Nonaggressive approach pays off in preterm delivery

Although the probability of survival is increased by physicians' willingness to perform caesarean section, the more cost-effective strategy for imminent preterm delivery at 24 weeks' gestation is unwillingness to perform such surgery, shows a US study. Indeed, "*both absolute survival and long-term handicaps must be considered when proceeding with aggressive intervention in extremely preterm pregnancies*", say the study's authors.

They used the most recent available data to construct a lifetime decision-analysis model which they used to compare the costs and outcomes associated with aggressive (willingness to perform caesarean section) versus nonaggressive (unwillingness to perform a caesarean section) management in the setting of imminent spontaneous or indicated delivery at 24 weeks' gestation.

The model showed that aggressive management would be associated with a higher probability of survival than nonaggressive management (16.8% vs 12.9%). However, the probabilities of nonintact* survival would be 39.2% and 19.4%, respectively, for aggressive versus nonaggressive management. The overall cost per surviving infant and per intact infant would be $US713 859** and $US2.4 million with aggressive management, compared with $US675 425 and $US1.7 million, respectively, with nonaggressive management. Therefore, aggressive management would be associated with an incremental cost of $US766 241 per additional survivor compared with nonaggressive management.

Sensitivity analysis showed that the total cost per birth would be "*much higher*" for aggressive versus nonaggressive management "*at all probability points*", note the authors.

* survival with major morbidity, such as cerebral palsy, mental retardation, blindness/retinopathy of prematurity, seizures, and oxygen dependence at discharge or 120 days

** Costs (2004 values) were calculated from a societal perspective, and were those related to the direct medical and nonmedical costs of major morbidities, and the indirect costs associated with productivity loss and premature mortality.

Cazan-London G, et al. Willingness or unwillingness to perform cesaran section for impending preterm delivery at 24 weeks' gestation: a cost-effectiveness analysis. American Journal of Obstetrics and Gynecology 193: 1187-1192, No. 3, Part 2, Sep 2005

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