

## Disclosure

- Planned Parenthood of the Great Northwest & Hawaiian Islands Board Member
- Seattle Pride Board Member
- Member of AAFP Commission of Membership and Member Services

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## Part I: What do we know?

- Let's start with some questions
- Please use PollEverywhere
  - Can download from your phone's app store
  - Poll ID: kevinwang051
  - Go to: [www.polleverywhere.com/kevinwang051](http://www.polleverywhere.com/kevinwang051)
  - Text to # 37607 and send kevinwang051 to participate

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ould you rate your familiarity of LGBTQ termin

Extremely familiar

Very familiar

Familiar

Somewhat familiar

That's why I'm at this CME!

Start the presentation to activate live content  
If you see this message in presentation mode, install the add-in or get help at PollEverywhere.com/app

Use the app to list some of the terminology you're familiar with (1 to 5 words)

Start the presentation to activate live content  
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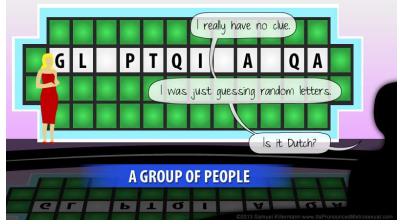
**Objectives: Part I**

- Have fun!
- Review basic definitions
- Review some statistics
- Review components of a trans-inclusive history



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**Alphabet Soup**



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**Let's start with the basics – LGBTQ**

- Lesbian
- Gay
- Bisexual
- Transgender
- Queer

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**Getting more advanced**

- Gender Binary
- Gender Fluid
- Gender Nonconforming
- Gender Queer

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**Additional terminology**

- Gender Identity
- Trans\*
- Cis Gender
- Intersex
- Gender Affirmation Surgery (Top vs Bottom)

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**And more terminology ...**

- AMAB – Assigned male at birth
- AFAB – Assigned female at birth
- Natal Sex – Sex assigned at birth

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**Genderbread person**

- Gender Expression
- Biological Sex
- Sexual Attraction
- Romantic Attraction
- Sexual Orientation

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**Transgender people in the US**

Figure 1. Percent of Adults Who Identify as Transgender in the United States

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**Why are we focusing on trans health?**

- National Transgender Discrimination Survey – 2015
  - 55% were denied surgical care by insurance companies
  - 25% were denied hormone therapy by insurance companies
  - 15% were asked unnecessary/invasive questions
  - 33% had 1 or more negative experiences with providers within the last year
  - 40% have attempted suicide in their lifetimes – 9x that of the general population

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**There's more ...**

- Social Determinants of Health
  - 29% were living in poverty compared with 14% of the general population
    - POC were 3 times more likely
  - 15% are unemployed (3x of the general population)
  - 30% were fired, denied a promotion or experienced mistreatment at work
    - Trans people can be fired or denied employment in 32 states

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**There is good news!**

- Healthcare – Compared with 2008 survey
  - Fewer instances of being denied care
  - Less likely to be harassed
  - Felt provider was more educated in trans health
  - Still had similar rates of postponing care due to fear of discrimination

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**Why are we focusing on trans care today?**

- By providing gender affirming care, you are providing life saving care
  - Can help reduce healthcare disparities by increasing access and removing barriers to care
  - Significantly decrease risk of suicide

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## It all starts with ...

- Cultural humility training for all
  - Patient registration is typically a person's first contact
  - Staff, nurses, providers ... Everyone!
- Intake Forms
  - Legal name vs. preferred name
  - Pronouns
  - Natal sex/sex assigned at birth
  - Gender identity
  - Sexual orientation

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## Taking a trans-inclusive history

- Don't make any assumptions
- Respect all identities
- Build rapport and trust
- Ask the same questions of ALL patients
- Be mindful of your internal reactions and apologize for any mistakes
- Mirror your patient's language

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## Chief complaint

- The CC may have nothing to do with their gender identity!

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## Additional resources

- Clinically competent and culturally proficient care for transgender and gender nonconforming patients
  - <http://www.cardeaservices.org/training/providing-culturally-proficient-services-to-transgender-and-gender-nonconforming-people.html>
- Affirmative care for transgender and gender non-conforming people
  - <https://www.lgbthealtheducation.org/lgbt-education/learning-modules/>
- Cedar River Clinics training modules
  - <http://www.cedarriverclinics.org/transtoolkit/>

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### Part 2: Feminizing Hormone Therapy

#### Objectives

- Review how to obtain a gender history
- Review risks associated with feminizing hormone therapy
- Discuss the ICATH model of consent
- Review basics for medication management
- Review primary care for the trans-feminine person



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## Let's meet your patient!

- RW is a 66 yo person who comes in to establish care. RW comes in with their partner.
  - How do you introduce yourself?
  - How would you start the visit?

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## What do you ask?

- Gender story
  - Knew as far back before she was a teenager
  - Never felt right and initially tried to conform as a masculine person
  - Started expressing herself in a feminine manner and that just felt right
- Goals
  - Transition: Social, hormonal and surgical
  - Legal documentation changes

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## I'm here because ...

- RW comes in wanting to start hormone therapy
  - Identifies as female
  - Uses she/her/hers
  - Partner is very supportive and they've been to counseling together
  - Eager yet anxious

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## RW's medical history

- Past medical history
  - STEMI due to CAD (3 vessel disease)
  - Ischemic cardiomyopathy (last echo revealed EF of 28% with mitral regurgitation and pulmonary HTN)
  - HTN
  - DM II
  - Stage 3 CKD
  - Dyslipidemia

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## Starting to get some chest pain ...

- Medications
  - Metformin 850 mg BID (just ran out)
  - Torsemide 20 mg daily (has a few left)
  - Glipizide ER 5 mg daily (just ran out)
  - ASA 81 mg daily
  - Atorvastatin 80 mg qHS (has a few left)
  - Carvedilol 6.25 mg BID (has a few left)
  - Lisinopril 10 mg daily (has a few left)
  - Clopidogrel 75 mg daily (has a few left)
- Allergies: NKDA

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## Starting to get dizzy ...

- Past Surgical History
  - Angioplasty with stent placement
  - Right shoulder and left knee surgeries
- Family Medical History
  - Father: MI s/p CABG x3 with HTN and dyslipidemia
- Social History
  - Nonsmoker, rarely drinks alcohol, no drugs (use or exposure)
  - Sexually active with a cis-female, monogamous relationship
  - Retired

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## Physical exam

- Vital Signs
  - BP 140/88
  - HR: 84 and regular
  - RR: 16
  - Weight: 208 lbs
  - Height: 5'8"
- What do you want to do for a physical exam?

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## Is she a candidate for hormone therapy?

- **Absolute contraindications**
  - Hormone sensitive tumors
- **Relative contraindications**
  - Tobacco use: This should not represent an absolute contraindication! Can consider the use of ASA but no evidence that it'll prevent any blood clots.
  - VTE (Personal vs. Family History): Specific algorithms are available to help guide you

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## Consent

- ICATH: Informed Consent for Access to Trans Health
  - Does not require the person to participate in therapy to receive care!
  - Therapy is an option or an adjunct. It should not be a requirement to access gender affirming care!
- Can they comprehend the risks of treatment along with its limitations?

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## Consent (Cont.)

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## Consent forms

- Samples are available from:
  - UCSF Center of Excellence for Transgender Health
  - [Fenway Institute](#)

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## Hormone initiation – Estrogen

Formulation	Dose & Frequency/Maximum Dose
Estradiol Valerate	5-10 mg qweek; 20 mg qweek (May injection q2 weeks – just double the dose)
Transdermal Estradiol	50-100 mcg/day; 400 mcg/day
Oral/Sublingual Estradiol	1 mg/day; 6-8 mg/day (usually split to BID dosing when total dose exceeds 4 mg/day)

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## Androgen blockade

Medication	Dose & Frequency/Maximum Dose
Spirostanolactone	25 mg daily with increase to BID dosing; 200 mg BID
Finasteride	1 mg/day; 5 mg/day

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## Progesterone

Medication	Dose & Frequency/Maximum Dose
Medroxyprogesterone	2.5 mg/day; 10 mg/day
Micronized Progesterone	100 mg/day; 200 mg/day

- Anecdotal evidence suggests that this may help with breast development, mood and libido. Current guidelines do not suggest routine use.
- Most would start with this daily for several months and then switch to cyclical administration to help with breast development.
- Most don't tolerate cyclical administration.

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## Safety Data

- Previous study limitations
  - Came from earlier studies in the 1970s and 1990s when higher doses of estrogen were used
  - All used ethinyl estradiol vs 17-beta estradiol that we use in trans care
  - Earlier studies didn't use androgen blockade
- Current evidence
  - No increase in mortality when compared with the general population
  - DVT Risk: Likely due to use of ethinyl estradiol, smoking and external factors

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## Monitoring

- BMP should be done at baseline, 3, 6 and 12 months in the first year and annually thereafter
  - Should recheck 2-4 weeks after a dose change
- Estradiol: Should have a goal of < 200 pg/mL
  - At a minimum, check at 3 and 6 months in the first year and annually thereafter
  - Check 6-8 weeks after a dose change
  - Target closer to 200 pg/mL early on to help with physical changes
  - Consider decreasing after the first few years of changes

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## Monitoring (Cont.)

- Total testosterone: Goal of < 55 ng/dL
  - Check at 3, 6 and 12 months in the first year of treatment and annually thereafter
  - Should check 6-8 weeks after a dose change

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## How would you like to proceed?



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## Visit #2

- Started treatment and starting to feel some effects
  - Softening of skin
  - Fewer spontaneous erections and lower libido
  - Chest tenderness
- Lab Results
  - Estradiol: 80 pg/mL
  - Total Testosterone: 100 ng/dL
  - BMP: Normal
- Now what?

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### Visit #3

- Changes since last visit
  - Almost no spontaneous erections
  - Mood feels great
  - Chest buds are developing with continued tenderness
- Lab Results
  - Estradiol: 160 pg/mL
  - Total Testosterone: 40 ng/dL
  - BMP: Normal
- Now what?

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### Surgical Options

- Top surgery a.k.a. chest surgery
- Bottom surgery a.k.a. vaginoplasty
- Orchectomy
- Feminizing surgeries: facial feminization, tracheal shaving
- Others including hair removal

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### Healthcare maintenance tips

- Provide care for the anatomy that is present
- Be respectful and honor the patient's self description until that person is ready to show you something
- Preventive care does depend on hormonal therapy status
- Majority of the care will be like any other patient

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### Healthcare maintenance (Cont.)

- Breast Cancer Screening
  - USPSTF vs UCSF Recommendations
    - Theoretical increased risk with breast development
    - Start at age 50 for those who have been on hormones for > 5 years
    - Breast augmentation can impair the accuracy of mammography
    - Will need mammograms even if off of hormones with the presence of breast tissue

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### Healthcare maintenance (Cont.)

- Prostate Cancer Screening
  - Feminizing hormones decrease the risk of prostate cancer but by an unknown amount
  - PSA levels will be falsely low
  - Follow USPSTF recommendations although these may change soon!

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### Healthcare maintenance (Cont.)

- Bone Health
  - Screen for those who have had an orchectomy and a history of at least 5 years without hormones regardless of age OR
  - Screen those ages 50-64 with established risk factors including those on androgen blockers only or evidence of prolonged hypogonadal state OR
  - Screen at age 65

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## Healthcare maintenance (Cont.)

- Statin Use in Those 40-70 (USPSTF)
  - Consider exposure to natal hormones vs exogenous hormones
  - May use natal hormone exposure vs exogenous exposure vs average of the two
  - Risk estimation with ASCVD: male vs. female vs. average of both
- Diabetes (USPSTF)
  - No change
- AAA (USPSTF)
  - Consider duration of exposure to natal hormones vs exogenous hormones

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## Healthcare maintenance (Cont.)

- STD/HIV Counseling/Screening
  - Trans folks are at increased risk for STD/HIV
  - Screening should be offered after analysis of risk factors

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### Part 3: Masculinizing Hormone Therapy

#### Objectives

- Review risks associated with masculinizing hormone therapy
- Review basics for medication management
- Review primary care for the trans-masculine person



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## Let's meet your next patient!

- RG is a 32 yo person who comes in to establish care
  - Identifies as male
  - Wants to start hormone therapy and have a hysterectomy
  - Would also like some information on how to correct legal documents

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## RG's medical history

- Past medical history
  - Cerebral palsy (diplegic and wheelchair bound)
  - Depression with anxiety
  - Neurogenic bladder
- Past surgical history
  - Hamstring lengthening
  - Urostomy for neurogenic bladder

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## Medical history (Cont.)

- Family medical history
  - Maternal grandfather with, “heart disease”; father with atrial fibrillation, mother with HTN
- Medications: None
- Allergies: NKDA

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And the rest ...

- Social history
  - Recently moved here from Florida
  - Lives in an apartment and has a friend/caregiver 5 hours/day for 7 days/week
  - Receives money from disability and contemplating doing some computer work for extra income

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## Physical exam

- Vital signs
  - BP: 116/76
  - HR: 68 and regular
  - RR: 16
  - Weight: Unable to do today as in wheelchair
  - Height: Unable to do as in wheelchair
- Anything else?

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## Is he a candidate for hormone therapy?

- Contraindications
  - Active coronary artery disease
  - Polycythemia
  - Hormone sensitive tumors
- Relative contraindications
  - Tobacco use: Usually results in an elevated Hct and this may prevent initiation and you should actively counsel/help to quit smoking!

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## Consent

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## Hormone initiation – Testosterone

Formulation	Dose & Frequency/Maximum Dose
Injectable – Testosterone Cypionate	25-50 mg/week; 100 mg/week (may do q2 week dosing and simply double the dose)
Testosterone Topical Gel 1%	12.5-25 mg qAM; 100 mg qAM
Testosterone Patch	1-2 mg qPM; 8 mg qPM

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## Safety data

- No difference in all cause mortality compared to the general cis-gender population
- No increased cardiovascular mortality
- No increased risk of cancer
  - Rare case reports of ovarian cancer which led some protocols to recommend eventual oophorectomy

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## Monitoring

- Monitoring
  - CBC: Baseline, 3, 6, 12 months and annually thereafter to check for polycythemia
  - Some don't measure testosterone levels at all although some studies revealed that this runs the risk of suboptimal masculinization
  - Total testosterone: 3, 6, 12 months and as needed once one approaches goals
    - Goal - 400-600 ng/dL (this varies depending on source)
    - I usually check a trough level and shoot for the lower end of the total testosterone goal
  - Check a level in 2-3 months with a dose change

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## How would you like to proceed?



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## Visit #2

- Labs come back as all normal
- RG is eager to start hormone therapy and is nervous about giving himself weekly injections
- What sort of supplies does he need?
  - Needles: 18 gauge & 25 gauge-1 inch needle
  - Threaded syringe
  - Alcohol wipes and a sharps container

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## Injection technique

- Check out [video 1](#) and [video 2](#) for a great overview of supplies along with injection technique!
  - In case the app file doesn't have the links, please go to [www.youtube.com](http://www.youtube.com) and search for Kevin Hatfield injection.

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## Visit #3

- Started hormones at the last visit and starting to notice a few things
  - Increased libido
  - Cycles have been getting lighter
  - Increased oiliness of skin

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## Surgical Options

- Top surgery a.k.a. chest surgery
- Bottom surgery a.k.a. creation of a phallus

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## Healthcare maintenance

- Breast Cancer Screening
  - Should still get mammograms per USPSTF guidelines regardless of hormone therapy
  - s/p Mastectomy – Theoretical risk of breast cancer
    - Should get yearly chest wall and axillary exams
    - Mammogram is not possible although there is some debate
  - Testosterone Effect
    - Does not affect breast cancer risk and should still get annual exams

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## Healthcare maintenance (Cont.)

- Cervical Cancer Screening
  - Should follow USPSTF/ASCCP guidelines if he is or isn't on hormone therapy
  - Should alert pathologist that patient is on testosterone, i.e. atrophic changes seen on Pap smears
  - The exam may be distressful to the patient. Here are some tips:
    - Use a pediatric speculum
    - Consider topical lidocaine at the introitus prior to the exam
    - Consider an oral anxiolytic
    - Consider using multiple collection swabs to increase likelihood of getting an adequate sample
    - If inadequate, consider use of vaginal estradiol x3 months and repeat Pap smear
    - Think about terminology!

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## Healthcare maintenance (Cont.)

- Uterine Cancer
  - Mixed data of testosterone's effect on the uterine lining
  - Any kind of uterine bleeding should be evaluated, i.e. ultrasound, EMB
- Bone Health
  - Trans-males start with 10-20% less bone mass than natal men
  - Screen for those who have had a gonadectomy and a history of at least 5 years without hormone replacement regardless of age OR
  - Screen patients ages 50-64 with established risk factors including patients with evidence of prolonged hypogonadal state OR
  - Screen at age 65 years

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## Healthcare maintenance (Cont.)

- Statin Use in Those 40-70 (USPSTF)
  - Consider exposure to natal hormones vs exogenous hormones
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  - Risk estimation with ASCVD: male vs. female vs. average of both
- Diabetes (USPSTF)
  - No change

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## Healthcare maintenance (Cont.)

- STD/HIV Counseling/Screening
  - Trans folks are at increased risk for STD/HIV
  - Screening should be offered after analysis of risk factors

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### Part 4: Additional resources

- Review legal documentation resources and challenges
- Review additional online resources for education



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## Legal documentation corrections

- Name, gender marker correction will be dependent on the state for IDs and drivers licenses
- Passports, birth certificates and social security cards may also be corrected
- Each will have their own requirements in addition to a letter from their providers
- <http://www.transequality.org/know-your-rights>

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## Additional resources

- UCSF – Center of Excellent for Transgender Care
  - <http://transhealth.ucsf.edu/trans?page=guidelines-home>
- Fenway Institute: Affirmative care for transgender and gender non-conforming people
  - <https://www.lgbthealtheducation.org/lgbt-education/learning-modules/>
- Callen-Lorde
  - <http://callen-lorde.org/graphics/2016/06/Callen-Lorde-TGNC-Hormone-Therapy-Protocols.pdf>
- World Professional Association for Transgender Health
  - [http://www.wpath.org/site\\_page.cfm?pk\\_association\\_webpage\\_menu=1351&pk\\_association\\_webpage=4655](http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=1351&pk_association_webpage=4655)
- Cedar River Clinics training modules
  - <http://www.cedarriverclinics.org/transtoolkit/>

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## Q&A

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