EDITORS' NOTE

Research in Family Medicine by Family Physicians for the Practice of Family Medicine

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This issue lays out challenges for family medicine researchers. Each article increases our understanding of solutions to common problems in family medicine, yet with each, one can readily see the next challenge based on the newly gained knowledge. One of the goals of the *JABFM* is to encourage research *in* family medicine *for* family medicine. Here we combine our usual editors' notes with thoughts about what the next research studies could, and hopefully will, be. (J Am Board Fam Med 2016;29:427–429.)

C-reactive protein is not an adequate diagnostic marker for more serious illness in young febrile children.[1] The research needed: Is there a simple and inexpensive test that helps physicians determine when more intense workup and treatment are necessary for febrile children? We know that physicians can often identify young children with serious illness through physical examination[2] but yet miss others. Could photographs or videos of sick children help clinicians decide who needs additional examination and/or treatment?

Defroda et al[3] review what is known about the need for antibiotic prophylaxis in patients with joint replacements who are having a procedure or surgery. The research questions: What are the true rates of infections among patients who have had joint replacement? Does the rate differ with different surgeries? Mining large data sets, and possibly better coding, would be helpful.

The big business of mobile "apps" seems to trump accuracy, as evidenced by the utility of the currently available apps to help women avoid pregnancy. From the findings of Duane et al,[4] one could say that some apps actually *increase* the chances of pregnancy, not *decrease* them. Natural family planning, when correctly applied, can work much better than some popular apps. The needed research: how to help patients decide between more and less accurate apps—do they base their decision on cost, visual appeal, or effectiveness?

Jortberg et al[5] report on multiple family medicine offices that undertook the Fit Family Challenge office intervention to decrease pediatric obesity. The good news is that this intervention seems modestly successful. The ouch: both pediatrics and family medicine practices found it difficult to sustain, and, obviously, many families also found it hard to sustain and dropped out. Food insecurity, which is associated with obesity, was also associated with noncontinuance. The needed research: how to make the successful aspects of this program a part of routine practice.

Patient portal use[6] may make physicians' lives a little easier, but unfortunately it did not change high blood pressure outcomes. This study included a large number of patients. The research questions: Is there a way that portals could be used to improve blood pressure? What can maximize the value of the patient portals for patient centered-outcomes?

Raffoul et al[7] remind us that 2500 patients per family physician—a "classic" panel size—is not based on evidence; in fact, many large systems maintain fewer patients per physician. Angstman et al[8] tried to determine the ideal panel size in their system at the Mayo Clinic, where physicians are in a team of 2 to 4 physicians along with nurse practitioners, physician assistants, registered nurses, plus license practical nurses. The average family physician in these large teams had 2954 patients. The time to the third available appointment and diabetes quality measures were all worse when the panel size exceeded this number. However, this team structure is much more robust than that available to the average family physician. The research question: What team composition is ideal for which type of practice organizational structure?

Conflict of interest: The authors are editors of the *JABFM*.

In the intense, time-pressured clinical work of a usual day in a busy family medicine office, it is not easy to make sure all of those red-flagged items are handled.[9] Further, even with excellent triage, some do not need to be handled urgently, which can create a sense of relief ("Great, I do not have to deal with this one now") or an "ugh" ("I should not have to look at this at all"). Red-flag fatigue is as bad as alarm fatigue in a hospital. The needed research: How can we increase the accuracy of red flags for truly urgent issues, and how can we improve office strategies to handle these in the flow of a typical day?

Two of this issue's articles are about patient-centered medical home (PCMH) transformation and its impact. Elder et al[10] tackle the question of pain management in PCMHs, a huge issue now, in part because of the opioid addiction epidemic. Compared with other practice styles, PCMH practices were better at documenting and performing recommended office activities for chronic opioid prescribing. The needed research: Our dream is to know whether the medical homes actually decrease overall opioid overdoses or death. The detailed assessment by Carlin et al[11] of 87 practices in Minnesota considers health care utilization for individuals with chronic illness, specifically with increasing levels of practice change. The results are intriguing, yet confusing. Clearly, the stage of practice change makes a difference. The research: Family medicine wants to know what parts of practice change are key to improved patient outcomes.

And telehealth? Coffman et al[12] present current data. A minority of offices participate in telehealth. The research: We can think of many researchable questions about telehealth, from accuracy to best uses to its impact on actual health and costs.

The Choosing Wisely™ campaign is making a difference, decreasing unnecessary testing or procedures, albeit modestly. One reason the campaign is even needed is illustrated by Lin and Yancey,[13] who found that most of the Choosing Wisely recommendations are based on expert opinion, Strength of Recommendation Taxonomy[14] category C evidence, rather than category A or B, which would reflect more research-based evidence. Family medicine researchers: give us better evidence to help us choose more wisely.

And that is a good ending to this editors' note: We want to choose wisely. Calling on all family medicine researchers: please help! We looked forward to your research advances. Thank you!

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