Clinical exposure to the RCPSC Acute Care “problem list” in a small tertiary care pediatric hospital

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Purpose: To acquire the competencies required to function effectively as a medical expert in pediatric acute care, post-graduate medical education trainees in Pediatrics are required to spend a minimum of two to three one-month blocks in the Pediatric Intensive Care Unit (PICU) during their three years of core training. However, previous research suggests that the vast majority of Pediatric residents do not meet competency requirements for emergency and acute illness through direct patient care. The purpose of this study was to describe the volume and type of admissions to the PICU to determine residents’ clinical exposure to pediatric acute care conditions.

Methods: We used administrative records to conduct a retrospective observational study of all patients admitted to the PICU at Janeway Children’s Health and Rehabilitation Centre between July 1, 2008 and June 30, 2015. Demographic information included age, admission diagnosis, duration of invasive ventilation, length of stay, and mortality.

Results: There were 1149 admissions during the study period. Postoperative patients accounted for 27.2% of all admissions. Mean annual number of admissions were highest for respiratory distress/failure (38.6 cases/year), diabetic ketoacidosis (11.6 cases/year), seizures (9.9 cases/year), ingestions (6.9 cases/year), sepsis (4.3 cases/year), and traumatic brain injury (4.3 cases/year).

Conclusions: Based on reported admission demographics over the past seven years, it is likely that Pediatric residents who complete four one-month blocks in PICU at a small, tertiary care pediatric hospital have adequate clinical exposure to respiratory failure, seizure/status epilepticus, diabetic ketoacidosis, sepsis, and multiple trauma/head injury. Other components of the curriculum need to compensate for potential deficiencies in clinical exposure to cardiorespiratory arrest, shock, coma, apparent life-threatening events, renal failure, hepatic failure, foreign body aspiration, electrolyte imbalances, burn management, and near drowning.

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