Using the TyMed© Toolkit for Postoperative Pediatric Pain Management at Home

**S: Situation** Suboptimal pain management

The treatment of pediatric postoperative pain is suboptimal.
- Children often do not (or cannot) express a need for pain relief.
- Caregivers lack knowledge and confidence.
- Confusion about postoperative dosing instructions.
- Misconceptions about side effects and impact of pain.
- Confusion over multiple meds and dosing schedules.
- There is a lack of consistency, valid guidelines for providers.
- Cultural, health literacy, and financial barriers exist.

Suboptimal pain treatment has adverse effects:
- Short-term: nausea/vomiting, hyperventilation, decreased ventilation, insomnia, poor wound healing, suffering.
- Long-term: chronic pain, changes to central neural functioning, heightened pain intensity, anxiety, higher rate of postop complications, lower quality of life.

**B: Background** Shorter inpatient stays

Complex surgeries require complex pain management involving:
- Narcotic pain medications (morphine, Fentanyl, Velcade)
- Antiinflammatory (Vikum, Unact)
- Multiple dosing schedules
- Challenge of weaning off meds while maintaining pain control

However, studies report that parents/caregivers are increasingly responsible for managing pain at home.

**A: Assessment**

Research Studies on TyMed© Toolkit

- Study Design: Survey and interview
- Sample: 13 nurses and 18 families
- Key Findings: Double wheel option too complex for some families. Combined 3 versions into 1 simplified wheel. Altered instructions to have only 1 med planned at a time.

- Study Design: Survey and interview
- Sample: 23 nurses and 21 families
- Key Findings: Of the 18 families that agreed to a follow-up call, 16 (88%) used all or part of the toolkit at least one full day. Of these, 14 (88%) felt it contributed to the safety and comfort of the patient and would use it again.

- Study Design: Survey and interview
- Sample: 75 families
- Anticipated Findings: Satisfactory management of pain at home, increased satisfaction in parental coping, and decreased readmissions when using the TyMed© Toolkit

**R: Recommendation**

Use the TyMed© Toolkit for patients discharged on oral pain medications

**Toolkit consists of:**
- 1-TyMed© Wheel
- 10-Daily Medication Worksheets
- 1-dry erase marker
- 1-folder

How does it work?

- Expected dose intervals for pain meds are established
- Parent/caregiver creates a 24 hour plan for pain medication(s) using the TyMed© Wheel
- Plan is written on the med sheet
- When med is given, dose, pain level, and activity are noted

Benefits:
- Helps parents plan for pain relief on a consistent basis and around potentially painful events (like bathing)
- Records meds, doses given, pain levels, and side effects
- Minimizes duplicate and omitted dosing
- Assists in tapering med(s) over time
- Can be used with one or multiple meds
- Minimal cost
- Can be used with patients of all ages, not only pediatric

Display wheel and worksheets here

Stop needless suffering in children.
Teach parents proper administration and timing of home pain medications.

TyMed©Wheel is patent pending.