes () | No () |
| 3. Absence of intersex condition | Yes () | No () |
| 4. Severe distress/ functional impairment | Yes () | No () |

Old records reviewed	Yes ()	No ()
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Other differential diagnoses ruled out	Yes ()	No ()
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Medical contraindications ruled out	Yes ()	No ()
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Psychiatric co-morbidity	Yes ()	No ()
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- List:



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Checklist

- | | | | |
|---|------------|---------|--------|
| ▪ CPX Yes () No () | Blood work | Yes () | No () |
| ▪ ECG if risk factors or over 40 | | Yes () | No () |
| ▪ If smoker, smoking cessation counseling done | | Yes () | No () |
| ▪ Discussed contraception/ infertility | | Yes () | No () |
| ▪ Supports in place to assist with transitioning | | Yes () | No () |
| ▪ Good understanding of the risks
and benefits of hormones | | Yes () | No () |
| ▪ Competent to consent | | Yes () | No () |
| ▪ Consent signed | | Yes () | No () |

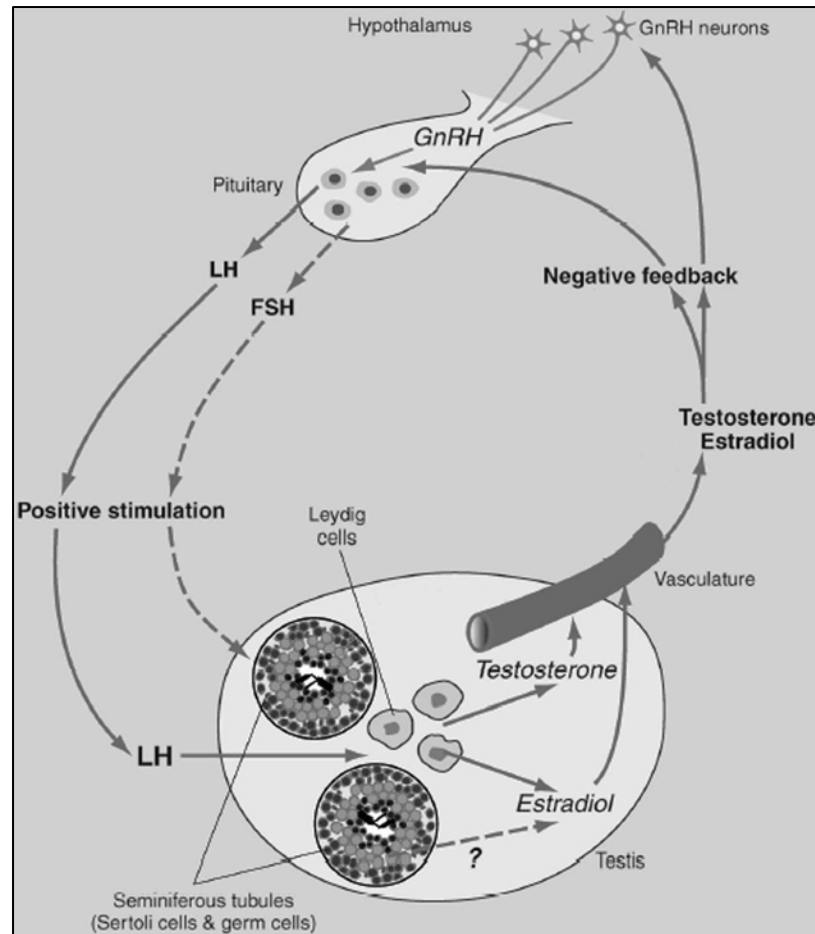


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Pituitary-Gonadal Axis





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Hormone therapy for male-to-female clients (*Pages 16-21*)

- Desired physical effects:
 - Skin and hair changes
 - Breast development
 - Fat redistribution



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Suppression of androgens (*Page 16*)

- 2 anti-androgen medications commonly used:
 - Spironolactone (Aldactone)
 - Cyproterone (Androcur)
 - GnRH analogs - Leuprolide (Lupron)
 - Non-steroidal anti-androgens - Flutamide
- Minimizes the dosage of estrogen needed to suppress testosterone

Anti-Androgens (Page 16)

	Spironolactone	Cyproterone
Starting Dose	50 – 100 mg OD	50 mg OD
Maximum Dose	200 mg BID	100 mg OD



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Estrogens (*Pages 17-19*)

- Oral
 - C.E.S. (conjugated estrogen)
 - Premarin
 - Estrace (estradiol)
- Transdermal Patch
 - Estraderm / Estradot
- Injectable
 - Estrogen Valerate
- Creams, Gels



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Contraindications to Estrogen

- Ischemic cardiovascular disease
- Cerebrovascular disease
- History of DVT or PE
- Hyperprolactinemia
- Estrogen-dependent cancer
- Uncontrolled high blood pressure or diabetes
- Psychiatric conditions which limit the ability to provide informed consent



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Precautions to Estrogen

- Other cardiac disease
- Marked hypertriglyceredemia
- Family history of abnormal clotting
- Smoker
- History of benign intracranial hypertension
- Metabolic Syndrome
- Hepatic dysfunction
- Refractory migraine or focal migraine
- Seizure disorder
- Strong family history of breast cancer
- Family history of porphyria

Estrogen Doses

	Starting Dose	Maximum Dose
Conjugated Estrogen	0.625mg OD	1.25mg OD
Estradiol (oral)	1-2mg OD	4mg OD
Estradiol (transdermal)	0.1mg OD/ apply patch 2x/week	0.2mg OD/ apply patch 2x/week
Estradiol valerate (injectable)	10mg q 2/52	10mg q 1/52



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Average Timeline

1-3 months after starting estrogen

Softening of skin
Decrease in muscle mass and increase in body fat
Redistribution of body fat
Decrease in libido
Fewer erections
Decreased ability to make sperm

Gradual changes
(maximal change after 1-2 years on estrogen)

Nipple and breast growth
Slower growth of facial and body hair
Slowed or stopped androgenic alopecia (balding)
Decrease in testicular size



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Irreversible vs. reversible changes

- Irreversible
 - Breast Development
 - Possible sterility

- Reversible
 - Softening of skin
 - Muscle / fat distribution
 - Decreased libido
 - Hair growth



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Risks/ side effects of treatment

- Weight gain
- Change in cholesterol profile
- Increased BP
- Mood changes
- DVT/ PE
- Stroke
- Increased risk cardiac disease
- Liver inflammation
- Decreased fertility, libido, erections
- Hormone dependent cancers (e.g. breast)



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Dose titration and monitoring

- Targeted physical exam and bloodwork at 1,3,6 and 12 months
- Based on physical systems present
- Dose changes based both on bloodwork and client's experience of hormone treatment
- Teaching around DVT, bone health, lifestyle and medication safety regularly
- Changes after surgery



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Monitoring Bloodwork

Baseline	1 month	3 months	6 months	12 months
CBC, ALT/AST, Cr/lytes/ urea, testosterone, LDL/HDL/ TG, fasting glucose, +/-estradiol, LH, prolactin	CBC, ALT/AST, Cr/lytes/ urea, testosterone, +/-estradiol, prolactin	CBC, ALT/AST, Cr/lytes/ urea, testosterone, +/-estradiol, prolactin	CBC, ALT/AST, Cr/lytes/ urea, testosterone, LDL/HDL/ TG, fasting glucose, +/-estradiol, prolactin	CBC, ALT/AST, Cr/lytes/ urea, testosterone, LDL/HDL/T G, fasting glucose, +/-estradiol, LH, prolactin



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Summary Table

	Baseline	Month 1	Month 3 6, 9, 12,18, 24	Annual
Review	Contraindications Risk factors for CAD Old records Mental Health [] Lifestyle counseling * Psychosocial {} Bone health Health Maintenance	Review of hormone effects Spontaneous erections Mental Health [] Lifestyle counseling * Psychosocial {}	Review of hormone effects Spontaneous erections Mental Health [] Lifestyle counseling * Psychosocial {}	Health Maintenance Review bone health (vit D, Ca, exercise)
Exam	Full PE Measure: weight, breast, AC, hips, waist cir.	BP, weight, Abdominal exam including liver palpation, waist cir. Extremity exam	BP, weight Abdominal exam including liver palpation, waist cir. Extremity exam Measure: weight, breast, AC, and hips	Full PE with breast exam
Lab	<i>See Protocols for Hormone Therapy</i>	**	**	**
Other	EKG if over 40 or risk factors	Vaccinate for Hep A & B, Td, pneumovax if indicated		-Mammogram if over 50 -DRE if over 50 -Consider BMD 5 yrs post treatment start -75 GTT if BMI >30



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Hormone therapy for female-to-male clients (Page 22-25)

- Desired physical effects:
 - Increased hair growth
 - Increased muscle mass
 - Decreased voice pitch
 - Cessation of menses



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Average Timeline

1-3 months after starting testosterone	Increased libido Vaginal dryness Growth of clitoris (1-3cm) Increased growth, coarseness, thickness of hair on arms, legs, chest, back, abdomen Oilier skin and increased acne Increased muscle mass, body strength Redistribution of body fat
1-6 months	Menses cessation
3-6 months	Voice starts to crack and pitch drop – can take a year to complete change
1 year or more	Growth of facial hair Possible androgenic alopecia



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Irreversible vs. Reversible Changes

- Irreversible
 - Deeper voice
 - Androgenic Alopecia
- May or May not reverse
 - Clitoromegaly
 - Body / facial hair
 - Fertility
- Reversible
 - Menstruation
- Fat / muscle / skin changes will reverse



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Androgens

- Injectable
 - Testosterone enanthate – *Delatestryl*
 - Testosterone cypionate – *Depo-Testosterone*
- Testosterone Patch
 - *Androderm*
- Testosterone Gel
 - *Androgel*

- Oral not effective
- Dose may change depending on whether patient has had oophorectomy



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Testosterone Dosage

	Starting Dose	Maximum Dose
Testosterone enanthate/ testosterone cypionate (IM)	50-100mg q week, or 100 – 200 mg q 2- 3 weeks	100mg q week, or 200mg q 2-3 weeks
Transdermal Testosterone -patch -gel	2.5-5mg OD 2.5-5g OD	5-10mg OD 5-10g OD



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FTM

- Risks/ side effects of treatment:
 - Acne
 - Weight gain
 - Lowered HDL
 - Erythropoiesis
 - Inflammation of liver
 - Increased BP
 - Mood changes
 - Decreased fertility
 - Tendonopathies



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Absolute/Relative Contraindications to Testosterone Therapy

- Coronary artery disease/uncontrolled HTN
- Hepatic disease
- Uncontrolled diabetes
- Pregnancy
- Psychiatric conditions which limit the ability to provide informed consent
- Active psychosis or acute suicidality/homicidality
- Chronic respiratory disease that may be worsened by erythrocytosis
- Hypersensitivity to one of the components



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Screening Tests

Baseline	1 month	3 months	6 months	12 months
CBC, ALT/AST, testosterone, LDL/HDL/ TG, fasting glucose, Hep A,B,C serology, pregnancy test	CBC, ALT/AST, testosterone	CBC, ALT/AST, testosterone	CBC, ALT/AST, testosterone, LDL/HDL/ TG, fasting glucose	CBC, ALT/AST, testosterone, LDL/HDL/ TG, fasting glucose ? LH



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Summary Table

	Baseline	Month 1	Month 2	Month 3, 6, 9, 12, 18, 24...	Annual
Review	Contraindications Risk factors for CAD Old records Mental Health [] Lifestyle counseling* Psychosocial { } Health Maintenance Pregnancy screen	Review of hormone effects Cessation of menses Mental Health [] Lifestyle counseling* Psychosocial { }	Review of hormone effects Cessation of menses Mental Health [] Lifestyle counseling* Psychosocial { }	Review of hormone effects PV bleeding Mental Health [] Lifestyle counseling* Psychosocial { }	Health Maintenance Review bone health (vit D, Ca, exercise)
Exam	Full PE w/breast, PAP and pelvic exam	BP, weight, abdominal exam including liver palpation, waist cir.	BP, weight, waist cir.	BP, weight, abdominal exam including liver palpation, waist cir.	Full PE w/breast exam, PAP and pelvic if pre-op
Lab	Pregnancy test prior to 1 st injection.	**		**	**
Other	EKG if over 40 or risk factors	Vaccinate for Hep A & B, Td, pneumovax if indicated			-Mammogram if >50 and if breast tissue present -Consider BMD at 5 years -Consider pelvic u/s at 2years if pre-op



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Dose titration and monitoring

- Targeting bloodwork and physical exam at 1,3,6 and 12 months
- Based on body systems present
- Monitor for side effects
- Teaching around lifestyle and medication safety issues regularly



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Surgeries

- Trans women
 - Breast augmentation
 - Orchiectomy
 - Vaginoplasty
 - Facial feminization
- Tracheal shave



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Surgeries

- Trans men
 - Chest masculinization
 - Hysterectomy/ oophorectomy
 - Metoidioplasty
 - Phalloplasty



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Other Providers Involved in Trans Care

- Endocrinologists
- Plastic surgeons
- Gynecologists
- Urologists
- Psychiatrists
- Speech therapists
- Estheticians
- Other specialists



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Conclusion

- Questions?
- Thank you for attending and please complete evaluations