

Robert Usher

Neonatologist whose pioneering research had international influence

The Canadian neonatologist Robert Usher's many scientific contributions to perinatal medicine over half a century revealed the depth of his clinical experience as well as his powers of observation, original thought, and analysis. His earlier papers dealt with clinical and therapeutic aspects of the respiratory distress syndrome of prematurity. The introduction of the "Usher's regime"—giving sodium bicarbonate intravenously from birth to maintain blood pH within normal limits—throughout the world in the early 1960s did much to arouse paediatric interest in the neonatal period. Also, after a year spent with Professor John Lind in Stockholm in 1962, Usher made important contributions to the influence that management of the umbilical cord at birth might have on the neonatal blood volume, on polycythaemia, and on cardiopulmonary function.

Usher's other research subjects included perinatal maturation, nutrition, and growth, maternal diabetes in pregnancy, and the influence of delivery on fetal adaptation at birth. He was also most interested in the organisation and audit of perinatal care,



including the causes and prevention of mortality and morbidity. Indeed his latest efforts before his death were to ensure that the Montreal obstetric and neonatal database was in good working order. For 46 years he had personally reviewed the charts of every baby (and of their mothers) born at Montreal's Royal Victoria Hospital, where he was director of nurseries. His extensive knowledge of perinatal care and epidemiology was made available to international

bodies such as the World Health Organization, as well as to governments. In particular he gave great support to the Brazilian and Cuban perinatal services.

Robert Usher was born in Montreal in 1929. He was educated there, qualifying in medicine at McGill University in 1954. After residencies in Philadelphia and Boston, Usher returned to Montreal, first as a research fellow and then from 1959 as director of nurseries at the Royal Victoria Hospital, a post he held for more than 40 years. At McGill University he progressed to become professor of both obstetrics and paediatrics.

Bob loved the outdoors and was never happier than when swimming, walking, skiing, or chopping wood on his farm in the Laurentian Mountains.

He leaves a wife, Anne, and three daughters. [P M DUNN]

Robert H Usher, former director of nurseries Royal Victoria Hospital, Montreal, Canada (b Montreal 1929; q McGill University, Montreal, 1954), died from prostate cancer on 25 May 2006.

On May 25, 2006, the MUHC lost one of its most beloved physicians when Dr. Robert H. Usher died of cancer at the age of 76. Dr. Usher's innovative work in neonatal medicine and the treatment of respiratory distress syndrome (RDS) set new international standards.

Dr. Usher was born in Montreal in 1929 at the MUHC's Royal Victoria Hospital, where his father worked as a pediatrician. He enrolled in medicine at McGill University and in 1957 accepted a one-year research position at the Vic, where he studied RDS in prematurely born babies. Dr. Usher's development of the Usher Needle helped reduce the neonatal mortality rate of children with RDS by more than 50 percent. In the 1960s, his breakthrough research into the metabolic processes of RDS led to the widespread introduction of the Usher Regime, the intravenous infusion of dextrose water with sodium bicarbonate. This increased the survival rate even further, a widely celebrated result given the highly publicized 1963 death from RDS of President Kennedy's newborn son, Patrick Bouvier Kennedy, which had made the disease something of a *cause célèbre*.

In 1959, Dr. Usher became the director of the Vic's neonatal intensive-care unit and remained in the post for 41 years. He was also a professor of both obstetrics and pediatrics at McGill. During his illustrious career he received many honours, including being made an honorary fellow of the British Association of Perinatal Medicine in 1991. He was awarded the Prix Letondal of Quebec in 1993, the Neonatal Award of Canada in 1995, and the prestigious Virginia Apgar Award, given annually by the American Academy of Pediatrics, in 2000. In 2006, Dr. Usher received the Ross Award for excellence in the field of pediatric research and child advocacy from the Canadian Pediatric Society. In 1998, McGill University established the Robert Usher Fellowship in Perinatology to fund graduate physicians and scientists intending to follow in Usher's footsteps: a fitting tribute to a true MUHC pioneer.