Improving Post-Intubation Sedation for Patients Intubated in the Emergency Department

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The Problem
Inadequate anxiolysis and analgesia of intubated patients can lead to poor outcomes and physical and emotional distress. Unfortunately, achieving adequate post-intubation sedation among intubated patients in the ED is often delayed due to a variety of patient, provider and systems-level factors. Between 2008-2012, 55% of intubated patients in the UCSF ED did not receive analgesia and 25% did not receive sedation, which is consistent with national data on post-intubation sedation.

Project Plan
1. Educate residents about previous post-intubation analgesia and sedation rates.
2. Provide resident education about types of analgesia and sedation medications.
3. Publically acknowledge residents providing proper post-intubation analgesia and sedation.
4. Privately provide timely and constructive feedback to residents with low compliance.
5. Encourage the use of the ED intubation order set (which includes sedation meds)

Results
- 167 total RSIs (7-22 per month)
- 81% cumulative sedation within one hour (73% - 100%) with timely sedation

Lessons Learned
- Provision of timely sedation and analgesia improved with increasing ED intubation order set use
- In cases where timely sedation was not achieved, the following patterns emerged:
  - Sedation and analgesia were often ordered by the provider but not administered, demonstrating the need for improved communication.
  - Hypotension was associated with not receiving timely post intubation sedation – this was amenable to educational intervention
- Analgesia-first sedation (fentanyl) is difficult to titrate and inadequate in the ED

Moving Forward
- 2013-2014 QI Project: intubation checklist
- 2014-2015 Project: initiate lung-protective ventilation in the ED
- Will continue to collect data on both intubation checklist use and post-intubation sedation
- Overall goal: 100% use of ED RSI order set and checklist dotphrase to improve quality and safety of our RSIs in the ED

The Problem
To improve timely post intubation sedation for patients intubated by rapid sequence intubation in the emergency department to 80% cumulative.