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Current Commentary

The Role of Subcutaneous Depot Medroxyprogesterone Acetate in Equitable Contraceptive Care

A Lesson From the Coronavirus Disease 2019 (COVID-19) Pandemic

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Since the beginning of the coronavirus disease 2019 (COVID-19) pandemic, health care professionals have made swift accommodations to provide consistent and safe care, including emphasizing remote access to allow physical distancing. Depot medroxyprogesterone acetate intramuscular injection (DMPA-IM) prescription is typically administered by a health care professional, whereas DMPA-subcutaneous has the potential to be safely self-injected by patients, avoiding contact with a health care professional. However, DMPA-subcutaneous is rarely prescribed despite its U.S. Food and Drug Administration approval in 2004 and widespread coverage by both state Medicaid providers and many private insurers. Depot medroxyprogesterone acetate users are disproportionately non-White, and thus the restriction in DMPA-subcutaneous prescribing may both stem from and contribute to systemic racial health disparities. We review evidence on acceptability, safety, and continuation rates of DMPA-subcutaneous, consider sources of implicit bias that may impede prescription of this contraceptive method, and provide recommendations for implementing DMPA-subcutaneous prescribing.

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Self-administration of subcutaneous depot medroxyprogesterone acetate (DMPA) is a feasible, acceptable, and safe option for patients in the United States and internationally, and is endorsed by the World Health Organization.[1,2] In May 2021, the Centers for Disease Control and Prevention released an update to their Selected Practice Recommendations for Contraceptive Use, also supporting self-administration of DMPA-subcutaneous.[3] Robust randomized controlled trials as well as a meta-analysis definitively show that self-injection of DMPA-subcutaneous results in 20% higher continuation rates at 1 year compared with in-clinic administration.[4–7] Given that fewer than 60% of users continue DMPA-intramuscular injection (IM) at 1 year,[8,9] these results are compelling. Online patient resources for DMPA-subcutaneous are available to guide patients through safe self-injection,[10,11] making DMPA-subcutaneous self-injection a convenient contraceptive option and particularly well suited to care delivery in our current context. Depot medroxyprogesterone acetate has very few contraindications,[12] does not require office evaluation to determine safe usage, and, since 2004, has come in a formulation that can be safely used at home.

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DEPOT MEDROXYPROGESTERONE ACETATE PRESCRIPTION DURING THE CORONAVIRUS DISEASE 2019 (COVID-19) PANDEMIC

As the reality and implications of the novel coronavirus became apparent in the United States in early 2020, medical professionals across the country were forced to modify their approach to patient care. Many medical centers initially restricted care delivery to urgent appointments, often excluding contraception. The majority of adequately resourced centers have now implemented accommodations to their practice that allow them to provide routine care. Although no one could have prevented or predicted the current global health emergency, we wondered whether access to DMPA could be improved if we did not consistently default to office administration of DMPA-IM over home administration of DMPA-subcutaneous. Depot medroxyprogesterone acetate-subcutaneous is an evidence-based option that is theoretically ideal for home use. Depot medroxyprogesterone acetate-IM and DMPA-subcutaneous are similar medications, differing only in dosage and amount due to their distinct administration routes. These DMPA formulations do not differ in efficacy, timing of administration and onset, or in their criteria for patient selection.[13] Although DMPA-subcutaneous is not currently approved for self-injection by the U.S. Food and Drug Administration, it is intended for self-injection,[10] and generally used accordingly.[14] Most insurance companies will cover one dose at a time, such that patients return to the pharmacy for doses every 3 months. Until injection, DMPA-subcutaneous should be stored in a cool dry place, at room temperature, away from direct sunlight.

In March 2020, our center began offering DMPA-subcutaneous with instructions for self-injection to new and established DMPA users, to adapt our practice to physical distancing safety guidance. Although we anticipated certain insurance barriers and a greater need for patient support and guidance, we found that the transition to DMPA-subcutaneous had other challenges. A small number of home users seamlessly obtained and self-administered DMPA-subcutaneous, but most faced significant delays or a complete lack of access. Some of this was due to disparate insurance coverage with higher out-of-pocket cost for the subcutaneous formulation, but the majority of patients encountered supply-line issues. Pharmacies had either low or no stock of DMPA-subcutaneous, were not familiar with the subcutaneous formulation, and many were met with warnings of expected delays from distributors when they attempted to obtain the medication. Supply line issues increased the workload for our nursing staff and delayed injection timing for both new and established users, making us question the utility of offering this option at all.

In a recent implementation study to expand access to self-administered DMPA-subcutaneous at a single institution in California, 58% of interested DMPA-IM users completed a DMPA-subcutaneous self-injection. Reasons for lack of receipt of DMPA-subcutaneous were varied, including both personal and systemic reasons.[15] Although this effort was successful, it was the result of a rapid policy change by California's public health program to cover DMPA-subcutaneous as a pharmacy benefit without prior approval during the COVID-19 pandemic, along with the efforts of five medical and pharmacy students tasked to navigate hurdles with patients. Many states and institutions do not have this level of support for contraceptive access.

RACIAL DISPARITIES AND IMPLICIT BIAS IN CONTRACEPTIVE PROVISION

Depot medroxyprogesterone acetate is used by 4.9% of all U.S. contraceptive users (2.3 million DMPA users), and 12% of contraceptive users who are Black.[16,17] Thus, Black patients are disproportionately bearing the burdens created when a method that can be safely used at home is consistently prescribed for office use only. One response to this burden has been the promotion of long-acting reversible contraceptive (LARC) methods. Black women, historically and currently, are the target audience of LARC-focused contraceptive counseling, and are often met with resistance and barriers when requesting LARC discontinuation.[18,19] Undoubtedly, the high continuation rates of LARC methods[20] can be at least partially attributed to the burden of the office visit as a general requirement for discontinuation.[21] Paradoxically, the same burden is encountered for the continuation of DMPA when the subcutaneous formulation is not offered. When these individual method weaknesses meet our prescribing practices, they describe a pattern of reproductive control, at the intersection of racism and sexism, that we aim to eliminate.[18] Although likely unintended and subconscious, this practice is inconsistent with equitable care delivery.

One explanation for this inconsistency in practice is that health care professionals, with all of our influence on contraceptive access, are not DMPA users. A 2015 survey of contraceptive use by family planning health care professionals found that only a single respondent among 488 used DMPA, and 41.7% used a LARC method.[22] Perhaps we minimize the benefits of increasing access to a method we do not

prefer. Reluctance to prescribe DMPA may also stem from other factors: the lower efficacy and rates of continuation of DMPA-IM compared with LARC methods, the potential for time-consuming teaching, administrative coordination with insurance companies and pharmacies, or that self-injection of DMPA-subcutaneous is off label.[7,15] However, DMPA has high efficacy, prescribing contraceptive methods for off-label use is common in family planning, and many subcutaneous self-injections for common medical conditions are labeled for safe home injection. Additionally, DMPA-subcutaneous is covered by Medicaid in more than 40 states, and by many private insurance plans.[17,23]

It is also possible that we are prioritizing Black patients' risk of unintended pregnancy over their preference for a method or making inaccurate assumptions about whether DMPA-using patients can correctly self-inject their own medication. In the United States, where Black non-Hispanic women are 3.3 times more likely to die as a result of pregnancy than any other race,[24] it is crucial to recognize the role of high-quality family planning counseling and method delivery.[25–27] If we intend to reduce inequities in contraceptive care and maternal health outcomes, we must recognize that patients of color often use non-LARC methods. Our role in reducing unintended pregnancy is to provide unrestricted access to all safe methods.

IMPLEMENTATION OF DEPOT MEDROXYPROGESTERONE ACETATE-SUBCUTANEOUS PRESCRIBING AND USE

Based on our experience, we suggest the following steps to improve provision of DMPA-subcutaneous. We recommend organizing patient education materials to support clinical staff in teaching self-injection (in person and virtually). Health care professionals and staff should familiarize themselves with their patients' most commonly used insurance plans and DMPA coverage and identify and use pharmacies that reliably stock this medication. Given that pharmacists may be unfamiliar with DMPA-subcutaneous, we recommend a note within prescriptions that clarifies the intention to prescribe DMPA-subcutaneous, not IM, as well as written assurance that the patient is educated in safe product use. In cases where the patient is present in the office at the time of prescription, we recommend administration of DMPA-IM during their visit, allowing pharmacies a 3-month lead time to obtain the subcutaneous product.

Though challenging, our implementation of DMPA-subcutaneous use in an urban setting is unlikely to compare with the broader challenges of more rural regions. Achieving equitable contraceptive access regardless of region requires both individual and national effort. In individual communities, clinicians can simply offer DMPA-subcutaneous as an alternative to DMPA-IM when discussing options with their patients, prescribe it when chosen and provide support and education for ongoing use, based on published guidance.[28] As increased prescriptions for DMPA-subcutaneous expand pharmacy awareness and demand, supply is likely to follow. On a larger scale, medical, nursing, and other allied health education programs with a focus on reproductive health care can incorporate comprehensive contraceptive education, promote implicit bias awareness and teach the importance of shared decision making in all aspects of patient care. Lastly, we can support initiatives to make DMPA subcutaneous more accessible across the United States by promoting prescriber and pharmacist awareness of the method, encouraging and petitioning state-level insurance coverage of the subcutaneous formulation, and by supporting efforts to change the U.S. Food and Drug Administration labeling of DMPA-subcutaneous for home administration of this safe and user-friendly method.[29]

CONCLUSION

Provision of DMPA-subcutaneous supports patient autonomy and is likely to have health benefits, given the proven effects on contraceptive continuation. Improving access to DMPA-subcutaneous is an opportunity to reduce disparities that were highlighted during the COVID-19 pandemic, but that can be expanded into a post-COVID world to promote equitable care of all women.

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