“Anesthesia NOW” Events in the PACU: When do they occur and are they preventable?
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Background
In our hospital, “Anesthesia NOW” events are any events that overwhelm the resources in the room and require additional immediate help via an overhead call for assistance. These events were codified and entered into a database starting in April 2010 with OR Anesthesia NOW events, and PACU events added in October 2011 with a total of 666 events to date. This database now contains 101 PACU events. We complete approximately 18,000 cases/year in our main OR. We examined the elapsed time after leaving the OR that PACU Anesthesia NOW events occurred and the presumed causes of these events. The goal of this study is to identify opportunities for practice improvement.

Methods
- PACU Anesthesia NOW events were extracted and an honest broker analyst matched each event to the out of OR time
- Patient identifiers were removed for data evaluation.
- Events were categorized as occurring within 15 min, from 16-30 min, from 31-60 min, and greater than 60 min after leaving the OR
- The causes of the events were categorized

Results
- 57% of the events occurred within 15 min of leaving the OR
- The causes of these events were primarily respiratory in nature: Laryngospasm (most), airway obstruction, breath holding, hypoventilation, respiratory failure, and bronchospasm

Discussion
- The high percentage of events occurring soon after leaving the OR are an opportunity for improvement
  - Are these early events preventable?
  - What practices might be contributing to the risk of an early adverse event?
- Potential causes include deep or early extubation, opioid effects, excess sedation, bleeding or airway secretions
- Further analysis of individual charts using identified data is needed to connect intraop emergence management with each PACU Now event
- Since laryngospasm was the most common cause of early events, the practice of deep extubation is a likely quality improvement opportunity

Conclusions
Future quality improvement efforts in this area will involve critical analysis of the emergence and extubation practices to identify specific opportunities for improvement.
- Is deep extubation an ideal practice?
- If done, should pt. remain in OR until arousal?
- Transport position (supine vs. lateral)?
- Is awake extubation in the PACU preferable to facilitate OR case flow and maintain patient safety?

References