# Primary Care, Prevention, and Coordination of Care

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# Purpose

The purpose of this chapter is to provide an overview of the primary care needs of lesbian, gay, bisexual, and transgender (LGBT) patients including appropriate preventive and screening services and coordination of care.

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# **Learning Objectives**

- Identify at least three strategies for communicating effectively with LGBT patients using verbal and written communication and documentation strategies that respect the potentially sensitive nature of clinical information pertaining to patients' sexual orientation and gender identity (*ICS2*, *ICS3*)
- Describe screening tests, preventive interventions, and health care maintenance for LGBT patients (*PC3*, *PC4*, *PC5*, *PC6*)
- Discuss the importance of primary care providers recognizing patient autonomy in selfidentification of sexual orientation and gender identity (*Pr2*)
- Identify at least three strategies for improving patient care within the health system by partnering and collaborating with LGBT community resources (*SBP4*)

# **Overview of Primary Care**

# Importance of Primary Care and the Patient-Centered Medical Home

In the modern-day urban America, many people have never experienced having a traditional "family doctor." Primary care, however, remains

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the backbone of healthcare, and is crucial for reducing the escalation of costs while maintaining high quality care. Sharma et al. demonstrate that the majority of care for the highest-cost chronic conditions is performed by primary care physicians [1]. With their focus on preventive care, primary care providers (PCPs) are also more cost-effective. Numerous studies worldwide demonstrate that health systems in which primary care is central and family physicians are the dominant specialty have better population health outcomes at a lower cost than sub-specialty dominated systems [2]. Many LGBT persons may be reluctant to access health care due to fear of stigmatization or discrimination, previous negative experiences, or concerns about provider knowledge and appropriate care [3]. Those concerns make it especially important for LGBT people to have a trusted PCP. The role of the PCP is to provide long-term, personalized care, and to coordinate care for a patient within the health care system as they build trust with the patient that facilitates health improvement.

Many decades after being proposed by the American Academy of Pediatrics, the modern movement to provide each patient with a Patient Centered Medical Home (PCMH) has gained momentum as the problems of an expensive and fragmented U.S. health care system have come to light. The purpose of a PCMH is for family physicians, general internists, pediatricians or nurse practitioners in primary care to establish systems that promote longitudinal, personalized, and yet, holistic care [4, 5]. The American Academy of Family Physicians describes the principles of the PCMH as access to a personal physician who leads the care team within a medical practice, a whole-person orientation to providing patient care, integrated and coordinated care, and focus on quality and safety [6]. The National Committee on Quality Assurance (NCQA) has devised detailed standards and guidelines for practices to be recognized at various stages on the way to being designated a full PCMH by the NCQA [7]. This recognition process is rigorous, involving establishment of electronic health records (EHR), flexible scheduling with after-hours and weekend access, integration of primary care and mental

health care, and continuous quality improvement involving patients and families. The movement toward medical homes was strengthened by the passage of the Affordable Care Act (ACA) in 2011. The law not only required health insurance coverage for almost every individual, but also incentivized elements of care already incorporated into the PCMH, such as meaningful use of electronic health records to facilitate quality improvement. If implemented fully, the law also creates incentives in terms of Medicare and Medicaid reimbursements as well as grant programs, to promote realignment toward primary care and prevention and more appropriate use of specialty and technical care [8].

# **Preventive Health**

# Patient–Provider Relationship

The patient-provider relationship is a keystone of primary care. The bond of trust between the patient and the provider (physician, nurse practitioner, or physician assistant) is vital to the diagnostic and therapeutic process. In order for the provider to make accurate diagnoses and provide optimal treatment recommendations, the patient must be able to communicate all relevant information about an illness or injury. Health outcomes can be improved when providers truly know their patients [9]. Knowing a patient's sexual orientation does more than just provide information about his or her sexual history. When providers truly know their patients, including salient identities, patients are more able to engage in their own care. From the perspective of whole person care, it is essential that patients feel comfortable disclosing aspects of their lives that may impact their ability to adhere to treatments. Patients filter provider instructions through their existing belief system; they decide whether the recommended actions are possible or desirable in the context of their everyday lives [10].

Providers can create an environment that is conducive to candid communication. Patients assess the office environment for signs of affirmation. Posters and patient education materials with relevant information in the waiting room help set a tone of acceptance. Using inclusive language on intake forms and training office staff to use inclusive language also may increase patients' comfort [3, 11]. In the examination room, it is important to ask patients open-ended questions that elicit who this patient is as a person. For example, a provider might ask whom a person lives with, who should be informed about health care issues, and how a patient prefers to be addressed. Phrasing these questions in a way that demonstrates openness to a variety of answers allows a trusting therapeutic relationship to develop [11].

#### **Helpful Hint**

To create a truly patient-centered environment for all patients, procedures and a culture of acceptance and awareness must be planned. Use the many available resources to facilitate patient-centeredness among LGBT patients.

# **Health Promotion**

Health promotion is an important function of primary care and the patient-centered medical home. Primary care physicians and providers also can and should play a role in promoting health in the community, considering the large contribution that social determinants of health have on population and individual health outcomes [12, 13]. LGBT patients deserve the same level of attention to health promotion as all patients, as well as the same level of investment in the health of their community. As is emphasized throughout this text, LGBT persons should be allowed and encouraged to self-define what community means to them.

#### Nutrition and Physical Activity

Healthy lifestyles are critical elements in health promotion and have acquired added importance in the modern era in which obesity and health issues related to sedentary lifestyle and poor diet have become epidemics. In the LGBT community, self-identified lesbians (and possibly bisexual women) are at an increased risk of overweight and obesity compared to heterosexual women [14, 15], while gay men tend to have lower BMI than their straight counterparts but express higher body dissatisfaction and may be at higher risk for eating disorders [16, 17]. Trends in physical activity for LGBT patients are difficult to ascertain and studies tend to be small and conflicting [18–21]. Primary care providers should be aware that body image ideals in the LGBT community may be different from typical cultural ideals, though those theorized differences seem to be minimal in recent, population-based studies [16, 17, 22–24]. Nevertheless, such cultural factors as lesbian women's greater idealization of muscularity [17] and gay men's greater internalization of media image ideals [25] could affect patient motivations to lose weight or adopt specific exercise plans. For some within the "bear" subculture of gay-identified men, obesity might even be normalized, and "excess" body weight can be a celebrated part of one's identity [26]. Motivational interviewing is a patient-centered approach that can help elicit a patient's values and assist in achieving culturally appropriate behavior change [27, 28].

## **Mental and Emotional Health**

LGBT people have an increased risk of mental health and substance use conditions; however, even those without a history of such conditions or any clear symptoms deserve the same attention to screening for depression, anxiety, violence victimization, and substance use as employed for all patients. Counseling on prevention of such conditions is also appropriate.

## **Sexual Health**

Sexual health is discussed in detail below and in other chapters. It is important to note here that LGBT patients should be asked the same details of sexual history and that assumptions about their behavior based on identity or past history should be avoided [3]. Prevention of sexually transmitted infections (STI's) and family planning are important discussions to have with all patients. It is important to recognize that lesbian-identified women and women who have sex with women (WSW) can transmit or receive any STI from a female partner and should not be dismissed as not-at-risk [29, 30]. In contrast, gay-identified men or men who have sex with men (MSM) should not be assumed to be at high risk simply based on identity or history, as some may be abstinent or monogamous [3]. It is also important to note that many LGBT patients are interested in pregnancy, surrogacy, or adoption, and that there are options to achieve parenthood for all patients and primary care providers should be ready to counsel or refer these patients appropriately [31]. Several articles and websites are helpful for primary care providers who wish to counsel patients more specifically [32–34]. It is also pertinent to remember that many WSW also have sex with men or will in the future and do need counseling concerning contraception [11, 29]. Transmen (transgender FTM) also often retain a uterus and ovaries, and testosterone therapy is not a reliable form of contraception; therefore they also require an exploration of their desires for fertility versus contraception, whether relevant to a current male partner or for future planning [35, 36].

#### **Helpful Hint**

Use a sensitive and comprehensive sexual history rather than assumptions about behavior to determine appropriate screening and diagnostic tests.

## Immunizations

Immunizations for LGBT persons generally follow accepted guidelines for children and adults, with the exception that the CDC does recommend full hepatitis A and B immunization for all MSM. Human papilloma virus (HPV) vaccination, which is recommended by the Centers for Disease Control (CDC) and the Advisory Committee on Immunization Practices (ACIP) for both females and males age 9–26, is also prudent to recommend to LGBT youth and young adults [37, 38]. Even lesbian-identified WSW can benefit from HPV vaccination because HPV can be transmitted between women and the majority of such women also have sex with men in their lifetime [29]. Men benefit from HPV prevention in terms of both genital warts and anal cancer, as well as the reduction in transmission of HPV to male or female partners [37].

# Screening

### **Cardiovascular Health**

LGBT persons may be at higher risk of cardiovascular disease owing to their increased prevalence of risk factors such as smoking, depression, and (in women and some gay men), obesity [39, 40]. Nevertheless, there is no evidence supporting screening based on identity or sexual behavior alone. Screening for obesity, elevated blood pressure, cholesterol, lipids, and blood sugar are consistent with that of the general population and decisions for more or additional screening should be based on individual risk factors. The US Preventive Services Task Force (USPSTF) and the AAFP issue recommendations separately for each of the CV risk factors listed [41].

The Center of Excellence for Transgender Care at the University of California, San Francisco, recommends screening cholesterol/ lipids and blood pressure for all patients planning to start hormone therapy within the coming year. They recommend a target systolic blood pressure at or below 130 and LDL at or below 135 prior to initiation of hormones [35]. Monitoring and treatment goals on hormones are covered in Chap. 19.

## Cancer

**Cervical Cancer** Cervical cancer incidence and prevalence have decreased dramatically in the last half-century thanks to widespread and frequent screening with Papanicolaou (Pap) tests and office-based colposcopy and treatment. Consequently, the vast majority of patients diagnosed with cervical cancer are those who have not undergone screening in over 10 years, including those who have never had a Pap test [29]. Most studies that include them find that WSW or lesbian-identified women are disproportionately represented among that group of infrequent or never screeners [42–44]. It is widely accepted that development of cervical neoplasia is highly associated with persistence of high-risk strains of HPV in the cervix. It is likely, therefore, that failure to screen is most commonly caused by a failure of the patient or the provider to recognize that WSW are at risk for HPV infection [29, 30]. In truth, WSW or lesbian identified women are at risk from multiple sources:

- The majority of WSW/lesbians also have a lifetime history of intercourse with men,
- Transmission of HPV between female partners is possible and has been documented,
- There exists a higher proportion of current or former smokers among sexual minority (SM) women, a known risk factor for cervical cancer [29].

In addition, many studies suggest that SM adolescents exhibit earlier sexual debut and higher risk sexual behavior (with partners of either or both sexes) than heterosexual teens [45–47]. Some research also demonstrates that women who have sex with both women and men are more likely to exhibit increased sexual

risk-taking [45, 48]. Some WSW may therefore actually have higher risk for HPV acquisition than heterosexual women [30]. As with all patients, a detailed sexual history, including lifetime partners and measures taken toward safer sex, can help determine risk. (Please refer to Appendix A, Chaps. 2, 5, and 6 for suggested sexual history questions and more information on gathering history in a sensitive and patient-centered manner.) Nonetheless, all persons with a cervix and any history of sexual activity should be assumed to be susceptible to HPV, and recommended for screening with a Pap test according to usual guidelines [11, 49]. Those without a cervix due to hysterectomy should also be screened according to usual guidelines (See Table 8.1 for screening guidelines; note that those who have received the HPV vaccine series should continue to be screened per their age category.) [50]. At present, experts are considering the option of cervical cancer screening through HPV testing without cytology [52]; such recommendations are not currently in effect, however, and if HPV testing without cytology becomes an accepted screening option, it is unlikely that guidelines will advise an approach for screening SM women that differs from screening for the general population.

It is important to recognize that reduction in screening can also result from SM women's

| Age group/clinical feature        | Screening method  | Frequency     | Other considerations   |  |
|-----------------------------------|---|---------------|--|--|
| Under age 21                      | Not recommended   |               |  |  |
| Age 21–29                         | Cytology alone  | Every 3 years | Currently HPV testing alone not recommended;   |  |
| Age 30–65                         | HPV and cytology<br>co-testing (preferred)                              | Every 5 years | however, there is an FDA-approved HPV test<br>(without Pap cytology), and ongoing studies are                                  |  |
|                                   | Cytology alone<br>(acceptable)  | Every 3 years | promising and likely to change practice <sup>a</sup>   |  |
| Age over 65                       | Discontinue<br>screening after<br>adequate negative<br>prior screenings |               | Those with history of CIN 2–3 or CIS should<br>continue screening per age 30–65 guidelines<br>through 20 years after diagnosis |  |
| Status post total<br>hysterectomy | Not recommended   |               | Applies to those without a cervix and without a history of CIN 2–3, CIS, or overt cancer in last 20 years                      |  |

 Table 8.1
 Recommended cervical cancer screening for all persons with a cervix

CIN cervical intra-epithelial neoplasia, CIS carcinoma-in-situ

Adapted from *Table 1: Joint Recommendations of the American Cancer Society, the American Society for Colposcopy and Cervical Pathology, and the American Society for Clinical Pathology* appearing in the 2012 ACOG Practice Bulletin on Cervical Cancer Screening [50]; other than <sup>a</sup>references Ronco et al. [51] and U.S. FDA [52] discomfort with the examiner and/or the exam itself. Anecdotally, many WSW find themselves subject to assumptions from the provider that their sexual activity is heterosexual and they may be chided for not using birth control [29, 30, 53]. This assumption reveals inadequate history-taking from the provider and does not engender confidence in the provider or the health care system. In addition, WSW may also experience more discomfort with the exam itself, especially those who are nulliparous and have not experienced significant vaginal penetration [29]. As is true with all patients, the WSW patient should be approached in a sensitive manner, the smallest speculum necessary for the patient's anatomy should be used, and the patient's reports of discomfort should be honored. Performing the bimanual exam prior to the speculum exam in order to assess pelvic landmarks and ease the patient into the exam is a reasonable option [54]. Williams and Williams [55] provides an excellent resource on using woman-centered language during a pelvic exam for female-identified patients.

Transgender patients should likewise be screened according to the organs and tissues present at any given time. Because the majority of FTM patients have not had genital reassignment surgery, most also require regular Pap screening as detailed in Table 8.1 [35]. As usual, a detailed sexual history helps the provider discuss the level of risk and benefit with the patient as necessary. Because FTM patients identify as men (and transspectrum natal born females in general do not identify completely as women), they may have particular difficulty managing emotions and physical sensations associated with pelvic exams. It is therefore important to employ extra sensitivity in using terminology that is comfortable for the patient and performing the exam efficiently. The Canadian organization "Check It Out, Guys" has a number of helpful recommendations for providers [56]. In addition, FTM patients have high prevalence of unsatisfactory pap smears compared to non-transgender patients possibly secondary to testosterone therapy causing growth in the clitoris and dryness of tissues, meaning that sensitivity to expected changes and more liberal use of lubrication within the limits of Pap test sensitivity are important [57]. It is also critical to note the use of testosterone on the pathology order [36, 56]. An FTM who has had a hysterectomy or sexual reassignment surgery (SRS) with no history of cervical dysplasia can discontinue Pap screening. MTF individuals who have had SRS do not need Pap tests because they do not have a cervix and the neovagina consists of epithelial rather than mucosal tissue. They may of course need pelvic exams as indicated by symptoms or patient questions [35] (Note that rarely, especially in the past, neovaginas were constructed using tissue from the glans penis. If a patient knows of this surgical history, consensus guidelines are to use age-appropriate vaginal pap screening [58]). Not all patients broadly categorized as transgender identify as FTM or MTF, as described in Chap. 16, and it is the presence of a cervix rather than the gender identity, that determines the need for screening. In summary, cervical cancer screening should follow the same guidelines for all patients who have a cervix or had the cervix removed due to dysplasia or cancer [58].

#### **Helpful Hint**

The presence of a cervix rather than gender identity determines the need for cervical cancer screening.

Breast Cancer Evidence is mixed concerning whether lesbian women have a higher incidence of breast cancer than heterosexual or bisexual women. Some research, however, supports that risk factors such as lower parity and lactation, less use of hormonal contraception, higher rates of obesity, and lower rates of screening are more common in lesbian-identified women and might contribute to breast cancer risk [59]. With attention to the risk factors of the individual woman, breast cancer screening is recommended according to standard guidelines, either those of the United States Preventive Services Task Force (USPSTF), American College of Obstetricians and Gynecologists (ACOG), American Cancer Society (ACS), or others. The USPSTF, for example, recommends mammography screening

every 1–2 years from age 50 to 74, with screening from age 40 to 50 and over 74 dependent on patient risk factors, values, and comorbidities [60]. In making shared decisions on mammography screening, the PCP and health care team should carefully consider the lesbian or bisexualidentified woman's risk factors concerning unopposed estrogen exposure over the lifetime and screening history, as well as family history.

Breast cancer screening in transgender persons on hormone therapy or after surgery is more complex. At this time there is no existing research on the incidence or natural history of breast cancer in these groups. Based on expert opinion, the UCSF Center for Transgender Health's primary care protocols recommend beginning mammography in MTF patients when patients are age 50 or over and have been on estrogen hormone therapy for 5 or more years (or age 50 with other risk factors such as body mass index (BMI) over 35 or strong family history) [35]. There is not a specific recommendation on stopping screening for MTF, though the USPSTF guideline of age 75 appears reasonable [60]. Many FTM undergo mastectomy (top surgery), and level of remaining risk may differ depending on whether the top surgery is a simple reduction versus a chest reconstruction. Those with a reconstruction are not thought to need mammograms in the absence of other major risk factors (e.g. strong family history/brca mutation), whereas a patient with only a reduction should be considered for screening as per natal females beginning at age 50. Similarly, FTM without top surgery should undergo screening every 1–2 years starting at age 50, as there is currently no evidence that testosterone therapy alone reduces breast cancer risk or the effectiveness of mammography. Due to lack of research in this area, the UCSF Center of Excellence for Transgender Health recommends annual chest wall and axillary node exam for all patients [35]. Given the low level of evidence that clinical breast exams are effective in reducing mortality from breast cancer in the general population, the benefit of annual chest wall exam is unclear.

Colorectal Cancer (CRC) Because sexual orientation and gender identity are not typically recorded in cancer registry data, national studies are unable to provide definitive evidence regarding the rates of colon cancer in LGBT populations. However, a recent analysis of Surveillance, Epidemiology, and End Results (SEER) data by Boehmer et al. showed that, independent of race and socioeconomic status, there is a significant positive association between CRC incidence and a higher geographic density of sexual minority persons. A similar association with regard to CRC mortality was also noted for sexual minority men [61]. Some data suggest that CRC screening may actually be higher for sexual minorities than for heterosexual persons. Data from the California Health Interview Survey showed that gay/bisexual men had 6-10 % greater screening than heterosexual men. However, vigilance is necessary, especially for some racial and ethnic minorities. For example, Asian/Pacific Islander men were much less likely to be up-to-date on CRC screening (41.0 % for gay/bisexual men, 43.8 % for heterosexual men) compared to gay/ bisexual and heterosexual white men (59.8 % and 58.2 %, respectively) [62].

CRC screening can be accomplished through a number of methods (fecal occult blood testing/ fecal immunochemical testing, sigmoidoscopy, or colonoscopy). The USPSTF recommends screening beginning at age 50 years and continuing until age 75 years [63]. This recommendation is no different for patients who identify as in sexual minority categories. Also, there does not appear to be an increased level of CRC risk for HIV-infected persons [64].

Anal Cancer Anal cancer is fairly uncommon in the general population, but the risk is about 30-fold higher for HIV-infected persons, and HIV+ MSM appear to be at highest risk [64]. Like cervical cancer, anal cancer is largely attributable to HPV. A multi-city trial reported anal HPV in 57 % of a large sample of HIV-negative MSM; this study also indicated that HPV infection risk was highest among men who practiced receptive anal intercourse and who had over five male partners in past 6 months [65]. Unlike cervical cancer, however, anal cancer is much less common (only about 5200 new cases per year in the U.S.), and guidelines for anal cancer screening are not as clear. Screening for anal cancer and its precursor, anal intraepithelial neoplasia (AIN), is accomplished through the use of anal cytology ("Anal Pap"). The sensitivity of anal cytology for detection of AIN is much better for HIV+ MSM than for HIV- MSM [66].

Cost-effectiveness models suggest that in the U.S. anal cytology done annually for HIV+ and biannually for HIV- MSM would be cost effective [67, 68]. The role of co-testing for high-risk HPV is unclear, and commercially available HPV detection methods are not yet FDA approved for anal samples. Abnormal anal cytology should prompt further investigation through highresolution anoscopy (HRA). Techniques associated with this procedure are similar to those for colposcopy and include visualization under magnification, application of acetic acid, assessment of aceto-whitening and vascular changes (punctuation, mosaicism), and evaluation of Lugol's staining patterns. Biopsy of suspicious areas provides definitive diagnosis [69].

It has been recommended that biopsies showing high-grade anal intra-epithelial neoplasia (HG AIN; grade II or III) should be treated, while AIN grade 1 can be followed-up in 6 months, or treated if doing so would have minimal potential for morbidity. MSM with normal HRA may resume usual screening (annually if HIV+ and every 2–3 years if HIV–). Treatment of AIN may include cryotherapy, electrocautery, laser treatment, infrared coagulation, or topical therapies such as imiquimod, trichloroacetic acid, and 5-fluorouracil. It is important to note, however, in many cases, there may be limited availability of experienced cytopathologists who are able to accurately interpret anal cytology samples, as well as few clinicians capable of doing HRA or experienced in treating AIN. The process of screening should only be instituted if appropriate resources exist for evaluation and treatment of abnormal results [66, 69]. Because infection with HPV types 16 and 18 can be prevented by available vaccines, MSM should be offered immunization, hopefully before they become exposed to these strains of virus [38].

## **Helpful Hint**

Screen HIV positive MSM annually with an anal Pap if resources are available for appropriate follow-up. Consider screening HIV negative MSM biannually.

Prostate Cancer Epidemiologic data on prostate cancer incidence is unavailable for gay/ bisexual men, but there is no reason to believe that their risk would be lower than that of other populations. Given the lack of strong evidence to the contrary, screening considerations should follow the standard recommendations for non-LGBT populations. The USPSTF currently recommends against PSA-based screening, and does not make a recommendation considering other modalities [70]. Other organizations offer different recommendations [71]. MTF women are still at risk, and cases of prostate cancer have been reported among MTF transgender women on feminizing hormone therapy [72], though PSA levels are reduced by estrogen therapy and may not be adequate testing for prostate cancer when used alone [73]. Given that orchiectomy is a component of prostate cancer treatment [74], it is theoretically likely that removal of the testes as part of "bottom" surgery can reduce the chances that a trans woman might develop prostate cancer in the future.

**Testicular Cancer** The U.S. Preventive Services Task Force recommends against screening for testicular cancer [75] Recommendations are no different for men who have sex with men. While testicular cancer should be included in the differential diagnosis of testicular pain or masses in MSM, screening should not be part of routine screening for asymptomatic MSM.

**Lung Cancer** Although epidemiologic studies documenting lung cancer diagnoses by sexual orientation or gender identity are lacking, the disproportionately high prevalence of smoking among SGM portends a higher risk of lung cancer. One study suggests a higher incidence of and mortality from lung cancer in sexual minority men, though not women [76]. Lung cancer screening for those at high risk is controversial but currently recommended by the USPSTF. Criteria for screening with low-dose contrast computerized tomography (CT) scan include age 50-64 with over 30 pack year history and currently smoke or quit smoking less than or equal to 15 years prior [77]. Screening should be based on these elements of a patient's history, with awareness that SGM are more likely to meet these criteria than the general population [78]. Of course, SGM who use tobacco also have heightened risks for the effects of smoking other than lung cancer, such as chronic obstructive pulmonary disease, cardiovascular disease, and other non-lung cancers.

#### **Bone Density**

Bone density screening is somewhat controversial even in the general population. Four organizations have somewhat different recommendations, but generally converge on dual-energy X-ray absorptiometry (DXA) screening at least once for all women age 65 and older or those under age 65 with risk factors for osteoporosis (smoking, history of significant corticosteroid exposure, low weight, strong family history) [79]. There is not yet agreement on the frequency or duration of screening, nor whether to screen routinely in men. Transgender patients present a challenge, as the effects of cross-sex hormones on bone density are not well understood. In particular, the effects of testosterone on bone density for FTM are unknown. The UCSF primary care protocols recommend starting screening at age 50-60 based on presence or absence of ovaries and duration of testosterone therapy [35] (see also "Part V", Chaps. 18–21). Note than some FTM, however, chose to taper to lower doses or off testosterone after surgical or natural menopause and should also be considered for DXA screening at that time. Estrogen's effect on bones that have also had prior exposure to testosterone is thought to protect MTF patients from osteoporosis. The primary care protocols recommend calcium, vitamin D and weight bearing exercise without DXA screening in most MTF patients, with DXA recommended only in those patients who are post-orchiectomy/post-SRS, over 60, and off hormone therapy at least 5 years [35].

# Interpersonal Violence and Personal Safety

The USPSTF now recommends screening for IPV (more commonly known as intimate partner violence but recognized that violence can occur in a broader context) for women of child-bearing age, and finds insufficient evidence for screening the rest of the general primary care population [80]. Numerous studies demonstrate that LGBT people are at higher risk of intimate partner violence and overall violence victimization than the general population, likely associated with additional stressors such as experiences of stigma and discrimination, internalized homophobia, and the threat of being "outed" [81]. Helpful screening tools to use in primary care are listed and included in the CDC's guide [82]. PCPs should also be aware of community resources or hotlines to which to refer victimized patients as safely as possible. Attention to mental health consequences and specific state laws regarding reporting of violence are also important roles of PCPs. For more specific information on violence and LGBT health, see Chap. 10.

### Substance Use and Abuse

**Tobacco** Tobacco use is up to two times more common in LGB versus heterosexuals [78, 83– 86]. Although LGB tobacco use studies consistently demonstrate this risk behavior disparity, transgender persons have only recently been included in tobacco research. In a 2009–2010 nationally representative survey, 32.8 % of transgender-inclusive LGBT individuals reported current smoking, versus 19.5 % of heterosexuals [87]. In the National Transgender Discrimination Survey, the proportion of current smokers (29 % of transwomen and 33 % of transmen) were higher than the percentage in the general population and similar to that of other LGB/LGBT studies [88].

Measures of smoking initiation, daily versus non-daily smoking, and nicotine dependence are all important elements of tobacco use related to health outcomes. These aspects of use are still seldom studied in minority populations, but emerging data suggest that at least in some subgroups of LGBT adults and adolescents, LGB persons are more likely to start smoking younger, smoke socially rather than not at all, and among regular smokers, to smoke more heavily than heterosexuals [84, 89]. Sexual minority adolescents also have higher nicotine dependence scores than their peers [89, 90]. Research on desire to quit and quit attempts among sexual minority groups is similarly limited mainly to young adult populations or is local in scope, but generally demonstrates lower odds of wanting to stop smoking and reduced quit ratios [86, 91].

Evidence supports the role of minority stress, social norms, social isolation, and targeting of sexual and gender minority (SGM) people by tobacco companies as contributing factors to this disparity. The tobacco industry actively and effectively targets advertising and promotion to LGB groups [92–95]. Minority stress theory [96] is reflected in studies showing that sexual minorities experience risk factors for cigarette smoking (e.g. stress, depression, alcohol use) at higher rates than the general population, while also experiencing factors unique to sexual minority groups such as discrimination, stigmatization, and victimization [97]. Stress among sexual minorities is also associated with mental health measures conditions such as distress, depression, and anxiety, which are in turn related to health risk behaviors including smoking and substance use [96–102]. Fortunately, there are some promising results from cessation programs focused on LGBT patients [103, 104].

## **Helpful Hint**

Tobacco use may be the single largest contribution to mortality among the LGBT community. Screen every patient for tobacco use of all types and provide resources for motivational and behavioral change. Alcohol and Drug Use Compared to heterosexual women, lesbian and bisexual women report heavier alcohol use and more alcohol related problems [105], and greater lifetime use rates of marijuana, cocaine and other illicit drugs [106]. Compared to heterosexual men, gay and bisexual men report greater lifetime use rates of cocaine, marijuana, MDMA, and methamphetamine [106]. Transgender MTF women report higher rates of intravenous drug use [107]. Alcohol and drug use are associated with higher sexual risktaking among gay and bisexual men and MTF transgender women [108]. Methamphetamine, ecstasy (MDMA), ketamine, LSD and similar drugs are often referred to as "club drugs" and may be particularly associated with LGBToriented bars and clubs [109]. "Poppers" (amyl nitrite) are inhaled drugs used commonly by MSM to enhance sexual sensation and relax the anal sphincter [110]. Even at low frequencies, any illicit drug or excessive alcohol use increases risk of HIV and STI acquisition [111], and risk increases in a dose-dependent manner [112]. Alcohol and drugs may be used by LGBT people for a myriad of reasons similar to those associated with tobacco use above. Often LGBT people are marginalized within communities and historically have congregated at bars and clubs for socializing. Mental health comorbidities or using alcohol and drugs to escape feelings of loneliness and depression can complicate the diagnosis and treatment [98].

**Screening Tools** A number of tools, such as the SBIRT approach, CAGE, and AUDIT are available to screen for substance use and abuse in primary care settings. A convenient source of multiple online tools is the SAMHSA-HRSA Center for Integrated Health Solutions [113].

### Sexual Health

**STI Screening—MSM** According to CDC reports of multicenter studies, MSM had a prevalence of 14.9 % for gonorrhea and 11.2 % for Chlamydia. Moreover, MSM accounted for 62 % of all primary and secondary syphilis cases in the U.S. between 2005 and 2009, the syphilis

| STI            | Source/type  | Indications                             | Timing   |
|----------------|--|---|--|
| HIV            | Serum or oral swab                                 | All MSM                                 | At least annually  |
| Syphilis       | Serology   | All MSM                                 | At least annually  |
| Gonorrhea      | Urine NAAT Was anal insertive partner in last year |   | At least annually  |
|                | Rectal swab NAAT                                   | Was anal receptive partner in last year | At least annually  |
|                | Oral swab NAAT                                     | Was oral receptive partner in last year | At least annually  |
| Chlamydia      | Urine NAAT   | Was anal insertive partner in last year | At least annually  |
|                | Rectal swab NAAT                                   | Was anal receptive partner in last year | At least annually  |
| Hepatitis B    | HBsAg serology                                     | All MSM                                 | At least once and periodically until effective vaccination confirmed |
| HSV-2<br>HSV-1 | Serology   | Consider if status unknown              | Periodic for those with negative last status                         |

Table 8.2 Primary care STI screening for MSM

NAAT nucleic acid amplification testing

Source: US Public Health Service. Pre-exposure prophylaxis for the prevention of HIV infection in the United States—2014: A clinical practice guideline. Atlanta: CDC; 2014 [115]

seroreactivity rate for MSM was 11 % in 2008, and there has been a resurgence of syphilis with incidence in 2013 double what it was in 2000 (for which there was the lowest ever incidence) in which MSM are the sub-population with the greatest increase [114]. Many cases of STI are asymptomatic, so screening should be offered even if patients deny symptoms [72]. Consensus guidelines for STI screening among MSM from the CDC are summarized in Table 8.2 [116]. Screening at 3-6 month intervals are indicated for those with multiple partners, anonymous partners, or those who have sex along with illicit drug use or whose partners do so. Appropriate patient-centered care would also dictate that MSM in long-term monogamous relationships in which both partners have negative STI initial testing could reasonably forego or space out STI screening. It is always important to re-assess specific sexual history prior to testing. Note that testing for anal or oral HPV and its effects remains controversial. See the section on anal cancer above for more information. Additionally, some experts would recommend screening for both HSV-1 and HSV-2, given increasing rates of HSV-1 in genital samples [117, 118], though there is insufficient evidence for an official recommendation.

#### **Helpful Hint**

Utilize the Centers for Disease Control and Prevention (CDC) Sexually Transmitted Diseases Treatment Guidelines guidelines for guidance on screening MSM for STDs.

STI Screening in WSW As with HPV infection, there is evidence of transmission of most STI's between female partners, though transmission is likely less efficient for most infections. HIV in particular is rare, with only one documented case considered to be confirmed as sexually transmitted [119] and a handful of others in which transmission was probable but less clear [30]. Conversely, bacterial vaginosis, though not an STI in the traditional sense, is more common in WSW with consistent strains documented in couples [30, 120]. Because HSV is transmitted similarly in various forms of sexual practices, transmission may be more common than most STIs in WSW. Evidence supports increased prevalence of HSV-1 with increasing female partners, possibly related to more frequent oral sex [30, 121]. As with all patients, a detailed sexual history, including lifetime partners and measures taken toward safer sex, can help determine risk.

(Please refer to Appendix A and Chaps. 5 and 6 for suggested sexual history questions.) Because of unclear risk of transmission, there are no established STI screening guidelines other than Pap screening under the same guidelines as for all women, and the recommendation to screen according to sexual history risk factors [116].

STI Screening in Transgender Patients In general, transgender persons should be screened commensurate with the body parts they have and their type of sexual activity. A transwoman who has oral or anal sex with men would therefore be screened according to guidelines for MSM, while a transman who has oral or vaginal sex with women would be screened according to guidelines for WSW. In practice, many trans persons may not identify in a specific category and may be in different stages of hormonal or surgical transition. As with all patients, trans persons may also have both male and female (or transgender) partners, as well. STI screening in this group must be customized in a patient-centered manner. For more information, please see Chaps. 16 and 17.

**Prophylaxis Pre-exposure** Against HIV (PrEP) In 2014, the US Public Health Service issued recommendations for the use of antiviral therapy to prevent HIV infection among individuals who are at high risk [115]. These recommendations apply to HIV-negative individuals who are at substantial risk of acquiring HIV infection. This includes anyone who is in an ongoing sexual relationship with an HIV-positive partner. It also includes anyone who is not in a mutually monogamous relationship with a partner who recently tested HIV-negative and who also meets any of the following criteria: (a) MSM who has had anal sex without a condom in the past 6 months, (b) MSM who has been diagnosed with an STI in the past 6 months, (c) heterosexual man or woman who does not regularly use condoms during sex with partners of unknown HIV status who are at substantial risk of HIV infection (e.g., people who inject drugs or have bisexual male partners). PrEP consists of one daily dose of tenofovir and emtricitabine, and it is generally well tolerated. Patients who are candidates for PrEP should be counseled about HIV transmission and prevention, as well as the risks and benefits of PrEP. Patients receiving PrEP should be screened for HIV every 3 months, and renal function should be assessed every 6 months.

## Mental and Emotional Health

The majority of outpatient treatment for mental health disorders is delivered by PCPs rather than psychiatrists, psychologists, or social workers. Behavioral and emotional disorders are among the most frequent diagnoses seen in the primary care setting [122, 123]. The mental health of some LGBT patients is particularly influenced by constant concealment of true identity, victimization or fear of verbal or physical attack, problems with self-acceptance, and social isolation or lack of social support. Lastly, transgender and bisexual identified people can feel isolated from the gay and lesbian community [124].

The U.S. Preventive Services Task Force (USPSTF) recommends screening adults for depression in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up [125]. The same screening tools can be used for LGBT populations [113]. Further details on mental and emotional health appear in the section below and in Chap. 10.

A meta-analysis highlighted the prevalence of mental disorders in lesbians, gay men, and bisexuals (LGBs) and shows that people who identify as lesbian, gay, or bisexual have a higher prevalence of mental disorders than heterosexuals [96]. One framework for understanding this excess in prevalence of disorders is the concept of minority stress, which helps to explain that stigma, prejudice, and discrimination create a hostile and stressful social environment that causes mental health problems [126]. In the LGBT community, self-identified lesbians (and possibly bisexual women) are at an increased risk of overweight and obesity compared to heterosexual women [12, 14], while gay men tend to have lower BMI than their straight counterparts but express higher body dissatisfaction and may be at higher risk for eating disorders [16, 17]. PCPs should be aware that body image ideals in

the LGBT community may be different from typical cultural ideals, though those theorized differences seem to be minimal in recent, population-based studies [16, 17, 22–24]. PCPs can increase their detection and understanding of mental health problems in their LGBT patients by knowing the stress processes that underlie prejudice events and internalized homophobia.

The health disparities experienced by LGBT populations derive from a complex network of cultural and institutional factors. In part, these disparities appear to stem from culturally sanctioned stigmatization of sexual and gender minorities, beginning early in childhood. Bullying at school or in the home is associated with elevated levels of anxiety and depression in LGBT youth, triggering maladaptive coping behaviors such as early experimentation with cigarettes, alcohol, drugs, sexual activity, and altered eating patterns. LGBT youth are significantly at higher risk for suicidal ideation and attempted suicide [99, 124]. LGBT people are also more likely to experience family rejection and adolescent homelessness. Running away to escape mistreatment or abuse drastically increases sexual and substance abuse risk and disrupts educational and employment opportunities. These factors in turn contribute to lifelong health disparities experienced by LGBT people [99].

### Family Models in LGBT Health

Recent groundbreaking publications have raised awareness of previously unrecognized health disparities experienced by LGBT populations [127]. PCPs can improve the health care of LGBT men and women and their families by maintaining a non-homophobic attitude, being sure to distinguish sexual behavior from sexual identity, communicating clearly and sensitively by using gender-neutral terms, and being aware of how their own attitudes affect clinical judgment.

The American Academy of Family Physicians defines family as, "a group of individuals with a continuing legal, genetic, and/or emotional relationship" [128]. PCPs play a special role in addressing patients' health from a holistic perspective that acknowledges and honors this broad definition of family. LGBT families include couples without children, couples with children and/or stepchildren, single parents with children, multiple parents raising children together, "families of choice" (close friends), and multiple adults in a committed relationship. PCPs can learn about their patient's family structure by asking patients who lives at home with them, who helps them make important health care decisions and inquiring further about the quality of relationships. When talking with children, physicians should initially use neutral language such as "parent(s)" rather than "mom" or "dad."

#### Helpful Hint

LGBT patients often define 'family' very broadly.

Related to emotional wellbeing and relationship health, LGBT couples are particularly vulnerable to the internalization of societal stigma. This can hamper the ability to form safe, strong, nurturing relationships. Lack of family and peer acceptance undermines LGBT relationship and contributes to psychological stress. Recent landmark decisions regarding legal marital status for lesbian and gay couples have improved financial and legal protections. However, in many states, the benefits of marriage remain unavailable, or at best, in flux for lesbian and gay couples [129]. PCPs can encourage LGBT families to protect themselves and their loved ones with legal documentation such as, living wills, medical power of attorney/health care proxy, durable power of attorney, second parent or joint adoption (where available), and sperm donor agreement.

# Brief Counseling within the Clinical Visit

Primary care providers are in a unique position to identify patients with potential mental health problems and intervene when appropriate. In the primary care setting, the mental health assessment includes asking patients about their most pressing mental health concern and assessing social factors and coping styles. Evidence supports brief interventions in primary care and brief interventions are especially relevant to the healthcare needs of LGBT patients, particularly in addressing substance abuse and patient activation [130–132].

As with any effective counseling modality, effective brief interventions begin with an active and empathic therapeutic style that respects patient autonomy and places responsibility for change on the patient. The focus of the intervention is on a specific problem with the intention of finding a solution that can be objectively measured. The provider incorporates patient values and beliefs into clearly defined goals related to specific behavior change and enhances patient self-efficacy so that patients can move toward change [133].

Counseling patients to change their behavior in an effort to support mental health (e.g., quitting smoking, decreasing alcohol use, exercising, medication adherence) can be a challenge for clinicians, particularly in a short amount of time. Evidence suggests that simply telling patients to change their behavior (e.g., eat less, exercise more) is not as effective as using a patient-centered approach, where the physician attempts to meet the patient "where he or she is at" in terms of internal motivation to change. For example, if the patient is resistant to change, then he or she will likely ignore any recommendations or guidelines. But if the patient is already taking steps to make a change, then one can take the opportunity to further motivate the patient, and to make further suggestions for taking action and committing to change. Therefore, prior to educating the patient about what changes to make, it is recommended that the PCP first assess the patient's readiness for making a change. This can be accomplished by asking how important the change seems to the patient, and then assessing how confident the patient feels in making the change [28].

The "transtheoretical model of change" proposes that people go through six predictable stages in their process of change. Progress through the stages can be slow, and many people regress to earlier stages during the process. Once it is established which stage of change the patient is in, brief counseling techniques can be tailored to be more effective [134]. Motivational Interviewing is one patient-centered approach that can be used to increase motivation to change, and has been found to be successful in treating addiction. Many health professionals believe it can be easily adopted for other forms of behavioral change relevant to health promotion in the primary care setting [28].

# **Coordination of Care**

## **Finding Appropriate Consultants**

Although health care providers practice under codes of ethics that insist upon professionalism and respect for the patient, patients continue to report experiences of discrimination and insensitive communication or treatment in health care settings [88, 135, 136]. Studies as late as the early 2000s reveal significant bias of health care providers against LGBT patients [137–140], which have potential to affect patient experiences. How do PCPs protect their patients from discriminatory experiences or direct their patients to consultants more culturally competent in LGBT health? Unfortunately there are no standards or certifications demonstrating competence or sensitivity to which to refer. The GLMA directory is a national database open to providers of all specialties and can therefore be a resource in terms of screening consultants for sensitivity [141]. Some institutions, such as Vanderbilt University [142], and organizations such as Out, Proud, and Healthy in Missouri [143] have also established their own provider directories. Many areas of the country, however, have few to no listings in the GLMA directory and no local directory. In these areas, selecting more sensitive consultants to which to refer the patient, when possible, will be through personal networks and word-of-mouth. Of course, personal networks are not only the most effective way to refer in a patient-centered manner in all settings, but they also serve to reinforce sensitive and competent care through repeated referrals and personal feedback.

## **Communication and Confidentiality**

Documentation of sexual orientation and gender identity can be challenging, especially in settings in which registration forms and electronic health records (EHR) limit patients to hetero-normative and gender-normative designations. Evidence exists that patients still have concerns about confidentiality, especially the uncertainty induced by the EHR era [144.] There is no standard of care to guide documentation; however, national guidelines emphasize the need for transparency with patients about what information is recorded and the language used, and who has access to it. Of course it is appropriate to defer to the patient's preferences when necessary as befits patient-centered care [3, 145].

# Resources Most Relevant to Primary Care

The National LGBT Health Education Center-Home

http://www.lgbthealtheducation.org/

- The National LGBT Health Education Center— Suggested Resources and Readings
- http://www.lgbthealtheducation.org/publications/ lgbt-health-resources/
- GLMA Guidelines for Care of Lesbian, Gay, Bisexual, and Transgender Patients
- http://glma.org/\_data/n\_0001/resources/live/ GLMA%20guidelines%202006%20FINAL. pdf
- UCSF Center of Excellence for Transgender Health: Primary Care Protocol for Transgender Patient Care
- http://transhealth.ucsf.edu/trans?page= protocol-00-00
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