

Factors Influencing the Evolving Practice of Obstetricians in Eastern Wisconsin: A Survey

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ABSTRACT

The purpose of this survey was to ascertain what prompts clinicians in eastern Wisconsin to change their obstetric practice. A survey was mailed to all clinicians doing obstetrics for a nonprofit organization that performs over 11,000 deliveries in 10 hospitals. Of the 185 surveys mailed, 90 (49%) practicing obstetricians returned it. To change their practice, 31% of respondents said they need the American College of Obstetricians and Gynecologists (ACOG) to recommend it; 24% required multiple randomized clinical trials (RCTs) from different centers; 11% thought one RCT was sufficient. Whereas 93% of the respondents will change their practice within 2 years of a new ACOG recommendation, only 67% will do so after an RCT (odds ratio 6.42; 95% confidence intervals 2.46, 16.75). We concluded that ACOG recommendations are more likely to change the practice of clinicians doing obstetrics in eastern Wisconsin than RCTs.

KEYWORDS: ACOG practice bulletins, randomized clinical trials, obstetric practice, surveys

A randomized clinical trial (RCT) concluded that the neonatal outcome is significantly improved if preterm (gestational age 28 to 32 weeks) severe preeclampsia is managed expectantly at a tertiary center rather than delivered after 48 hour of glucocorticoids. While trying to implement the protocol, described by Sibai et al,¹ there was an appreciable resistance because they had not done it in the past and it is only a RCT “done in the last century.” The ensuing discussion between the clinicians taking care of the patient and the maternal-fetal medicine specialist prompted us to ask what factors influence clinicians doing obstetrics to change their practice pattern.

The purpose of this survey was to ascertain how obstetricians in eastern Wisconsin stay current with obstetric knowledge and what factors influence them to change their practice pattern.

MATERIALS AND METHODS

Aurora Health Care is a nonprofit organization in eastern Wisconsin that does over 10,000 deliveries per year in 10 hospitals. A survey was mailed (Table 1) to all clinicians doing obstetrics in the system. The surveys were numbered to keep track of those who did not respond. Once the completed survey was received, destroying the link of the number on the survey erased the identity of the respondent. An administrative assistant not involved with the study entered the data into an Excel (Microsoft, Seattle, WA) sheet.

Table 1 lists the questions asked in the survey. Although most of the respondents answered each question, some did not. Thus the n for each question does vary. The results are expressed in % (n) to those that responded to the specific questions. Answers to questions with more than one possibility do add up to > 100%. Odds ratio (OR) and 95% confidence intervals

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Table 1 The Results of the Survey

1. The best manner to remain current with obstetric knowledge (Circle all that apply):	
A. Reading ACOG publications/guidelines	85% (77)
B. Reading peer review journals regularly	67% (61)
C. Reading new editions of textbooks	3% (3)
D. Continuing medical education (CME) courses	71% (64)
E. Others	9% (7)
2. I am familiar with _____% of ACOG recommendations in practice bulletins (Circle one):	
A. 90–100%	38% (32)
B. 80–89%	45% (38)
C. 70–79%	8% (7)
D. < 70%	9% (8)
3. In my practice, I incorporate about ____% of ACOG recommendations from the practice bulletins (Circle one):	
A. 90–100%	47% (40)
B. 80–89%	42% (36)
C. 70–79%	6% (5)
D. < 70%	5% (4)
4. The biggest reason for not incorporating select ACOG recommendations in practice bulletins are (Circle all that apply)	
A. Forget because of busy practice	30% (27)
B. Not applicable to the unique circumstances of my patients	42% (38)
C. Patients request something that is not consistent with ACOG recommendations	26% (24)
D. I disagree with the ACOG recommendations	14% (13)
5. To adopt or change my practice in obstetrics, I need (Circle one):	
A. ACOG to recommend it	43% (28)
B. At least one published randomized clinical trial	15% (10)
C. Multiple randomized clinical trials published from different centers	34% (22)
D. It to be consistent with my clinical experience	6% (4)
E. Insurance to pay for it	2% (1)
6. It is easier to adopt a new guideline into practice if (Circle all that apply):	
A. It is a diagnostic test that is reimbursed	47% (43)
B. It is something my ancillary staff can do	30% (27)
C. It has been shown to be cost effective	52% (41)
D. My patients like it	25% (19)
E. It is a surgical intervention that is reimbursed	1% (1)
7. The time interval from the publication of a randomized clinical trial to implementation into practice is (Circle one):	
A. 1–2 years	67% (50)
B. 3–4 years	27% (20)
C. 5–6 years	5% (4)
D. 7–8 years	1% (1)
E. ≥ 9 years	0
8. The time interval from ACOG recommendations in practice bulletins to implementation into practice is (Circle one):	
A. 1–2 years	93% (77)
B. 3–4 years	5% (4)
C. 5–6 years	2% (2)
D. 7–8 years	0
E. ≥ 9 years	0
9. Because ACOG practice bulletins are updated every 5 to 7 years, there is a need to supplement these documents	
A. Yes	83% (73)
B. No	17% (15)

Data presented as % (n) of the respondents who answered the specific question.

Overall 90 clinicians responded, but all of them did not answer each question, so the total does not add up to 90.

(CI) were calculated, and CI not crossing the integer 1 was considered significant. Chi-square test for trend was also used, and $p < 0.05$ was considered significant.

RESULTS

In November 2006, 185 surveys were mailed to clinicians who were managing pregnant patients, and 54% (100) returned it. Because 9% (9) of them were no longer practicing obstetrics, they were excluded from the analysis. Thus the result of this survey reflects the practice of 90 (49% surveyed) obstetricians.

In eastern Wisconsin, to stay current about obstetric knowledge, clinicians relied most frequently on American College of Obstetricians and Gynecologists (ACOG) publications (85%), and the least likely source was reading new editions of textbooks (3%). A comparison of answers to what percentage of ACOG recommendations they are familiar with versus the compliance with them in practice was notable for some incongruity. Although 38% of the respondents were familiar with 90 to 100% of recommendations in bulletins, a greater proportion (47%) of clinicians implemented them in their practice with similar frequency (90 to 100%; Table 1). A comparison of each respondent's familiarity with versus compliance with ACOG recommendations was notable for the following: 73% of them were consistent in their knowledge of and compliance with; 21%

were compliant more often than they were knowledgeable about (for example, they knew 80 to 89% of recommendations but their practice was consistent in 90 to 100% of cases); and with 6%, awareness exceeded implementation of recommendations (they knew, for example, 90 to 100% of suggestions but in their practice incorporated 80 to 89% of recommendations).

The most common reason for not incorporating ACOG recommendations was that they were not applicable to the unique circumstances surrounding their patients (42%). The least common was a disagreement with ACOG suggestions (14%; Table 1). More clinicians were willing to change or adopt their practice if ACOG recommended it (43%) than if there was one (15%) or multiple RCTs (34%). The most likely reason to change practice was if the new guideline was cost effective (52%), followed by if it is a diagnostic test that is reimbursed (47%).

There was a significant difference in the rapidity with which the clinicians were to implement findings of a RCT versus an ACOG recommendation. Within 1 to 2 years of a new ACOG recommendation, 93% (77 of 83) of respondents would implement it in their practice as compared with 67% (50 of 75) of clinicians when there is a new RCT (OR 6.42; 95% CI 2.46, 16.75). Chi-square test for trend indicates that the likelihood of adopting a new recommendation from ACOG versus a finding of RCT varies significantly ($p < 0.0001$; Fig. 1).

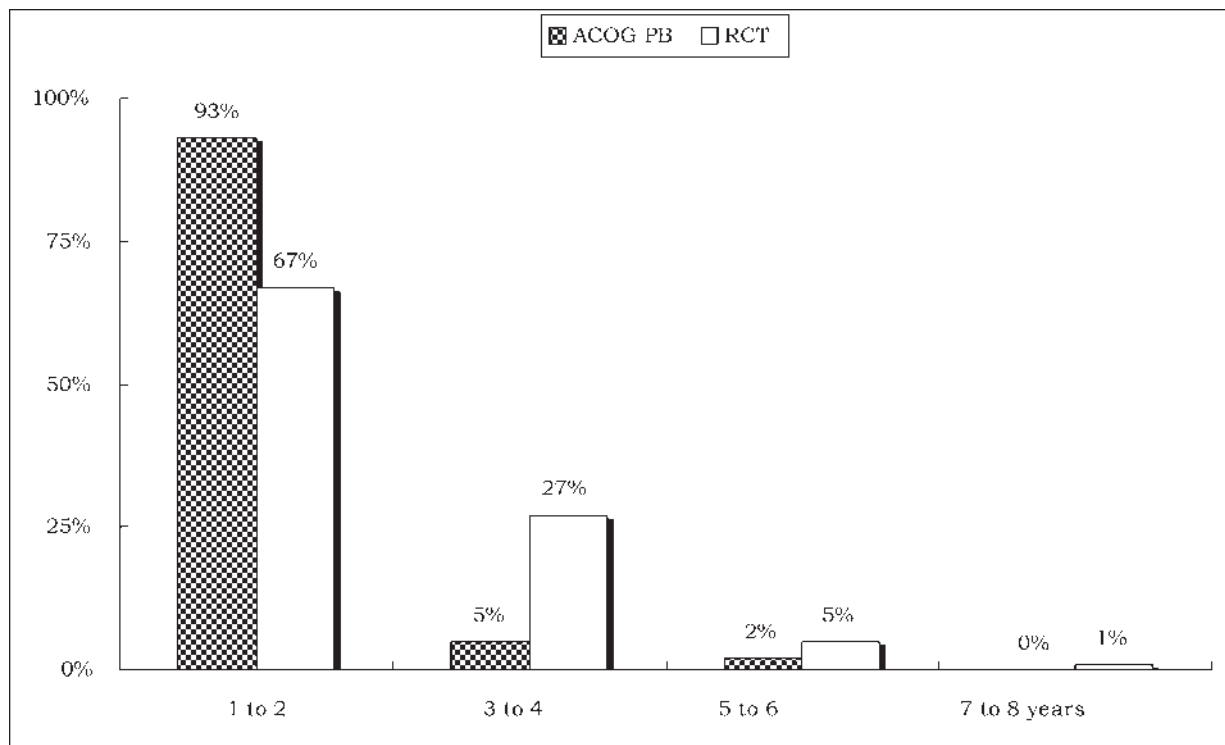


Figure 1 Time period to incorporate into practice a new recommendation in obstetric practice bulletin versus the findings of a randomized clinical trial (chi square for trend, $p < 0.0001$). ACOG PB, American College of Obstetricians and Gynecologists Practice Bulletin; RCT, randomized clinical trial.

COMMENTS

At times, RCTs challenge the prevailing practice or provide a new treatment modality for a perplexing problem. The randomized study by Sibai et al,¹ for example, redefined the management of preterm severe preeclampsia, a report by Hannah et al² provided data about the safety of vaginal breech birth at term, and Meis et al³ decreased the rate of recurrent preterm birth with 17 α hydroxyprogesterone. Because we encountered several difficulties in implementing the expectant management protocol for preterm severe preeclampsia at a tertiary center 12 years after the publication of the RCT, we wondered how obstetricians stay current and what factors change the practice pattern in our organization with 10 hospitals.

There are four findings of the survey of obstetricians in eastern Wisconsin. First, ACOG publications and continuing medical education are the two most preferred methods to stay current, but reading peer-reviewed journals is the third. Reading new editions of obstetric textbooks was the least likely method (< 5% of the clinicians). The second finding focused on the knowledge and implementation of ACOG recommendations. Less than half of our clinicians knew or implemented at least 90% of ACOG recommendations in their practice. At least 1 of 10 clinicians knew or incorporated < 80% of ACOG recommendations (Table 1). For ~20% of the respondents there was a disparity in self-reporting of how many ACOG suggestions they were familiar with versus how many they complied with.

The third finding is the reasons for not incorporating ACOG recommendations. The most common reason (42%) for noncompliance is that our practitioners perceive that a patient's situation is unique and warrants deviation from guidelines. A patient's request is the reason for deviating from guidelines in 26% of the cases. Thus a patient's need or desire is the reason for noncompliance in ~70% of noncompliance with obstetric guidelines. Interestingly, with 14% of deviations, clinicians disagree with ACOG recommendation (Table 1).

Our fourth, and perhaps the most important, finding involves the factors and time period for changing the obstetric practice in eastern Wisconsin. An ACOG recommendation is much more likely to modify the practice and do it faster than a single or multiple RCT (Fig. 1). Presumably, with ACOG emphasis on practicing evidence-based medicine,⁴ most clinicians would alter their practice when results of a RCT are published and would not need to wait for a practice bulletin's recommendations. The potential reasons why ACOG

exerts greater influence than RCT include the following: Clinicians are too busy to weigh the merits of RCT, the new knowledge reinforced by ACOG publications exerts greater influence than RCT alone, and a potential for legal liability exists if there is noncompliance with ACOG recommendations but not with RCT. It is noteworthy that when the ACOG suggestions are cost effective, it is more likely to be adopted than when it is a diagnostic test or surgical intervention that is reimbursed, is something ancillary staff can do, or is something patients like or prefer.

Aside from the response rate of 49%, the survey was limited because it focused on clinicians practicing in an organization, and the findings may not be applicable throughout the country. Each respondent did not answer every question, which is a shortcoming. Additionally we did not verify the validity of the response. In practice, it may be that most clinicians are not complying with ACOG practice bulletins. Studies on cesarean delivery for nonreassuring fetal heart rate, for example, have reported noncompliance with ACOG recommendations.⁵ Lastly, we did not obtain information about the clinicians and their practice to determine how these factors modify the response.

In conclusion, ascertaining the factors that alter obstetric practice is needed to minimize the lag time from publication of RCT to implementation. If a larger survey confirms that ACOG is more influential than peer-reviewed RCT, practice bulletins may need to be updated frequently.

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