

# Gestational age not only factor in outcome of severely premature healthy babies

**Researchers at The University of Texas Medical School at Houston say a crucial decision on whether to give intensive care to extremely premature infants should not be solely based on the infant's gestational age.**

Published in the April 17, 2008 issue of the *New England Journal of Medicine*, the study titled "Intensive Care for Extreme Prematurity: Moving Beyond Gestational Age" found four other factors that are of comparable importance: female sex, treatment of the mother with antenatal corticosteroids, singleton birth and higher birth weight.

"My hope is that this study will put more information into the hands of doctors and parents to help them make better informed decisions about the care of these extremely premature infants," said lead author Jon E. Tyson, M.D., professor of pediatrics and obstetrics and Michelle Bain Distinguished Professor in Medicine and Public Health at the UT Medical School.

Decisions on whether to administer intensive care or comfort care to infants born 15-18 weeks before their due date (at 22-25 weeks gestation) are highly controversial. Comfort care avoids all painful procedures. Such care is given when the intensive care is judged to be extremely unlikely to be beneficial and would cause needless pain and suffering for the infant. In deciding how to treat extremely premature infants, most centers have relied solely or largely on gestational age.

This study was funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). It involved nearly 4,500 infants who were born at 22 to 25 weeks gestation between 1998 and 2003 in hospitals of the Neonatal Research Network, including Children's Memorial Hermann Hospital. The network is made up of 16 U.S. academic institutions that have extensive experience in multi-center clinical research involving high-risk babies.

The infants in the study group were then assessed at 18 to 22 months by certified examiners.

"We found that about half of the infants survived and that about half of those who survived had neurodevelopmental impairments. This is a very, very high risk group of babies," said Tyson, who is also director of the Center for Clinic Research and Evidence-Based Medicine Clinic at the medical school.

"The risk factors identified in this study are all known at birth. Antenatal corticosteroids are often administered to mothers before delivery to help mature the infant's lungs and reduce the likelihood of bleeding into the brain. Further research is needed to assist obstetricians and neonatologists in knowing how best to consider these factors in making treatment decisions," said co-author Nehal A. Parikh, D.O., assistant professor of pediatrics at the medical school.

Source: University of Texas at Houston

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