#### JENNIE M. MELHAM MEMORIAL MEDICAL CENTER

145 Memorial Drive, Broken Bow, NE

#### **TOPIC**

"Improving Medication Safety & Operational Efficiency by

**Utilizing 5S Methodology in the Pharmacy Department**"

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#### **Introduction**

The Pharmacy Department at Jennie Melham Medical Center consists of one on-site Pharmacy Manager and two Certified Pharmacy Technicians. The Pharmacy Department is an important hub of a 23-bed critical access hospital. The Pharmacy serves the Emergency Department, Acute Care, Outpatient Surgery, IV Infusion, Radiology, and Specialty Clinic. As with most healthcare organizations, patient safety and quality care are at the forefront of daily activities as evidenced in the Pharmacy Department through medication safety committee meetings, antimicrobial stewardship meetings, and the development and tracking of pharmacy-related dashboard metrics, termed "Pillars of Excellence," including medication errors, days of therapy of antibiotic use, and controlled medication discrepancies.

In 2019, Melham implemented automated dispensing cabinets in Acute, ED and Surgery. While Pyxis improved operational efficiency for direct patient care areas, it introduced new challenges for the Pharmacy Department. The Pharmacy Department's physical layout did not match the operational workflow of daily restocking reports. The following application will demonstrate how the Pharmacy Department utilized 5S and Lean Methodologies to improve their operational efficiency and reduce unnecessary waste.

#### **CRITERIA 1: Leadership/Planning**

The mission of Jennie Melham Memorial Medical Center (JMMMC) is "Partnering with your to inspire healthy living through *quality* care." In 2020, during the midst of Covid-19, Melham enlisted the assistance of a healthcare consultant, Maria Sirois, to help strengthen the facility's quality program, among other tasks. She helped the facility develop a new Quality and Patient Safety Plan. The mission of the Quality Services Department is "It's not an act, but a

habit." The mission is aligned with the hospital mission and emphasizes the infinite continuous cycle of learning and improvement. The Quality Services vision is "Through the use of continuous improvement and learning efforts at JMMMC, the people of our communities will have access to safe, effective, patient-centered, timely, efficient, and equitable healthcare that will result in an excellent patient experience and ever improving health outcomes." The facility holds monthly quality meetings in which hospital board members, physicians, senior leaders, and department managers attend.

In an effort to provide Melham staff with tools to succeed at improving processes, and thereby improving quality, Maria invited all department managers to attend an introductory presentation on how to use the Lean/5S/Six Sigma methodology to organize physical and virtual spaces in clinical and non-clinical areas. This presentation prompted the Pharmacy Department to conduct their own 5S project. Maria conducted tollgate reviews at each stage of the project to ensure proper use of the 5S methodology and provided coaching on the use of other improvement tools such as process mapping, ergonomics analysis, spaghetti diagrams, etc. Maria worked with the Pharmacy Manager to document the project. While the main focus of the project was to improve operational efficiency, patient safety and staff safety improvements also resulted from the project.

#### **CRITERIA 2: Process of Identifying Need**

Prior to the 5S project, medications were arranged in the pharmacy by brand name and route of administration or use. For example, ophthalmic drops were grouped together, as were topical preparations and also otic solutions/suspensions, etc. Intravenous medications were

located in a separate IV compounding room. Fluids and flushes were in a completely separate location from the medications.

When Pyxis was implemented, daily restock reports were generated by stock area (Acute, ED, and Surgery). Each stock area pick list was alphabetized by generic drug names exactly as they appeared on the electronic drug formulary and the nurses' medication administration record. It was immediately evident that the pharmacy department needed reorganized because the alphabetical listing of the medications on the pick lists from Pyxis did not match the physical layout of the pharmacy. The picking process was time consuming, taking nearly 90 minutes to pull medications for restock. It was difficult because Pharmacy Technicians had to quickly associate the generic name of the medication on the pick list to the brand name of the drug name on the shelf (furosemide vs. Lasix) and then locate it on the shelf. The mismatch of the physical layout to the pick list led to 1) excess ordering when staff were unable to find the medication or fluid on the shelf, 2) unnecessary motion from looking for medications and the square footage covered from area to area to retrieve medications, 3) missed items when picking meds, and 4) mispicked medications since medications were in different areas (i.e. furosemide solution in the IV room vs. furosemide tablets on the shelf).

A change was necessary, but reorganizing the pharmacy department seemed overwhelming until the introductory Lean/5S/Six Sigma presentation in April 2021. The Pharmacy Manager contacted Maria and expressed the perceived need to 5S the pharmacy. Before applying the 5S methodology, the team evaluated the current system using several tools to help diagnose process issues such as:

- Examining Hiroyuki Hiranos's Principles of Motion Economy and identifying improvements.
- 2. Identifying areas of waste using 7 Wastes Analysis. The pharmacy identified 5 out of 7 wastes:
  - Transport: poor workplace layout,
  - Inventory: overstocked medications and fluids,
  - Motion: large reach and large walking distance to complete pick list,
  - Waiting: Pharmacy and nursing staff spending time locating supplies,
  - Defects or Errors: Medication errors and mispicked medications.

(NOTE: Over-production and Over-processing were not identified.)

- 3. Completing a 5S Physical Areas Audit Tool. Our initial score was 54, "Not so Good."
- 4. Completing a spaghetti map of the current picking process, in addition to recording the time required to complete maximum fill restock reports (approx. 1.5 hours).
- 5. Creating a current state process map of the picking and ordering processes.
- 6. Taking current state pictures.

The pharmacy team established goals of the project:

- 1. Improve efficiency by matching physical layout to pick list order.
- 2. Decrease average total pick time to <1 hour.
- 3. Reduce the opportunity for mispicks and ordering mistakes.
- 4. Decrease the time to put away the daily drug order to  $\leq 10$  minutes.
- 5. Achieve 5S Physical Areas Audit Total Score of ≥80, "Good Foundation."

#### **CRITERIA 3: Process Improvement Methods**

The project involved guidance from the Maria, but the bulk of the work was completed by the Pharmacy Manager and two Certified Pharmacy Technicians. It took approximately three months, beginning in May 2021 and ultimately finishing in August 2021. The team utilized the Lean Methodology and the 5S process that stands for: Sort, Set in order, Shine, Standardize, and Sustain. Lean Methodology works to eliminate all waste or non-value-added activities from a process that the customer should not, and will not pay for. It aims to create more value with fewer resources, optimize flow of products/services through the entire value chain, not just at certain points, and seeks to reduce every obstacle in the way of a customer receiving the perfect product or service.

**SORT**: The first step was to sort items in the pharmacy. The team not only sorted medications, but the entire main area of the pharmacy including countertop clutter. The items were sorted as "Keep," "Rehome," or "Garbage." The disposal criteria included items not used for over one year or with poor design/function. "Rehome" items were tagged with a blue tag. 'Garbage" items were tagged with a pink tag. Rehomed items included 152 white corrugated plastic bins of various sizes, 245 blue narrow plastic bins that were prone to falling over, 2 wire racks, 1 shelving unit, and a residential medication refrigerator, which did not allow enough room for all of the refrigerated medications. Medications were stacked upon one another, difficult to locate, and some were stored in the door of the refrigerator. Some of the "Garbage" included corrugated cardboard, unused three-ring binders, outdated paper documents, and old office supplies. It is important to note that Pyxis provided new medication storage space, but the pharmacy department had not removed the old storage containers.

**SET IN ORDER:** Pharmacy ordered different sized, more functional bins through Central Supply. Items were placed in color coded bins: Medications (blue), Fluids (clear), High Risk Potassium/Magnesium containing fluids (red), Chemotherapy supplies and hazardous medications (Yellow), Neuromuscular Blocking Agents (orange), and Supplies (green). Special attention was given to the placement of medications in alphabetical order according to generic drug name. After placed, the bins were labeled with a standardized Arial font and 20 font size to clearly identify their contents. The pharmacy referenced Institute for Safe Medication Practices' (ISMP) "Look-Alike Drug Names with Recommended Tall Man Letters" which provided a FDA-approved alphabetized list of medications and a list of ISMP recommendations. Tall man lettering was utilized on medication bins and additionally incorporated into the electronic health record drug formulary and the formulary displayed on Pyxis. An example of tall man letter is the differentiation between busPIRone and buPROPion. High Risk medications were designated by red "HIGH ALERT CAUTION" stop signs on the pharmacy shelves as well as in coinciding Pyxis cubies and tower pockets in all stock areas to create a visual alert when nursing staff were retrieving medications. Neuromuscular blocking agents, kits and trays were also labeled with bright orange "Paralytic" stop signs.

Additionally, the pharmacy team hung alphabetical range signs above each section in the pharmacy, similar to a library and placed magnetic letters on the shelves to easily identify where the next letter begins. Since the pharmacy department is not staffed 24/7 and nursing staff must occasionally access the pharmacy for items, it was important to clearly segregate high risk surgical medications and non-formulary IV Infusion medications that are expensive and require special handling. Signage was posted to designate these separate areas. Lastly, the pharmacy procured a new pharmaceutical grade refrigerator and bins to prevent excess stacking, clutter,

and tipping over of bins. Refrigerated neuromuscular blockers were placed on a separate shelf in the refrigerator as were IV infusion medications, consistent with the idea of the segregated surgical medications and IV infusion medications on the pharmacy shelves.

SHINE: The pharmacy team created a cleaning kit with facility approved cleaning agents and placed it in a central designated location. Pharmacy countertops are cleaned daily and documented in the online reporting system (SQSS) for documenting quality control tasks.

Pharmacy staff follow a standardized cleaning schedule as noted in the supporting documentation. Nearly all medications are housed in labeled blue bins. If the bin is empty, it provides a visual cue to determine what item is missing or out of place.

STANDARDIZE: The pharmacy team developed a cleaning schedule, including a visual map, and time allotment for the pharmacy area and Pyxis devices. The cleaning schedule and map are laminated and posted in a prominent location in the Pharmacy Department. All pharmacy staff participate in the cleaning tasks. Currently, they initial and date areas on the schedule with a dry erase marker as they are cleaned, to prevent duplication of efforts or to provide notice that the area still needs cleaned. It is a repeatable process with clearly defined time intervals.

SUSTAIN: With the reorganization of the pharmacy department and the new layout, the Pharmacy Manager developed a training plan for the nursing staff House Supervisors who have pharmacy access. The House Supervisors were required to tour the pharmacy department with the Pharmacist to learn the significance of color coded bins, the alphabetization of medications by generic names, and the significance of the organization of the different areas (surgery, IV therapy). They were also oriented to the different areas in the refrigerator. The Pharmacy Manager signed a one-skill competency checklist for each House Supervisor. New pharmacy

staff members are also oriented in the same manner as the nursing staff. Monthly, on the first Thursday of the month, the pharmacy department meets in the 5S areas to examine what is working well or what needs changed. Changes are made only upon input from all team members.

#### **CRITERIA 4: Results**

In reviewing the project goals,

- Improve efficiency by matching physical layout to pick list order. The comparison of
  pre- and post-spaghetti maps demonstrates visibly reduced excess motion. See supporting
  documentation.
- 2. Decrease average total pick time to <1 hour. Pick times for maximum fill decreased by 50% from 1.5 hours to 45 minutes.
- Reduce the opportunity for mispicks and ordering mistakes, Omissions and mispicks seem to be reduced, although difficult to measure outcomes.
- Decrease the time to put away the daily drug order to ≤10 minutes. Drug orders are quickly shelved within 10 minutes,
- 5. Achieve 5S Physical Areas Audit Total Score of ≥80, "Good Foundation." The "After" audit score reflected a 40 point increase from 54, the lowest category of "Not So Good" to 94, the highest category "Doing Very Well." See supporting documentation of completed audits.
- 6. Pictures of after. The department reclaimed 108 square feet of area after the 5S Project. This space may be incorporated into a pending sterile compounding area remodel. See supporting documentation.

7. Indirect benefits from the project included improved medication safety with high risk & look alike-sound alike-meds (patient safety) and ergonomic improvements from moving heavy fluids to lower shelving (staff safety).

#### CRITERIA 5: Lessons Learned, Replicability, Sustainability

#### Lessons Learned

The 5S Methodology made an overwhelming project manageable through step-by-step processes. It was rewarding to see the *measureable* outcomes from the efforts as a pharmacy team. Since the completion of the project, the department has been able to easily sustain the orderliness. Because it was a team effort, all pharmacy team members take ownership of keeping the department orderly and clean. The orderliness has helped alleviate searching for items and wasting time. The clear view of the inventory has reduced the amount of excess inventory.

Additionally, upon completion of the project, the team displayed their success on a display board located in the main hallway of the employee entrance. They displayed the 5S methodology, before and after results, and before and after pictures. It was designed with the intention of educating and inspiring others to imagine their own 5S project within their own departments.

#### Replicability

Recently, the Executive Assistant completed a 5S project in the Administrative Wing Copy Room. This marks the second documented 5S project completed in our facility. The facility has completed one documented 5S project in a clinical area and able to replicate it in a

non-clinical area. Melham is recognizing this project with an open house on August 4, 2022 to promote the 5S methodology behind the project and to encourage other departments to use this methodology to complete projects of their own. Other areas with potential 5S projects that have been discussed are the IT storage room, the cast cart in ED and the supply cabinets in ED. The Respiratory Therapy department recently reorganized their supply room, but, unfortunately, failed to document their process and measure the outcomes.

#### **Conclusion**

What began as a project to improve operational efficiency and to eliminate waste, subsequently improved quality and staff safety in the Pharmacy Department and indirectly improved patient safety within patient care areas. The 5S/Lean project reduced excess waste and thereby increased pharmacy staff productivity, allowing them more time to focus on more patient-centered care activities, such as medication reconciliation. It also decreased the risk of medication errors due to mispicked medications and fluids. Pharmacy and nursing staff can easily differentiate between look-alike, sound-alike medications and high risk medications through visual cues such as tall man lettering, bin colors and stop signs. High risk medications are easily identifiable in the Pyxis alert the nursing staff to use extra caution upon administration. The satisfaction of completing a project of this magnitude as a team, and sustaining it, is extremely rewarding.

### **SUPPORTING DOCUMENTATION 5S METHODOLOGY**

**5S** 

5S focuses on visual order, organization, cleanliness & standardization.

#### Sort

Remove all unnecessary items from the workplace, including unnecessary tools, parts and instructions. Keep only essential items for your specific tasks. Red Tag items that you are not sure about.

#### Set In Order

Create a specific location for everything. Arrange tools, supplies, documents, etc. in such a way that the most frequently used items are the easiest & quickest to locate in order to eliminate/reduce time wasted in obtaining needed items for a process.

#### Shine

Clean the workspace and all equipment and keep it clean, tidy & organized. At the end of defined time intervals, clean the work area and ensure that everything is in its proper place.

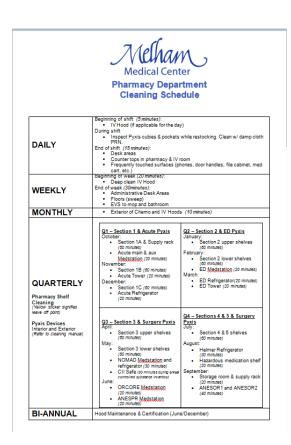
#### **Standardize**

Standardize work station/room set-up, carts, kits, processes. All staff doing the same job should be able to follow the same process using the same equipment, tools, etc.

#### Sustain

Maintain and review standards. Once the previous 4Ss have been established, they become the new way to operate. Maintain focus on this new way and don't allow a gradual decline back to the old ways.

#### **CLEANING SCHEDULE**





**Pharmacy Department** 

#### **5S AUDIT TOOL BEFORE**

Pharmary 5-21-21

#### 5S Audit (Physical Areas)

	chions a) For each statement, circle the appropriate score	1	-				
SORT	2	Very Poor	Poor	Good	Very Good	Excellent	
1	Is the area clear of excess computers, printers, faxes, etc?	1	2	3	4	(5)	
2	Is the area clear of excess work (paperwork not organized)?	1	2	3	(4)	5	
3	Is the area clear of excess personal items?	1	2	3	(4)	5	
4	is the area clear of outdated manuals, forms, etc?	1	(2:)	3	4	5	
5	Are paper based files sorted by a naming convention?	1	(2)	3	4 Total Sort	5	
CET II	NORDER	Very Poor	Poor	Good	Very Good	Excellent	
-	Are computers and laptops located in correct places?			(3)		5	
1	Are the necessary supplies properly identified &	1 1	2		4	-	
2	stored?	_	(2)	3	4	5	
3	Are hard copy files properly identified by labels & locations?	1	(2)	3	4	5	
4	Are visual indicators present to identify current work?	1	\<2;/	3	4	5	
5	Are paper-based files labeled to standards set forth?	1	(2)	3	4	5	
					Total		
CLUM	•	Many Baar	Door	Cond	Set In Order	Fundlant	
SHIN	Is equipment free of grime & dust?	Very Poor	Poor	Good	Very Good	Excellent	
1	Are trash containers emptied on a regular basis?	1	2	13/	4	5	
2		1	2	(3)	4	5	
3	Are procedures up to date?	1	(2)	3	4	5	
4	Are areas organized?	1	(2)	3	4	5	
5	Are cleaning materials easily accessible?	1	(2,')	3	4 Total Shine	5	
STANDARDIZE		Very Poor	Poor	Good.	Very Good	Excellent	
1	Can the employee explain the value of 55?	1	2	(3)	4	5	
2	Are checklists made visual?	1	(2)	3	4	5	
3	Are display boards up to date?	1	2	3	(4)	5	
4	Have specific cleaning tasks been assigned?	1	(2)	3	4	5	
5	Are 5S standards posted?	(1)	2	3	4	5	
					Total Standardize		
SUST	AIN	Very Poor	Poor	Good	Very Good	Excellent	
1	Are success stories displayed?	1	2	3	4	5	
2	Have there been improvements to the 5S system?	(1)	_2	3	4	5	
3	is everyone's role clearly defined?	1	(2.)	3	4	5	
4	Does 5S seem to be a routine or a way of life?	(1)	2	3	4	5	
5	Is reward & recognition part of the 55 system?	1	(2)	3	4	5	
		u	734	12/	Total Sustain		
10+: 10-90	ng Guidelines: Doing Very Well Good Foundation Some Good Things Happening but More Needs to b		Total of all 5 categories:				
60-69	Not Much Happening to Keep Pace with Competitio Not so Good	in Mo	Modified from: Placek, Rob, Jaideep Motwani, and Roberto Itméniez-Marcel. Today's Lean! Using 55 to Organize and Standordize Areas and Files. Chelsea: MCS Media, 2011. Print.				

Goal 15 80

Rev. 1/29/19

#### **5S AUDIT TOOL AFTER**

Puŋ	१७५७: To audit physical work areas ensuring workplace argo	anization & st	andards are being m	et. (	\ ' \ \ /	1
	Fills It Out: The Audit Team by consensus				/	0/21
Dire	ofions a) For each statement, circle the appropriate score	e, b) Total the	score, review with p	rocess worker an	d/or departmental r	nañager.
SORT		Very Poor	Poor	Good	Very Good	Excellegit
1	Is the area clear of excess computers, printers, faxes, etc?	1	. 2	3	4	5
2	Is the area clear of excess work (paperwork not organized)?	1	2	3	4	5
3	Is the area clear of excess personal items?	1	2	3	- (4)	5
4	Is the area clear of outdated manuals, forms, etc?	1	2	3	· (4) ·	5
5 .	Are paper based files sorted by a naming convention?	1	2	(3)	4 4	-5
					Total Sort	1/0 :
SET IN ORDER		Very Poor	r Poor	Good	Very-Good	Excellent
1	Are computers and laptops located in correct places?	1	2	3	4	5
2	Are the necessary supplies properly identified & stored?	1 1	2	3	4	5
3	Are hard copy files properly identified by labels & locations?	1	2,	(3)	4	
4	Are visual indicators present to identify current work?	1	2	(3)	4	5
5	Are paper-based files labeled to standards set forth?	1	2	(3)	4	5
, .					Total Set in Order	KY
SHINE		Very Poo	r Poor	Good	Very Good	Excellent
1	Is equipment free of grime & dust?	1	2	3	(4)	5
2	Are trash containers emptied on a regular basis?	1	2	3	(4)	5
3	Are procedures up to date?	1	2	3	(3)	5
4	Are areas organized?	1	2	3	(A)	5
5	Are cleaning materials easily accessible?	1	2	3	Total Shine	7.0
CTAA	IDARDIZE	Very Poo	r Poor .	Good	Very Good	Excellent
3 I AN	Can the employee explain the value of 55?	1	2	3	(4)	5
2	Are checklists made visual?	1	2	3	1 74	5
3	Are display boards up to date?	1	. 2	3	8	- 5
4	Have specific cleaning tasks been assigned?	- 1	2	(3)	4	5
5	Are SS standards posted?	1	2	1 13	4	5
5	Pare 33 stationard posterior	1 1			Total Standardize	19
SUSTAIN		Very Poo	r Poor	Good	Very Good	Excellent
1	Are success stories displayed?	1	2	(3)	A	5
2	Have there been improvements to the 55 system?	1	2	3	(4)	5
3	Is everyone's role clearly defined?	1	2	3	(4)	5
4	Does 55 seem to be a routine or a way of life?	1	2	3	(4)	5
5	is reward & recognition part of the 5S system?	1	2	3	Total Sustain	5 \(\)
90+:	ing Guidelines: Doing Very Well Good Foundation	1	Fotal of all 5 cate	gories:	94	1 101

Rev. 1/29/19

# Location: Pharmacy 5S Project

Team Members: Dr. Jenn S., Lexi, Deb

Rev. 8/11/21

Part 1

Multiple wastes result in restocking delays, unnecessary expenditures, reduced productivity. Problem/Impact Statement

- across the pharmacy. Zigzagging motions & sudden direction changes are made during Hirano's  $5^{th}$  &  $10^{th}$  principle issues. Mismatch between alphabetically listed 'pick' lists and Pharmacy layout (by medication type) causes excess staff motion back & forth the picking process and items are not arranged in the order of picking.
  - Similar meds in separate areas (IV fluids) make visual perception difficult and do not minimize eye focus (distance changes) and/or eye travel (line of sight changes).
    - Currently takes 1.5 hours to complete Weekly Pyxis Maximum Restock pick list. Transportation
- occasionally re-arranges items to avoid bending to retrieve items from the bottom shelf. Hirano's 3<sup>rd</sup> principle issue (keep trunk motions to a minimum). One staff member
  - following were considered: reaching, bending, placement of bulky/heavy/liquid It is unclear if ergonomics informed the current layout and whether or not the items, placement of items based on frequency of use.
- During the new layout adjustment period, there may be impacts to visual/tactile
  - Currently takes 20 minutes to put an order away due to movement of inventory; the perceptions, decision-making/manualresponses-→performance changes. person moving along with the inventory creates unnecessary motion.
    - Defects
- furosemide tablet is pulled because that is the section the staff member is in while Picking & Ordering Process. Mispicks can occur e.g. furosemide IV is needed, but refrigerator also present mispick potential. This can lead to downstream waste. looking at that item on the pick list. Usability issues with overfilled medication
- must return to the Pharmacy to retrieve the correct item (rework, delay, more If pharmacy staff has made it to the nursing unit with the incorrect item, they
- sticker will be put on the order sheet and the incorrect item will be re-ordered (may lead to excess inventory). Also, the correct item will not be ordered (may If an incorrect is picked and is the lastone on the shelf, the incorrect reorder lead to inventory shortage)
- If nursing enters pharmacy to obtain medications afterhours, a mispick introduces the potential for a medication error.
- Other Wastes
- Slower pick times may cause downstream delay to delivery of medications, filling
- Storage Room has mixed items, some in excess, including bins, supplies; unneeded prescriptions & billing.

shelving in IV Room & wall cabinet >>> wasted space

Usability issues with old bins—easily tip over, no color coding, wrong dimensions for product & shelves

# 5/21/21 <u>Baseline Metrics/Current State</u> 5S Physical Areas Audit Total Score = 54, "Not So Good" 11

## Goals/Objectives

- d efficiency by matching physical layout to pick list order, ightarrow average total pick time to < 1 hour Reduce the opportunity for mispicks & ordering mistakes
  - Decrease time to put order away to  $\leq 10$  minutes
- Achieve 5S Physical Areas Audit Total Score ≥ 80, Good Foundation

- Lack of documented systematic approaches to inventory & document management, picking &
- No knowledge transfer process contributing to lost information with staff turnover.
- Lack of knowledge of regulatory regulations & guidelines.

# 5S Project Location: Pharmacy Team Members: Dr. Jenn, S., Lexi, Deb

8hr. 8/11/21

Part 2

Countermeasures/Interventions: 5S Methodology SORT

Disposal criteria – Items not used for > 1 year or poor design/function; Rehome OR Garbage

Rehome - Large amounts of unused storage organizers, bins (152 white corrugated plastic & 245 plastic); unused wire racks, sheking units, old medication refrigerator. Note: Pyxis machine installed November 2019 provided new medication storage space, but Pharmacy

never got rid of old storage containers.







## SET IN ORDER

Color-coded bins plastic bins: Medications (blue), Fluids (Clear), High Risk Potassium

containing (Red.), Supplies (Green); plan to order yellow binsfor NIOSH list Hazardous drugs. Standardized Tall Man Latterine on hine (Arial Black Book Stand Sont Stand Only)

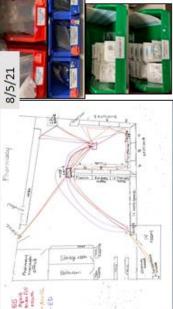
Standardized Tall Man Lettering on bins (Arial Black Bold Font Size=20)

Re-organized layout with main focus on alphabetical placement of medications on shelves to match pick lists vs. medication type and moving meds closer to each other; 108 square feet of reclaimed pharmacy space.

Procured & placed new medication refrigerator and new bins to prevent excess

clutter/stacking/tipping over of bins.

Post Set In Order 5S Physical Areas Audit Total Score = 94, "Doing Very Well"







SHINE
 Cleaning tasks assigned & all staff participates - Daily (lasts 15 minutes) / Weekly (start of week tasks e.g. compounding hood – lasts 20 minutes, end of week tasks e.g. cleaning

dass e.g. Compounding mood - lasts 20 minutes, end of week lasts e.g. creaning administrative/desk areas - 30 minutes) / Monthly (rotating shelf areas - lasts 60 minutes)

Cleaning kit in designated, labeled area

June & December hood maintenance & certification

STANDARDIZE

SHINE schedule with task name, description, duration, frequency posted in Pharmacy for all

Shelf cleaning visual map schedule posted in Pharmacy for all staff

## Outcomes Summary

New safety features in place to prevent mistakes/ergonomics issues

40 point increase in 5S Physical Space Audit Score —from "Not So Good" (lowest category) to "Doing Very Well" (highest category)

Reclaimed 108 square feet of space for planned Pharmacy remodel

Increased productivity - Now takes 0.5 hours to complete Weekly Pyxis Maximum Restock pick list

# Follow-Up Actions/Next Steps

SUSTAIN

 Project documentation with BEFORE & AFTER photos posted in Employee Entrance Hallway shadowbox.

58 Pharmacy Open House to be held at a later date.

SS Pharmacy Presentation to October, 2021 Quality Committee Meeting.

 Evaluate effectiveness of 5S processes every 6 months, identify opportunities for improvement & Re-Sort, Re-Set In Order, Re-Shine, as needed

Consider similar 5S SHINE strategies in post-remodel clean room







Reclaimed space opens more possibilities