mented with 0.1 mg bolus. The rate recommended (100 mL/hour) appears to be safe, but it is possible that the patient may require or unintentionally receive fluids at a faster rate during labor, delivery, or postpartum. Naloxone, even in small doses (100 μg), has been shown to be hazardous following systemic opioid administration.[2] In addition, naloxone may reverse analgesia,[3] or breakthrough pain may occur. Potential problems regarding naloxone administration may be lessened by "piggy-back" infusion using a well-marked burette administration set with, for example, naloxone 80 μg in 100 mL intravenous fluids. Possibly, an even safer approach is administration of a narcotic agonist/antagonist such as butorphanol tartrate or nalbuphine hydrochloride. Nalbuphine has been shown to decrease clinically significant respiratory depression[4] while providing some analgesia of its own.[5] Davies and From[6] reported that nalbuphine 10 mg subcutaneously resulted in significantly less pruritus following epidural fentanyl. The possibility of respiratory depression in the neonate—especially in premature infants—following systemic administration of any opiate to the parturient should be considered.

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The above letter was referred to the authors of the article in question, who offer the following reply:

To the Editor: Dr. From has submitted some productive comments on the use of naloxone to control the side effects of intrathecal morphine for labor pain. I agree that it is possible for patients to receive unintentionally intravenous fluids at rates greater than 100 mL/hr, which could be unsafe; however, I continue to recommend supplementation of naloxone in 0.1 mg intravenous bolus as needed rather than an increase in the intravenous rate greater than 100–125 mL/hr. Dr. From has pointed out the possible side effect of pulmonary edema from naloxone administration. I agree we should be aware of this side effect, but in the references cited, the patients who developed this either had preexisting cardiac disease[2] or had received multiple other medications during anesthesia.[3] While it would seem that use of naloxone would oppose the analgesic effect of the intrathecal morphine, this has not been my experience, nor was it reported by Poul and colleagues.[4]

Nalbuphine or butorphanol may be safe alternatives to naloxone[5] as suggested by Dr. From, provided that adequate attention is given to their respiratory effect on the newborn who has no narcotic on board for these to act as antagonist.

My conclusion, after reviewing the literature, is that nalbuphine and butorphanol may be useful alternatives in some patients, but at present, in the healthy pregnant patient, naloxone is the safest choice to control the side effects of intrathecal morphine.

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Rural Obstetric Care

To the Editor: If the scientific method may be defined as the careful testing of a hypothesis, then Dr. Wain Allen's article "Obstetric Care in a Rural Family Practice" (January–March 1989) qualifies in spades. The hypothesis seems to me to be that a competent, dedicated, well-trained family physician can safely "deliver" obstetrical care in a rural environment. The numbers, though small, are carefully assessed and reported. The writing is succinct, and the distinction is made between opinion and fact. I disagree with Dr. Paul Young's editorial comment that the "data do not scientifically establish any specific hypothesis" or that "fetal outcomes are not documented." There were no deaths, and the one premature birth was "normal at 2 years of age." Perhaps I do not understand what more Dr. Young requires.

My congratulations to the editors for publishing this much needed article from the trenches of family medicine. It should encourage the submission of similar private practice studies to family practice journals.

Dr. Allen should also be congratulated for the extra time and effort required to submit such an article. He continues to exhibit those qualities that made him an outstanding resident at our Army community hospital.

Thomas F. Camp, M.D.
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To the Editor: I read the article by Dr. Allen[1] with great interest. It is a pleasure to read about a rural family physician still practicing obstetrics and providing excellent obstetrical care. This is even more heartwarming because he does this with anticipatory guidance, identifying the high-risk pregnancy and seeing that appropriate care is provided.

The United States Cesarean section rate climbed to 22.3 percent in 1986, and this percentage was closely followed by Canada and Australia.[2] Of the 19 countries compared (with the exception of Canada and Australia), the U.S. rate was 50 to 200 percent higher than that of other countries. Dystocia contributed to 30 percent of the rise in Cesarean birth rates from 1970 to 1978, and repeat Cesarean accounted for 25–30 percent of this rate increase. Breech presentation and fetal distress each accounted for 10–15 percent of the remaining known causes for the increase.[3]

Doctor Allen clearly presents how he kept his Cesarean rate down by giving his patients with previous sections a trial of labor. He also lessened the probability of section in patients with breech presentation by arranging an external version to be done by an obstetrician, who then referred the patient back to him for continuing prenatal care and vertex vaginal delivery.

I would like to quote his fourth summary point because I believe it also is likely a factor in lowering his CS rate. "I strongly encourage childbirth classes, partner participation, and natural childbirth."[1(p 32)] With a supporting partner and supporting family physician, Dr. Allen's patients are better informed and better prepared for childbirth. His patients are less anxious at labor, have more effective contractions with less pain, fewer epidurals, resulting in less dystocias, and thus, with a nonaggressive supporting family physician, are less likely to receive Cesarean sections.

There are two studies that showed a number of significant differences in quality of care between obstetricians and family physicians that I would like to bring to the attention of *Journal* readers. Klein, et al.[4] reported that induction was carried out more frequently in the shared-care (consultant) system, particularly in multiparous women, for whom the rate was 27 percent compared with 10 percent in the general practice unit (GPU) ($P < 0.001$). Epidural analgesic was used more frequently in nulliparous women in the shared-care system than in those booked for the GPU (17 percent and 5 percent, respectively) ($P < 0.001$). Forceps delivery was more common in the women booked for shared-care than in those booked for the GPU; the respective frequencies were 36 percent and 28 percent in nulliparae ($P < 0.05$) and 8 percent and 1 percent in multiparae ($P < 0.001$).

In his second study, Klein, et al.[5] reported that both the first and second stages of labor were longer for women in the GPU but they received less pethidine ($P < 0.01$), and fewer had epidural analgesic ($P < 0.02$). These women also received less electronic fetal monitoring, augmentation, and forceps delivery. The 1-minute Apgar score was < 6 in 17.5 percent of infants of nulliparae in the shared-care system compared with 1.6 percent in the GPU ($P < 0.01$). The intubation rate of infants of nulliparae was 11 percent in the shared-care system compared with no intubations in the GPU ($P < 0.01$). The authors concluded that deliveries of low-risk women in the GPU, when compared with deliveries of similar women in a shared-care (consultant) unit, are simple and safe.

I believe it is important for family physicians to continue to practice obstetrics, because low-risk patients need a conservative, low-technology approach.

I suspect prematurity is a minor problem in Dr. Allen's practice because of his anticipatory guidance and approach of identifying the high-risk pregnancy and taking preventive action by using the WIC and other community resources for those patients who need it. Identifying the high-risk pregnancy early, along with proper team management throughout the prenatal period, does make a difference in neonatal morbidity and mortality.[6] With regionalization of perinatal services, it is possible to reduce the perinatal mortality rate in small community hospitals to levels that approximate those in sophisticated tertiary care hospitals.[7]

In order to make this system work, it is important for family physicians to have an efficient screening system for identifying high-risk pregnancies and to arrange early consultation and referral.

Dr. Allen is to be commended for keeping records and presenting his approach as a rural family physician practicing rural obstetrics. Hopefully, his report will stimulate other rural family physicians using the team approach to obstetrics to publish their experiences. It may even stimulate some urban or suburban family physicians to make comparative studies.

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