



An Affiliate of
MERCYONE

Collaborating to Reduce Unnecessary ADC Overrides

Jordan Wagner, PharmD & Anna Anderson MM, RN
Department of Pharmacy, Department of Quality Management
Van Diest Medical Center, Webster City IA

Objective

To promote medication safety by reducing the number of “unnecessary” overrides of the automated dispensing cabinet (ADC), by shifting the organizational culture from using override capability as a function of convenience to its intended use as a tool for emergent access

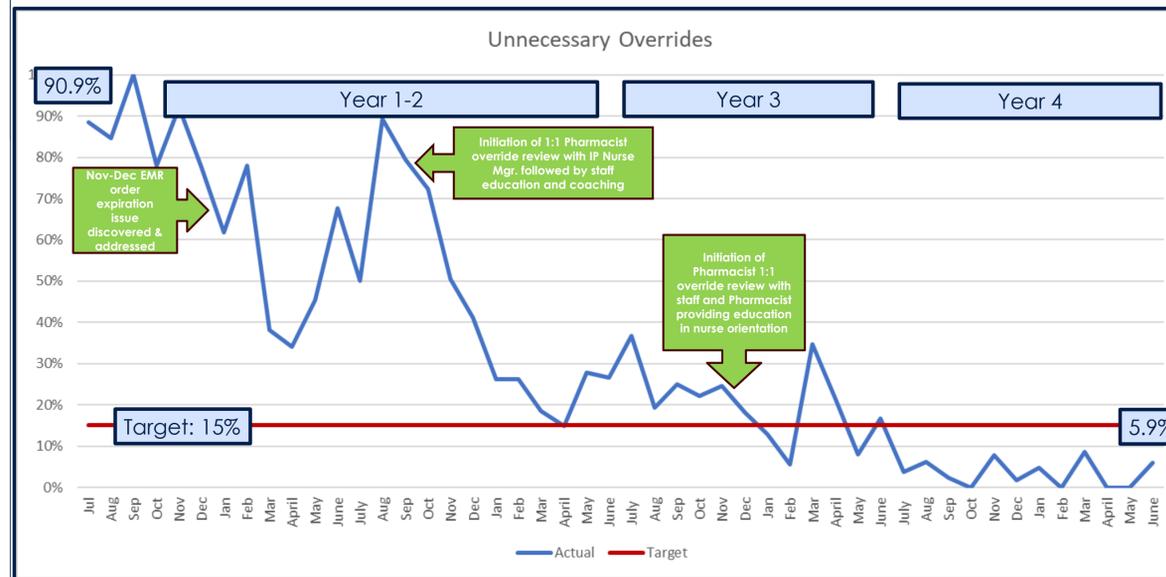
Background

- The Department of Pharmacy escalated concern for unnecessary overrides to Quality Management in spring 2019.
- Preliminary data survey indicated that 70% of all overrides performed in avoidable situations. Actual data later revealed this was over 90%
- Formal improvement plan established as part of the VDMC Quality Assurance/Performance Improvement (QAPI) program for FY2020.
- Improvements needed for plan success were largely outside the scope of Pharmacy control. Collaboration among stakeholders prioritized to implement improvement activities

Actions Taken

- Department of Pharmacy determined a target of 15% or less for overrides determined “unnecessary” by a clinical pharmacist.
- Data indicated Inpatient Unit represented significant concern; most interventions developed and implemented supported this team’s performance.
- Overrides reviewed/trended monthly with analysis of trends in medications overridden, individual- or time-based deviations in behavior, EMR and process barriers, etc.
- Interventions designed collaboratively between multiple stakeholders

Metrics



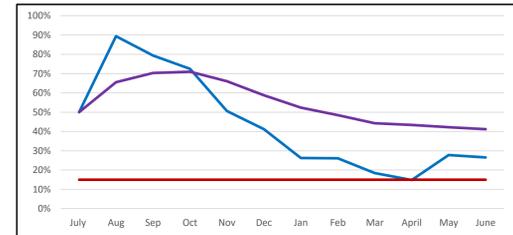
Q1	Q2	Q3	Q4	FY2020
90.9%	82.7%	61.2%	51.1%	77.9%
472	277	126	94	969
519	335	206	184	1244

FY2020



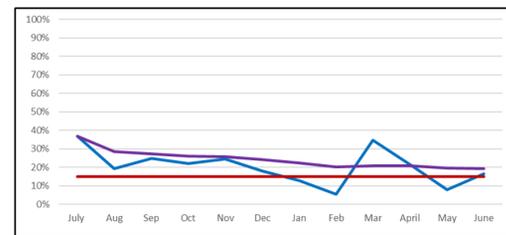
Q1	Q2	Q3	Q4	FY2021
70.3%	52.2%	23.6%	25.2%	41.2%
128	168	83	41	420
182	322	352	163	1019

FY2021



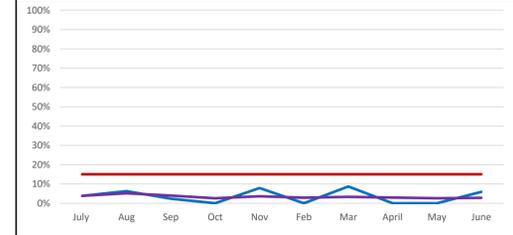
Q1	Q2	Q3	Q4	FY2022
27.5%	21.6%	12.8%	13.5%	19.3%
50	48	21	22	141
182	222	164	163	731

FY2022



Q1	Q2	Q3	Q4	FY2023
4.0%	2.6%	3.7%	1.6%	2.9%
4	4	3	2	13
100	151	82	123	456

FY2023



Analysis

- Year 1-2:** high volatility and sharp decline demonstrate initial investment to build momentum, learning curve in applying improvement methodology, strategies and obtaining buy-in from staff. End of year two is first month at target
- Year 3:** continued volatility, but narrower amplitude indicates interventions are likely effective, but consistency may be an opportunity. Multiple months at target
- Year 4:** volatility amplitude decreases, below target entire FY. Indicates effective interventions, consistently applied.
- General Observations**
 - EMR ordering and order flow concerns represent early and intermittent opportunity
 - Three significant factors identified and addressed throughout the project
 - Nurse pulling meds on an expired order
 - Nurse pulling meds without an order
 - Nurse pulling meds with an unverified order

FY	Unnecessary Overrides	%Δ	Total	%Δ
2020	969	NA	1244	NA
2021	420	-56.7%	1019	-18.0%
2022	141	-66.4%	731	-28.3%
2023	13	-90.8%	456	-37.6%
Total	956	-98.7%	788	-63.3%

Next Steps

- Monitor consistently to confirm hardwiring and cultural shift. The plan continues in FY2024.
- If success is demonstrated in FY2024 remove from organizational QAPI program and move to periodic auditing at the department level only.
- Continue to work processes that work
- Continue to address new concerns as identified
- Maintain bidirectional flow of information and support for change maintenance and to potentiate success in future projects

