Sick Child Presented to the ER: What Colour Should We Go and What's Next?

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Objectives:
At the end of this session, participants will:
1. Be able to describe various track and trigger systems to identify children with critical illness at the time of presentation to the Emergency Department (ED)
2. Be able to discuss the value of a team using a "common language" to promote coordination of care and rapid intervention when needed.
3. List the initial approach to a child who presents to the ED with signs of critical illness.

The rapid and accurate assessment and initiation of treatment of children with critical illness who present to EDs is associated with improved outcomes both in the Emergency Department and beyond. ED teams need to be able to communicate effectively about patients who present to the ED and begin treatment effectively and efficiently. Various systems have been developed to assist in the assessment and triage of children. The advantages and weaknesses of various systems and an initial approach to providing care will be discussed.

Theory

Critically ill children who present to the ED are a challenge for ED teams to rapidly assess and begin therapy. Initial impressions of illness or injury acuity may not be accurate. In an attempt to address this and be sure that teams can find the "needle in a haystack," multiple groups have developed pediatric track and trigger systems (PTTS) to more accurately identify critically ill children and those at risk of deterioration in the ED or after hospital admission. Systems may also predict the need for admission which may help with resource allocation and planning during ED care.

The various systems (Pediatric Assessment Triangle, PEWS, mPEWS, ESI Version 4, and sepsis screening tools) each have their own strengths and challenges. None of these systems are perfect. Teams must be aware of possible shortfalls with the systems they are using and choose a tool that works best for their team and in their setting.

Initial steps to care for critically ill children may be dictated by a PTTS or by recognition of critical illness. It is important team members understand their roles and that care is directed to support critical body systems rapidly. Outcomes may be improved based on earlier intervention and aggressive therapy when needed. Systems may also "over triage" children based on vital signs and other findings which may lead to inefficient resource utilization and other unwanted results.

Key Message

PTTS each has its advantages and challenges. Teams should choose a triage system that is accurate and efficient in their setting. A common language for ED teams will allow those teams to provide efficient and effective care to critically ill patients who present to the ED.