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1st Task Force

A Safer IV Infusion Bundle

- Focused on reducing variation across the county
- Task Force:
  - 15 hospitals/systems represented
  - Identified variation in 34 IV medications
  - Standardized drug libraries in San Diego County
  - Created a tool kit for broad use/ adoption
IV Infusion Standardization

San Diego Patient Safety Task Force evaluated areas for local patient safety improvements

- 61% of the most serious and life-threatening potential ADEs are IV drug-related.⁴

- Many nurses work in multiple settings - unnecessary variability in concentrations of high-risk IV drugs creates unnecessary opportunities for errors.

- Standardization of IV infusion concentrations and dosage units was identified as a significant opportunity to reduce morbidity and mortality
Immediate Benefits

Problem: 4/06 JCAHO survey cited a participant hospital for not using a standard concentration for Abciximab (Reopro). Requested method would be very complex and error-prone.

Resolution: SDPSC community standard of practice was cited in defense of current method. Resolved by JCAHO reversal.
Reduction in Variation of Intravenous Drug Concentrations in Seventeen San Diego Hospitals With Standardized Drug Concentrations and Dosage Units

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- San Diego Fox 6 News – featured healthcare story
- San Diego Union Tribune – front page story
- Drug Topics feature
- Being repeated by Indianapolis Coalition
The San Diego Patient Safety Task Force targeted the usage of PCA as a patient safety concern and went to work to provide county-wide, evidenced-based standards of care for safe and effective pain management using PCA.
Significance of the Project

- PCA errors represent a 4-fold higher risk than other reported medication errors
  - Account for ~ 1% of all medication errors
  - 6.5% of PCA reported events resulted in harm
  - 1.5% of non-PCA reported events resulted in harm

- PCA errors occur in every phase of the medication use process
  - ~ 55% occur during the administration phase

Desired Project Outcome

- Develop best practice guidelines to facilitate safe and effective pain management for opioid-naïve patients receiving PCA

Mobilize Commitment

PCA Safety Symposium
Center for Safety and Clinical Excellence at Cardinal Health
10221 Wateridge Circle
San Diego, CA 92121
Thursday, March 29, 2007

Featured experts in pain management, patient safety, and clinical practice helped to create a burning platform of urgency to improve PCA Safety

- Highlighted hazard and opportunity
- Mobilized energy and commitment
- Identified key focus areas to address
A Process Map was created to assist in understanding the process we sought to improve.
Pain Assessment: Evidence-Based Standard Pain Tools

Numerical Scale

|  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

No pain

Worst pain imaginable

Pain Faces Scale

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very happy, no hurt</td>
<td>Hurts just a little bit</td>
<td>Hurts a little more</td>
<td>Hurts even more</td>
<td>Hurts a whole lot</td>
<td>Hurts as much as you can imagine (don't have to be crying to feel this much pain)</td>
</tr>
</tbody>
</table>
Further Recommendations: Clarify, Simplify, and Standardize

- Use “Tall Man” lettering on all PCA syringes
  - HYDROMorphine
- Use dose per mL in large font
- Use total dose in small font
- PCA syringe/bag label consistency with PCA pump programming terminology and sequence
- Change custom concentration labels (color) to distinguish from standard concentration
- ONLY standard concentrations be stored in unit medication dispensing cabinets
- Concentrations other than the standard concentration should be dispensed with a formal handoff of the non-standard drug
- Use ONE type of PCA pump throughout the organization
Mobilize Commitment: Elevator Speech

**What:** The goal of this project is to create a countywide, evidence-based standard of care for safe and effective pain management using PCA and PCEA

**Why:** This is important because PCA and PCEA is a complex, high-risk treatment that is associated with harmful patient events and death

**Success:** We will have achieved success with this project when we have implemented a safe, effective standard of care in PCA usage across San Diego County, as evidenced by a reduction in harmful events

**Need:** We need your support and commitment in developing and adopting these standards in your organization and infusing this change to all applicable areas and individuals
3rd Task Force – ICU Sedation

- Cardinal Health Foundation provided a $100,000 grant to support future Task Force work in San Diego
- 6 Task Force meetings planned over next 12 months
- ICU Sedation was selected as third topic
Non-Verbal Pain Assessment

**Figure 7: The Critical-Care Pain Observation Tool (CPOT)**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial expression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relaxed, neutral</td>
<td>0</td>
<td>No muscle tension observed</td>
</tr>
<tr>
<td>Tense</td>
<td>1</td>
<td>Presence of frowning, brow lowering, orbit tightening and levator contraction or any other change (e.g. opening eyes or tearing during nociceptive procedures)</td>
</tr>
</tbody>
</table>

Caroline Arbour, RN, B.Sc., M.Sc.A(c)
Spontaneous Breathing Trial

Figure 12: Daily Awakening Trail and Spontaneous Breathing Trial

Daily Awakening

Assess for Daily Awakening
Exclusions:
- Increased Intracranial pressure issues
- Neuromuscular blockade
- Pressure-regulated pulmonary ventilation with in inverse ratio
- CABG immediate post-op

- Perform daily wake up
- Wean / Stop sedation
- Consider decreasing narcotics infusion by 25-50%

Is patient awake and calm? (using sedation scale)

No
Restart Sedation at ½ previous dose (No Rapid Shallow Breathing Index)

Spontaneous Breathing Trial (SBT)

Take opportunity to assess patient’s pain tritate narcotics.
"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."
- Margaret Mead
Publications

Available on any of the contributing hospital websites

http://www.sharp.com/professionals/pca-tool-kits.cfm

or

San Diego Patient Safety Council
A Community Endeavor

[Logos of various healthcare providers and organizations]