



# Medication Diversion Quality Improvement Study

Debra Brindley, RN; Patricia Anderson, RN; Jacqueline Canales

## OUTPATIENT SURGICAL SERVICES, HCA HEALTHCARE



### Element 1 & 2: Purpose and Performance Goals

Multiple vials of Fentanyl and Demerol found tampered. Medication drawn out, replaced with clear liquid and tops glued back on. Therefore, the purpose of this study was to evaluate Outpatient Surgical Services compliance with medical diversion guidelines, specifically, access to the controlled medications in the facility. Due to the ramifications of non-compliance, **the goal is 100%** compliance with medical diversion guidelines.

### Element 3: Data Collection Plan

Various logs and tracking tools used to record data:

1. Narcotic opening and closing counts in all areas, including perpetual inventory
2. Red and Black bin audits (No Diprivan or controlled substance in vials or tubing)
3. Daily controlled substance logs completed and all log forms complete with two signatures
4. Narcotic keys controlled by assigned RNs throughout the day and secured in a drop box at time the facility closes
5. Narcotic chart audits completed once a month on two consecutive days, or greater if number of charts audited were less than 20

### Element 4: Evidence of Data Collection

Baseline data obtained from retrospective record review (September-October 2018) and direct observation.

Indicator	Goal	Baseline
1. Narcotic opening & closing count	100%	26/36 <b>72%</b>
2. Red and Black bin audits	100%	22/24 <b>92%</b>
3. Daily controlled substance logs	100%	13/13 <b>100%</b>
4. Narcotic keys	100%	8/14 <b>78%</b>
5. Narcotic audit	100%	2/2 <b>100%</b>
6. Perpetual narcotic count	100%	N/A

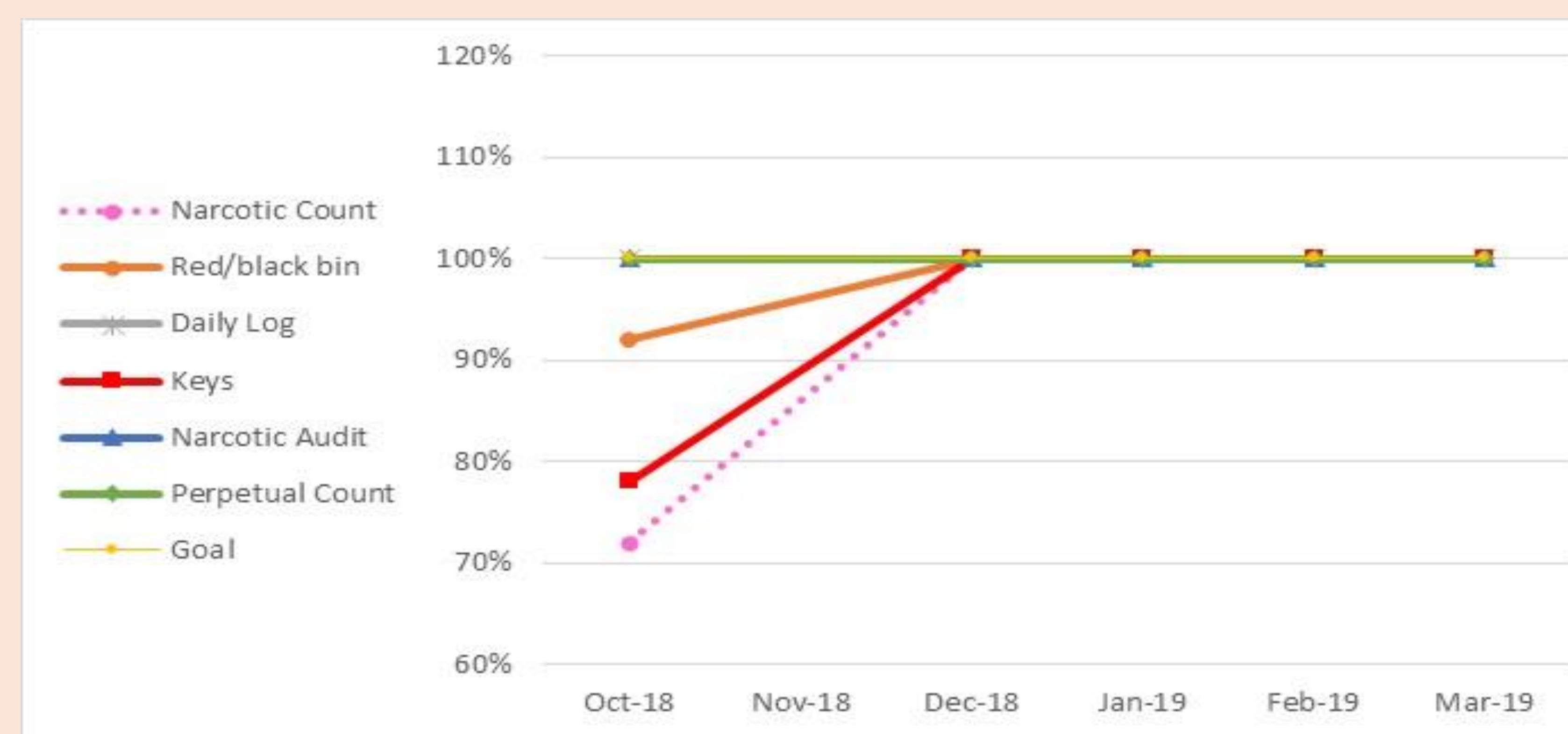
### Element 5 & 6: Data Analysis & Performance Comparison

Baseline data revealed several areas fell short of the 100% performance goal. The team determined medical diversion precautions were ineffective in preventing a controlled substance diversion and additional measures were needed.

### Element 7: Corrective Actions

- Medication Diversion Team established
- Medication Action plan developed and implemented
- Team meeting held to discuss actions and implementation plan; ongoing monthly to review data and actions
- Narcotic logs checked daily by Clinical Managers or designee with immediate follow up with staff members
- Drop box placed in Clinical Managers door for securing narcotic keys at end of day
- Narcotic keys carried by licensed personnel while procedural area open
- Medication cabinet in OR hallway secured with a key lock
- Each staff member, medical staff member and janitorial contractor assigned an individual door code for trackable access
- Re-education to anesthesia providers and clinical staff members regarding disposal of unused narcotics in red and black bins
- Podiatry resident program notified that residents no longer have after hour access to center or door codes
- Building doors adjusted to automatically lock at 5:00 p.m.
- Implementation of narcotic count of perpetual drugs counted twice a day; a.m. and p.m. by two RNs
- Narcotic cabinets in procedure room secured with double locks
- Prescription pads relocated to storage in secured location (locked cabinet in PACU); prescriptions dispensed as single units
- CACTUS sinks changed every 90 days at minimum, and lowered so all staff can visualize top of container
- Rolled out actions via staff education/meetings; staff completed Health Stream course, "Medical Diversion"; education provided on signs of impairment; medication diversion as standing topic at quarterly staff meetings
- Cameras installed above narcotic cabinets in procedure rooms, PACU and perpetual inventory
- Par levels adjusted down

### Element 8: Re-Measurement



No medication losses were identified. Compliance 100% December 2018 through March 2019

### Element 8 (Continued): Re-Measurement

Indicator	12/2018	1/2019	2/2019	3/2019
1. Narcotic opening and closing count	36/36 100%	44/44 100%	40/40 100%	42/42 100%
2. Red and Black bin audits	432/432 100%	120/120 100%	96/96 100%	96/96 100%
3. Daily controlled substance logs	13/13 100%	13/13 100%	13/13 100%	13/13 100%
4. Narcotic keys	14/14 100%	14/14 100%	14/14 100%	14/14 100%
5. Narcotic audit	2/2 100%	2/2 100%	2/2 100%	2/2 100%
6. Perpetual Narcotic count	36/36 100%	44/44 100%	40/40 100%	42/42 100%

### Element 9: Additional Corrective Action

No additional actions identified. Routine monitoring continues.

### Element 10: Communication of Findings

Presented findings, corrective actions and results to the Quality Improvement Committee, Medical Executive Committee, Governing Board and Staff.

### References

- New, K. J.D. R.N. (2014). *Preventing, Detecting and Investigating Drug Diversion in Health Care Facilities*. Journal of Nursing Regulation. Vol. 5, Issue 1, pgs.18-25.
- Burke, J. Cmdr. (2018). *Drug Diversion Health Care Facilities*. Pharmacy Times. July.15:28.

### Acknowledgements and Contact

Special thanks to our employees and medical staff for their assistance and cooperation with this sensitive matter.

Jacqueline Canales, Administrator  
Outpatient Surgical Services

[Jacqueline.Canales@hcahealthcare.com](mailto:Jacqueline.Canales@hcahealthcare.com)

954.693.8600

