



# Catheter Associated Urinary Tract Infection Reduction using Daily Management Systems

OHSU Performance Excellence

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# Learning Objectives

- Overview of OHSU Performance Excellence (OPEX) system
- Application of OPEX to a quality improvement project
- Using Daily Management Systems (DMS) creating cultural change in the MICU

**Patients,  
today and tomorrow**

**Safety**

**Quality**

**Service**

**Affordability**

**Innovation | Education**

**Engagement**

### **Building excellence from the ground up.**

Faculty and staff—their skills, focus and dedication—are the foundation of change. Learning and experimentation drives improvement; the health and well-being of our patients is balanced on the work we do to achieve the Triple Aim. Together with our purpose and philosophy statements, these are the building blocks of OHSU's performance improvement efforts.

## **Our purpose is to excel in healing, teaching and discovery.**

1. Value is defined by our patients.
2. To excel in creating value, we must constantly improve.
3. Improvement depends on standards and thoughtful innovation.
4. Standards require doing the same work the same way every time.
5. Innovation comes from planning, experimenting and observing.
6. Problems are opportunities: The only failure is not trying to improve.
7. For all of us to excel, each of us must learn, teach and lead.

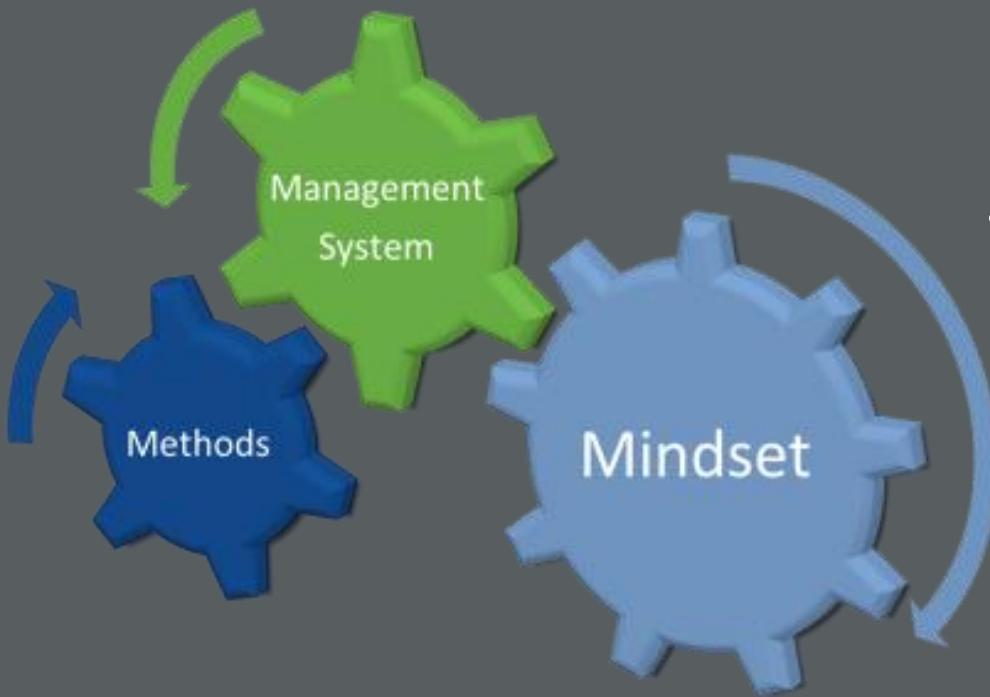


**OHSU Performance  
Excellence System (OPEX)**

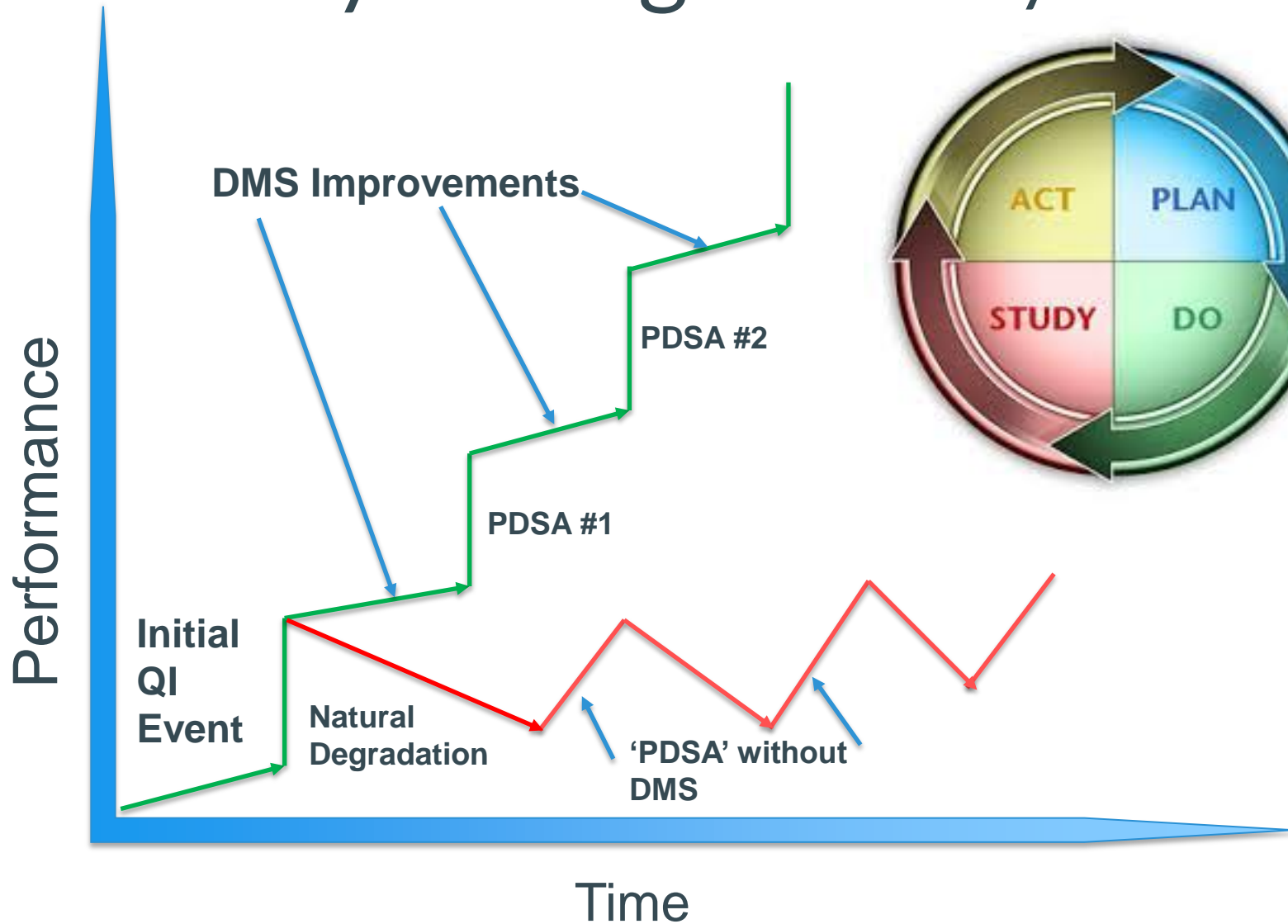


# OPEX- OHSU Performance Excellence

- OPEX is a set of Methods, Management Systems and Mindset (Culture) used by OHSU Healthcare to achieve outcomes in a systematic way
- Based on Lean principles that maximize value for patients through Continuous Improvement and Respect for People



# Daily Management System



# Problem Statement: Challenge

- CAUTI rates were above the national average at 4.99 per 1000 patient catheter days
- 1.5 years of collecting data on CAUTI Bundle with minimal improvement
- Goal to reduce CAUTIs by 50%



# Target Condition

- CAUTI Debrief – Identified gap in Foley care
- Standard of Care requires Foley care to be complete every 8 hours. Every gap of Foley care documentation > 10 hours will be considered a missed opportunity
- **Target Condition:** 100% successful completion of Foley care ( $\leq 10$  hours between documented care)



# Process Metric

## Process: Foley Care

7A - MICU

February 2016

### What are we measuring?

Standard of Care requires Foley care to be completed every 8 hours at 0600, 1400, and 2200. Every gap of Foley care documentation > 10 hours will be considered a missed opportunity. The denominator will be the number of opportunities and the numerator will be Foley care attempts completed in <10 hours.

### Why do we measure this?

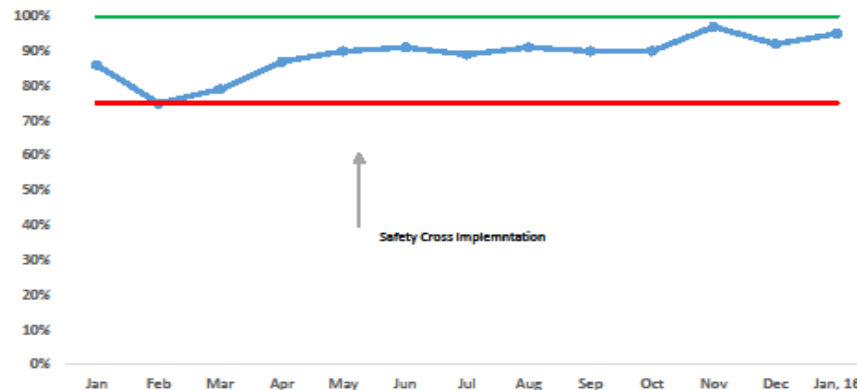
Foley Care is an Evidence Based Practice that decreases chances of a CAUTI. Additionally every MICU CAUTI in the last 6 months have had gaps in Foley care documentation, so it is an area of needed improvement.

### Who measures it?

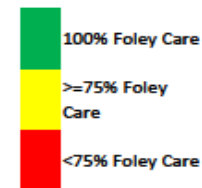
Research Volunteers

### When is it measured?

Every Day – 24 hour period, Recorded every evening



		1	2		
		3	4		
		5	6		
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
		25	26		
		27	28		
		29			



MICU Foley Care Safety Cross





# The Who and How

- Critical Care Academic Associates Program (CCAAP) volunteers formalized a process to gather data
- Process metric discussions were incorporated in the Charge Nurse Standard Work (SW) and daily readiness huddle
- Comprehensive Unit-Based Safety Program (CUSP)

# PDSA Improvement



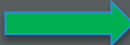
- Research Volunteers to notify Charge RN with gaps in Foley care
- Charge RN notification of bedside RN
- Charge RN making Vocera reminders Q8
- Visual management changes to include trended information
- Reassess frequently missed Foley care (0600)

**Charge RN Leader Standard Work**

**Legend: ✓ = done X = not done**

**Day Night Barriers**

Meet with fellow @ 0710 AND 1910			
Update electronic census board			
Complete daily sheet (beginning of shift)			
Interdisciplinary Rounds @ 0830 <b>(Wednesday)</b>			
Sparks (by 1000, 1500, 0300)			
Fax report sheet to bed control, 14C, & 5C			
Check in with CPRN about rooms & equipment			
Daily readiness huddle @ 0830			
Update Inpatient Capacity Dashboard (by 0840)			
Fire safety walk			
Check in with patient/family/room			
Improvement Rounds @ 1500 <b>(Tuesday)</b>			
Foley Care in-person checkin (0600, 1400, 2200)			
Update tracking binder			
Update daily sheet (end of shift)			
Wound Photography <b>(Tuesday)</b>			
Verification of omnicell count <b>(Tuesday)</b>			
Valve changes <b>(Monday/Friday)</b>			
Discrepancy reports			
Medication waste reports			
Make Comp/Cancellation calls (0500 and 1700)			
Update MESSES on board			
Start new Charge RN Standard Work			



**NOTES FOR NEXT SHIFT**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

AY - UNIT COMPS \_\_\_\_\_ CLUSTER COMPS \_\_\_\_\_ OTHER RESOURCES \_\_\_\_\_

GHT - UNIT COMPS \_\_\_\_\_ CLUSTER COMPS \_\_\_\_\_ OTHER RESOURCES \_\_\_\_\_

**ONGOING ISSUES FOR CARRY-OVER FOR SEVERAL DAYS**

\_\_\_\_\_

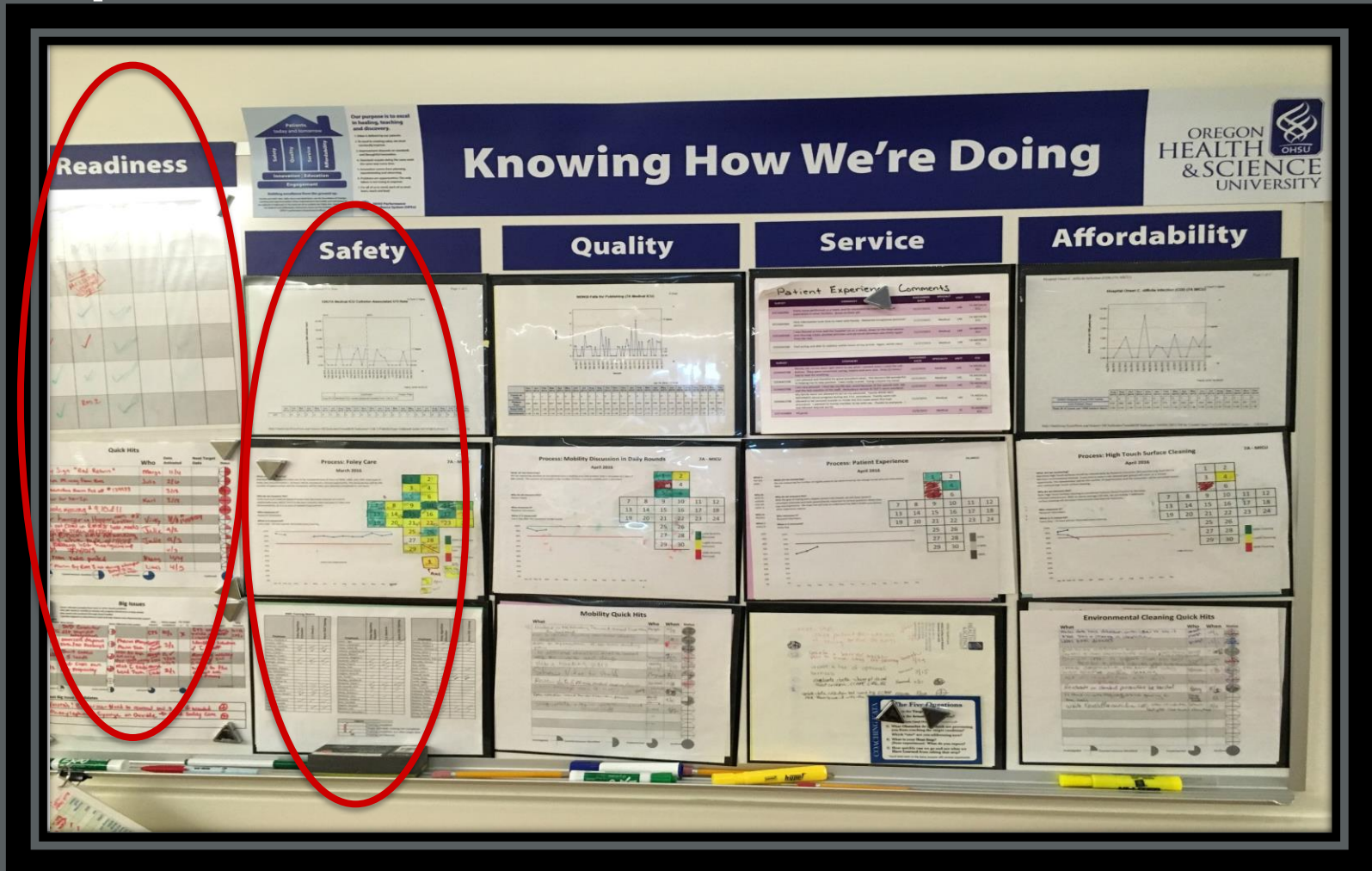


<b>Job/Role: Leadership</b>	<b>Process: Charge/Leadership Huddle</b>
<b>Department: MICU</b>	<b>Owner:</b>
<b>Job Aids:</b>	<b>Equipment/Supplies:</b>
<b>Notes: To occur at 0830 at the unit census and MESSES Board</b>	

<b>Major Step – “What”</b>	<b>Key Points – “How”</b>	<b>Reasons – “Why”</b>
<b>1. Patient Flow</b>	1.1. Verbally discuss the following information at the census board 1.1.1. Patient census 1.1.2. Expected admits and admit capability 1.1.3. Patients who can transfer/discharge today 1.1.4. Expected Procedures/diagnostics or other things that may affect flow 1.1.5. Anticipated barriers	<ul style="list-style-type: none"> <li>• Optimize patient flow</li> <li>• Allow for early problem solving</li> </ul>
<b>2. MESSES</b>	2.1. Review MESSES for the day at the MESSES board. 2.2. Create any needed Quick Hits or Big Issues and document what, who, and when 2.2.1. Provide work order #'s when for all requested work from facilities 2.3. Escalate appropriate issues to Tier 3 huddle	<ul style="list-style-type: none"> <li>• Resolve or escalate potential issues or barriers to readiness in real time+</li> <li>• Transparency and accountability</li> </ul>
<b>3. Quick Hits and Big Issues</b>	3.1. Go through all quick hits that have not been completed 3.1.1. Identify step in progress, barriers to completion and when completion is expected of the quick hit 3.1.2. If pending longer than 1 week move to big issues or if necessary escalate to Tier 3 huddle 3.2. Review Big Issues every Wednesday for progress, barriers and expected completion	<ul style="list-style-type: none"> <li>• Transparency with current status on completion of work</li> <li>• Resolve or escalate issues or barriers</li> </ul>
<b>4. Review Daily Management Systems – Topic of the Week</b>	4.1. Review current metric of the week 4.1.1. How did we perform on the last shift 4.1.2. Suggestions made for next shift	<ul style="list-style-type: none"> <li>• To support ongoing improvements and problem solving</li> </ul>
<b>5. Integrated Teamwork and Healthy Work Environment</b>	5.1. “What do you need from me to improve the shift today?” 5.2. “What is going well today for us to celebrate?”	<ul style="list-style-type: none"> <li>• Promote collaboration and a healthy work environment</li> </ul>



# Daily Readiness and Weekly Improvement Huddles





# Outcomes


- Completion of Foley care remained above 75% post implementation with an average of 91%
- Reduction in maximum time between recorded Foley care events from 22 hours to 13.5 hours
- Reduction in CAUTI rate from 4.99 (Sept 2014 – April 2015) to 1.73 (May 2015 – Dec 2015)
- Enculturation of standard Foley care expectations on the unit



# Next Step



- Discontinuation algorithm
- Identified need for standard Foley care standard work and products
- Urine culture standard work
- Sustainability



“Creating a better, safer, more cost effective healthcare system for patients and better workplaces for all”

-Mark Graban



Thank You