The positive impact of early identification and management of patient deterioration on clinical outcomes is well documented. Catastrophic events such as cardiopulmonary arrest are often preceded by periods of physiological deterioration that is evident in vital signs preceding the event, such as heart rate, blood pressure, and respiratory rate. Family members will often identify changes in the patient’s alertness and level of awareness; as well as the patient’s restlessness and agitation. Deterioration may not be recognized or acted upon by healthcare providers (HCPs) resulting in preventable patient safety incidents. Monitoring, observation, family consultation and communication are key to managing this risk.

**COMMON CLAIM THEMES**

- Failure to adequately assess the patient.
- Failure to interpret and/or normalizing deteriorating signs and symptoms.
- Failure to fully and accurately document vital signs, response to medications and observed deteriorating patient.
- Failure to adjust monitoring frequency with deteriorating patient.
- Failure to act upon patient/family concerns or complaints about deteriorating patient.
- Informal hallway consultations/discussions about deteriorating patient status later disputed by most responsible practitioner (MRP).
- Failure to promptly communicate and document deteriorating patient status to MRP.

**CASE STUDY 1**

A young male was admitted to hospital for cardiac ablation surgery. Following the procedure, the patient experienced chest burning (a commonly described occurrence), restlessness, vomiting and tachycardia. Throughout the evening and night, despite IV fluids being ordered by the physician when contacted, the hemodynamic instability continued and the patient became increasingly agitated. Concern expressed by family was not acted upon nor was the physician contacted again. Towards early morning, the patient suffered a full cardiac arrest. An echocardiogram demonstrated a large pericardial effusion which was drained. The patient was transferred to the intensive care unit where he died.

**CASE STUDY 2**

During the hospitalization of a patient with a large body mass index for a cardiac event, a percutaneous endoscopic gastrostomy (PEG) feeding tube was inserted for nutritional support. Unfortunately, the procedure was complicated by displacement of the PEG feeding tube from the stomach and feeds entered the peritoneal cavity over several days resulting in septic shock and sustained hypotension. When distension of the abdomen was observed by the family it was not immediately investigated. The patient suffered severe neurological injury as a result of prolonged septic shock. The patient died after remaining in a coma for several months. Case review determined inconsistencies in monitoring the PEG feeding tube placement by nurses and physicians.

**Canadian Case Examples**
REFERENCES

• HIROC claims files.


Failure to Appreciate Status Changes/Deteriorating Patients

**MITIGATION STRATEGIES**

*Note: The Mitigation Strategies are general risk management strategies, not a mandatory checklist.*

### Reliable Care Processes
- Ensure orientation, in-service education and policies establish expectations related to frequency, components and documentation of patient assessments (e.g. head to toe and vital signs monitoring (e.g. heart rate, respiratory rate, blood pressure, temperature, pain levels); including patient-specific criteria for appropriate adjustment of monitoring frequency.
- Ensure appropriate practitioner skill mix and scope of practice in patient assignments to complement actual or potential patient acuity.
- Establish criteria for assigning levels of patient observation (e.g. 1:1 nursing, constant observation).
- Establish triggers for early identification of deteriorating patients (e.g. early warning scoring system, critical vital signs parameters, family concerns, and HCP “gut” instincts).
- Adopt structured protocols for communicating status changes to:
  - To MRP (e.g. SBAR tool);
  - To team leader or nursing leader designate;
  - Between care providers at handoffs;
  - To families and substitute decision makers.
- Establish escalation protocols for contacting an alternate care practitioner when the first is not responding or attending as needed.

### Documentation
- Ensure complete, consistent and timely documentation of vital signs and other patient observations regardless of whether they are considered normal.
- Adopt documentation visual cues to assist in detection and trending of deterioration (e.g. use of graphs for charting vital signs, age appropriate charting forms which highlight abnormal vital signs ranges).
- Ensure complete, consistent and timely documentation of interventions to treat deteriorating patients, including code responses if applicable.

### Patient and Family-Centred Care
- Ensure patients/families are aware of their role in reporting changes in patient status (e.g. alertness, agitation).
- Ensure patients/families are included in regular communication venues (e.g. daily rounds, handovers, patient room whiteboards).
- Implement a mechanism/process for patients/families to escalate concerns (i.e. team leader/manager, MRP, and/or Patient Relations), including evenings, nights and weekends.
- Educate HCP on being empathetic listeners, especially when a patient/family is expressing quality or safety concerns.

### Equipment and Technology
- Establish criteria for use of continuous physiological monitoring on patient units; ensure monitors are not used as a replacement for assessments, vital signs monitoring or charting.
- Ensure appropriate supply, maintenance, and HCP certification for patient physiological monitoring equipment.
- Ensure a process to extract and retain data from physiological monitors in incident cases.

### Monitoring and Measurement
- Implement formal strategies to help ensure consistent adherence to patient monitoring policies/practices (e.g. periodic chart/e-record audits, analysis of reported incidents/events, learning from medico-legal matters).