Recommended Framework for Training in Transgender Endocrine Therapy

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Recommended Framework for Training in Transgender Endocrine Therapy

Context

In 2003, following the closure of the Gender Dysphoria Program at Vancouver Hospital, Vancouver Coastal Health adopted a decentralized community-based approach to transgender care. As there is wide variability in expertise and familiarity with transgender care among community-based practitioners, there is a need for practice guidelines and clinical training to encourage consistency and quality of care. While promotion of general sensitivity/awareness is a first step in improving the quality of care to transgender people, clinical guidance and training are needed in the delivery of services specific to crossdressing/gender dysphoria.

The following recommendations form part of a comprehensive package submitted to Vancouver Coastal Health as part of the *Moving Beyond Trans-Sensitivity: Developing Clinical Competence in Transgender Care* project. The project, a partnership between Transcend Transgender Support & Education Society and Vancouver Coastal Health's Transgender Health Program (with funding from Health Canada through the Canadian Rainbow Health Coalition), aims to create best practice guidelines and a plan for systematic training of students and professionals already in practice in adolescent care, endocrinology, mental health, primary medical care, speech, and surgery.

Clinicians Involved in Transgender Endocrine Care

As outlined in the Harry Benjamin International Gender Dysphoria Association (HBIGDA)'s *Standards of Care*,[1] transgender endocrine care includes, at minimum, (i) psychological screening to determine hormone eligibility and readiness, and (ii) physical screening, prescription, and long-term maintenance (to reduce/monitor health risks and maximize health benefits). Practice protocols for both aspects of care are discussed in *Endocrine Therapy for Transgender Adults in British Columbia: Suggested Guidelines*[2] and *Caring for Transgender Adolescents in BC: Suggested Guidelines*.[3]

For transgender adults in BC, feminizing/masculinizing medication is typically initiated by a family physician (FP), nurse practitioner[*] (NP), or endocrinologist upon the recommendation of a trans-experienced mental health practitioner. While an endocrinologist may be involved if the patient has a pre-existing metabolic or endocrine disorder that may be affected by endocrine therapy, generally it is recommended that the primary care physician be responsible for hormonal maintenance (as many of the tasks involved in hormone maintenance are within primary care rather than specialist practice). Physicians and nurse practitioners with training and experience in behavioural health, gender identity concerns, and sexual issues may choose to have sole responsibility for all aspects of transgender endocrine care, including assessment of eligibility and readiness.

Adolescents undergoing transgender endocrine therapy require more specialized care that cannot be provided by the primary care clinician. Psychological screening should be performed by mental health clinicians specializing in adolescent development, with prescription coordinated by a pediatric endocrinologist. The training relevant to clinicians working with all age groups is discussed in this

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[*] In BC nurse practitioners can prescribe anti-androgens, estrogen, and progestins, but not testosterone.[4]

document. Adolescent-specific training that addresses the mechanisms of pubertal suppression should also be developed.

Some (but not all) transgender individuals seek psychotherapy relating to the decision to initiate hormone therapy and/or adjustment to changes resulting from endocrine treatment. Issues in psychological assessment and psychotherapy are discussed in *Counselling and Mental Health Care of Transgender Adults and Loved Ones*[5] and *Recommended Framework for Training Mental Health Clinicians in Transgender Care*[6], but not in this document.

While pharmacists do not need to be knowledgeable about transgender endocrine therapy to fill a prescription, it is advantageous to have pharmacists who are sufficiently knowledgeable to provide advice about administration, formulation, and side effects, and to monitor potential drug interactions (if additional medication is prescribed by another physician). At minimum, pharmacists must be familiar enough with transgender basics to provide respectful and sensitive care to patients undergoing endocrine therapy.

Development of Training Framework

Information about existing training in transgender endocrine therapy was collected by correspondence with international clinicians known to be leaders in transgender endocrine care to determine their involvement in training, and a general internet search for transgender training programs. A request for information about current transgender care training initiatives was sent by email to members of the HBIGDA internet listserv. Four clinicians who provide training in transgender hormonal care agreed to be interviewed to discuss the content of their training and to offer advice on the development of a new training program in BC. These interviewees were:

- Eva Hersh, MD, FAAFP – Director of Primary Care, Chase Brexton Health Services, Baltimore, MD, USA
- Lori Kohler, MD – Associate Clinical Professor, Department of Family & Community Medicine, University of California, San Francisco, CA, USA
- Melanie Spritz, DO – Associate Professor, Internal Medicine & Psychiatry, College of Physicians & Surgeons, Columbia University, New York, NY, USA
- Rosemary Prentice – MSN, PhD(c), Family Nurse Practitioner and Lecturer in Nursing, University of Southern Maine, Portland, ME, USA

To ensure compatibility with existing training for clinicians in BC and to obtain additional feedback on training in transgender endocrine therapy, three trans-experienced local clinicians involved in hormone prescription were invited to provide feedback on drafts of this framework:

- Trevor Corneil, MD – Clinical Associate Professor, Department of Family Practice, University of BC; Medical Director, Urban Primary Health Care, Vancouver Community, Vancouver Coastal Health; Physician, Three Bridges Community Health Centre
- Marshall Dahl, MD, PhD, FRCPC – Clinical Assistant Professor, Division of Endocrinology & Metabolism, University of BC
- Afshin Jaberi, BSc(Pharm), RPh – Pharmacist, Reach Community Health Centre

In addition, Gail Knudson, a local psychiatrist involved in Transgender Health Program training of hormone/surgery assessors, was interviewed to determine the process and content of existing training.

Core Competencies

Prescribing clinicians

FPs, NPs, and endocrinologists involved in hormonal screening, prescription, and maintenance for transgender adults should have expertise in three areas:

a) **Transgender basics:** terminology, diversity of gender identity and gender expression, the processes involved in gender transition, general trans-specific psychosocial issues that shape clients' goals and treatment options, clinical trans-sensitivity protocols (e.g., use of preferred gender pronoun and name)

b) **Transgender medical care:** trans-specific health history, physical examination, and interpretation of sex-specific laboratory tests (as outlined in *Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia*[7])

c) **Hormonal feminization/masculinization:** physiologic mechanisms involved in hormonal feminization/masculinization, endocrine agents that may be used, dosage considerations, expected physical and psychological changes, potential adverse effects/health risks, steps in physical screening prior to initiation of hormones, issues in long-term maintenance, HBIGDA *Standards of Care* and relevant local practice guidelines (*Endocrine Therapy for Transgender Adults in British Columbia: Suggested Guidelines,*[2] *Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia*[7])

In addition to these competencies, pediatric endocrinologists must be aware of special issues in endocrinologic feminization/masculinization in adolescents (as outlined in *Caring for Transgender Adolescents in BC: Suggested Guidelines*[3]). This includes an understanding of protocols for staged use of GnRH analogues and cross-sex hormones, expected effects of GnRH analogues, and impact of transgender endocrine therapy on aspects of pubertal development (e.g., bone growth and density).

Clinicians involved in assessing hormone eligibility/readiness

Like prescribing clinicians, professionals involved in assessment of hormone eligibility/readiness in adults should be familiar with:

a) **Transgender basics:** terminology, diversity of gender identity and gender expression, the processes involved in gender transition, general trans-specific psychosocial issues that shape clients' goals and treatment options, clinical trans-sensitivity protocols (e.g., use of preferred gender pronoun and name)

b) **Transgender medical care:** trans-specific health history, physical examination, and interpretation of sex-specific laboratory tests (as outlined in *Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia*[7])

c) **Hormonal feminization/masculinization:** physiologic mechanisms involved in hormonal feminization/masculinization, endocrine agents that may be used, dosage considerations, expected physical and psychological changes, potential adverse effects/health risks, steps in physical screening prior to initiation of hormones, issues in long-term maintenance, HBIGDA *Standards of Care* and relevant local practice guidelines (e.g., *Endocrine Therapy for Transgender Adults in British Columbia: Suggested Guidelines,*[2] *Counselling and Mental Health Care of Transgender Adults and Loved Ones*[5])

The HBIGDA *Standards of Care* recommend the following qualifications for clinicians performing assessment of adults prior to hormone therapy:

- A master's degree or its equivalent in a clinical behavioral science field, granted by an institution accredited by a recognized national or regional accrediting board. The clinician should have documented credentials from a proper training facility and a licensing board.
- Documented supervised training and competence in psychotherapy.
- Specialized training and competence in the assessment of the DSM-IV/ICD-10 Sexual Disorders (not simply gender identity disorders).
- Continuing education in the treatment of gender identity disorders (e.g., attendance at professional meetings, workshops, or seminars or participating in research related to gender identity issues).

The HBIGDA criteria are typically understood to apply to mental health professionals (psychologists, psychotherapists, psychiatrists, psychiatric nurses, social workers, etc.). In BC, we recommend that prescribing clinicians who have training in behavioural health, have documented supervised training and competence in psychotherapy, and have a practice structure that allows extended appointments also be considered eligible to take training in hormone eligibility/assessment of adults.

As mentioned earlier, assessment of adolescents should be performed by mental health specialists, not the prescribing clinician. The HBIGDA *Standards of Care* state that assessors working with adolescents must, in addition to the competencies for assessors of adults, also have:

- Training in childhood and adolescent developmental psychopathology.
- Competency in diagnosing and treating the ordinary problems of children and adolescents.

Assessors of adolescents must be aware of special issues in endocrinologic feminization/ masculinization in adolescents (as outlined in *Caring for Transgender Adolescents in BC: Suggested Guidelines*[3]). This includes an understanding of assessment tools specificially designed for use with adolescents, developmental issues in assessing eligibility and readiness, and the staged use of GnRH analogues and cross-sex hormones.

Other clinicians

While pharmacists do not need to be knowledgeable about transgender endocrine therapy to fill a physician’s prescription, pharmacists must be familiar enough with transgender basics to provide respectful and sensitive care to patients taking hormones. Cross-sex hormone use is off-label; ideally, pharmacists will be sufficiently knowledgeable to provide advice about administration, formulation, and side effects, and to monitor potential drug interactions (if additional medication is prescribed by another physician).

The physical and psychological changes of transgender endocrine therapy can impact all arenas of a transgender person’s life, including overall health as well as work, family, and social networks. As issues relating to hormonal feminization/masculinization are relevant to general care, all health professionals caring for transgender individuals who are taking hormones (e.g., nurses, family physicians, social workers, mental health clinicians, addiction counsellors) should be familiar with the potential physical and psychosocial impacts of feminizing/masculinizing endocrine therapy and the processes involved in hormone initiation and maintenance, even if they are not directly involved in endocrine care.

Current Training Opportunities

Although the Transgender Health Program has delivered sensitivity/awareness training to clinicians in the past and has a curriculum that could be used with clinicians involved in hormonal care, there is no systematic plan relating to basic transgender education, and nobody currently available to deliver training. There is currently no locally available training in transgender medical care or the physical aspects of transgender endocrine therapy. In 2004 the Transgender Health Program provided a two-day mental health intensive that included information about hormone eligibility and readiness, followed by an intermediate level of training for 11 potential hormone assessors in 2005.

In the search for the Trans Care Project no standardized training programs in transgender endocrine care were identified in other locations. In the USA, Drs. Hersh, Kohler, and Spritz provide sporadic transgender care lectures (including endocrine content) at the request of community health centres, medical student associations, or other clinical groups.

Service/Training Goals

It is not known how many transgender individuals need endocrine care or how many clinicians are currently able to provide care. In the mid- to late-1990s the gender team at Vrije University, which sees 95% of transsexuals in the Netherlands, approved initiation of hormonal treatment for 80-90 transgender individuals per year.[8] As the general population of BC is approximately one-third that of the Netherlands, it seems reasonable to estimate that 25-30 transgender individuals in BC might start hormonal feminization/masculinization every year. Three endocrinologists are listed in the Transgender Health Program's resource guide (two work with adults, and the third works with adolescents), and there are a number of FPs and endocrinologists not listed in the guide who are also involved in care. THP client reports of difficulties finding a hormone care provider suggest that the current number of clinicians able to provide this service is insufficient to meet existing demands, particularly for people in rural areas.

It is recommended that the initial endocrine service goal for BC should be:

a) **Prescribing clinicians (adults):** At least one endocrinologist/FP in each health region (able to take new transgender patients on an ongoing basis) should be sufficiently expert to initiate hormonal treatment of adults and to oversee maintenance in complex cases. Training in hormone maintenance should also include FPs who are not able to take new patients but are willing to provide long-term maintenance for pre-existing patients, and also NPs who are able to initiate hormone therapy for MTFs.

b) **Eligibility/readiness assessment (adults):** Hormone care should include at least one clinician in each health region with sufficient competence to perform hormone eligibility/readiness assessment. Training for this group may include mental health professionals, NPs, and FPs who meet the criteria for assessors outlined in the HBIGDA *Standards of Care* and have a practice structure that allows for appointments at least 30 minutes in length (the typical 10-15 minute primary care appointment is not sufficient for timely completion of hormone assessment).

c) **Adolescent specialists:** At least one pediatric endocrinologist in BC with sufficient competence to provide hormone screening, prescription, and maintenance to adolescents is required. As there is a pediatric endocrinologist with this expertise able to provide service through BC Children's Hospital, training is not a priority at this time; however, contingency and continuity plans should be developed to avoid disruption to service should this clinician

no longer be able to provide care. Additionally, there should be at least one mental health clinician in VCH/Fraser and in each of the other health regions (Interior, North, Vancouver Island) with sufficient competence to provide counselling and perform hormone eligibility/readiness assessment for adolescents.

These service goals should be considered tentative and should be re-evaluated periodically. Client/clinician requests to the Transgender Health Program provide an approximate sense of whether existing clinician availability is sufficient to meet client needs.

To meet these service goals, training is needed for (a) hormone eligibility/readiness assessors in rural areas, (b) FPs and NPs in all regions, and (c) endocrinologists outside Victoria/Fraser Valley. Consideration should be given to the advantages and disadvantages of discipline-specific training vs. combined training for clinicians who may be collaborating in patient care.

Training Groups

1. Prescribing clinicians (FPs, NPs, and endocrinologists)

The training framework for prescribing clinicians outlined below follows the structure used by VCH for training relating to assessment of hormone eligibility/readiness: initial training for a large group, advanced training for a smaller group, and clinical supervision for graduates of advanced training.

a) Initial training

A day-long hormone intensive offered every 3-5 years (sooner if there is a shortage of prescribing clinicians) could include:

Table 1: Suggested Curriculum for Transgender Hormone Intensive

Time	Topic	Details
8:30-8:45	Introduction to intensive	
8:45-9:45	Transgender basics	• terminology; diversity of gender identity and gender expression • processes involved in gender transition • common health concerns (including medical and psychosocial issues) • sensitivity protocols (charting, preferred pronoun/name, physical exam)
9:45-10:15	Process overview	• physical and psychological screening prior to initiation of hormone therapy • transition from self-prescribed to medically assisted hormones • monitoring of initial changes, adjustment of dosages • stabilization and long-term maintenance
10:15-10:30	Morning break	
10:30-11:00	Physiology of hormonal feminization/ masculinization	• anatomical structures involved in sex steroid production • action of sex steroids over the lifespan • goals of hormonal feminization/masculinization • physiologic mechanisms for change: suppression of gonadotropins, interference with sex steroid production, interference with receptor binding
11:00-12:00	Psychological screening	• overview of HBIGDA Standards of Care and local guidelines • qualifications of assessors • eligibility and readiness criteria • harm reduction perspective
12:00-1:00	Lunch break	

continued on next page

Time	Topic	Details
1:00-2:00	Hormonal feminization (MTF)	• agents that may be used: androgen antagonists, estrogen, progestagens • expected changes (feminizing effects) and possible adverse effects • physical screening and maintenance
2:00-2:15	Afternoon break	
2:15-3:15	Hormonal masculinization (FTM)	• agents that may be used: testosterone, progestagens • expected changes (masculinizing effects) and possible adverse effects • physical screening and maintenance
3:15-3:45	Management of complex cases	• pre-existing and co-existing conditions • managing complications resulting from endocrine therapy
3:45-4:00	Closing and evaluation	

This day-long intensive could be delivered by one of the American physicians familiar with the Trans Care Project who has substantial experience in transgender endocrine training (e.g., Lori Kohler, Jamie Feldman), or by a combination of local clinicians (endocrinologist + FP). Ideally, the section on psychological screening would be taught by a FP/NP who does hormone eligibility/readiness assessment in the primary care setting (e.g., Lori Kohler); alternatively, a mental health clinician with a strong working knowledge of the Trans Care Project guidelines regarding eligibility/readiness assessment (e.g., Gail Knudson) could deliver this segment of training. As every clinician has their own personal protocol for transgender endocrine care, it is important that the clinician(s) hired to develop and deliver training have a thorough working knowledge of the Trans Care Project endocrine guidelines and be comfortable teaching the content of these guidelines (even if they differ from personal practice).

It may be beneficial to combine a hormone intensive with training intensives in:

- transgender primary medical care, as discussed in *Recommended Framework for Training in Transgender Primary Medical Care*[9]
- transgender mental health, as discussed in *Recommended Framework for Training Mental Health Clinicians in Transgender Care*[6]
- special issues in pubertal suppression and treatment of adolescents, as discussed in *Caring for Transgender Adolescents in BC: Suggested Guidelines*[3]

b) Advanced training

Clinicians who express interest in more detailed endocrine training could be interviewed by an experienced clinician to determine additional training needs, and followup training organized. This level of training would typically be provided by experienced local clinicians, with the option of involving external experts (e.g., by videolink) to deliver training on topics where local expertise is lacking. Possible topics could include:

- trans-specific health history
- steps in physical screening prior to initiation of hormones
- interpretation of sex-specific laboratory tests
- formulation and dosage considerations
- regimen adjustment following gonadal removal
- issues in cardiovascular, metabolic, and gynecologic care over the lifespan
- hormone cycling
- transition of hormonally-treated adolescents into adult endocrine care
- assessment of hormone eligibility/readiness in the patient with compromised cognitive function

c) Supervision

Advanced clinicians have an important role in training and mentoring clinicians who are new to transgender endocrine care. Clinical supervision should be provided for at least the first two patients. The format of ongoing clinical supervision and collegial discussion should be determined by the clinicians involved.

d) Ongoing professional development

Professional development for clinicians with prior experience in transgender endocrine therapy should focus on (a) incorporation of the Trans Care Project's endocrine guidelines (*Endocrine Therapy for Transgender Adults in British Columbia: Suggested Guidelines*[2] and *Caring for Transgender Adolescents in BC: Suggested Guidelines*[3]) into practice, and (b) ongoing education in transgender endocrine care. A survey of training needs should also be done to determine further education needed in transgender medical care, hormonal feminization/masculinization, and eligibility/readiness assessment (see recommendation #2), as few clinicians have had the opportunity to obtain formal training in these areas.

Clinicians who are known to be actively involved in transgender endocrine care should be invited to a facilitated collegial meeting to discuss implementation of the guidelines, issues relating to modification of existing practice, and a process for modifying the guidelines. It may be helpful for the group to choose a point person to liaise with the Transgender Health Program. Funding should be provided for meetings every two years to revisit the practice guidelines and strengthen the network of care, with financial support for network members to increase awareness of transgender issues at professional meetings (e.g., conference presentation). A member of the group should also be supported to attend the biannual HBIGDA conferences and to present information about new developments in hormonal care to the group. Presentation of information about transgender care at professional meetings should also be financially supported. A fellowship in transgender endocrine care could stimulate research on emerging topics for clinicians with a particular interest in this field.

2. Hormone eligibility/assessment assessors

The Transgender Health Program has provided intermediate training in hormone assessment to 11 mental health professionals and family physicians. To meet the service/training targets identified on pages 5-6 (at least one clinician in each health region with sufficient competence to perform hormone eligibility/readiness assessment), strategies for recruitment and training of assessors from rural areas should be discussed with the clinicians training hormone assessors (Drs. Knudson and Robinow). Recruitment should include financial support to offset the costs of travel to participate in training. As there is a general shortage of primary care providers in some rural areas (particularly northern BC), it may be more feasible for assessment to be performed by mental health clinicians than primary care providers.

3. Training for clinicians not directly involved in hormone prescription

As discussed previously, issues relating to hormonal feminization/masculinization are relevant to general care. The physical and psychological changes of transgender endocrine therapy can impact all arenas of a transgender person's life, including overall health as well as work, family, and social networks. Clinicians caring for transgender individuals who are taking hormones (e.g., nurses, family physicians, social workers, mental health clinicians, addiction counsellors) and students/residents with an interest in transgender care will benefit from an understanding of the potential physical and psychosocial impacts of transgender endocrine therapy, and the processes involved in hormone initiation and maintenance. To accomplish this it may be appropriate to open the basic hormone training intensive to medical professionals who are not directly involved in hormone prescription but

are interested in transgender hormone information. A shorter, less medically-oriented seminar could be offered to mental health clinicians, social workers, addiction counsellors, vocational counsellors, and other non-medical professionals (and possibly to consumers).

Priorities for Training

The training framework outlined in this document is intended to address the three recommendations relating to transgender endocrine therapy in *Recommendations for a Transgender Health Program*[10]:

#6: Develop clinical guidelines for all practitioners to ensure professional competence in the various specialty transition/crossdressing services.
#11: Encourage the adoption of a harm reduction approach to hormone prescription and maintenance.
#12: Educate primary care providers about cross-gender hormone use, and provide sample protocols and a list of endocrinologists with expertise in transgender medicine.

The immediate priority is ensuring that transgender individuals in need of endocrine therapy are able to access competent care in a timely fashion, as summarized in Table 2 below. Although training should (over the long term) facilitate increasing involvement of primary care providers in transgender endocrine care, endocrinologists and mental health professionals should not be ignored in service mapping or recruitment for training. It is not advisable that every transgender person seeking endocrine therapy be funneled to the few primary care providers who are currently willing to conduct hormone eligibility/readiness assessment. In some cases referral to specialists may be a more expeditious or appropriate clinical pathway.

Table 2: Summary of Transgender Endocrine Service/Training Goals

Transgender Endocrine Therapy – Adults	Transgender Endocrine Therapy – Adolescents
• at least one endocrinologist/family physician in each health region able to initiate endocrine treatment (and coordinate maintenance if the primary care provider is unable to do so) • at least one clinician in each health region who can provide hormone eligibility/readiness assessment	• at least one pediatric endocrinologist in BC able to initiate and coordinate endocrine treatment • at least four mental health clinicians (one in each of: Interior, Lower Mainland, North, Vancouver Island) who can provide counselling and hormone eligibility/ readiness assessment
Note: The estimated number of clinicians assumes that new patients can be seen in a timely fashion. More clinicians are needed if existing practice is so full that the wait for new patients exceeds 2-3 months.	

The Education Working Group of the Transgender Health Program will need to determine specific priorities and steps for implementation (summarized in Table 3 on the following page). As part of this process it may be beneficial to survey clinicians currently listed in the Transgender Health Program's resource guide to identify their learning needs and interests. Funding for coordination of education development and specific projects outlined in the table on the following page is essential, as existing THP resources are insufficient to achieve the service and training goals discussed in this document. Funding is needed not only to develop and deliver training, but to pay clinician trainees for time spent in training. Adequate clinician compensation is particularly important in recruiting clinicians in rural areas, to cover the costs and time involved in travel to attend training.

Table 3: Implementation of Transgender Endocrine Training Framework

Level	Target Audience	Possible Routes for Implementation
Initial training	• clinicians with an interest in transgender endocrine care (but minimal experience)	• a day-long intensive for medical professionals (endocrinologists, primary care providers, pharmacists) offered every 3-5 years, possibly combined with: ▪ a primary care training intensive, as discussed in *Recommended Framework for Training in Transgender Primary Medical Care* ▪ a mental health training intensive, as discussed in *Recommended Framework for Training Mental Health Clinicians in Transgender Care* • develop a shorter, less medically-oriented seminar for psychotherapists, social workers, addiction counsellors, vocational counsellors, and other non-medical professionals (and possibly consumers) • actively recruit clinicians in rural areas (including assessors) • create structured practica and mentorship opportunities for students and residents with an interest in transgender endocrine care financial support for advanced clinicians to develop transgender health articles for local journals and presentations for local professional meetings
Advanced training	• clinicians with some transgender endocrine experience • clinicians who have no previous experience but have taken Tier 1 training and want to begin working with transgender people	• survey graduates of Tier 1 training and clinicians already in practice to determine additional training needs and interests in further training (format to be determined by the group) • provide clinical supervision for at least the first two patients, with the group to determine the format of ongoing clinical supervision and collegial discussion
Ongoing professional development	• clinicians already involved in transgender endocrine care	• formalize network of care: organize facilitated collegial meeting to discuss implementation of Trans Care Project guidelines and issues relating to modification of existing practice • survey of training needs to determine further education needed in transgender medical care, hormonal feminization/masculinization, and hormone eligibility/readiness assessment • dedicate funds to support meeting of clinicians every two years to discuss implementation/revision of guidelines, training needs, recruitment strategies, and emerging issues • financially support 1 local clinician to attend HBIGDA conference and present information to the network of clinicians

This framework assumes that training will be delivered in an interdisciplinary format. However, if there is sufficient clinician interest, it may be appropriate to deliver endocrine training as part of discipline-specific training (i.e., separate training for physicians, nurses, mental health professionals). Consideration should be given to the advantages and disadvantages of discipline-specific training vs. combined training for clinicians who may be collaborating in patient care.

Recommendations: Training in Transgender Endocrine Care

General principles

1. The Transgender Health Program requires resources to recruit and train clinicians to deliver competent transgender endocrine medical care. This includes (a) dedicated core funding for ongoing education coordination and evaluation, (b) project funding for the development and delivery of clinical training, and (c) compensation for clinicians taking part in training (as part of a comprehensive recruitment strategy).

2. Training should be reflective of the broad diversity of the transgender population, and should include discussion of health concerns for transgender individuals with barriers to accessing care (e.g., Aboriginal transgender/Two-Spirit people, transgender people of colour, transgender people with disabilities, poor/homeless transgender people, transgender people living in rural/remote locations, transgender people in residential care or prison, transgender youth, and transgender seniors).

3. Training should be developed and delivered by clinicians with expertise in transgender endocrine care and adult education. Meaningful input by local transgender people, loved ones, and clinicians involved in transgender care is essential. Initiatives to increase local capacity to deliver education are strongly encouraged.

4. Training should aim not only to increase the clinician's knowledge, skills, and awareness, but also to facilitate transfer into the practice setting. In addition to lectures, training should include problem-based learning cases, role playing, clinical reasoning exercises, and other interactive forms of education.

5. Transgender health service delivery is undergoing significant change in BC. Accordingly, education planning should include periodic reassessment of clinicians' training needs and re-evaluation of required resources. Quality control and quality improvement measures should be included in the education plan.

Development of a transgender endocrine care network

6. Clinicians with an interest in transgender endocrine therapy should be invited to attend a facilitated meeting to discuss implementation of the Trans Care Project's endocrine guidelines, and surveyed to determine education needs and interests. Funding should be provided for biennial meetings to strengthen the network of care, revise practice guidelines, and identify further training needs.

7. A member of the network should be supported to attend the biennial HBIGDA conferences and to bring information about new developments in hormonal care back to the network.

8. The group should be supported to develop articles for local professional association newsletters and submit posters/papers to local professional gatherings.

Training in transgender endocrine therapy

9. A day-long transgender endocrine training intensive should be offered every 3-5 years (sooner if there is a shortage of prescribing clinicians). This may be combined with training intensives in transgender primary care, mental health, or adolescent care. Further training should be based on interests/needs expressed by graduates of basic training and clinicians already involved in transgender endocrine care.

10. A shorter seminar should be developed for health professionals who are not directly involved in endocrine care but are working with transgender individuals undergoing hormonal therapy. It may be appropriate to open this to transgender consumers.

11. Clinical supervision should be provided for at least the first two patients of clinicians new to transgender care. The format and duration of clinical supervision should be determined by the clinicians involved.

12. A fellowship in transgender endocrine care should be explored.

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