Pediatrics Practice at Mayo Clinic—A Historical Vignette

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In this Historical Vignette, we briefly review the pediatric practice at Mayo Clinic to honor that practice and its practitioners and to help celebrate the clinic’s sesquicentennial year.

Pediatrics Integral Since the Birth of Mayo Clinic

Pediatrics has been integral to Mayo Clinic throughout its history of 150 years. The clinic began when infant and child mortality rates were high: in the 1860s, approximately 20% of American babies died before reaching their first birthday. Even today, the Oakwood Cemetery in Rochester, Minnesota, includes grave stones of 21 members of the Mayo Clinic family, 7 of whom died before reaching the age of 3 years. Mayo Clinic began when children needed better health care.

Dr William W. Mayo came to Rochester, in part, to care for adolescents; he was hired to do induction physicals for adolescent boys preparing to fight in the Civil War. In 1895, Dr Christopher Graham joined the Mayos’ practice and became responsible for much of the group’s pediatric care. In 1896, the group’s first X-ray machine was used to locate and plan the removal of an open buckle swallowed by a young boy. In 1911, a special subsection of Mayo Clinic was formed for the care of children, and, in 1917, the Stanley Hospital opened with beds dedicated to pediatrics. Dr Henry Helmholtz and Dr Samuel Amberg came to Rochester from Chicago in 1920 and helped expand the pediatric practice substantially. The growing pediatric practice was housed in a 20-bed pediatric ward in 1922 in what has more recently become known as the Joseph Building at Saint Marys Hospital. The practice continued to grow and expand with larger inpatient areas dedicated to the care of children, and different parts of the pediatric practice were housed in various areas of the campus. The Mayo Eugenio Litta Children’s Hospital was opened as a “children’s hospital within a hospital” and brought together all but the newborn part of the inpatient pediatric practice in 1996.

Developmental Pediatrics

Since the childhood years of Dr Will Mayo and Dr Charlie Mayo, careful attention has been paid at Mayo Clinic to the proper physical and emotional development of children. In 1944, Dr C. Anderson Aldrich created the Rochester Child Health Project in collaboration with the local health department and schools. Dr Benjamin Spock joined the staff in 1947 and assumed responsibility for what became the Rochester Child Health Institute when Dr Aldrich died in 1949. Dr Spock went on to guide the development of at least 2 generations of Americans through his book, Dr. Spock’s Baby and Child Care.

In recent decades, several seminal studies have advanced understanding of the epidemiology, diagnosis, and management of children with autism.1 Working with the Rochester Epidemiology Project, pediatricians at Mayo Clinic have identified various groups of children with learning disorders and helped focus awareness of the frequency, presentations, and treatment of these children.2,3 Similarly, long-term outcomes of attention/deficit disorders have been elucidated through careful evaluation by investigators at Mayo Clinic.4

Cardiac Care

There is a long and illustrious history of the care of children and adults with congenital and acquired heart disease at Mayo Clinic. At the dawn of open heart surgery, palliation and repair of congenital cardiovascular anomalies were the focus of cardiac surgery. Procedures such as the Blalock-Taussig shunt could be done without stopping and opening the heart. However, to repair defects within the heart, some form of cardiopulmonary bypass was needed. Dr John Gibbon Jr, at the Jefferson...
Medical College of Philadelphia, built the first “heart-lung” machine, but he was frustrated by the high mortality associated with the early attempts at “open heart surgery.” Because of his frustration, the original Gibbon heart-lung machine was sent to Mayo Clinic where Dr John Kirklin and a team of Mayo Clinic physicians, surgeons, and IBM technicians altered and improved it. Among those early pioneers was Dr James DuShane, the first head of Pediatric Cardiology at Mayo Clinic.

Truncus arteriosus was recognized as a defect that resulted in severe congestive heart failure in infancy. Also, it was associated with the early development of pulmonary vascular obstructive disease. In 1967, a conduit was devised to connect the right ventricle to the pulmonary arteries and resulted in the first successful complete repair of truncus arteriosus. This concept was then applied to other complex forms of transposition of the great arteries and is now recognized as the “Rastelli operation,” named after Mayo Clinic surgeon Dr Giancarlo Rastelli.5

A surgical-pathologic classification of double outlet right ventricle was described by Dr Donald Patrick and Dr Dwight McGoon at Mayo Clinic in 1968. In 1966, Dr Rastelli, at Mayo, devised a unique and clear classification and description of atrioventricular septal defects. He, together with Dr Kirklin, reported the first successful surgical repair of complete atrioventricular septal defects in 1969. Today, because of early and extensive experience in managing these defects, Mayo Clinic remains a recognized center for the management of infants and children with atrioventricular septal defects.

Teamwork—Unified for Division

The Mayo Clinic Children’s Center knows teamwork. This was clearly demonstrated in 2006 when the Carlsen family of Fargo, North Dakota, planned to deliver their conjoined twins. A team of surgeons, anesthesiologists, nurses, and pediatricians met frequently during the months leading up to the separation surgery. More than 100 people from the Department of Radiology alone combined forces to provide detailed anatomic images. “Dry runs” through the combined operating suites provided help in ensuring that all necessary facilities and equipment were available for the concurrent cure of 2 children. As the shared liver was divided, and the sisters were separated, cheers erupted in the operating rooms. Thousands of staff joined the celebrations with intranet news updates throughout the hours of the procedure.

The beauty of the Mayo Clinic Children’s Center, however, is seen every day. The fully staffed and supported integrated teams of professionals combine their efforts even for the
routine care of children. Teamwork shines when stretched into unusual endeavors, but teamwork is the glue that keeps Mayo Clinic’s pediatric practice together and the lubricant that keeps care flowing for the healing and recovery of patients.

**Education and Research**

Like the rest of Mayo Clinic, the pediatric practice is not just collaborative but also multifaceted as it seeks to provide excellence in clinical care and education and research. Building on 150 years of pediatric practice in Rochester, Mayo Medical School frequently recognizes pediatric staff members with teaching awards. Mayo Clinic staff are collaboratively educating with colleagues around the world of General Pediatric and Adolescent Medicine, Mayo Clinic, 200 First St SW, Rochester, MN 55905 (fischerphil@mayo.edu).

**REFERENCES**