

The advanced life support in obstetrics course as an orientation tool for obstetrics and gynecology residents

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OBJECTIVE: This study was undertaken to assess the utility of the Advanced Life Support in Obstetrics Course for obstetrics/gynecology first-year residents by triangulating pretest and posttest scores on written test of knowledge by interns, with qualitative surveys by residents, and faculty.

STUDY DESIGN: Obstetrics/gynecology interns took a quantitative pretest and posttest on obstetric emergencies. These postgraduate first-year residents were also surveyed about their qualitative expectations about the course in advance and about their evaluation of the course after course completion.

RESULTS: Nine postgraduate first year residents took the Advanced Life Support in Obstetrics course and participated in this study on

June 2005. Postgraduate first year residents demonstrated an increase of 31% between mean pretest and posttest scores. Postgraduate first year residents found the course to be a good, hands-on practical review of common obstetric problems. Obstetrics/gynecology faculty and residents agreed that the course was useful hands tool for orientation.

CONCLUSION: Advanced Life Support Obstetrics course is an effective educational tool during orientation for obstetrics/gynecology residents.

Key words: medical education, obstetrics/gynecology specialty, residents

In 1991, the Advanced Life Support in Obstetrics (ALSO) course was developed by 2 Wisconsin family physicians by using the model of the advanced cardiac life support (ACLS) and advanced trauma life support (ATLS) courses. The course was obtained by the American Academy of Family Physicians (AAFP) in 1993 and has since been used for education and skill maintenance for more than 50,000 health professionals around the world.¹ The ALSO course is evidence-based; categorizing its recommendations according to the strength of supporting evidence.² The results of prior studies show that ALSO training increases short- and long-

term confidence in handling obstetric emergencies.³⁻⁵

ALSO is given as a 2-day course. There are 8 required lectures: First Trimester Complications, Labor Dystocia, Medical Complications, Vaginal Bleeding in Late Pregnancy, Postpartum Hemorrhage, Preterm Labor/ Premature Rupture of Membranes, Maternal resuscitation, and Safety in Maternal Care; and 5 required small-group workshops: Shoulder Dystocia, Malpresentations, Forceps and Vacuum, Fetal surveillance, OB Cases (Eclampsia, Postpartum Hemorrhage, and Cord Prolapse); and 5 optional workshops: Perineal Repair, Cesarean, Ultrasound, Birth Crisis, and Neonatal resuscitation. Details on how to sponsor an ALSO course are available online at: <http://www.aafp.org/online/en/home/cme/aafpcourses/clinicalcourses/also.html>.

ALSO has been given at the University of Miami (UM) since 2002 as a requirement for family medicine (FM) residents. It has been required for obstetric/gynecology interns since 2004. Funding included an initial grant of \$7500 for mannequins (5@ \$506 each) and slides (\$700) and the initial certification of obstetric/gynecology and FM faculty. A cost of \$150 per attendee paid to the AAFP for the provider syllabus and administrative costs. Costs are kept low by

using departmental space, volunteer faculty, and sharing resources with other programs. The hospital pays the costs as a part of the residents' training in the same way that it pays for other required certifications such as Advanced Cardiac Life Support. Our objective was to assess the utility of this course for obstetric/gynecology residents.

METHODS

Nine obstetric/gynecology interns attended the ALSO course at UM in 2005. They each took a written multiple-choice pretest and posttest of 20 questions on course material, completed a written survey about their qualitative expectations about the course and perceptions of the course syllabus in advance, and about their evaluation of the course after completion. All 5 obstetric/gynecology faculty who taught the course in 2005 completed a written survey about the course asking (1) why do you teach the ALSO course? (2) What would you change about it? (3) Do you think it is an affective orientation tool for obstetric interns? If so, why? Finally, 9 months later, 7 of the invited 28 residents who had previously taken the ALSO course presented to a focus group to explore how they thought the course affected their experience on labor and delivery and whether they still referred to any of the materials.

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TABLE

Scores by obstetrics/gynecology interns on test of knowledge after being provided with the ALSO material to read, before and after taking the ALSO course

	Pretest	Posttest
20% to 80% (range)	30% to 75%	70% to 96%
50% (mean)	55%	86%
	31% increase	

$P < .01$.

The focus group was moderated, recorded and transcribed by a Master's level anthropologist who also collected and processed all quantitative and qualitative data to promote research integrity. The Institutional Review Board approved the protocol.

RESULTS

PGY-1 demonstrated a mean increase of 31% ($n = 9$) on between pretest and posttest scores (Table). Eight of 9 residents described feeling more confident and prepared after attending the course, which they deem useful and necessary. All 5 obstetric/gynecology faculty agreed that the course was useful hands on ori-

entation for interns and 4 of 5 also suggested it would be useful as a review of basics for any obstetric provider: In the focus group ($n = 7$), 3 of 3 upper level residents who had completed the course 1 to 3 years earlier reported that the course was a good introduction and review of basics. All 4 new interns reported that it made them more comfortable about how to calmly and methodically approach emergencies; particularly those that occur infrequently. Six of 7 valued, in particular, the training for shoulder dystocia, vacuum and forceps, breech delivery, interpretation of fetal heart rate tracings, and postpartum hemorrhage.

COMMENT

The ALSO course improved pretest to posttest scores by a mean of 31%. Although this course has been validated and used in Family practice residencies for many years, this is the first study to assess its use in an obstetric/gynecology residency program. Training residents the obstetric/gynecology specialty is challenging, particularly with the core competences required by the Accreditation Council for Graduate Medical Education. Through this course, residents can be evaluated in a more objective way

on the learning of these core competences. The course provides a structured evidence-based approach to the most common emergencies. Furthermore, the course may decrease the mismanagement of obstetric emergencies by junior obstetric/gynecology residents resulting in improved patient care. This course uses an adult learning model with the help of workshops and simulations to increase both short- and long-term confidence with obstetric emergencies. ■

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