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General Approaches to Medical Management of Menstrual Suppression

Committee on Clinical Consensus–Gynecology. This Clinical Consensus was developed by the American College of Obstetricians and Gynecologists' Committee on Clinical Consensus–Gynecology in collaboration with committee members Oluyemisi Adeyemi-Fowode, MD, and Kathryn C. Stambough, MD.

SUMMARY

The purpose of this document is to review currently available management options, general principles, and counseling approaches for reproductive-aged patients requesting menstrual suppression. It includes considerations for unique populations, including adolescents, patients with physical or cognitive disabilities or both, and those with limited access to health care. Gynecologists should be familiar with the use of hormonal therapy for menstrual suppression (including combined oral contraceptive pills, combined hormonal patches, vaginal rings, progestin-only pills, depot medroxyprogesterone acetate, the levonorgestrel-releasing intrauterine device, and the etonogestrel implant). Approaches to counseling should be individualized based on patient preferences and goals, average treatment effectiveness, and contraindications or risk factors for adverse events. Counseling regarding the choice of hormonal medication for menstrual suppression should be approached with the utmost respect for patient autonomy and be free of coercion. Complete amenorrhea may be difficult to achieve; thus, obstetrician–gynecologists and other clinicians should counsel patients and caregivers, if applicable, about realistic expectations.

BACKGROUND

Menstrual suppression refers to the use of hormonal medications to decrease the frequency and volume of physiologic menses and, in some cases, achieving amenorrhea (1). The goal of menstrual suppression should be a reduction in the amount and total days of menstrual flow, and an effective management strategy requires familiarity with options for menstrual suppression. Approaches to counseling should be individualized based on patient preferences and goals, average treatment effectiveness, and contraindications or risk factors for adverse events. Complete amenorrhea may be difficult to achieve; thus, obstetrician–gynecologists and other clinicians should counsel patients and caregivers, if applicable, about realistic expectations. Obstetrician–gynecologists can reassure patients and caregivers that hormonal methods used to suppress menses do not affect future fertility and do not increase the risk of cancer. In fact, continuous use of combined oral contraceptive pills (OCPs) decreases the risk of certain cancers. Reassurance can be provided that a withdrawal bleed during the placebo

SUMMARY OF CONSENSUS RECOMMENDATIONS

General

Gynecologists should be familiar with the use of hormonal therapy for menstrual suppression (including combined oral contraceptive pills, combined hormonal patches, vaginal rings, progestin-only pills, depot medroxyprogesterone acetate, the levonorgestrel-releasing intrauterine device, and the etonogestrel implant). The choice of method should be individualized based on patient preferences and goals, average treatment effectiveness, and contraindications or risk factors for adverse events. Because complete amenorrhea may be difficult to achieve, gynecologists should counsel patients about realistic expectations.

General Principles of Counseling

Counseling regarding the choice of hormonal medication for menstrual suppression should be approached with the utmost respect for patient autonomy and be free of coercion. Gynecologists should engage in shared decision making with patients, and evidence-based counseling should include menstrual-management options and the benefits and limitations of the different methods, as well as realistic expectations about complete amenorrhea.

When discussing options for menstrual suppression, a thorough history should be obtained and the U.S. MEC (U.S. Medical Eligibility Criteria for Contraceptive Use) should be applied to determine safe use of the options based on the patient's individualized needs and preferences.

Adolescent Patients

Hormonal medications (estrogen and progestin methods) for the specific purpose of menstrual suppression should not be initiated before the onset of menarche.

Hormonal therapy options for menstrual suppression are safe and effective in adolescents.

Transgender and Gender-Diverse Patients

Transgender and gender-diverse individuals may benefit from menstrual suppression to decrease gender dysphoria associated with menses.

Gender-affirming hormone therapy with testosterone can be used to achieve amenorrhea. Gynecologists should counsel patients with reproductive potential who do not wish to become pregnant about the contraceptive efficacy of suppression options.

Patients With Physical or Cognitive Disabilities or Both

Menstrual suppression is a safe and viable option for patients with physical or cognitive disabilities or both who need or want to have fewer or no menses. Although suppression should not be started until menarche, anticipatory guidance before menarche can be very useful and may lessen anxiety felt by patients and caregivers.

Patients with cognitive delay may have trouble comprehending menstruation or may face challenges maintaining personal hygiene during menstruation. In this setting, the approach to menstrual suppression should be comparable with that in patients who are neurotypical (ie, without a defined neurologic difference) by starting with the lowest-risk and reversible options.

Gynecologists should educate patients as much as possible based on their cognitive abilities, maintain respect, maximize autonomy, avoid harm, and address patient and caregiver concerns.

Drug Interactions

Gynecologists should conduct a thorough review of a patient's use of over-the-counter and prescribed medications to address any potential drug interactions with hormonal medications for menstrual suppression.

week is a historic holdover from the development of the combined OCP to mimic a more "natural" cycle and is not necessary for health (2).

The purpose of this document is to review currently available management options, general principles, and counseling approaches for reproductive-aged patients requesting menstrual suppression. Additionally, this document includes considerations for unique populations, including adolescents, patients with physical or cognitive disabilities or both, and those with limited access to health care. For information on management for specific indications, please refer to existing American College of Obstetricians and

Gynecologists (ACOG) guidance (3–9). Additionally, surgical options for menstrual suppression that affect future fertility, such as endometrial ablation and hysterectomy, are not considered first-line approaches for patients seeking menstrual suppression and are not included in this document.

METHODS

This Clinical Consensus document was developed using an a priori protocol in conjunction with two authors specializing in pediatric and adolescent gynecology. A full description of the Clinical Consensus methodology is published separately (10). The description below is specific to this Clinical Consensus.

Literature Search

The foundation for the evidence base was studies found by the 2000–2020 literature search. The ACOG medical librarians searched Ovid MEDLINE and PubMed human-only studies written in English. The full reference list from ACOG Committee Opinion No. 668, *Menstrual Manipulation for Adolescents with Physical and Developmental Disabilities*, was provided to the authors for review and inclusion in the document. MeSH terms and keywords can be found in Appendix 1 (available online at http://links.lww.com/AOG/C807). Search terms for disparities and implicit bias in the setting of menstruation, menstrual hygiene, and reproductive health services were incorporated into the literature review, and recommendations were drafted with the intent to promote health equity and reduce these disparities. A bridge literature search was completed in March 2022.

Study Selection

Qualifying studies that passed both title and abstract screen and full-text screen were conducted in countries ranked very high on the United Nations Human Development Index (11). Studies focused on populations with bleeding disorders, endometriosis, premenstrual disorders, uterine leiomyomas, polycystic ovarian syndrome, and any kind of cancer were excluded. Animal studies, basic science nonclinical studies, and opinion pieces were excluded. All other study designs were included in the evidence review. Studies that passed full-text screen by the authors were included in a summary evidence map (Appendix 2, available online at http://links.lww.com/AOG/C808).

Health Disparities

There are racial and ethnic disparities in access to hormonal therapy, and rates of prescribed contraception are higher in White individuals when compared with Black or Latinx individuals (12). Studies addressing menstrual irregularities and rates of amenorrhea with hormonal therapy primarily include White participants, potentially limiting generalizability to other populations (13, 14). The lack of inclusion in research focused on menstrual suppression fails to capture diverse experiences with these methods. Although race is a social construct, not a biological difference, the effects of racism on Black, Indigenous, and people of color is complex and tied to a disproportionate burden of illness for these groups (15). Furthermore, patient beliefs about menstrual health and adherence to treatment methods can contribute to differences in menstrual suppression between certain racial and ethnic groups. When discussing menstrual suppression, it is important to provide sensitive and evidence-based guidance about the safety and efficacy of treatment with careful attention to addressing concerns regarding fertility, menstrual hygiene, and other aspects of reproductive health emphasized by an individual's culture (16).

Consensus Voting and Recommendation Development

At a meeting of the Committee on Clinical Consensus–Gynecology, a quorum of two thirds of eligible voting members was met, and the committee held a formal vote for each proposed recommendation. All recommendation statements met or exceeded the 75% approval threshold required for consensus.

Use of Language

The American College of Obstetricians and Gynecologists recognizes and supports the gender diversity of all patients who seek obstetric and gynecologic care. In original portions of this document, authors seek to use gender-inclusive language or gender-neutral language. When describing research findings, this document uses gender terminology reported by investigators. To review ACOG's policy on inclusive language, see https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2022/inclusive-language.

HORMONAL THERAPY FOR MENSTRUAL SUPPRESSION

Gynecologists should be familiar with the use of hormonal therapy for menstrual suppression (including combined OCPs, combined hormonal patches, vaginal rings, progestin-only pills, depot medroxyprogesterone acetate, the levonorgestrel-releasing intrauterine device [LNG-IUD], and the etonogestrel implant). The choice of method should be individualized based on patient preferences and goals, average treatment effectiveness, and contraindications or risk factors for adverse events. Because complete amenorrhea may be difficult to achieve, gynecologists should counsel patients about realistic expectations. See Table 1 for details on various methods of suppression.

Table 1. Medical Options for Menstrual Suppression

Medication	Dosing	Frequency	Limitations	Amenorrhea*	Advantages	Disadvantages
Continuous combined oral contraceptives	Multiple formulations; monophasic formulations discarding placebo pills or dedicated packaging for extended cycle	Daily	BTB; other hormonal adverse effects	With continuous use, 49%, 68%, and 88% of women reported no bleeding during cycles 2, 6, and 12, respectively	Long history and clinical experience with both cyclic and extended use; higher doses (greater than 20 micrograms) of EE result in less BTB	Daily compliance required; variable duration of menstrual suppression before BTB
Transdermal combination contraceptives	Patch used continuously or extended cycle	Weekly	Similar to combined OCPs; skin reaction	Available data on extended cycling with the 6 mg norelgestromin and 0.75 mg EE demonstrate moderate rates of amenorrhea	Weekly compliance easier than daily combined OCPs	Few data regarding continuous use; patch adherence
Vaginal contraceptive ring	Ring used continuously or extended cycle	Monthly	Similar to other combined methods	Excellent amenorrhea rates for extended use (insertion of a new ring every 4 weeks, avoiding any hormone- or ring-free interval) of monthly ring (0.120 mg etonogestrel and 0.015 mg EE); data lacking on newer vaginal ring (103 mg segesterone acetate and 17.4 mg EE)	Monthly compliance easier than daily or weekly	Higher discontinuation rates because of BTB with both extended and continuous regimens
Oral progestins	Varies by progestin, eg, norethindrone acetate 5 mg bid–tid; medroxyprogesterone acetate	Daily	Irregular bleeding; progestin-related adverse effects; adverse effect on lipids	Norethindrone 0.35: low rates; Norethindrone acetate 5 mg: rates of up to 76%; Drospirenone 4 mg: data limited; menstrual irregularity appears to improve with more prolonged use	May be useful if estrogens are contraindicated; oral dosing is adjustable vs DMPA	Inconsistent achievement of amenorrhea; more expensive than combined OCPs; need for consistent and strict adherence
Depot medroxyprogesterone acetate	150 mg IM; 104 mg sub-Q	Every 11–13 weeks	BTB; progestin-related adverse effects; weight gain; reversible effect on bone density with prolonged use (more than 2 years)	Approaches 68–71% at 2 years; increase with more prolonged use	Every 11–13 weeks administration	Weight gain; potential effect on bone density (reversible)
Implant	Etonogestrel 68 mg	Up to 5 years (FDA-approved for 3 years)†	Associated with high rates of menstrual cycle irregularity	Approximately 22%; rates improve with prolonged use	Top tier contraceptive efficacy	Initial expense and insertion-related pain or discomfort

(*continued*)

Medical Options for Menstrual Suppression (continued)

Medication	Dosing	Frequency	Limitations	Amenorrhea*	Advantages	Disadvantages
Progestin-containing intrauterine device	Levonorgestrel release 52 mg dosage, 20 micrograms/day	Up to 7 years	Initial BTB and possible hormonal effects improve with time; unpredictable suppression of ovulation	50% at 1 year; 60% at 5 years; rates highest with 52 mg IUD	Top tier contraceptive efficacy, with benefits demonstrated for medical conditions including heavy menstrual bleeding, endometriosis, adenomyosis, leiomyomas	Initial expense and insertion-related pain or discomfort
Gonadotropin-releasing hormone agonists	Formulation-dependent: IM, subdermal implants, intranasal	Formulation-dependent: daily or more, to every 12 weeks	GnRH agonists have an initial stimulatory effect and bleeding before suppression; menopausal symptoms; effect on bone density with prolonged use	High rates		Menopausal effects limit therapy but may be given with hormonal add-back to minimize these adverse effects; very expensive; potential effect on bone density

Abbreviations: bid, twice daily; BTB, breakthrough bleeding; DMPA, depot medroxyprogesterone acetate; EE, ethinyl estradiol; FDA, U.S. Food and Drug Administration; GnRH, gonadotropin-releasing hormone; IM, intramuscular; IUD, intrauterine device; OCP, oral contraceptive pill; po, orally; tid, three times daily; sub-Q, subcutaneous.

*Aggregated data and specific numeric rates of efficacy are not available for all methods.

†For the goal of menstrual suppression, extended use of the implant past 3 years may not be effective. Data are lacking on the extended use of the implant for contraception in people with obesity (BMI higher than 30); however, current data do not show a decrease in contraceptive efficacy.

Combined Methods

Combined Oral Contraceptive Pills

Combined OCPs can be used continuously or for an extended period to attain optimal suppression (17–20). Extended cycling with a 21/7 combination OCP regimen is accomplished by omitting the seven placebo pills in the pack and beginning a new pack on day 22. Omission of the placebo week can be done over an indefinite number of consecutive cycles. Some pill packs already are designed and packaged for extended use, with an 84/7 pill regimen; other regimens include 24/4 packs. Studies have found menstrual suppression using extended cycling and continuous-use regimens to be safe and effective (17, 21–24). A Cochrane review of trials comparing 28-day use with extended cycles found comparable contraceptive efficacy and safety (18). The first large, direct comparison of a continuous OCP (levonorgestrel [LNG] 90 micrograms/ethinyl estradiol 20 micrograms) with a cyclic OCP (LNG 100 micrograms/ethinyl estradiol 20 micrograms) was a randomized, open-label trial in which 323 healthy women were randomized to continuous LNG 90 micrograms/ethinyl estradiol 20 micrograms and 318 were randomized to cyclic LNG 100 micrograms/ethinyl estradiol 20 micrograms for 1 year (13 pill packs) (17). The incidence of no bleeding increased throughout the study period in the continuous OCP group and was 50% at pill pack 3, 69% at pill pack 7, and 79% at pill pack 13. Another randomized trial enrolled 79 women and compared bleeding profiles of a traditional 28-day OCP cycle with continuous administration (2). With continuous use, 49%, 68%, and 88% of women reported no bleeding during cycles 2, 6, and 12, respectively. Patient tolerance of extended cycles has generally been good, with irregular bleeding or spotting being the most common adverse effects; however, bleeding tends to decrease in successive cycles (17, 20, 25). Setting expectations by counseling patients that breakthrough bleeding is very likely to occur and discussing strategies for managing it (Table 2), especially for those on a continuous regimen, may help decrease discontinuation rates. Overall, combined OCPs containing only 20 micrograms of ethinyl

Table 2. Strategies to Manage Breakthrough Bleeding*	
Method	**Strategies**
Estrogen-containing OCPs	• Counsel that BTB decreases with each successive cycle of therapy • With shared decision making, can consider cyclic cycles for 3–6 months, then transition to extended cycles • Hormone-free interval for 3–4 consecutive days • Supplementation with intermittent estrogen
Oral progestins	• Counsel patient to take POPs at the exact same time each day • Tapers: 0.7 mg daily for 7 days followed by a return to traditional dosing† • Increase norethindrone dose if needed for persistent breakthrough bleeding
Depot medroxyprogesterone acetate	• NSAIDs (5–7 days of treatment) • Hormonal treatment (if medically eligible) wctith combined OCPs or estrogen (10–20 days of treatment) • Administration at more frequent intervals may increase rates of amenorrhea
Implant	• NSAIDs (5–7 days of treatment) • Hormonal treatment (if medically eligible) with combined OCPs or estrogen (10–20 days of treatment); consider POPs for those with contraindications to estrogen)
Progestin-containing intrauterine device	• Those individuals using a lower-dose IUD experience more bleeding or spotting days on average than those using levonorgestrel-releasing 52-mg IUD with higher doses of levonorgestrel • Expert opinion supports a trial of NSAIDs, doxycycline, POPs, or continuous OCP use • Counsel patient on alternative methods

Abbreviations: BTB, breakthrough bleeding; IUD, intrauterine device; NSAIDS, nonsteroidal anti-inflammatory drugs; OCPs, oral contraceptive pills; POPs, progestin-only pills.

*See also the Centers for Disease and Control and Prevention's Selected Practice Recommendations for Contraceptive Use (https://www.cdc.gov/reproductivehealth/contraception/mmwr/spr/summary.html).

†For more information on tapers, see Screening and management of bleeding disorders in adolescents with heavy menstrual bleeding. ACOG Committee Opinion No. 785. American College of Obstetricians and Gynecologists. Obstet Gynecol 2019;134:e71–83.

estradiol cause more disrupted bleeding patterns than those containing higher doses.

Contraceptive Patch

Although combined OCPs are effective for suppressing menses, patient adherence can be poor due to daily administration. The transdermal patch and transvaginal ring require less frequency of administration; however, data are limited on their use for prolonged menstrual suppression. The contraceptive patch is applied weekly for 3 consecutive weeks, followed by 1 patch-free week, mimicking the traditional dosing schedule of OCPs. Although a newer contraceptive patch (2.60 mg LNG, 2.30 mg ethinyl estradiol) was approved by the U.S. Food and Drug Administration (FDA) in 2020 (26), data on the use of the contraceptive patch for menstrual suppression are available only for the 6.0-mg norelgestromin and 0.75-mg ethinyl estradiol version.

A randomized controlled trial comparing the transdermal patch (50 micrograms of norelgestromin and 20 micrograms of ethinyl estradiol daily) with a combined OCP (LNG 50 micrograms and 30 micrograms ethinyl estradiol for days 1–6, 75 LNG micrograms and 40 micrograms ethinyl estradiol for days 7–11, 125 micrograms LNG and 30 micrograms ethinyl estradiol for days 12–21, and placebo for days 22–28) for cycle control with monthly cycling concluded that there was no statistically significant difference in breakthrough bleeding between the two methods over time (27). One randomized trial that compared 239 women using the transdermal contraceptive patch in an extended regimen (12 consecutive weeks) with women who used a traditional 28-day patch regimen found that an extended regimen resulted in fewer median bleeding days (6 vs 14, $P<.001$), bleeding episodes (1 vs 3, $P<.001$), and spotting episodes compared with cyclic use (2 vs 3, $P<.001$) during days 1–84 (28). Available data

on extended cycling with the contraceptive patch demonstrate moderate rates of amenorrhea (27–29).

Vaginal Ring

The monthly vaginal ring delivers 0.120 mg etonogestrel and 0.015 mg ethinyl estradiol and was initially FDA-approved in 2001 (30). A newer vaginal ring containing 103 mg segesterone acetate and 17.4 mg ethinyl estradiol (releases 0.15 mg/day of segesterone acetate and 0.013 mg/day ethinyl estradiol) was FDA-approved in 2018. Unlike the traditional ring that is designed for one-time use, the newer ring is reusable and lasts for 1 year. Currently, data on use for prolonged menstrual suppression are available only for the 0.120-mg etonogestrel and 0.015-mg ethinyl estradiol vaginal ring.

Available data on extended cycling with the monthly vaginal ring demonstrate excellent amenorrhea rates (31–35). Extended cycling with the vaginal ring typically requires the user to insert a new ring every 4 weeks, avoiding any hormone- or ring-free interval. A randomized trial (n=429) compared the bleeding patterns of three different extended ring regimens (49 days [42 days with ring in place followed by 7 ring-free days], 91 days [84 days with ring in place followed by 7 ring-free days], and 364 days [continuous ring use for 357 days followed by a ring-free week at the end of the study year]) with those of the standard 28-day cycle (21 days of contraceptive vaginal ring use followed by 7 ring-free days) (33). The study reported that all schedules were well-tolerated, and, although bleeding days were reduced with extended cycling, spotting days increased. The study concluded that women willing to tolerate some spotting might choose the longer extensions to have fewer menstrual periods. Another randomized trial (n=74) assessing bleeding patterns of the typical 21/7-day use compared with continuous vaginal ring use for 6 months (replaced monthly) reported that 89% of the participants in the continuous use group achieved none to minimal bleeding (32).

Progestin-only Methods

Progestin-only hormonal medications (progestin-only pills, injections, implants, and IUDs) can be used for menstrual suppression. The most common adverse effect of these methods is unscheduled or irregular bleeding (36). These methods may be of particular importance to individuals with contraindications to estrogen, including those with conditions such as cardiovascular disease, migraines with aura, hypertension, and hypercoagulability (37).

Progestin-only Pills

Several progestin-only pills are currently available, and menstrual control varies based on progestin type and dose. Norethindrone 0.35 mg is taken daily and causes endometrial atrophy. Due to the mechanism of action and pharmacokinetics, this progestin-only pill must be taken consistently due to a narrow therapeutic window, with return to baseline hormonal levels within 24 hours of administration (38). Rates of amenorrhea with this medication are low, and discontinuation rates are as high as 48.5% at 1 year (36, 39). Medication tapers for the control of heavy menstrual bleeding with subsequent cessation of bleeding have been described with this progestin-only pill. These tapers primarily include the use of 0.7 mg daily for 7 days followed by a return to traditional dosing (36).

Norethindrone acetate 5 mg also has been used for menstrual suppression and offers higher rates of amenorrhea compared with norethindrone 0.35 mg. Amenorrhea rates of up to 76% at 2 years of use have been described (40). Medication tapers for the control of heavy menstrual bleeding have been described with norethindrone acetate, with regimens such as 5–10 mg every 6 hours until cessation of bleeding (7). A small proportion of norethindrone acetate is converted to ethinyl estradiol (approximately 4 micrograms of ethinyl estradiol per 5 mg of norethindrone), and higher doses of this medication may be associated with adverse effects secondary to estrogen (eg, headaches) comparable with combined hormonal methods. This conversion may have some protective effect on bone mineral density (7). Norethindrone acetate is not approved as a contraceptive.

In 2019, drospirenone 4 mg was approved by the FDA, with 24 pills of active medication and four placebo pills. Data on rates of amenorrhea with extended use of this medication are limited; however, menstrual irregularity appears to improve with more prolonged use (41). This medication choice may be advantageous for individuals also desiring reliable contraception due to its more favorable Pearl Index (the number of contraceptive failures per 100 women-years of exposure) compared with norethindrone 0.35 mg. Finally, when counseling patients desiring menstrual suppression with this method, clinicians should focus on the potential incidence of irregular bleeding with progestin-only pills and decrease in symptoms with consistent and more prolonged use.

Depot Medroxyprogesterone Acetate

Depot medroxyprogesterone acetate is an injectable progestin-only medication administered as a 150-mg/mL intramuscular injection or a 104-mg/0.65 mL subcutaneous injection, traditionally given every 11 to 13 weeks. Rates of amenorrhea with depot medroxyprogesterone acetate increase with more prolonged use and approach 68–71% at 2 years, although unscheduled bleeding is a commonly reported adverse effect (14, 42). Other potential adverse effects include loss of bone mineral density and weight gain (42, 43). Loss of bone mineral density appears to be predominantly or

completely reversible with discontinuation (44–46). Based on expert opinion, administration at more frequent intervals may increase rates of amenorrhea. However, evidence is limited, and data are anecdotal.

Levonorgestrel-releasing Intrauterine Device

Several progestin-only LNG-IUDs exist, and rates of amenorrhea are dependent on the type and dose of progestin. The LNG-IUD containing LNG 52 mg causes endometrial glandular atrophy without consistent suppression of ovulation (47). For patients who may benefit from suppression of ovulation with their method of menstrual suppression, consideration should be given to the unpredictable suppression of ovulation with the LNG-IUD. Menstrual blood loss is significantly improved with use of the LNG-IUD, and rates of amenorrhea approach 50% at 1 year and 60% with continued use of the IUD at 5 years; rates are highest with the use of the 52-mg IUD (31). Other progestin-only IUDs are associated with lower rates of amenorrhea; therefore, the LNG-IUD with 52 mg LNG is preferred for the indication of menstrual suppression over other LNG-IUDs with lower progestin amounts. Expert opinion supports offering a trial of nonsteroidal anti-inflammatory drugs, doxycycline, progestin-only pill, or continuous OCP use for management of bothersome breakthrough bleeding before discontinuation of the IUD.

Etonogestrel Implant

The etonogestrel 68-mg implant is associated with high rates of menstrual cycle irregularity. The implant, which is inserted with local anesthesia in the office, is FDA-approved for 3 years and can be continued for up to 5 years for contraception. Data are lacking on the extended use of the implant in people with obesity (body mass index [BMI, calculated as weight in kilograms divided by height in meters squared] higher than 30); however, current data do not show a decrease in contraceptive efficacy (48). Extended use past the FDA-approved length is for contraception. If the goal is menstrual suppression, use past 3 years may not be effective. Data show that approximately 22% of individuals achieve amenorrhea with the progestin-only implant (49). Although rates of amenorrhea may improve with more prolonged use, breakthrough bleeding and spotting are common with use of the implant. In clinical practice, add-back therapy with continuous OCPs or norethindrone acetate has been used to achieve menstrual suppression in some patients (50).

GENERAL PRINCIPLES OF COUNSELING

Counseling regarding the choice of hormonal medication for menstrual suppression should be approached with the utmost respect for patient autonomy and be free of coercion. Gynecologists should engage in shared decision making with patients, and evidence-based counseling should include menstrual-management options and the benefits and limitations of the different methods, as well as realistic expectations about complete amenorrhea.

Evidence shows that stereotyping and clinicians' implicit bias contribute to racial and ethnic disparities in health (51, 52). Obstetrician–gynecologists should be aware of inequities in the provision of methods of menstrual suppression and consider ways in which their own biases may contribute to perpetuating disparities. Clinicians should engage in shared decision making, which is the patient-centered, individualized approach to the informed-consent process and includes evidence-based counseling of available menstrual-management options and their benefits and limitations in the context of a patient's values and priorities (53). Because complete amenorrhea may be difficult to achieve, gynecologists should counsel patients and caregivers, if applicable, about realistic expectations when setting goals for menstrual suppression. Emphasis should be placed on the goal of reduction in menstrual bleeding rather than complete amenorrhea.

When discussing options for menstrual suppression, a thorough history should be obtained and the U.S. Medical Eligibility Criteria for Contraceptive Use applied to determine safe use of the options based on the patient's individualized needs and preferences.

The U.S. MEC (U.S. Medical Eligibility Criteria for Contraceptive Use), issued by the Centers for Disease Control and Prevention, provides comprehensive, evidence-based guidance to clinicians providing reproductive health care, especially for patients with medical conditions (37). The American College of Obstetricians and Gynecologists endorses the U.S. MEC and encourages its use by Fellows. Although the U.S. MEC's categories of risk (1 through 4) were created to assist clinicians in determining the safe use of contraceptive methods, these categories also are useful for determining the safety of contraceptive methods used for menstrual suppression based on a patient's individual comorbidities or conditions. Informed by the patient's medical history, the U.S. MEC should be applied to determine safe use of the options for menstrual suppression and aid in recommendations based on the patient's medical conditions, individualized needs, and preferences. The current version of the U.S. MEC and future iterations can be accessed at https://www.cdc.gov/reproductivehealth/contraception/mmwr/mec/summary.html.

ADOLESCENT PATIENTS

Hormonal medications (estrogen and progestin methods) for the specific purpose of menstrual suppression should not be initiated before the onset of menarche.

Adolescent patients present a unique set of considerations with regard to menstrual suppression. The clinician should educate both the patient and their caregiver (eg, parent or guardian) about expectations for the first menstrual period and normal cycle length, frequency, and volume for subsequent periods. Menstrual suppression can be initiated after the onset of menarche, and adolescent patients do not need to wait a certain period of time after the first menstrual period to proceed with suppression. It is imperative to communicate with patients and their caregivers the need for the first menstrual period as an indicator of typical pubertal development (54). For guidance on confidential care for adolescents, see ACOG Committee Opinion No. 803, *Confidentiality in Adolescent Health Care* (55).

Hormonal therapy options for menstrual suppression are safe and effective in adolescents.

Routine pelvic examination is not required for prescription of these medications, except if needed for method insertion (eg, IUD). Clinicians should be aware of laws that may affect a minor's ability to consent to confidential reproductive health care; these vary by state. Counseling should address any concerns and misconceptions about the use of hormonal therapy for menstrual suppression in adolescents, including effects on fertility, weight, and bone health, as well as the risk of sexually transmitted infections (STIs) with non–barrier methods of contraception. For adolescents seeking both contraceptive efficacy and menstrual suppression, long-acting reversible contraceptive methods (eg, IUDs, implant) are effective options with high rates of medication adherence and continuation and acceptable rates of amenorrhea. The LNG-IUD is both safe and efficacious for menstrual management in adolescents (56), and insertion has not been shown to be more difficult in adolescents compared with older individuals or in nulliparous patients compared with parous patients (57).

TRANSGENDER AND GENDER-DIVERSE PATIENTS

Transgender and gender-diverse individuals may benefit from menstrual suppression to decrease gender dysphoria associated with menses.

Transgender and gender-diverse individuals may benefit from menstrual suppression due to the association for some patients of gender dysphoria with menses. Practical considerations with menses in transgender and gender-diverse individuals include not only dysphoria with menses but also attitudes and safety concerns regarding public restroom use for menstrual hygiene (58).

Gender-affirming hormone therapy with testosterone can be used to achieve amenorrhea. Gynecologists should counsel patients with reproductive potential who do not wish to become pregnant about the contraceptive efficacy of suppression options.

Use of testosterone for gender-affirming hormone therapy is associated with amenorrhea, which is commonly achieved within a few months of initiating therapy. Continued bleeding may be treated with the addition of progestin-only therapy to achieve amenorrhea (59, 60). Although there has been concern for endometrial hyperplasia or malignancy due to aromatization of exogenous testosterone to estrogen with anovulation and therefore chronic unopposed estrogen, this risk is not supported by data. Most studies demonstrate endometrial atrophy with the use of exogenous testosterone as part of a gender-affirming protocol (59).

Gonadotropin-releasing hormone (GnRH) analogue therapy can be used in transgender and gender-diverse patients for pubertal blockade and suppression of menses with the provision of gender-affirming hormone therapy (61) (Table 1). Data demonstrate excellent rates of amenorrhea, nearing 100%, with the use of GnRH therapy in transgender individuals (31, 62). However, due to concerns about effects on bone density, it typically is not considered a long-term method of menstrual suppression. Obstetrician–gynecologists should counsel patients with reproductive potential who do not wish to become pregnant that testosterone and GnRH analogue therapy are not effective contraceptive methods (63, 64).

PATIENTS WITH PHYSICAL OR COGNITIVE DISABILITIES OR BOTH

Menstrual suppression is a safe and viable option for patients with physical or cognitive disabilities or both who need or want to have fewer or no menses. Although suppression should not be started until menarche, anticipatory guidance before menarche can be very useful and may lessen anxiety felt by patients and caregivers.

A retrospective review of clinical characteristics and management of young women with developmental delay who were referred to a pediatric gynecology clinic showed that, although the primary purpose for consultation was menstrual-related in 90% of cases, nearly half of the patients seen were still premenarchal (65). These early consultations

highlight caregiver anxiety about coping with menstruation and the need for counseling and education about what to expect and about available options (66). Anticipatory guidance should be initiated before the start of menses. Most adolescents who are able to use the toilet without assistance can learn to use pads or tampons appropriately. The American Academy of Pediatrics' guidelines on menstrual management in individuals with disabilities offers a framework that clinicians may follow (67).

Many adolescents and adults with disabilities are erroneously assumed to be asexual by clinicians and do not receive counseling or education about sexuality on par with their peers. Although some adolescents with disabilities may be behind their peers in knowledge of puberty, menstruation, sexual activity, and safety, this does not necessarily mean that they are not sexually active, do not have sexual thoughts, or do not express themselves sexually through masturbation. Individuals with cognitive or physical disabilities or both are at an increased risk of sexual abuse (68). Health care professionals can assist patients and families by providing guidance on safety and abuse prevention. When knowledge deficits are present, developmentally appropriate education on hygiene, contraception, STIs, and abuse-prevention measures should be provided.

As for all patients, the choice of menstrual-suppression method for an individual with conditions affecting cognition or mobility should be personalized based on the patient's individual needs and preferences. Obstetrician–gynecologists should be aware of a number of considerations when counseling patients with disabilities: comorbidities that are contraindications for certain methods, the extent of a patient's mobility, the presence of upper or lower extremity contractions or both, the ability to swallow pills, and the potential for drug interactions (eg, with antiseizure medications). Clinicians can help families understand menstrual-management options and the benefits and limitations of the different methods. In addition to the U.S. MEC and potential drug interactions, see Box 1 for additional considerations for patients with disabilities.

Patients with cognitive delay may have trouble comprehending menstruation or may face challenges maintaining personal hygiene during menstruation. In this setting, the approach to menstrual suppression should be comparable with that for patients who are neurotypical (ie, without a defined neurologic difference) by starting with the lowest-risk and reversible options.

If the patient does not have the capacity to make independent decisions, the approach to menstrual suppression must be made in the patient's best interests by the designated decision maker(s) (69). It is both ethically and medically prudent to recommend options that are the lowest risk and are reversible. General hygiene and other health needs of those with severe disabilities should be managed without discrimination using management options applicable to all patients.

Gynecologists should educate patients as much as possible based on their cognitive abilities, maintain respect, maximize autonomy, avoid harm, and address patient and caregiver concerns.

Optimal gynecologic health care for patients with disabilities is comprehensive. It maintains confidentiality, is an act of dignity and respect toward the patient, maximizes the patient's autonomy, avoids harm, and assesses and addresses the patient's knowledge of puberty, menstruation, sexuality, safety, and consent.

PATIENTS WITH CHALLENGES AFFECTING HYGIENE AND PRIVACY

Menstruation for members of the military can pose unique challenges. Military deployment to severe environments (eg, a war zone) can result in limited access to acceptable medical services and sanitary equipment and increase the inconvenience and logistic difficulty of hygienic management of menstruation (70–73). Other individuals who face challenges of privacy, access, and hygiene include menstruating individuals who are incarcerated or experiencing housing insecurity. Data show that those experiencing homelessness have difficulty accessing menstrual products and resources to avoid stigmatizing menstrual accidents (74), as well as access to public restrooms to maintain hygiene (75). Additionally, menstruating individuals in jail or prison report difficulty accessing menstrual products and clean undergarments; also, systems may be set up to provide or deny products to incarcerated people as a reward or punishment (76). Other individuals who may face menstruation-related challenges include those who work in remote locations and athletes; this is not an exhaustive list.

DRUG INTERACTIONS

Gynecologists should conduct a thorough review of a patient's use of over-the-counter and prescribed medications to address any potential drug interactions with hormonal medications for menstrual suppression.

Careful attention should be given to the use of both over-the-counter and prescribed medications to address any potential drug interactions with hormonal medications for menstrual suppression. When meeting with a patient, an obstetrician–gynecologist has an opportunity to review the patient's prescribed medications, as well as nonprescription medications, nutritional supplements, and herbal products used. The U.S. MEC is a useful resource for potential drug interactions with hormonal methods (37).

Box 1. Additional Considerations for Patients with Disabilities

Oral contraceptive pills
Adherence to daily regimen
Ability to swallow pills (pills are generally small and can be crushed if needed; chewable contraceptive pills are available)
Contraceptive patch
Weekly administration
Skin irritation
For those patients prone to picking, it may be placed in an area that is not easy to access, (eg, in between the shoulder blades)
Vaginal ring
For those patients who have contractures and will require assistance, method is invasive
Depot medroxyprogesterone acetate
Not reliant on daily or weekly administration
Decreased bone mineral density and effects on those who use wheelchairs or are immobile
Potential weight gain may limit independence for those who are immobile; may also negatively affect caregivers' ability to care for an individual
Long-acting reversible contraception
When a pelvic examination may be challenging for cognitive or mobility reasons, general anesthetic or conscious sedation is recommended. If sedation or anesthesia services are needed, an anesthesia consultation before the procedure may be beneficial in this population. If possible, the obstetrician–gynecologist should attempt to coordinate the examination with other procedures that require sedation, such as dental work.

Additionally, continuous use of combined hormonal and progestin-only medications may provide more predictable effects on other medications concurrently used, avoiding any change in drug levels during a hormone-free break.

BREAKTHROUGH BLEEDING

One of the most common challenges associated with menstrual suppression is breakthrough bleeding. In a retrospective cohort study of 300 patients, up to 46% cited breakthrough bleeding as the most common reason for discontinuation or considering changing or changing methods (77). Anticipatory pretreatment counseling and guidance of patients and their caregivers, if applicable, regarding the common and expected adverse effect of breakthrough bleeding may help to significantly reduce discontinuation rates. The benign nature of the bleeding should be emphasized and reassurance offered. Patients also can be counseled that, with some methods, breakthrough bleeding may decrease or cease after initial use, such as by the fourth cycle of combined OCPs (78). Expert opinion suggests that unscheduled bleeding can decrease with continued use; thus, a patient may be counseled to adhere to a method for 3–6 months before initiating medical management of breakthrough bleeding. However, if a patient finds the unscheduled bleeding unacceptable, several treatment options are available and should be offered before discontinuation, even if before 3–6 months of use. Effective management of this adverse effect will increase satisfaction with menstrual-suppression methods. Clinicians should be aware that other causes aside from hormonal method use may be causing bleeding (eg, STIs); thus, if clinically indicated, they should consider and investigate an underlying gynecologic problem. For guidance on the management of unscheduled bleeding, see Table 2.

FURTHER RESEARCH

Gaps in research include limited studies specifically addressing rates of amenorrhea with hormonal therapy, particularly with non–FDA-approved use such as extended and continuous cycling. Newer methods of hormonal therapy, including the drospirenone-only pill

and segesterone acetate and ethinyl estradiol vaginal system, have limited data regarding use for the indication of menstrual suppression. More data are needed on the effective management of breakthrough bleeding, including the use of tapers with progestin-only methods.

When addressing racial and ethnic health disparities, significant opportunity exists. Historically, studies examining the use of hormonal therapy that report amenorrhea rates fail to be racially or ethnically diverse and often are limited to non-Hispanic White patients; this may mean that studies' conclusions are not applicable to a more heterogenous population. Larger prospective studies that include a more racially and ethnically diverse population and include transgender and gender-diverse people are needed to address not only rates of amenorrhea, but also adverse effect profiles, continuation rates, and patient acceptability.

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Appendices

1. Literature Search Strategy: http://links.lww.com/AOG/C807
2. Evidence Map: http://links.lww.com/AOG/C808

Conflict of Interest Statement

All ACOG committee members and authors have submitted a conflict of interest disclosure statement related to this published product. Any potential conflicts have been considered and managed in accordance with ACOG's Conflict of Interest Disclosure Policy. The ACOG policies can be found on acog.org. For products jointly developed with other organizations, conflict of interest disclosures by representatives of the other organizations are addressed by those organizations. The American College of Obstetricians and Gynecologists has neither solicited nor accepted any commercial involvement in the development of the content of this published product.

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