



Why Do We Continue to See These Errors? PCA pitfalls

Niki Carver, Pharm.D.

Assistant Director for Medication Safety

UAMS Medical Center, AR



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Objectives & About Us

- UAMS Medical Center is 430-bed, academic medical center with CPOE and smart pumps
 - 332 adult beds, 64 newborn bassinets, and 40 psychiatry beds
- Only adult Level One Trauma Center in Arkansas
- Family Medical Centers at six Area Health Education Centers – 173,000 outpatient visits in 2011

- Decrease the incidence of medication errors associated with high risk medications
 - Ultimately, with narcotics or Patient Controlled Analgesia (PCA) syringes
- Harmful event occurred in April 2012 – morphine PCA



Tests & What we Learned

- Baseline data showed that ~ 10% of all errors were due to high risk medication requiring a double check (hydromorphone PCA was major contributor)
- Hospital-wide tutorial for nursing covering the 7 rights of medication administration
 - Mandatory participation was best for compliance
 - No change in medication events
- Use of tutorial for remediation if “wrong” medication error was committed
- Article placed in *Capsule* explaining the importance of double checks and consequences of not doing them
 - No change in events



Tests & What we Learned

- Harmful event occurred; process reviewed by Risk, Nursing, Engineering, and Pharmacy
 - Pump data is hard to interpret and show when “soft” limits/alerts have been overridden
 - No “hard” limits in smart pumps
- Pharmacy listserve inquiry
 - Nationally “hard” limits are used for high risk medications
- Upgraded library TO BE implemented the end of August
 - To be continued



Barriers & How we Resolved

- Poor compliance on completing tutorial
 - Had to be rolled out as mandatory
- Importance of double check does not take precedence over the time nursing has
 - Time for other tasks > safety
- “Hard” stops viewed as potential risk to patient safety/satisfaction if medication cannot be administered
 - Harmful event
 - National pharmacy listserve inquiry regarding the use of hard limits indicated 100% use for high risk meds



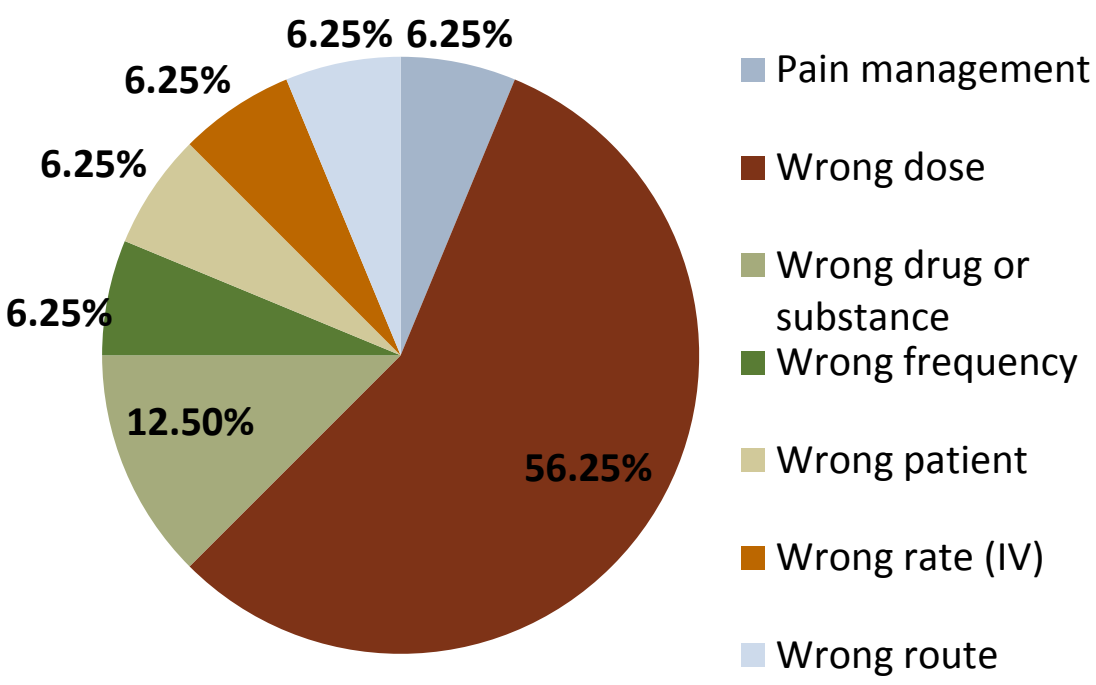
Measures – What & How

- % of all errors were due to high risk medication requiring a double check
- After pumps have been upgraded, error data will be compiled from our error reporting software (in 1 mo, 3 mo, 6 mo, 12 mo)

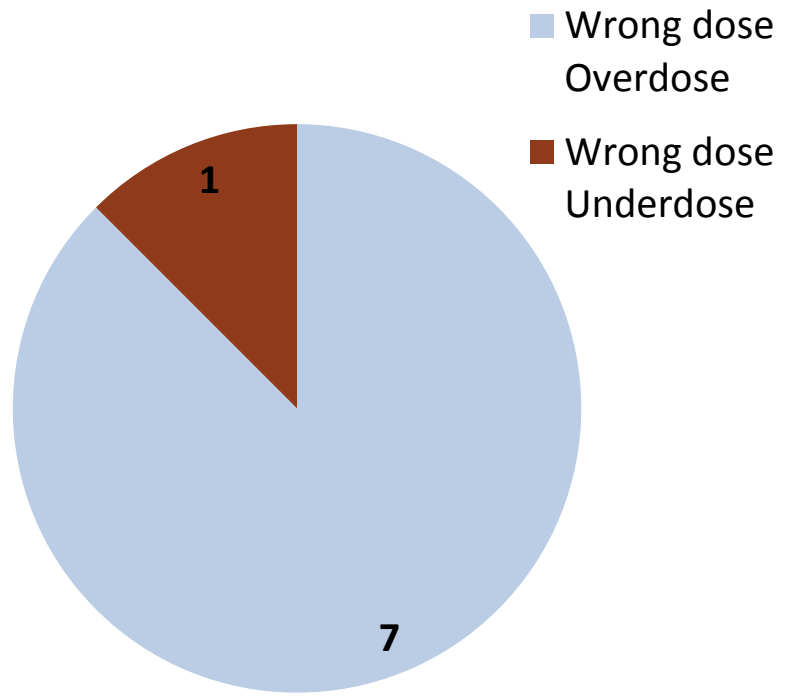


Measures - What & How

Event Types for High Risk Meds



Wrong Dose Specifics





Advice for others

- Education is helpful but not always successful
- Change is met with resistance use data and benchmarks to pave the way
- Pay attention to your harmful events even if they are not sentinel events
- Keep trying!



Wrap Up & Next Steps

- Use safety tools if you have them
- Focus on your trends – one at a time if necessary
- THANK YOU and Questions?
- Next Tests of Change (TOC)
 - Hypoglycemia due to insulin
 - Focus on wrong patient errors



Contact Information

Niki Carver, Pharm.D.

Assistant Director for Medication Safety

UAMS Medical Center, Little Rock, AR

nlcarver@uams.edu