

Covid-19: *Exposing the Lack of Evidence-Based Practice in Medicine*

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In mere weeks, the Covid-19 pandemic has thrown into stark relief the difference between evidence-based medical care and traditional aspects of care that lack a strong evidentiary component. To slow the spread of Covid-19, all “nonessential” in-person medical visits were either canceled or conducted via telemedicine. Before scheduling any in-person appointment or procedure, physicians have now been forced to consider, is this truly necessary?

Nowhere is this clearer than in prenatal care. In the United States, women with uncomplicated pregnancies typically make twelve to fourteen in-person visits to an obstetrician’s office prior to delivery—not including trips to the lab for bloodwork and an anatomy scan conducted at approximately twenty weeks.¹ For most of these visits, little is done except measuring blood pressure, weight, and uterine size and assessing the fetal heartbeat via a Doppler monitor; periodically, urinalyses are done. Providers discuss new symptoms, reassure patients, and provide counseling on topics such as nutrition, breastfeeding, and childbirth education.

Due to Covid-19, in March 2020, various organizations and institutions published altered antenatal appointment schedules, with many recommending that in-office visits be reduced to just four or five essentials: the initial appointment, the anatomy ultrasound at twenty weeks, and visits at twenty-eight, thirty-six, and potentially thirty-nine weeks.² In between, they suggested, obstetricians should conduct virtual visits, with patients monitoring their weight and blood pressure with at-home scales and cuffs that can be purchased at pharmacies. These reduced schedules, which cut down in-office appointments by approximately two-thirds, are in line with patient preferences for fewer prenatal visits and increased at-home monitoring.³ Whereas an in-office appointment can easily take three hours—often requiring time off from work or finding childcare—a virtual visit can be conducted in ten minutes.

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To a large extent, the revised prenatal schedules are an acknowledgement of what prior literature has borne out: that extensive in-office prenatal care does not improve maternal or neonatal outcomes.⁴ Indeed, multiple studies have shown that fetal heart rate monitoring and routine urine tests have little predictive value or clinical utility.⁵

Covid-19 has exposed the lack of evidence-based practice in other areas of medicine, as well. For example, prior to Covid, physicians routinely recommended follow-up visits at one to two weeks for patients being discharged from the hospital. During the pandemic, hospitalists have been recommending later follow-up visits—and evidence indicates that most patients do not meaningfully benefit from early follow-up.⁶ Similarly, urologists looking for recurrence of prostate cancer in patients have, during the pandemic, been forgoing digital rectal exams, which have long been recognized as less useful than imaging.⁷ Additionally, even though telemedicine has not been widely adopted, studies of many patient groups—such as those with chronic neurological disorders,⁸ people with asthma,⁹ and children with fever and respiratory disorders¹⁰—have shown that care delivered via telemedicine is comparable in quality and more cost-effective than that delivered via in-person visits.

Why has medicine, as an institution, retained certain practices even though they may lack a strong evidence base and be less cost efficient? First, there is significant social and cultural inertia: many physicians still wear white coats even though the evidence shows that they are frequently colonized with virulent bacteria,¹¹ annual physical exams are still performed even though they do not improve patient outcomes,¹² and cardiac catheterization for stable coronary artery disease is still the standard of care even though its clinical utility has been questioned.¹³ Second, the economic model of health care in the United States relies heavily on in-office and in-hospital visits. Even though telemedicine has existed for decades, it has been adopted only haltingly because insurance companies have not provided comparable compensation for virtual visits as for in-person ones. More

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than other industries, health care has been shielded from the typical pressures of customer satisfaction and cost efficiency due to a byzantine system of billing and reimbursement. Third, in such a litigious society, where the medical liability system costs tens of billions of dollars annually, physicians have become accustomed to practicing so-called defensive medicine—ordering more tests, procedures, and follow-up visits in an attempt to shield themselves from malpractice claims.¹⁴

But Covid-19 has shaken medicine to its core. Because the pandemic has suddenly made in-person interactions risky for both patients and health care workers, there is an increased urgency to eliminate or postpone unnecessary medical care. Follow-up and routine visits are now being conducted virtually, if at all—and insurance is covering such visits, but only on an emergency basis during the pandemic.

The extent to which current changes will persist beyond the emergency stage of the pandemic is not clear. Will physicians continue to curtail in-office visits and other procedures that lack a strong evidence base? Will telemedicine become the standard of care, with patients monitoring their vital signs at home? Most importantly, will insurance companies continue to reimburse for telemedicine post-Covid, and under what circumstances? Such policy shifts may require new regulation that dictates an industry-wide change in billing policy.

One thing, however, is certain: the longer the pandemic continues, the more difficult it will be for providers and patients to return to pre-Covid norms. A new post-Covid inertia may develop as both physicians and patients become accustomed to more efficient and convenient health care, especially if data show that patient outcomes are clinically comparable.

The goals of our health care system should be to provide high-quality, evidence-based care while maximizing convenience and minimizing cost. This pandemic may be the push that finally forces an old, creaking system into the twenty-first century.

1. American Academy of Pediatrics Committee on Fetus and Newborn and American College of Obstetricians and Gynecologists Committee on Obstetric Practice, *Guidelines for Perinatal Care*, 8th

ed., ed. S. J. Kilpatrick and L. Papile (Elk Grove Village, IL: American Academy of Pediatrics, 2017).

2. R. C. Boelig, et al., “MFM Guidance for Covid-19,” *American Journal of Obstetrics & Gynecology MFM* 100106 (2020): 1-5, doi:10.1016/j.ajogmf.2020.100106; American College of Obstetricians and Gynecologists, “Examples of Alternate or Reduced Prenatal Care Schedules” (ACOG Covid-19 FAQs), March 24, 2020, <https://www.acog.org/clinical-information/physician-faqs/-/media/287cefdb936e4cda99a683d3cd56dca1.ashx>.

3. A. F. Peahl et al., “Patient Preferences for Prenatal and Postpartum Care Delivery: A Survey of Postpartum Women,” *Obstetrics & Gynecology* 135, no. 5 (2020): 1038-46.

4. E. B. Carter et al., “Number of Prenatal Visits and Pregnancy Outcomes in Low-Risk Women,” *Journal of Perinatology* 36, no. 3 (2016): 178-81.

5. A. J. Zolotor and M. C. Carlough, “Update on Prenatal Care,” *American Family Physician* 89, no. 3 (2014): 199-208.

6. C. Jackson et al., “Timeliness of Outpatient Follow-Up: An Evidence-Based Approach for Planning after Hospital Discharge,” *Annals of Family Medicine* 13, no. 2 (2015): 115-22.

7. P. A. Johnstone et al., “Efficacy of Digital Rectal Examination After Radiotherapy for Prostate Cancer,” *Journal of Urology* 166, no. 5 (2001): 1684-87.

8. C. A. Beck et al., “National Randomized Controlled Trial of Virtual House Calls for Parkinson Disease,” *Neurology* 89, no. 11 (2017): 1152-61.

9. J. M. Portnoy et al., “Telemedicine Is as Effective as In-Person Visits for Patients with Asthma,” *Annals of Allergy, Asthma, & Immunology* 117, no. 3 (2016): 241-45.

10. L. Siew et al., “Reliability of Telemedicine in the Assessment of Seriously Ill Children,” *Pediatrics* 137, no. 3 (2016): doi:10.1542/peds.2015-0712.

11. A. M. Treakle et al., “Bacterial Contamination of Health Care Workers’ White Coats,” *American Journal of Infection Control* 37, no. 2 (2009): 101-5.

12. L. T. Krogsbøll, K. J. Jørgensen, and P. C. Gøtzsche, “General Health Checks in Adults for Reducing Morbidity and Mortality from Disease,” *Cochrane Database of Systematic Reviews* (2019): doi:10.1002/14651858.CD009009.pub3.

13. R. Al-Lamee et al., “Percutaneous Coronary Intervention in Stable Angina (ORBITA): A Double-Blind, Randomised Controlled Trial,” *Lancet* 391, no. 10115 (2018): 31-40.

14. M. M. Mello et al., “National Costs of the Medical Liability System,” *Health Affairs* 29, no. 9 (2010): 1569-77; D. M. Studdert et al., “Defensive Medicine among High-Risk Specialist Physicians in a Volatile Malpractice Environment,” *Journal of the American Medical Association* 293, no. 21 (2005): 2609-17; T. F. Bishop et al., “Physicians’ Views on Defensive Medicine: A National Survey,” *Archives of Internal Medicine* 170, no. 12 (2010): 1081-83.