Reducing Healthcare Costs While Improving Patient Health Outcomes and Safety: Checklist and Case Studies in Making Patient-Controlled Analgesia (PCA) Safer

**Faces of Tragedy: PCA-Related Patient Deaths**

Amanda Altman
18-year-old senior at Mountain View High School in Colorado, became the latest casualty in the ongoing PCA controversy. Her death serves as a catalyst for a nationwide debate on patient safety and the need for improved protocols to prevent similar tragedies.

Louise Bates
Learned during Lara’s Termination, what happened to her is now the topic of much discussion. The family is pushing for changes to prevent similar incidents in the future.

Leah Katherine Coulal
As Amanda’s father asks:

Amanda’s parents talk about the fears all parents have when their child is in the hospital, and how they dealt with the news of their daughter’s death.

Justin Michael


**Safety Checklist Targeting PCA Use**

**PCA Pump Initiation, Refilling, or Programming Change**

- Risk factors that increase risk of respiratory depression have been considered:
  - obesity
  - low body weight
  - concurrent medications (opioids and non-opioids) that potentiate sedative effect of opioid PCA
- pre-existing conditions such as asthma, COPD, and sleep apnea
- advanced age
- Pre-procedural cognitive assessment has determined patient is capable of participating in pain assessment (not pediatric patients may not be suitable for PCA)
- Patient has been provided with information on proper use of PCA pump (other recipients of information – family, patient) and purpose of monitoring.
- Two health care providers have independently double-checked:
  - patient identification
  - all patient allergies and prominent medication or drug sensitivities
- Drug selection and concentration confirmed as stated in protocol
- any necessary orders or documentation completed
- PCA pump settings
- Time attachment to patient and taking insertion into pump
- Patient is electronically monitored with vital
  - oxygen saturation
  - capnography

**PCA Pump Check of Skill Change and Every 6Hr (CFS) and (Recommended)**

- Patient satisfactorily heater
  - level of pain
  - adequacy of ventilation

**PCA pump settings verified**

Electronic monitoring verified:
  - vital and
  - capnography

**Patients assessment/condition has been added to flow sheet/ chart documenting PA testing and monitoring**

**Safety Authority revealed that there were More than 56,000 adverse events including 4,500 Adverse Events Result in Injury or Death**

**Faces of Tragedy:**

Louise Bates (active member of The American Medical Society for Patient Safety) recalls the incidents that her daughter’s death had on her family:

Many years later, tears stream down my face, as if this could not watch. I rocked back and forth while the trauma team attempted to revive him over and over again. I knew that I could not watch. I knew that the trauma team would not be able to save him already. My husband’s promise that he would be by the trauma team to the ambulance, after his death had on my family.

Dr. Richard Dutton
In a recent interview, Dr. Richard Dutton discussed the importance of patient safety in the current healthcare climate.

Physician-Patient Alliance for Health & Safety (PPAHS) is an advocacy group devoted to improving patient health and safety. This interview was conducted with Michael Wong of the Physician-Patient Alliance for Health & Safety.

“Physician-Patient Alliance for Health & Safety would like to thank the following healthcare professionals for their thoughts and input on this safety checklist:

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Karen Rago, RN (UCSF)

Audrey Kuntz, RN (Vanderbilt)

Achieving Zero Code Blues: Reducing Adverse Events and Improving Patient Safety While Reducing Costs

**Cases Studies:**

Hospitals That Have Reduced PCA Adverse Events

**The ROI of Safer PCA:**

Alcohol-based cleansing decreased the incidence of 50% and post-operative infections by 50%.

Three Times as Likely to Result in Injury or Death

**More than 56,000 adverse events and 700 patient deaths linked to PCA pumps (reports with the FDA between 2005 and 2009)**

**4,500 Adverse Events in 6 Years**

Doctors are concerned about systemic problems in the care of hospitalized patients. The FDA has received reports of more than 500 deaths and 4,500 injuries linked to patient-controlled analgesia (PCA) pumps.

**PC meme Errors (Just the Tip of the Iceberg)**

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**Focus on what is right for the patient.**

**#1** Focus on what is right for the patient.

**#2 Don’t be misled in the way things have always been done.”**

**#3 Realize that any new technology or technique may have unintended consequences to daily routine, but remember that this is better than having an adverse event.**

**#4 Ensure changes help caregivers better manage their daily work days.**

**#5 Get closer to the patient.**

For complete copy of this article, please see: http://www.aami.org/publications/summits/AAMI_FDA_Summit_Report.pdf