Title: Contributions of Pediatric Anesthetists from the UK, Australia, Sweden and France to the Early Development of Pediatric Critical Care in North America

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ABSTRACT BODY:

Pediatric critical care medicine and pediatric intensive care units (PICU's) developed to meet the needs of severely ill and injured infants and children in Europe and North America from the mid-1950's through the early 1970's. Pediatric anesthetists originated most early PICU's in Sweden, the U.K. and Australia whereas neonatologists extended their services to older patients in France.

Goran Haglund, a pediatric anesthetist, opened the first physician directed, multidisciplinary PICU (which he termed a "Pediatric Emergency Ward") with 7 beds in 1955 at the Children's Hospital in Goteburg, Sweden. Although he spoke at meetings about the unit and its results, Haglund did not write about this extraordinary innovation until 1976 (1). The next PICU's were established in 1961 by pediatric anesthetist Hans Feychting at St. Goran's Hospital in Stockholm, and in 1963 by neonatologists G. H'Uault and J.B. Joly at Hopital St. Vincent de Paul in Paris. Also in 1963, pediatric anesthetists J.G. Stocks and I.H. McDonald opened the first Australian PICU at Melbourn's Royal Children's Hospital. The renowned G. Jackson Rees founded the first PICU in the U.K. in 1964, a sophisticated 13 bed facility, at the Alder Hey Children's Hospital, Liverpool. Through their writings, travels, hosting of visitors, and exchange of trainees these pioneering physicians fostered an Anglo-American and Franco-American connection that proved exceptionally beneficial to their North American colleagues, primarily pediatric anesthesiologists struggling to establish PICU's and practice critical care.

During these years in the USA and Canada critically ill infants and children received intensive care, usually provided by pediatric anesthesiologists, in recovery rooms or in designated beds of open wards in leading children's hospitals such as the Children's Hospital of Philadelphia (CHOP) and the Hospital for Sick Children in Toronto (HSCToronto). In 1963 D. Anthony Nightengale came to CHOP as a Clinical Research Fellow from the Alder Hey, bringing us the Jackson Rees methods of anesthetic care and also new techniques for managing the child in acute respiratory failure. In 1965, Prof. Rees visited CHOP fresh from Australia, telling us about their success with prolonged nasotracheal intubation. Pediatric cardiac surgeon Eoin Aberdeen of the Hospital for Sick Children in Great Ormand St., London (GOS) also visited CHOP, introducing his new anatomically shaped plastic trachesotomy tube and other advances in airway care. Also in 1965, I had the opportunity to visit H'Uault and Joly's unit in Paris, Aberdeen's post-cardiac surgery unit at GOS, and several neonantal intensive care units in England, Canada., and the USA.

In January, 1967 at CHOP, Leonard Bachman, Director of Anesthesiology, and I opened the first multidisciplinary PICU in North America, a 6 bed facility with a dedicated nursing team, a fellowship program, extensive monitoring and an on-site blood gas laboratory (2). I was appointed the director of the unit. In 1968, Stephan Kampschulte, a senior anesthesia/critical care resident with Peter Safar in Pittsburg, spent 4 months at CHOP in critical care training, and returned to Pittsburg's Children's Hospital to lead a new PICU which opened in 1969. Also in 1969, pediatric anesthesiologist James Gilman led the opening of a PICU at Yale New Haven Medical Center. In 1971, two PICU's opened whose programs would join with CHOP and Pittsburg in training the next generation of leaders in critical care for children: 1) the 20 bed state of the art PICU at HSC Toronto developed and led by ansthesiologist Alan Conn, and 2) the 20 bed NICU-PICU complex at the Massachusetts General Hospital developed and directoed by anesthesiologist I. David Todres, a South African trained in England, and pulmonologist Daniel Shannon.

Since 1987, pediatric critical care in the USA and Canada has been a pediatric subspecialty and the role of anesthesiologists has diminished. However, this subspecialty in North America owes its development to pediatric anesthesiologists from Sweden and France, but especially to those from England and Australia.

Ref.:(1)G Haglund et al: Pediatric emergency ward. In Stetson JB et al: Neonatal Intensive Care, W H Green, 1976
(2) L Bachman, J Downes et al: Anesth Analg 1967; 45:570-574