Opioid Adverse Drug Event Prevention Gap Analysis

Component of the Medication Safety Road Map

Patient Safety | Medication Safety

Specific Action(s)	Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
Prevention & Mitigation Strategies				
1) Systems and processes for opioid monitoring practices	**The facility has processes in place to eliminate errors in opioid storage, preparation, and dispensing, which include:** 1a) Strategies to prevent errors caused by mixing up concentrated and dilute oral liquid narcotics. 1b) Standardizing the choices of epidural infusions per organization/service line and minimizing the formulary. 1c) Established dose equivalency conversion tools are readily available and utilized. 1d) Established pediatric dose guidelines are widely available and utilized N/A: ☐ 1e) Pediatric dose guidelines are incorporated into the electronic health record. N/A: ☐ 1f) Pediatric dosage forms are separated from adult dosage forms. N/A: ☐ 1g) An independent double check (two licensed providers) is performed for all narcotic infusions prepared in the pharmacy. **A pharmacist or pain provider provides oversight for all dosing of:** 1h) Methadone. 1i) Fentanyl patches (at medication initiation only). 1j) Transmucosal immediate release fentanyl patches (TIRFs) (at medication initiation only).	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
2) Management of opioids: prescribing practices	**The facility's opioid practices clearly specify the following:** 2a) Opioids are not used to treat anxiety. 2b) Meperidine use is minimized or eliminated. 2c) Opioid administration is not routinely accompanied by sedatives or anticholinergic drugs such as hydroxyzine. 2d) Opioid dose ranges do not exceed 4x (four times) the original dose. (Consider limiting to 2x the original dose.) 2e) Intramuscular (IM) opioid use is minimized. 2f) Oxygen is used only if therapeutically necessary and only upon a physician order.	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐	
3) Management of opioids: administration and monitoring practices	**The facility has opioid administration and monitoring practice guidelines in place, which include:** 3a) Vital signs monitoring, including pain, is defined for all clinical situations (oral narcotics, PCA, epidural, IV injection). 3b) Continuous pulse oximetry for all patients (excluding end of life patients) receiving IV narcotics. 3c) Capnography monitors are used when patient is receiving supplemental oxygen (excluding end of life patients) and receiving IV narcotic infusion, epidural, PCA, or frequent IV narcotic injections. 3d) Monitor alarms can be heard at the nursing station for pulse oximetry and capnography and cannot be turned "off." 3e) Monitor alarms automatically default to hospital-defined thresholds. 3f) Where appropriate, only dose forms that are needed for starting doses are available as override items in automated dispensing cabinets (e.g., morphine 2 mg syringes are available but 4 mg syringes are not available on override).	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐	

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	3g) Nursing practice guidelines address how and when to transition opioid therapy (e.g., PCA to oral: If patient is not NPO and is able to tolerate, oral pain medications are utilized.)	☐	☐	
4) Management of opioids: infusion practices	**The facility has safety mechanisms in place for epidural opioid infusion processes which ensure:** 4a) Epidural pumps are used only for epidural infusion therapy. 4b) Epidural tubing is pre-connected in pharmacy when possible, and is incompatible with non-epidural pumps. 4c) Epidural bags and bottles are clearly differentiated from IV infusions or piggybacks. **The facility uses smart infusion pumps with drug libraries for the IV administration of all opioids (including PCA and epidural infusions), with functionality employed to:** 4d) Intercept and prevent wrong dose errors 4e) Intercept and prevent wrong infusion rate errors. **The facility's nursing practice includes a process to double check opioid pump programming:** 4f) At the start of their shift. 4g) With new narcotic infusion and PCA starts. 4h) With setting changes – initiation of bag, bag change, and shift change.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
Assessment & Detection Strategies				
5) Management of opioids: handoffs and transitions	**The facility has a PACU discharge process in place to ensure patient is stable upon transfer which includes:** 5a) Holding patients in PACU for at least 15 minutes following narcotic dose. 5b) Holding patients until safely cleared for transport (at least 30 additional minutes) if naloxone administered in OR or PACU. **A standard hand-off/transition communication process is in place for all patients receiving opioids which includes the following information, at minimum:** 5c) History of snoring, obesity & sleep apnea. 5d) Drug and dose history for the previous shift.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	
6) Management of opioids: over-sedation management practices	**A protocol is followed which guides the reversal of opioids and includes the following:** 6a) Reversal protocols are active on all patients' MARs if there is an active order for a narcotic. 6b) Nurses are allowed to administer reversal agents without prior physician order. 6c) Strategies are in place to guard against dose stacking. 6d) The facility utilizes a rapid response team to assist with possible narcotic oversedation events. **If an oversedation event occurs, the facility has a learning process in place which includes:** 6e) All oversedation events are reviewed by expert staff and analyzed to identify improvement opportunities. 6f) A root cause analysis is completed any time the use of a reversal agent results in a transfer to a higher level of care. 6g) Data are collected and widely available on the rate of naloxone-reversal coded as an adverse drug event. 6h) Collecting and reviewing data to assess compliance with dose guidelines and monitoring requirements.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	

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Therapeutic Strategies				
7) Management of opioids: therapeutic practices	**The facility has standard policies and practices in place for managing the initiation and maintenance of opioid therapy which include:** 7a) Identifying the need for a consultative pain assessment by a qualified pain practitioner (e.g., pain management physician, nurse practitioner, clinical pharmacy specialist or CNS focused on pain.) 7b) Defining and identifying if patient is opioid tolerant vs. opioid naïve. 7c) Reviewing of concomitant medications prior to prescribing opioids. 7d) Collecting a history of snoring, obesity and sleep apnea. 7e) Conducting a full body skin assessment of patients prior to administering a new opioid to rule out the possibility that the patient has an applied fentanyl patch or implanted drug delivery system or infusion pump. 7f) Guidelines to address how and when to supplement opioid doses when range orders are used. 7g) Dosing and frequency of opioids in procedural areas such as endoscopy. 7h) Standardized pain order sets within clinical practices/ specialties (e.g., orthopedics, vascular surgery, oncology, labor and delivery, etc.). 7i) PCA and PCEA orders prohibit the routine use of basal dosing in the opiate naïve patient. **Practice guidelines for morphine include:** 7j) Starting doses of IV push morphine do not exceed 2 mg IV morphine equivalent in the opiate naïve adult patient. 7k) Titration guidelines for appropriate and safe clinical response. **Practice guidelines for hydromorphone include:** 7l) Starting doses of IV push hydromorphone do not exceed 0.4 mg in the opiate naïve adult patient. 7m) Titration guidelines for appropriate and safe clinical response. 7n) Pharmacy repackages hydromorphone into 0.2, 0.4, or 0.5 mg syringes. 7o) The facility's renal opioid dosing program includes morphine, meperidine (if used) and oxycodone.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
8) Management of opioids: pain management practices	**The facility has a pain management process in place, which includes:** 8a) A pain management specialist is available for consultation, either onsite or external, which provides mentoring as well as specific consults. 8b) A pain medication stewardship program is in place (e.g. processes for identification and implementation of best practices, daily monitoring of adherence to best practices, plan for intervention of deviation from best practices, processes for monitoring patient pain management satisfaction scores.) 8c) Standardized pain assessment scales are used throughout the facility. 8d) There is a process in place to discuss and agree upon specific pain goals and strategies with the patient prior to a surgical procedure.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	

Specific Action(s)	Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
	The facility has practice guidelines in place for appropriate use of tactics to reduce opioid use, which include:			
	8e) Non-narcotic medications (e.g., NSAIDs, acetaminophen, regional infusions of local anesthetics, steroids, gabapentinoids, etc.) are routinely used as a tactic to reduce opioid administration on the patient care units.	☐	☐	
	8f) Non-narcotic medications (e.g., NSAIDs, acetaminophen, regional infusions of local anesthetics, etc.) are routinely used as a tactic to reduce opioid administration in the operating room.	☐	☐	
	8g) Non-pharmacologic therapy (e.g., healing touch, massage, music, guided imagery, aromatherapy, etc) is offered and maximized when possible, as tactics to reduce opioid administration.	☐	☐	
Critical Thinking & Knowledge Strategies				
9) Implement appropriate critical thinking and knowledge strategies	**The facility provides interdisciplinary education on opioid therapy, which includes:**			
	9a) Initial training for new hires and existing staff, including protocols and guidelines.	☐	☐	
	9b) Post test incorporating a case-study approach to demonstrate proficiency; covers topics such as dose stacking, dose equivalency, interpretation of vital signs and monitoring equipment.	☐	☐	
	9c) Plan for targeting gaps in knowledge.	☐	☐	
	9d) Ongoing opioid education is provided when new relevant information is available.	☐	☐	
Patient Education				
10) Provide patient and family education	**When initiating opioid therapy, patients/caregivers receive verbal and written information on purpose, action, side effects, and monitoring, including:**			
	10a) The various generic and brand names, formulations, and routes of administration of opioids in order to prevent confusion and reduce the accidental duplication of opioid prescriptions.	☐	☐	
	10b) The principal risks and side effects of opioids (e.g., constipation, the risk of falls, nausea and vomiting.)	☐	☐	
	10c) The impact of opioid therapy on psychomotor and cognitive function (which may affect driving and work safety).	☐	☐	
	10d) The potential for serious interactions with alcohol and other central nervous system depressants.	☐	☐	
	10e) The potential risks of tolerance, addiction, physical dependency, and withdrawal symptoms associated with opioid therapy.	☐	☐	
	10f) The specific dangers as a result of the potentiating effects when opioids are used in combination, such as oral and transdermal (fentanyl patches).	☐	☐	
	10g) The safe and secure storage of opioid analgesics in the home.	☐	☐	

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