Published in final edited form as:

Ann Intern Med. 2017 November 07; 167(9): 666–667. doi:10.7326/M17-2011.

## Hormonal Contraceptives Improve Women's Health and Should Continue to Be Covered by Health Insurance Plans

Carol J. Hogue, PhD, MPH, Kelli Stidham Hall, PhD, MS, and Melissa Kottke, MD, MPH, MBA Emory University, Atlanta, Georgia

Several prominent voices in federal leadership positions have recently disseminated misinformation on that hormonal contraceptives cause cancer and abortion to the most egregious claim that providers who prescribe any hormonal contraceptives are conducting medical malpractice (1, 2). These falsities run counter to widely accepted, evidence-based medical and epidemiologic research on family planning and serve only to confuse the public while justifying proposed steps toward dismantling federal programs and denying insurance coverage. This misinformation may cause harm by discouraging beneficial contraceptive use. The medical community has a responsibility to counter such claims with conclusions based on the most rigorous research.

This research has found no overall increased risk for cancer incidence or mortality associated with prolonged combined oral contraceptive use (3). Some studies have found increased risk for breast, cervical, and liver cancer associated with combined oral contraceptive use, but a meta-analysis evaluating the correlation between breast cancer and combined oral contraceptives found the association to be small though statistically significant (odds ratio, 1.08 [95% CI, 1.00 to 1.17]). Of import and not noted in the current political and public dialogue is that these findings are balanced by the *decreased* risk for endometrial, ovarian, and colorectal cancer associated with these agents (4). Epidemiologic studies to date of progestin-only contraceptives available in the United States have found no associated risk for increased breast cancer (5). Associations between cervical cancer and combined oral contraceptives are seen in women who have human papillomavirus—a known cause of cervical cancer (4).

Requests for Single Reprints: Carol J. Hogue, PhD, MPH, Department of Epidemiology, Rollins School of Public Health, Emory University, 1518 Clifton Road NE, CNR 3005, Atlanta, GA 30322; chogue@emory.edu.

Current Author Addresses: Dr. Hogue: Department of Epidemiology, Rollins School of Public Health, Emory University, 1518 Clifton Road NE, CNR 3005, Atlanta, GA 30322.

Dr. Hall: Department of Behavioral Sciences and Health Education, Rollins School of Public Health, Emory University, 1518 Clifton Road, NE, GCR 560, Atlanta, GA 30322.

Dr. Kottke: Department of Obstetrics and Gynecology, School of Medicine, Emory University, 49 Jesse Hill Jr. Drive SE, Atlanta, GA 30303.

Disclosures: Disclosures can be viewed at www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M17-2011.

Author Contributions: Conception and design: C.J. Hogue, K.S. Hall, M. Kottke.

Analysis and interpretation of the data: C.J. Hogue.

Drafting of the article: C.J. Hogue, K.S. Hall, M. Kottke.

Critical revision of the article for important intellectual content: C.J. Hogue, K.S. Hall, M. Kottke.

Final approval of the article: C.J. Hogue, K.S. Hall, M. Kottke.

Collection and assembly of data: C.J. Hogue.

Hogue et al. Page 2

Hormonal contraceptive use has many noncontraceptive health benefits, including improving dysmenorrhea, endometriosis, and premenstrual syndrome/premenstrual dysphoric disorder. Using hormonal contraceptives can also reduce heavy menstrual bleeding and the associated anemia. Further, combined hormonal contraceptives protect the endometrium and manage acne and hirsutism in women with polycystic ovary syndrome (6). The most important health benefit associated with hormonal contraceptives, however, is pregnancy prevention.

Current commentary espouses that pregnancy is not a disease and, as such, does not warrant governmental support (that is, contraceptive coverage) for prevention (1, 2). Indeed, it is not. However, it confers substantial health risks and causes unique complications, including eclampsia, hyperemesis gravidarum, other nontrivial illnesses, and death. Pregnancy can be complicated by hemorrhage, gestational diabetes, hypertension, and immun-compromise. It is associated with weight gain and can lead to or accentuate obesity. Most pregnant women experience a hospitalization, and approximately one third has major surgery and faces its associated risks. Of note, although hormonal contraceptives may increase the risk for some health outcomes, the hormones seen in pregnancy amplify that risk (7).

Making decisions about pregnancy is a risk-benefit calculation that women must continually do over their decades-long reproductive lifespan. When a woman wishes to avoid pregnancy, she must also weigh the various risks and benefits of all available contraceptive methods. Part of this calculus is her unique health milieu and reproductive priorities. In its guide "U.S. Medical Eligibility Criteria for Contraceptive Use, 2016," the Centers for Disease Control and Prevention highlights 20 medical conditions that put a woman at increased risk for adverse events of pregnancy. Some of these conditions limit the use of combined hormonal contraception (for example, stroke and known thrombogenic mutations and ischemic heart disease); others do not (for example, epilepsy, sickle cell disease, and tuberculosis). However, highly effective contraceptives might be the best choice for women with these conditions who are not seeking to become pregnant (8). Progestin-only methods (including contraceptive implants and intrauterine devices) are often safe options for these conditions. Furthermore, highly effective nonhormonal contraceptives, including the copper-containing intra-uterine device, are available for those who desire or require such methods. Discussing how well a method of contraception prevents pregnancy is important, because not all methods are equally effective. Educating and counseling women on the benefits of preventing unintended pregnancy with effective contraceptive use is standard medical and public health practice backed by decades of rigorous science. In fact, if all couples used a combination of condoms with an intrauterine device or combined oral contraceptive, there would be fewer maternal deaths, 80% fewer unintended pregnancies, and approximately 150 000 fewer abortions in the United States each year (9).

The Patient Protection and Affordable Care Act requires health insurance plans enrolled under it to offer all contraceptive methods approved by the U.S. Food and Drug Administration without copayment. This mandate may improve women's health and reduce unintended pregnancies by lowering barriers to highly effective hormonal and nonhormonal contraceptives. The medical community can help to empower women by providing them with the evidence-based information needed to make informed, patient-centered decisions about family planning to achieve their reproductive goals. Toward this end, the entire health

Hogue et al. Page 3

system must be educated and trained in providing best practices, research must continually update risk-benefit assessments, and health policymakers must identify and eliminate gaps in coverage for the full range of contraceptive options (10). As the debate on federally assisted health insurance continues, it is incumbent on all to base health care recommendations, rules, and access on evidence rather than sentiment.

## **Acknowledgments**

Financial Support: None.

## References

- Pear, R. [on 22 July 2017] Foes of Obama-era rule work to undo birth control mandate. The New York Times. Jul 10. 2017 Accessed at www.nytimes.com/2017/07/10/us/politics/birth-controlcontraception-health-care-bill.html
- Talento, KF. [on 22 July 2017] Ladies: is birth control the mother of all medical malpractice?. The Federalist. Jan 5, 2015 Accessed at https://thefederalist.com/2015/01/05/ladies-is-birth-control-the-mother-of-all-medical-malpractice
- Cibula D, Gompel A, Mueck AO, La Vecchia C, Hannaford PC, Skouby SO, et al. Hormonal contraception and risk of cancer. Hum Reprod Update. 2010; 16:631–50. DOI: 10.1093/humupd/ dmq022 [PubMed: 20543200]
- Gierisch JM, Coeytaux RR, Urrutia RP, Havrilesky LJ, Moorman PG, Lowery WJ, et al. Oral contraceptive use and risk of breast, cervical, colorectal, and endometrial cancers: a systematic review. Cancer Epidemiol Biomarkers Prev. 2013; 22:1931–43. DOI: 10.1158/1055-9965.EPI-13-0298 [PubMed: 24014598]
- Samson M, Porter N, Orekoya O, Hebert JR, Adams SA, Bennett CL, et al. Progestin and breast cancer risk: a systematic review. Breast Cancer Res Treat. 2016; 155:3–12. DOI: 10.1007/ s10549-015-3663-1 [PubMed: 26700034]
- 6. Caserta D, Ralli E, Matteucci E, Bordi G, Mallozzi M, Moscarini M. Combined oral contraceptives: health benefits beyond contraception. Panminerva Med. 2014; 56:233–44. [PubMed: 25056245]
- Centers for Disease Control and Prevention. [on 27 July 2017] Pregnancy complications. Updated 17 June 2016. Accessed at www.cdc.gov/reproductivehealth/maternalinfanthealth/ pregcomplications.htm
- Curtis KM, Tepper NK, Jatlaoui TC, Berry-Bibee E, Horton LG, Zapata LB, et al. U.S. medical eligibility criteria for contraceptive use, 2016. MMWR Recomm Rep. 2016; 65:1–103. DOI: 10.15585/mmwr.rr6503a1
- 9. Pazol K, Kramer MR, Hogue CJ. Condoms for dual protection: patterns of use with highly effective contraceptive methods. Public Health Rep. 2010; 125:208–17. [PubMed: 20297747]
- Hall KS, Kottke M, Dalton VK, Hogue CR. Ongoing implementation challenges to the Patient Protection and Affordable Care Act's contraceptive mandate. Am J Prev Med. 2017; 52:667–70. DOI: 10.1016/j.amepre.2016.10.014 [PubMed: 27939235]