The Need for Rural Family Physicians Who Can Perform Cesareans

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Abstract

Rural areas are in need of maternity care services, including cesarean delivery. Multiple studies have linked lack of local obstetrical services with increased preterm delivery and infant mortality. Family physicians are the main providers of rural maternity care. With the paucity of non-family physician rural maternity care providers, it is essential that family physicians with caesarean capabilities be available to rural communities. Opportunities for family medicine cesarean training include residency, fellowship, and on-the-job training. The American Board of Family Medicine Obstetrics certification is a means to document competency.

Rural Needs

Women living and traveling in rural areas need rural hospitals to provide cesarean delivery services. The United States cesarean delivery rate is now over 30 percent.[1] Many indications are emergent. A woman who presents to a rural emergency room where fetal heart tones are found to be non-reassuring or a woman who presents with a breech baby and 6cm dilatation may lose her baby if she needs to be transported to a distant hospital because local cesarean services are not available. Approximately 1 million cesareans are performed in the US each year.[2] The need for cesarean delivery in rural areas is not a rare occurrence. Providing surgical care in rural hospitals "enhances patient convenience, provides needed revenue, and probably saves the lives of . . . patients with surgical emergencies who might die were such services not locally available."[3]

A number of studies have demonstrated that lack of local maternity care services is tied with worse perinatal outcomes. A study in Washington state demonstrated that women in communities with a lower maternity care provider per birth ratio were less likely to deliver in their local community hospital and were more likely to have a complicated delivery, a premature delivery, and higher cost of neonatal care than women from communities where most patients delivered at their local hospital.[4]

A study in Florida found an association between increased infant mortality rates and decreased physician availability.[5] The authors calculated that infant mortality increased by 2.3 percent when a community lost a family physician providing maternity care.[5]

In Alabama, decreased number of obstetrical providers in a county has been associated with an increased number of low birth-weight babies.[6]

An Indiana study found that two-thirds of counties needed more maternity care providers and ten counties had no health professionals to help deliver babies.[7] The study concluded that "access to care for pregnant patients is a major problem in rural Indiana and hampers Indiana's ability to reduce its current infant mortality rate."[7]

A study of two similar rural hospitals in British Colombia found that the hospital which had cesarean delivery services had more local deliveries and a lower rate of preterm delivery than the hospital without cesarean capabilities.[8] There were no differences in overall cesarean deliveries, instrumental deliveries, or adverse perinatal outcomes.[8]

Providers of rural care

Family physicians are often the sole providers of maternity care in rural areas. Because of patient volume and other issues, obstetricians/gynecologists are often unable and unwilling to practice outside of urban/suburban areas. Twenty percent of deliveries in the United States are attended by family physicians.[9] In many rural areas, this figure reaches 100 percent.[2] In rural areas, 46 percent of family physicians practice obstetrics.[10]

A 2007 survey of 101 rural hospitals in Minnesota indicated that 76.2 percent continue to offer obstetrical services and 96.1 percent of these hospitals offer cesarean deliveries.[11] Family physicians perform cesareans at 39.2 of the rural hospitals offering cesarean deliveries.[11] In Minnesota communities with less than 10,000 people, 29.1 percent of hospitals have stopped

providing maternity care in the last 30 years. One of the six most common reasons cited for hospital closure was "increased family physician retirement and too few family physicians choosing to practice obstetrics."[11] According to the Minnesota survey, there is a need for family physicians both to practice maternity care and to perform cesarean deliveries.

In Colorado, 92 percent of counties have family physicians and only 36 percent have obstetricians.[12] It is noted that the "practical reality is that a small hospital that cannot provide cesarean section service is highly unlikely to be able to provide perinatal care; in other words, the preservation of access to rural perinatal services often depends not only on family physicians who can provide care for 'normal' births, but also on the ability of some family physicians to perform operative delivery including cesarean section."[12]

A study in Washington found that 75 percent of rural hospitals offer obstetrical services.[13] In the Washington study, 61 percent of rural hospitals offering maternity care services had no obstetrician. In 77 percent of rural hospitals, family physicians performed the majority of cesareans, and in the other 23 percent family physicians performed 28 percent of cesareans.[13]

The percentage of family physicians with cesarean privileges varies regionally. The highest percentage is found in the East South Central and the lowest percentage in the Mid-Atlantic census tracks (Table 1).[14] A Florida study found that family physicians are the most widely geographically distributed maternity care providers in the state.[5]

Training opportunities

Family physicians learn cesarean skills in a variety of manners including residency, fellowship, and on-the-job training. A 2008 survey of fellowship graduates found 66 percent had cesarean privileges with 44 percent practicing in rural areas and 88 percent in community hospitals.[15] Cesarean privileging was more likely in rural areas (odds ratio 4.57; 95% confidence interval 1.53-13.62).[15]

Family medicine obstetrics and rural health fellowships are listed on the American Academy of Family Physicians (AAFP) website: http://www.aafp.org/fellowships/.

Over 50 family medicine residencies provide enough surgical experience for graduating residents to competently perform cesarean delivery.[16] These programs tend to be unopposed community-based programs.

Unfortunately, many family medicine residencies do not inspire and prepare residents for including maternity care in their post-residency practice. While 70 to 80 percent of residents enter residency planning to include maternity care in their post-residency practice, 50 to 96 percent choose not to by the end of residency.[17] On a brighter note, from 1993 to 2002, a 16 percent greater number of family medicine residents included maternity care in their post-residency practice.[18] Residencies with four or more family medicine faculty attending deliveries and residencies with ten or more deliveries per month produced more residents who included maternity care in their post-residency practice.[18]

On-the-job training is another option for learning cesarean skills. In some communities, general surgeons, family physicians, or obstetricians are interested and willing to provide on-the-job training to family physicians wanting to acquire cesarean skills. Through this apprenticeship model, family physicians would be given more and more responsibility until they were ready to apply to their institution for independent privileges. This may be more likely to occur in rural areas where needs are greater and those providing cesarean services have self-interest in training a colleague to share in call responsibilities.

Certification

A new certification in Family Medicine Obstetrics is available through the American Board of Physician Specialties.[19] The American Board of Family Medicine Obstetrics certification process includes many prerequisites, a written exam, an oral exam, documentation of cases and letters of recommendation. The new certification should help ensure quality of care for patients, quality assurance for physicians and hospitals and a means for family physicians to document competency in high-risk management and surgical technique needed in many rural communities.

A joint AAFP/American College of Gynecologists and Obstetricians (ACOG) statement reads: "Privileges should be granted on the basis of education, experience and documented competence, not solely on the basis of board certification, fellowship in ACOG, membership in other organizations, or the physician's rank or tenure."[20] This statement is especially important in the provision of cesarean delivery services in rural areas.

Summary

Family medicine obstetrics can help meet the need for maternity care services in rural areas. Without family physicians with cesarean capabilities, many rural hospitals would not be able to provide any maternity care services. Closure of local hospitals has been linked to increased infant mortality. Training and certification of family physicians in cesarean delivery is important to rural perinatal health outcomes.

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