Introduction

- Specialized early response teams are now common in many hospitals. These teams are known as Rapid Response Teams (RRT), Medical Emergency Teams (MET), or Assessment and Consultation Teams (ACT).
- The following study retrospectively reviews all cases over a 3-year period for which the RRT was activated following general anesthesia or procedural sedation in a tertiary care children's hospital.

Methods

- Retrospective review of the Anesthesiology & Pain Medicine quality improvement database over a 3-year period, which has tracked the need for RRT activation following anesthetic care.
- Reviewed the corresponding hospital records to obtain demographic data, information regarding anesthetic care, and subsequent hospital stay. Information regarding the RRT consult included the etiology, intervention provided by the RRT team, and whether a patient was transferred to a higher level of care as a result of the call.
- A Fisher's exact test was performed to compare the need for ICU transfer after RRT activation based on ASA status and type of postoperative complication. A non-paired Student's t-test was used to compare PEWS scores of patients requiring ICU transfer versus those that did not.

Results

- 100 patients had a RRT call resulting in an incidence of 3.2 per 1000 inpatient anesthetic/sedation encounters.
- Patients ranged in age from 0.08 to 31.21 years (7.8 ± 7.7 years, median 5.3 years). There were 60 males and 40 females.
- 71 were ASA status 3 or 4 and 29 were ASA status 1 or 2.
- 5 RRT calls were made for patients who had undergone procedural sedation and 95 RRT calls were made for patients who had received general anesthesia.
- Respiratory concerns were the main reason for RRT initiation (71%), followed by cardiovascular and neurologic concerns. Of the 71 patients who had an RRT called due to respiratory concerns, 49 had a recent respiratory-related illness, respiratory-related disease or history of preterm birth (less than 37 weeks).
- 50 patients were transferred to a higher level of care.
- There was no significant difference between the ages, gender, RRT etiology or ASA status of patients that were transferred to a higher level of care.
- The PEWS was higher in patients who were transferred to a higher level of care (4 ± 2 vs. 3 ± 2, p = 0.0097).

Conclusion

- RRT calls can be used to effectively identify those patients who have undergone anesthetic or procedural care and are experiencing postoperative complications.
- The incidence of such problems was approximately 3.2 for every 1000 inpatient anesthetics or procedural sedation encounters.
- High ASA status, general anesthesia versus procedural sedation care, and the presence of acute or chronic conditions prior to anesthesia may identify patients with a higher risk for postoperative deterioration.