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<p>2. Equipment Maintenance/ Management</p> <p>PCA batteries will be adequately charged at all times</p>	C	All PCA pump batteries will be replaced and placed on a regular schedule for ongoing replacement	Biomed Engineering	(Date)	Biomedical Engineering documentation of 100% battery change out	In Progress 95 of 105 batteries replaced	
		Electrical strips in Mott PACU will be reinstalled	Biomed Engineering	(Date)	Installation of electrical strips.	Temporary power strips in place: alteration request initiated for permanent power strips	
		PCA Pump Nursing competency education will include directions in properly shutting down PCA pumps. (off button held down for 5-10 seconds) and information on PCA battery operations related to patient safety			See "Orientation and Training of Staff"	Evidence of incorporation in educational materials	
		Communication about importance of plugging PCA pump in will be communicated with patients and families by attaching a sticker to all PCA pumps stating "plug me in"	Biomed Engineering	(Date)	Cards placed on all pumps	Florescent stickers placed on all PCA pumps with wording "Attention; this unit must stay plugged in to maintain battery"	
		Patient Equipment personnel will receive training regarding the necessity to keep PCA pumps fully charged.	Biomed Engineering	(Date)	Documentation of the education to the Patient Equipment staff r/t battery maintenance. Incidence of battery failure monitored.	(Date) All Nurse email sent with battery warning (Date) MedSafe Tip placed in UMHS Bulletin with warning to plug in PCA pumps	
Call light alarm tone will be audible 24 hours/day		Mott call –light alarm will be increased to daytime volume	Biomedical Engineering	(date)	Documentation of alarm volume increase	Completed	

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<p>Availability of emergency equipment necessary to manage patients with PCA therapy</p>		<p>The following emergency equipment items will be placed and maintained in all patient rooms:</p> <p>Adult and Pediatric units: 1 – oxygen flow meter with nipple 1 – resuscitation bag with an adult mask and a pediatric mask 1 – adult oxygen mask (rebreather with reservoir)</p> <p>Pediatric Units will also have a Pediatric oxygen mask (rebreather with reservoir). Equipment needs resulting from the monitoring recommendations will be established and a funding source determined.</p>	<p>Respiratory Care</p> <p>Nursing</p>	<p>(Date)</p> <p>(Date)</p>	<p>Audit will confirm equipment is in place Audit schedule TBD</p>	<p>Cost analysis of emergency equipment completed.</p> <p>Final decision in progress related to inclusion of resuscitation bag. This meeting scheduled for (date)</p>
<p>3. Control of Medications/ Storage & Access</p> <p>Control of the distribution of Dilaudid PCA syringes</p> <p>Elimination of higher concentration of Dilaudid single use IV cartridges</p>	<p>C</p>	<p>All stock supplies of Dilaudid PCA syringes will be removed from patient care units</p> <ul style="list-style-type: none"> After Omnicell Interface implemented, decision will be reviewed by Medication Safety Committee & APS <p>All Dilaudid 2mg/1ml single-use syringes will be removed from stock. Dilaudid 1mg/1ml syringes will be added to narcotic floor stock</p>	<p>Pharmacy</p> <p>Pharmacy</p>	<p>(Date)</p> <p>(Date)</p>	<p>Stock supply of Dilaudid removed from all areas</p> <p>Evidence that all 2mg/ml Dilaudid single-use syringes removed from floor stock</p>	<p>In Progress</p> <p>(Date) Stock supplies of Dilaudid PCA syringes removed from all areas. Communicated by email to all Nursing staff</p> <p>(Date) Dilaudid 2mg/ml single-use IV cartridges removed from all units. Communicated by email to all Nursing staff</p>

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<p>Dilaudid use in PCA</p>		<p>Criteria will be defined for when Dilaudid may be ordered</p>	<p>Anesthesia</p>	<p>(Date)</p>	<p>Documentation of criteria Indicator: Numerator: # of patients on PCA Dilaudid that meet criteria for use Denominator: Total # of patients on PCA Dilaudid Audit schedule TBD</p>	<p>Criteria to use Dilaudid: 1) Allergy to morphine or 2) patient with terminal illness already maintained on Dilaudid 3) precautions to be defined related to creatinine clearance calculation.</p>
<p>Appropriate organizational narcotic control & medication safety</p>		<p>The Medication Safety Committee will review process for maintenance of controlled substances and other critical medications. Review will include:</p> <ul style="list-style-type: none"> • Use of non PCA continuous infusions of narcotics (no safety mechanisms) • Process for managing Narcotic waste when purging PCA pump tubing • Examination of other “look – alike” critical medications with high potential for harm if confused • Double check process for other critical medications such as insulin 	<p>Pharmacy</p>	<p>(Date)</p> <p>Continuous infusions: (Date)</p> <p>Narcotic waste: (Date)</p> <p>Look alike meds and double-check of insulin – (Date)</p>	<p>Documentation of action plan and measurement strategies as a result of review</p>	<p>Multidisciplinary group has developed preliminary recommendations for continuous narcotic infusions (date)</p>

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<p>4. Care Planning Process Eliminate the visual look-alikes of Dilaudid PCA syringe concentrations</p> <p>Confusing medication abbreviation will not be used</p> <p>Consistent PCA pump tubing set up</p> <p>Documentation process that facilitates double-check process and appropriate sign off</p>	<p>C</p>	<p>Available Dilaudid PCA syringe concentrations will be changed from 0.1mg/ml and 1mg/ml to 0.1mg/ml and 0.5mg/ml</p> <p>Abbreviation for micrograms will be restricted to “mcg” rather than “μg” because of the similarity of “μg” to “mg”</p> <p>A standard method of setting up PCA pump tubing, including the interface with patient’s Intravenous line will be developed.</p> <p>PCA order sheets will be revised to include double- check documentation. Pediatric order sheet will include age appropriate respiratory rates that trigger further action</p>	<p>Pharmacy</p> <p>Pharmacy</p> <p>Lead: Nursing, Materiel Services</p> <p>Nursing</p>	<p>(Date)</p> <p>(Date)</p> <p>(Date) Set up identified and equipment available</p> <p>Audit to occur (Date)</p> <p>(Date) Revised order sheets available for use.</p>	<p>Availability of two standard Dilaudid concentrations</p> <p>Review of order samples to identify misuse of μg instead of mcg. Indicator: Numerator: # of orders for micrograms written with appropriate abbreviation Denominator: Total # of microgram orders Audit to occur (Date)</p> <p>Random audit of 25% pumps in use (minimum of 1 pump per unit) q 2 weeks X 3 months Future audits to be based on compliance data Indicator: Numerator: # of correct IV PCA tubing setups Denominator: Total # of PCA tubing setups</p> <p>Evidence that order sheets are distributed and in use.</p>	<p>In Progress (Date) Mott & UH converted to 0.5mg/ml concentration</p> <p>Required use of mcg added to Medication Order Guidelines</p> <p>Appropriate tubing set up finalized (date) for both peds and adult patients. Implementation to occur (date) related to obtaining adequate inventory of specified products.</p> <p>Pediatric and adult order sheets redesigned and piloted (date) Order sheets contain double check documentation of all components except for syringe change. Additional form</p>
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						developed for syringe change double-check documentation. Staged implementation to occur, beginning with pilot units. Pediatric order form contains age specific respiratory rates.
<p>5. Competency Assessment and Credentialing</p> <p>Credentialing of care providers authorized to order PCA therapy</p>	P	A review will be conducted to determine criteria for clinicians to order PCA therapy. The review will include an evaluation of current practice and benchmarking with peer organizations.	Chief of Staff	(Date)	Documentation of decision and rationale	APS Medical Director to outline criteria for clinicians
<p>6. Orientation and Training of Staff</p> <p>Nursing staff responsible for PCA will demonstrate competency in pump programming, set up and care of patients</p>	C	<p>PCA competency will be annual mandatory and included in orientation for all nurses who use PCA pumps. Content of education will include:</p> <ul style="list-style-type: none"> • PCA line set up • Pump programming • Battery functioning • Potential risks and errors of PCA • Pharmacology of drugs used through PCA (dosing, patient assessment) • Appropriate initial emergency measures • Return demonstration of 	Nursing	<p>(Date) - PCA education included in new nurse orientation</p> <p>(Date), all existing nurses undergo competency based education r/t PCA pump. (Prior to completion of hospital –wide retraining, all Dilaudid pump changes are double checked with direct care nurse and APS</p>	<p>Documentation of completed PCA competency of newly hired RNs who work in units that administer PCA</p> <p>Documentation of annual competency of all RNs who work in units that administer PCA</p>	<p>Educational plan designed and scheduled to take place beginning (date) for all high use areas. Alternate plan for PCA management in low use areas in development.</p>

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<p>Review of cardiac arrest team response</p> <p>House Officer training related to pain management</p>	<p>C</p>	<p>set up and pump programming process</p> <p>Cardiac arrest documentation will be further reviewed. If indicated, feedback will be provided and integrated into arrest team orientation.</p> <p>A format for House Officer Education will be determined and implemented.</p> <ul style="list-style-type: none"> • Strategy to be considered should be a rotation through the Acute Pain Service. 	<p>Pediatric Emergency</p> <p>Chief of Staff</p>	<p>nurse)</p> <p>(Date)</p> <p>(Date)</p> <p>(Date)</p>	<p>Documentation of review and if indicated, integration of feedback into arrest team orientation</p> <p>House Officer orientation process identified.</p> <p>House Officer orientation process implemented.</p>	<p>Review of arrest documentation completed. (date) Report in progress.</p> <p>Didactic lectures planned for House Officer Education</p>
<p>7. Communication with Staff</p> <p>Collaborative and respectful Interpersonal communication between staff members</p>	<p>C</p>	<p>A cross – training disciplinary program for all caregivers will occur. Components will include:</p> <ul style="list-style-type: none"> • Barriers to effective communication and relationship to patient safety • Utilization of internal adverse and sentinel events as examples in the education • Emphasis on the value of all members of the interdisciplinary team 	<p>Chief of Staff</p>	<p>Program developed by (Date)</p> <p>Rollout initiated before (Date)</p>	<p>Development of training program</p> <p>Documentation of staff attendance at mandatory education program</p> <p>Progress on Patient Safety Culture survey</p>	<p>In Progress</p> <p>Relationship between communication and patient safety added to New Employee Orientation (Date)</p> <p>Culture of patient safety survey in progress for initial baseline. Intervention plans in development.</p>

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<p>Patient's pain management plan is communicated between members of the surgical team (Anesthesiology, Attending Surgeon and Nursing)</p>		<p>A "Stop the Line" policy or a similar intervention will be assessed for potential implementation.</p> <p>In addition, suggested intermediaries that staff can utilize to resolve conflicts will be identified and shared with staff</p> <p>A checkout process is identified and documented for patients leaving the OR to address patient's pain management plan.</p>	<p>Leads to be determined by Chief of Staff, Chief of Nursing</p> <p>Chief of Staff</p>	<p>(Date)</p> <p>(Date)</p>	<p>Evidence of implementation of a "Stop the Line" policy or documentation of rationale for not implementing</p> <p>Evidence that intermediaries have been identified and communicated to staff</p> <p>Check-out process identified Audit of OR records Numerator: Number of patients with documentation of pain management plan Denominator: Number of patients having operative procedure</p>	<p>Intermediaries identified and incorporated in annual Patient Safety Education for all staff.</p>
<p>8. Patient Observation Procedures</p> <p>Monitoring of patients with PCA therapy</p>	<p>C</p>	<p>Monitoring recommendations for pediatric and adult patients with PCA therapy will be made.</p>	<p>Chief of Staff</p>	<p>(Date)</p>	<p>Evidence of decision; documentation of standardized orders.</p>	<p>Complete (Date) Review of monitoring recommendations occurred. Decision as follows: ➤ Pediatrics: Continuous pulse oximetry while on PCA except while patient out of bed Resp. rate and sedation level: <u>Neonates and infants up to one year: q 15 minutes</u></p>

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						x1 hour, then q 1 hour X 8 hrs, then q 2 hours Children >1 yr: q 30 minutes x 2 hours, then q 1hour X4, then q2 hours X 8 hours, then q 4 hrs ➤ Adults: RR q1hour x 4, analgesia & sedation level q 1hour X 8 then q 4 hours
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