Child Health Patient Safety Organization®

SAFETY WATCH

Stay aware of these known risks to avoid preventable harm.

Unrecognized clinical deterioration

Unrecognized clinical deterioration is a significant source of preventable harm in hospitalized children. Although a timely and accurate initial diagnosis is imperative, it is just as important to recognize and diagnose any subsequent clinical changes. Children can compensate for circulatory dysfunction by increasing heart rate and venous tone to maintain normal blood pressures despite significantly compromised tissue perfusion. That means they compensate differently and for longer periods than adults do, making deterioration more difficult to recognize. The challenge for the clinician is to recognize shock early before the child develops hypotension.

Causes

Contributing factors may include:

- Signs of clinical deterioration in children occurring over the course of multiple hours.
- Children being unable to verbalize how they are feeling.
- Attributing abnormal vital signs to the initial diagnosis (for example, dehydration rather than hypovolemic shock).
- Poor or non-timely documentation of vital signs, intake, or output.
- Failing to recognize a significant clinical assessment detail or medical history.
- A culture where clinicians don't feel empowered to question decisions.
- Poorly implemented escalation protocols.

Harm

The harm for recent events with unrecognized clinical deterioration ranged from severe temporary harm to death. Early recognition and aggressive treatment within the first few hours after presentation of shock can decrease hospital lengths of stay and mortality rates.

Harm Range

Severe temporary harm to death.

Children's different ways of compensating may mask **deterioration**.

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Immediate Recommendations

- Set expectations for providers to communicate expected vital sign ranges to nurses, including when to escalate for concerns.
- Create an escalation pathway that includes when to escalate, how to escalate, to whom to escalate, and timeframe for response.
- Assess your internal communication gaps in the diagnostic process using the Gap Analysis tool.
- Conduct a safety pause for the care team and family to re-evaluate the patient's diagnosis and medical response to treatment using the Team Diagnostic Timeout template. Be aware of potential anchoring bias.
- Create an organizational culture that fosters teamwork, communication, and accountability through psychological safety.
- Ensure electronic alerts are sufficient and present in all care areas.
- Conduct hands-on shock recognition training for nurses, including noting what the patient looks like in addition to vital sign recognition.
- Standardize provider-to-provider handoff and reporting.

Resources

- Diagnostic Safety Toolkit
  - Team Diagnostic Timeout Template
  - Gap Analysis: Diagnostic Safety and Communication Failures
- Improving Communication in the Diagnostic Process Action Alert

References

- Up to Date, Initial Evaluation of Shock in Children, 2024
- Pediatrics, The Need for a Standard Outcome for Clinical Deterioration in Children's Hospitals, 2023

Data for the Safety Watch is compiled from Child Health PSO safety analysis.

Find solutions

Members can find detailed prevention plans in Child Health PSO's Riskonnect Action Plan repository where children's hospitals share deidentified mitigation processes for various issues.

Join Child Health PSO

Over 55 children's hospitals are actively engaged with Child Health PSO, and we are currently enrolling new members. Join the only PSO solely dedicated to children's hospitals.