**TITLE:** Complex Care Management for Technology-Assisted Children: a Case Series for Model Improvement

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**RESEARCH PROJECT DESCRIPTION**

**Background:** The most medically complex children require intense multidisciplinary care coordination, services and technology. It remains unknown and difficult to articulate when and how these children should be treated to maximize high quality health and yet remain as economically efficient as possible. Current research shows that these children are the largest utilizers of health services.

**Hypothesis:** Medical decision points, such as when a family decides to have a G-tube, are critical ‘touchpoints’ that may serve as indicators of increased need or long term planning. However, G-tubes themselves are not medically complex procedures but are increasingly being used in the care of children with medically complex conditions. This assistive technology may be life-long but there are no long term standards of care and management, outside of the surgical procedure and post-operative care. Little is known about the long term outcomes of the children in their natural environment, that include needed services in the home secondary to the G-tube, medical oversight, health care costs. This may represent an area where further methods of management, leading to best practices and improved efficiency could be implemented.

**Methods:** Use a case-series approach, critically examine the literature and chart review in a series of the most medically complex children within a special health plan for children with special health care needs in north Florida serving low income children, examining the multiple factors associated with G-tube management in the natural setting.

**Role of medical student:** A medical student will be expected to work to critically examine current practices to articulate the experiences of medically complex children. Expectations will be to write a manuscript suitable for publication. Advantages include a dual support in Pediatrics (clinical relevance) as well as in Health Outcomes and Policy (implementation science, methodology and policy support and relevance towards the Health Outcomes and Policy Pathway). Students from Pediatrics and Health Outcomes and Policy will have mentoring and peer opportunities to have a shared learning experience.

Funding and relevant publications: Current internal efforts by Pediatrics and Health Outcomes and Policy allow for this integrated research.