CLINICAL GUIDELINES PROGRAM
NEW YORK STATE DEPARTMENT OF HEALTH AIDS INSTITUTE | HIV • HCV • STIs • SUBSTANCE USE • LGBTQ+ HEALTH

Guidance: Partner Treatment to Prevent Recurrent Bacterial Vaginosis

Updates, Authorship, and Related Resources

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Intended users	Clinicians who provide care for patients with bacterial vaginosis
Lead authors	Marguerite A. Urban, MD; Maria Teresa Timoney, CNM, NP, MS, RN
Writing group	Rona M. Vail, MD, AAHIVS; Sanjiv S. Shah, MD, MPH, AAHIVS; Steven M. Fine, MD, PhD; Joseph P. McGowan, MD, FACP, FIDSA; Samuel T. Merrick, MD, FIDSA; Asa E. Radix, MD, MPH, PhD, FACP, AAHIVS; Anne K. Monroe, MD, MSPH; Jessica Rodrigues, MPH, MS; Brianna L. Norton, DO, MPH; Charles J. Gonzalez, MD; Christopher J. Hoffmann, MD, MPH, MSc, FACP
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Related NYSDOH AI resources	**Guideline** • HIV Testing **Guidance** • GOALS Framework for Sexual History Taking in Primary Care **Podcast** • Viremic—Cases in HIV

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Contents

Purpose of This Guidance

This guidance was developed by the New York State Department of Health AIDS Institute (NYSDOH AI) Clinical Guidelines Program to guide clinicians providing care to patients with bacterial vaginosis (BV). The goals of this guidance are to:

- Educate clinicians about BV symptoms, prevalence, risk factors, and treatments, and the potential for recurrence after treatment.
- Outline current evidence for partner treatment of individuals with BV to prevent recurrence.
- Discuss appropriate treatment for individuals with BV and their sex partners.

Existing data are conflicting regarding the efficacy of partner treatment on BV recurrence; however, a recent study showed a clear preventive benefit from the concomitant treatment of male partners (with oral plus topical antibiotics) of individuals with BV, with a more than 60% reduction in BV recurrences [Vodstrcil, et al. 2025; Vodstrcil, et al. 2020]. Further research is needed to determine if these results can be replicated in different populations, including those with high rates of circumcision, in which the impact of topical therapy may be lower. However, given that symptomatic recurrent BV can lead to stigma, lifestyle disruption, and multiple courses of antibiotics, this guidance supports offering antibiotic treatment to ongoing sex partners of individuals diagnosed with symptomatic BV.

Other guidance: In October 2025, the American College of Obstetrics and Gynecology released a clinical practice update supporting partner treatment for ongoing partners of individuals with BV [ACOG 2025].

Bacterial Vaginosis: An Overview

Bacterial vaginosis (BV) is a common clinical condition associated with symptoms of vaginal discharge and fishy or amine odor. BV is reported to be the most common cause of vaginal discharge worldwide among individuals of childbearing age. Worldwide prevalence of BV varies significantly, with regional prevalence estimates ranging from 20% to 60% [Coudray and

Madhivanan 2020]. In the United States, the prevalence of BV has been estimated as 29% among the general population [Peebles, et al. 2019], and BV is more commonly identified among Black and Hispanic women than White women for reasons that are not well understood [Allsworth and Peipert 2007]. Data are lacking about the prevalence of BV in transgender individuals.

BV is classified as a dysbiosis, referring to the shift in the vaginal bacterial microbiota from a predominance of lactobacilli to a mixed population of bacteria with high concentrations of facultative anaerobes (including *Gardnerella vaginalis*, *Prevotella* species, and others) [Plummer, et al. 2023; Kenyon, et al. 2018]. BV has also been associated with increased transmission and acquisition of HIV and other sexually transmitted infections (STIs), pelvic inflammatory disease (PID), chorioamnionitis, risk of spontaneous abortion, preterm labor, and postprocedural and postpartum endometritis [Muzny, et al. 2022; Workowski, et al. 2021].

Risk factors: The pathogenesis of BV is not entirely understood, although studies have documented an association between BV and sexual activity (BV is rarely reported before the onset of sexual activity) as well as risk factors suggesting sexual transmission of BV-associated bacteria [Abou Chacra, et al. 2023; Roxby, et al. 2023; Muzny, et al. 2022; Vodstrcil, et al. 2021; Fethers, et al. 2009; Wiesenfeld, et al. 2003]. Factors associated with BV include new or multiple sex partners, lack of condom use, and the presence of other STIs. BV-associated bacteria have been identified on male genitalia of sex partners of individuals with BV, suggesting an exchange of organisms through sexual intercourse [Vodstrcil, et al. 2021]. BV with a high genetic concordance of organisms has been found in both partners within couples of women who have sex with women [Vodstrcil, et al. 2021].

Recurrence: BV symptoms often respond to treatment with oral or topical antibiotics directed at anaerobic bacteria, but there are very high rates of recurrent episodes leading to negative impacts on quality of life, frequent health care visits, and repeated use of antibiotics. Recurrent BV has been associated with having an ongoing sexual partnership, lack of condom use, presence of an IUD, and having an uncircumcised sex partner [Muzny, et al. 2022; Ratten, et al. 2021; Bradshaw, et al. 2013; Bradshaw, et al. 2006]. Recurrent BV remains a difficult clinical problem for clinicians and patients, with more than 50% of individuals developing a recurrence within 6 months of diagnosis [Ratten, et al. 2021; Vodstrcil, et al. 2021; Bradshaw, et al. 2013]. There are no universally effective interventions to prevent recurrences. Despite evidence of an association with sexual activity, until recently, there has not been convincing evidence that the treatment of sex partners decreases recurrences of BV [Schwebke, et al. 2021; Amaya-Guio, et al. 2016].

Evidence on Partner Treatment

The StepUp trial: Monogamous heterosexual cisgender couples were enrolled in the multicenter, randomized, open-label StepUp trial, conducted in Australia, to assess whether concomitant partner treatment could decrease recurrence rates of bacterial vaginosis (BV) among women receiving treatment [Vodstrcil, et al. 2025; Vodstrcil, et al. 2020]. Premenopausal cisgender women aged 18 years or older diagnosed with symptomatic BV who reported monogamy with a cisgender male partner for 8 weeks before enrollment and an intention to remain monogamous for 12 weeks after enrollment were included. BV was diagnosed using Amsel's criteria or Nugent score (see Box 1: Diagnosing Bacterial Vaginosis). Male partners were referred for study participation by their partners and enrolled within 1 week of their partner's BV diagnosis. Exclusions included HIV infection, sex work, having other concurrent sexual partners, PID, being pregnant or breastfeeding, using other antibiotics, or having a contraindication to the study antibiotics. Couples were randomized 1:1 and stratified by clinic site at enrollment, circumcision status of the male partner, and presence of an intrauterine device (IUD) in the female partner. Male partners were asymptomatic. Couples received standard BV treatment of the female partner with no associated male partner treatment (control group) or standard BV treatment of the female partner and simultaneous male partner treatment (partner treatment group). Participants with BV received treatment with oral metronidazole 400 mg twice daily for 7 days, intravaginal 2% clindamycin cream for 7 nights, or intravaginal 0.75% metronidazole gel for 5 nights. The treatment regimen for male partners was oral metronidazole 400 mg twice daily for 7 days *plus* 2% clindamycin cream applied topically to the penis twice daily for 7 days. All participants were counselled to avoid sex until antibiotic treatments were completed. Follow-up evaluations included symptom questionnaires and vaginal samples, which were used to assess for BV by Nugent score and obtained at day 8 and weeks 4, 8, and 12.

The study was discontinued early after a Data Safety Monitoring Board (DSMB) review showed a significant reduction in BV recurrences within 12 weeks of partner treatment [Vodstrcil, et al. 2025]. In modified intent-to-treat analysis, BV recurrences were identified in 24 of 69 women (35%) in the partner treatment group (recurrence rate, 1.6 per person-year; 95% confidence interval [CI], 1.1-2.4) and in 43 of 68 women (63%) in the control group for (recurrence rate, 4.2 per person-year; 95% CI, 3.2-5.7) corresponding to an absolute risk difference of -2.6 recurrences per person-year (95% CI, -4.0 to -1.2;

P<.001). Mean time to recurrence was 73.9 days in the partner treatment group and 54.5 days in the control group (difference in days to recurrence, 19.3 days; 95% CI, 11.5 to 27.1; *P*<.001). No significant adverse events were reported. Among women treated with metronidazole, approximately 60% in both groups reported some adverse symptom, most commonly nausea, headache, and vaginal itch. Among men who completed a questionnaire, 46% reported symptoms including nausea, headache, and metallic taste. Local penile symptoms of redness or irritation were rare (reported by 4 participants). The population enrolled in the trial had a high likelihood for recurrences due to several factors, as 87% of women enrolled had prior BV, 80% had an uncircumcised male partner, and 30% had an IUD, making the reduction in recurrences particularly notable. Adherence to the treatment regimen among the male partners was high (lower for the topical therapy than for the oral metronidazole) and recurrence rates were lowest among women whose partners were highly adherent. Results did not differ by presence or absence of an IUD or circumcision status.

Other studies: Prior studies by the same research group from the StepUp trial showed that the use of combination oral and topical antibiotic therapy (as used in StepUp) affected the microbiota of the penis at the urethra and skin in the subpreputial space (beneath the foreskin), with a reduction of BV-associated bacteria detected after antimicrobial treatment [Plummer, et al. 2021; Plummer, et al. 2018].

Other studies directly evaluating the impact of partner treatment on BV recurrences have not shown efficacy [Schwebke, et al. 2021; Peebles, et al. 2019]. None of the prior partner treatment trials included a topical antibiotic as was done in the StepUp trial. A comprehensive Cochrane analysis review published in 2017 evaluated 7 trials published between 1985 and 1997 examining oral antibiotic treatment (4 used metronidazole, 2 used tinidazole, 1 used clindamycin) of male sex partners of individuals diagnosed with BV [Amaya-Guio, et al. 2016]. The authors of the analysis concluded that oral antibiotic treatment did not decrease BV recurrence rate, concurring with existing Centers for Disease Control and Prevention STI treatment guidelines to not recommend partner treatment in the setting of a BV diagnosis [Workowski, et al. 2021].

In 2025, the StepUp study team published (in supplementary materials) an updated review of 7 prior trials of partner treatment for BV [Vodstrcil, et al. 2025], including 6 of the studies reported on in the Cochrane review and an additional U.S.-based trial published in 2021. None of the 7 studies showed a significant effect of male partner treatment on BV recurrences, although the authors cite significant methodologic issues that may have impacted the results (lack of reporting of adherence, sample size issues, and frequent use of single-dose regimens for participants with BV and their partners) in the 6 older trials.

In contrast, a 2021 trial conducted in Alabama was well-designed and well-powered to show an effect of partner treatment on BV recurrence but was stopped early after a DSMB review revealed futility (i.e., no evidence of effect of partner treatment on BV recurrences) [Schwebke, et al. 2021]. Therapy for participants with BV and their partners consisted of oral metronidazole 500 mg twice daily for 1 week. The study authors noted an unexpectedly high rate of initial BV treatment failure that may have been affected by adherence issues or could suggest that BV biofilms were already well-established and thus BV in these participants was complicated and no longer susceptible to partner treatment. Individuals with BV whose cisgender male partners adhered to study medication were less likely to experience treatment failure (adjusted relative risk, 0.85; 95% CI, 0.73–0.99; *P*=.035). It was postulated that the addition of topical antibiotic partner therapy might have affected results. However, this study population had a higher rate of Black participants with BV, higher rates of circumcision in partners, and lower rates of intrauterine device use than the Australian StepUp population (discussed above), which did add topical antibiotic to the partner regimen.

Patient and Partner Treatment

Diagnosing and Treating Patients With BV

Bacterial vaginosis (BV) is diagnosed using Amsel criteria, commercial assay, or Nugent score (see Box 1, below).

Box 1: Diagnosing Bacterial Vaginosis

The following methods, listed in alphabetical order, can be used to diagnose bacterial vaginosis (BV):

- **Amsel criteria** (requires the presence of at least 3 of the following symptoms for a diagnosis of BV)**:**
  - Homogeneous, thin discharge (milk-like consistency) that smoothly coats the vaginal walls
  - Clue cells (e.g., vaginal epithelial cells studded with adherent bacteria) on microscopic examination
  - pH of vaginal fluid >4.5
  - A fishy odor of vaginal discharge before or after addition of 10% KOH (i.e., the whiff test)

Box 1: Diagnosing Bacterial Vaginosis

- **Commercial assays:** A point-of-care or laboratory-based assay approved by the U.S. Food and Drug Administration
- **Nugent score gram stain** (of vaginal discharge; this method is uncommon outside of a research setting)**:**
  - Score of 7-10: Consistent with BV (prominent BV-associated bacteria and depletion of lactobacilli)
  - Score of 4-6: Indeterminate (mixed BV-associated bacteria and lactobacilli)
  - Score of 0-3: Not consistent with BV (predominant lactobacilli vaginal flora)

Once diagnosed, symptomatic BV can be treated with Centers for Disease Control and Prevention–recommended regimen (see Box 2, below) [Workowski, et al. 2021]. When discussing a BV diagnosis with patients, it is important to inform the patient that BV is associated with sexual transmission and effective management may require the involvement of their sex partners. This language, with its emphasis on sexual transmission, is a change from how BV pathogenesis and natural history have been historically presented to patients and may trigger questions from patients with a prior history of BV. Essential points to discuss with patients with BV include the following:

- The BV-associated bacteria in the vagina that cause vaginal discharge and fishy odor can also be carried on the penises (with no symptoms) or in the vaginas of regular sex partners.
- There are no tests available to identify BV associated bacteria on male genitalia, however, research studies have shown high rates of concordance of bacteria in the genital tracts among regular sexual partners.
- Although evidence demonstrates that BV associated bacteria are shared between sex partners, it is important to inform patients and their partners that the sexual transmission of bacteria associated with BV refers to the sharing of endogenous bacteria not the introduction of exogenous pathogens such as *N. gonorrhea* or *T. pallidum* from an outside sexual encounter.
- The StepUp trial demonstrated that concurrent patient and partner treatment (despite no symptoms in the partner) among monogamous heterosexual couples reduced the rate of recurrences of BV and delayed those BV recurrences that did still occur [Vodstrcil, et al. 2025; Vodstrcil, et al. 2020]. No data are currently available about BV treatment for multiple partners.

Box 2: Treatments for Bacterial Vaginosis [a]

Recommended treatments for bacterial vaginosis are as follows:

- Metronidazole 500 mg orally twice daily for 7 days, *or*
- Metronidazole gel 0.75% 5 g (one full applicator) intravaginally once daily for 5 days, *or*
- Clindamycin cream 2% 5 g (one full applicator) intravaginally at bedtime for 7 days

Note:

a. See CDC Sexually Transmitted Infection Treatment Guidelines, 2021.

When treating patients with BV who have ongoing sexual partnerships, advise them that BV recurrences may be prevented or delayed when ongoing partners with a penis receive partner treatment through their primary care provider or a sexual health care provider. Partners with vaginas may seek further evaluation (see discussion below). If partners plan to seek treatment, advise the patient and partner to abstain from sexual activity until both have completed their treatment course. If sex occurs before treatment is complete, condoms should be used. Intravaginal clindamycin cream may weaken latex or rubber condoms [FDA 2025]; there are no data regarding condom use and topical penile clindamycin cream, although recent use of topical clindamycin cream on the penis may have a similar effect on condoms [FDA 2025; Lexidrug 2025].

→ KEY POINTS

- BV-associated bacteria are shared between sex partners. These bacteria are endogenous; transmission between sex partners does not indicate an exposure to an outside partner.
- Providing antibiotic treatment to individuals with BV *and* their ongoing male sex partners has been shown to decrease the incidence of BV recurrences in some populations and to delay recurrences that do occur.
- Advise patients with BV to have ongoing male sex partners seek partner treatment through their primary care provider or a sexual health care provider.

Treating Partners to Prevent Recurrent BV

As previously discussed, cisgender male sex partners of individuals with BV typically have no symptoms related to BV-associated bacteria. BV is not a sexually transmitted infection (STI) eligible for the use of expedited partner treatment in New York State; therefore, asymptomatic male partners will require an in-person or telehealth visit with a clinician to receive a prescription for the partner treatment.

When meeting with male sex partners of patients with BV:

- Obtain a sexual history. See NYSDOH GOALS Framework for Sexual History Taking in Primary Care.
- Establish that they are an existing partner and will be an ongoing partner of the individual diagnosed with BV.
- Provide education on the role of sexual transmission of BV-associated bacteria in BV recurrence, the effect of partner treatment on the rate of BV recurrence, the importance of adherence to both medications (oral and cream).
- Offer treatment with metronidazole 500 mg orally twice daily for 7 days *plus* 2% clindamycin cream applied to the head (beneath foreskin if present) and shaft of the penis twice daily for 7 days (adapted for United States medication formulations) [Vodstrcil, et al. 2025; Vodstrcil, et al. 2020].
- Advise that the partner and primary patient abstain from sexual activity until both have completed their treatment course. If sex occurs before treatment is complete, condoms should be used. Counsel partners that intravaginal clindamycin cream may weaken condoms and that recent use of topical clindamycin cream on the penis may have a similar effect [FDA 2025; Lexidrug 2025].
- Offer HIV and other STI screening and prevention services indicated by sexual history. See the NYSDOH guidelines HIV Testing, PrEP to Prevent HIV and Promote Sexual Health, and Doxycycline Post-Exposure Prophylaxis to Prevent Bacterial Sexually Transmitted Infections for additional information.

Metronidazole and clindamycin 2% cream are readily available, but care should be taken in the phrasing of the clindamycin cream instructions. In the United States, clindamycin 2% cream is distributed solely for vaginal use and dispensed with a vaginal applicator, leading some pharmacists to question or deny prescriptions with instructions for dermal use on the penis. As of August 2025, Micromedex and Lexidrug added topical use of clindamycin 2% cream on the penis as an off-label indication based on data from the StepUp trial [Vodstrcil, et al. 2025; Vodstrcil, et al. 2020]. Clindamycin 2% vaginal gel is not recommended for use on the penis. There are no data regarding the effectiveness of clindamycin 1% topical preparations as partner treatment for BV.

The prescription for clindamycin 2% cream should instruct the pharmacist that no vaginal applicators are necessary. To minimize delays in filling the prescriptions, it may be helpful to acknowledge that the prescription is an off-label use of the medication and provide the reference to the StepUp trial.

Patients can be given detailed instructions regarding clindamycin administration:

- Squeeze a line of cream from the tip of their index finger to the first crease.
- Retract foreskin, if uncircumcised, and rub the cream over the penile head and into the groove below the head.
- Squeeze a second line of cream onto their finger and rub it over the full length of the penile shaft, front and back and down to the base of the penis.
- Repeat this process twice daily for 7 days while taking oral metronidazole tablets.
- See Melbourne Sexual Health Centre Metronidazole and Clindamycin Instructions for Partners With a Penis for more information.

→ KEY POINTS

- Clear communication with patients and their partners is essential, as treating partners is a major shift in how BV has been managed over many years.
- Follow-up qualitative evaluations of couples enrolled in the StepUp trial demonstrated that open communication between the health care provider and the individual with BV and their partner, along with minimizing logistical barriers to treatment such as providing telehealth visits for partners, were essential to communicating a new understanding of BV, minimizing stigma, and facilitating adherence to patient and partner regimens [King, et al. 2025].

Partners outside a monogamous partnership: There are no data regarding treatment of sex partners outside a monogamous partnership; however, it would be prudent to treat all ongoing sex partners using the same approach.

Prior partners: There is no indication to treat prior sex partners (who would not be ongoing), as the goal of partner treatment is to prevent BV recurrence in the initial patient.

Female partners: There are also no data regarding treatment of female sex partners of individuals with BV. Ongoing sex partners with vaginas can be tested for BV using standard methods (see Box 1, above); if BV is identified, or if, after shared decision-making, treatment of an asymptomatic partner is undertaken, standard BV treatment (see Box 2, above) can be used, with no need for 2-drug therapy (oral plus cream).

Transgender or gender nonconforming partners: Data regarding treatment of transgender or gender nonconforming partners of individuals with BV are also lacking. For individuals who have undergone gender-affirming genital surgery, a shared decision-making approach can be used based on their anatomy. Treatment can be offered to partners with a penis as discussed above.

Future directions: Research trials evaluating the pathogenesis, diagnosis, treatment, and prevention of BV are ongoing. The StepUp trial has continued to evaluate participants through an open-label extension study, and the same research group has initiated a study focused on people who identify as LGBTQIA+ (PACT study). This guidance will be updated as more information becomes available regarding partner treatment for the prevention of BV.

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Supplement: Guideline Development and Recommendation Ratings

Table S1: Guideline Development: New York State Department of Health AIDS Institute Clinical Guidelines Program	
Developer	New York State Department of Health AIDS Institute (NYSDOH AI) Clinical Guidelines Program
Funding source	NYSDOH AI
Program manager	Clinical Guidelines Program, Johns Hopkins University School of Medicine, Division of Infectious Diseases. See Program Leadership and Staff.
Mission	To produce and disseminate evidence-based, state-of-the-art clinical practice guidelines that establish uniform standards of care for practitioners who provide prevention or treatment of HIV, viral hepatitis, other sexually transmitted infections, and substance use disorders for adults throughout New York State in the wide array of settings in which those services are delivered.
Expert committees	The NYSDOH AI Medical Director invites and appoints committees of clinical and public health experts from throughout New York State to ensure that the guidelines are practical, immediately applicable, and meet the needs of care providers and stakeholders in all major regions of New York State, all relevant clinical practice settings, key New York State agencies, and community service organizations.
Committee structure	• Leadership: AI-appointed chair, vice chair(s), chair emeritus, clinical specialist(s), JHU Guidelines Program Director, AI Medical Director, AI Clinical Consultant, AVAC community advisor • Contributing members • Guideline writing groups: Lead author, coauthors if applicable, and all committee leaders
Disclosure and management of conflicts of interest	• Annual disclosure of financial relationships with commercial entities for the 12 months prior and upcoming is required of all individuals who work with the guidelines program, and includes disclosure for partners or spouses and primary professional affiliation. • The NYSDOH AI assesses all reported financial relationships to determine the potential for undue influence on guideline recommendations and, when indicated, denies participation in the program or formulates a plan to manage potential conflicts. Disclosures are listed for each committee member.
Evidence collection and review	• Literature search and review strategy is defined by the guideline lead author based on the defined scope of a new guideline or update. • A comprehensive literature search and review is conducted for a new guideline or an extensive update using PubMed, other pertinent databases of peer-reviewed literature, and relevant conference abstracts to establish the evidence base for guideline recommendations. • A targeted search and review to identify recently published evidence is conducted for guidelines published within the previous 3 years. • Title, abstract, and article reviews are performed by the lead author. The JHU editorial team collates evidence and creates and maintains an evidence table for each guideline.
Recommendation development	• The lead author drafts recommendations to address the defined scope of the guideline based on available published data. • Writing group members review the draft recommendations and evidence and deliberate to revise, refine, and reach consensus on all recommendations. • When published data are not available, support for a recommendation may be based on the committee's expert opinion. • The writing group assigns a 2-part rating to each recommendation to indicate the strength of the recommendation and quality of the supporting evidence. The group reviews the evidence, deliberates, and may revise recommendations when required to reach consensus.

Table S1: Guideline Development: New York State Department of Health AIDS Institute Clinical Guidelines Program	
Review and approval process	• Following writing group approval, draft guidelines are reviewed by all contributors, program liaisons, and a volunteer reviewer from the AI Community Advisory Committee. • Recommendations must be approved by two-thirds of the full committee. If necessary to achieve consensus, the full committee is invited to deliberate, review the evidence, and revise recommendations. • Final approval by the committee chair and the NYSDOH AI Medical Director is required for publication.
External reviews	• External review of each guideline is invited at the developer's discretion. • External reviewers recognized for their experience and expertise review guidelines for accuracy, balance, clarity, and practicality and provide feedback.
Update process	• JHU editorial staff ensure that each guideline is reviewed and determined to be current upon the 3-year anniversary of publication; guidelines that provide clinical recommendations in rapidly changing areas of practice may be reviewed annually. Published literature is surveilled to identify new evidence that may prompt changes to existing recommendations or development of new recommendations. • If changes in the standard of care, newly published studies, new drug approval, new drug-related warning, or a public health emergency indicate the need for immediate change to published guidelines, committee leadership will make recommendations and immediate updates and will invite full committee review as indicated.

Table S2: Recommendation Ratings and Definitions		
Strength	**Quality of Evidence**	
A: Strong B: Moderate C: Optional	1	Based on published results of at least 1 randomized clinical trial with clinical outcomes or validated laboratory endpoints.
	*	Based on either a self-evident conclusion; conclusive, published, in vitro data; or well-established practice that cannot be tested because ethics would preclude a clinical trial.
	2	Based on published results of at least 1 well-designed, nonrandomized clinical trial or observational cohort study with long-term clinical outcomes.
	2†	Extrapolated from published results of well-designed studies (including nonrandomized clinical trials) conducted in populations other than those specifically addressed by a recommendation. The source(s) of the extrapolated evidence and the rationale for the extrapolation are provided in the guideline text. One example would be results of studies conducted predominantly in a subpopulation (e.g., one gender) that the committee determines to be generalizable to the population under consideration in the guideline.
	3	Based on committee expert opinion, with rationale provided in the guideline text.