

# ASCO Quality Training Program

## Delays in Admissions for Scheduled Chemotherapy

---

Joseph Mock & Kathlene DeGregory

September 2020

Revision Date: 09/11/2020

# Institutional Overview

## University of Virginia Health

- 605 bed tertiary academic medical center
- NCI-designated cancer center
- 37 bed inpatient oncology unit
- 56 chair infusion center
- 3 community oncology sites



# Team members

Joey Mock, MD -Team Lead

Kathy DeGregory, PharmD – core member

Jenna VanHoose, RN – member

Caroline Jones, PharmD - member

Cory Perry, PharmD – member

Jenna Ally, NP – stakeholder

Amelia Hodson, RN – stakeholder

Mary Sauder RN – stakeholder

Holly Mellott, RN – stakeholder

Mike Keng, MD - stakeholder

# Problem Statement

Between January 1 and August 16, 2020, **35%** of University of Virginia patients, with planned admissions to 8 West for scheduled chemotherapy were rescheduled.

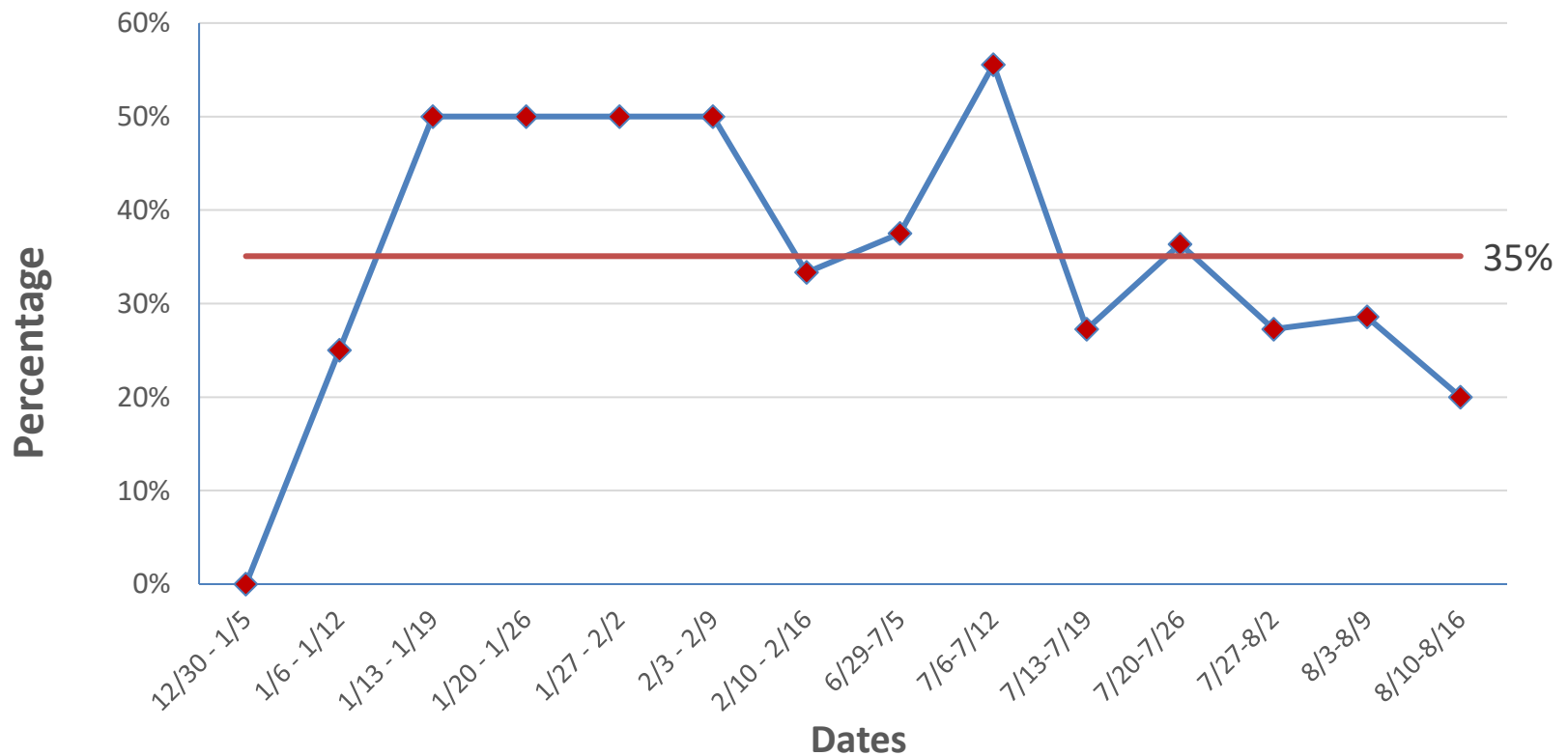
This led to delays in chemotherapy, a decrease in patient satisfaction, and increased administrative burden on clinic staff.

# Baseline data summary

Item	Description
Measure:	Patients that had a scheduled chemotherapy admission that were rescheduled (per authorization flowsheet in Epic).
Patient population: <i>(Exclusions, if any)</i>	Only 8W admissions for planned chemotherapy. Excluding stem cell transplant admissions.
Calculation methodology: <i>(i.e. numerator &amp; denominator)</i>	<b><u>Numerator</u></b> is planned chemotherapy admissions that require reschedule <b><u>Denominator</u></b> is total planned chemotherapy admissions to 8W.
Data source:	Epic flowsheets, Admissions Calendar
Data collection frequency:	Weekly
Data limitations: <i>(if applicable)</i>	We cannot always tell the reason for delay. If patient never gets admitted, we do not “see” that delay.

# Baseline data

**University of Virginia - 8 West**  
% of patient chemo admits rescheduled  
(Jan - Aug 2020)



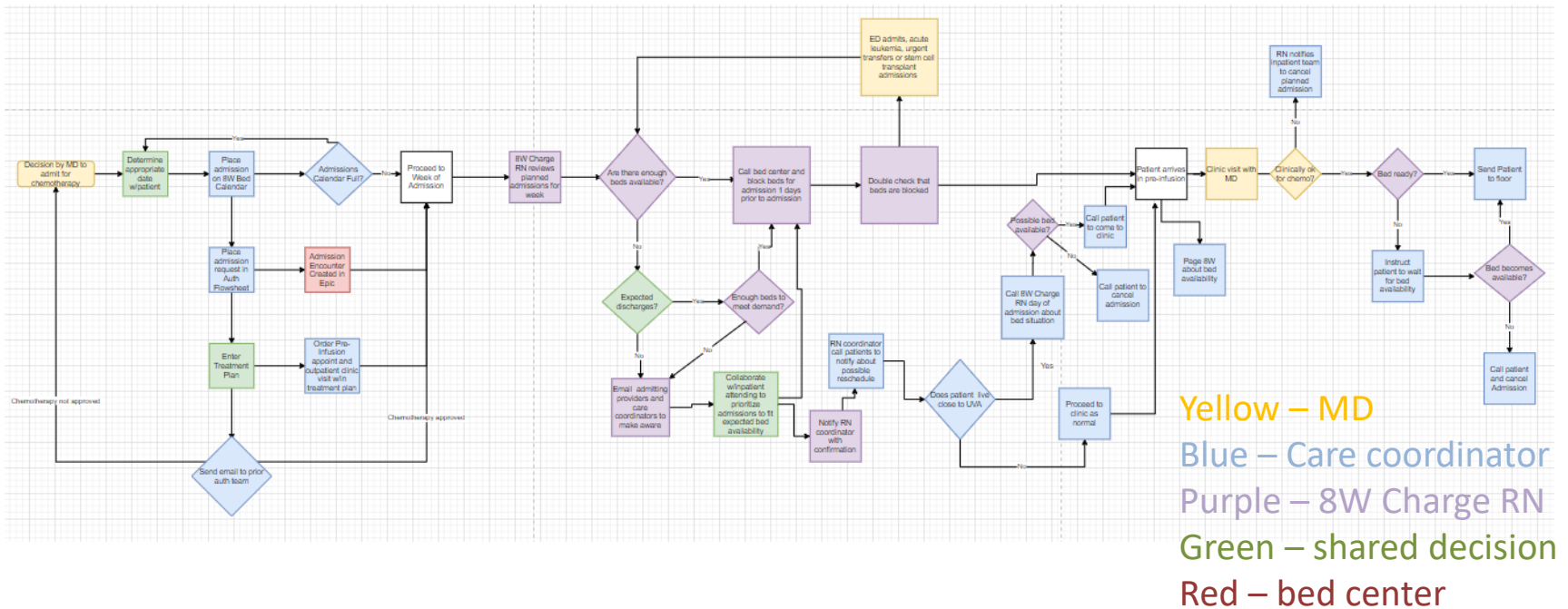
# Aim Statement

Reduce the rate of rescheduled planned admissions for chemotherapy to less than 25% by 9/30/20.

This will:

- Provide timely cancer therapy
- Minimize disruptions to patients, providers, and staff

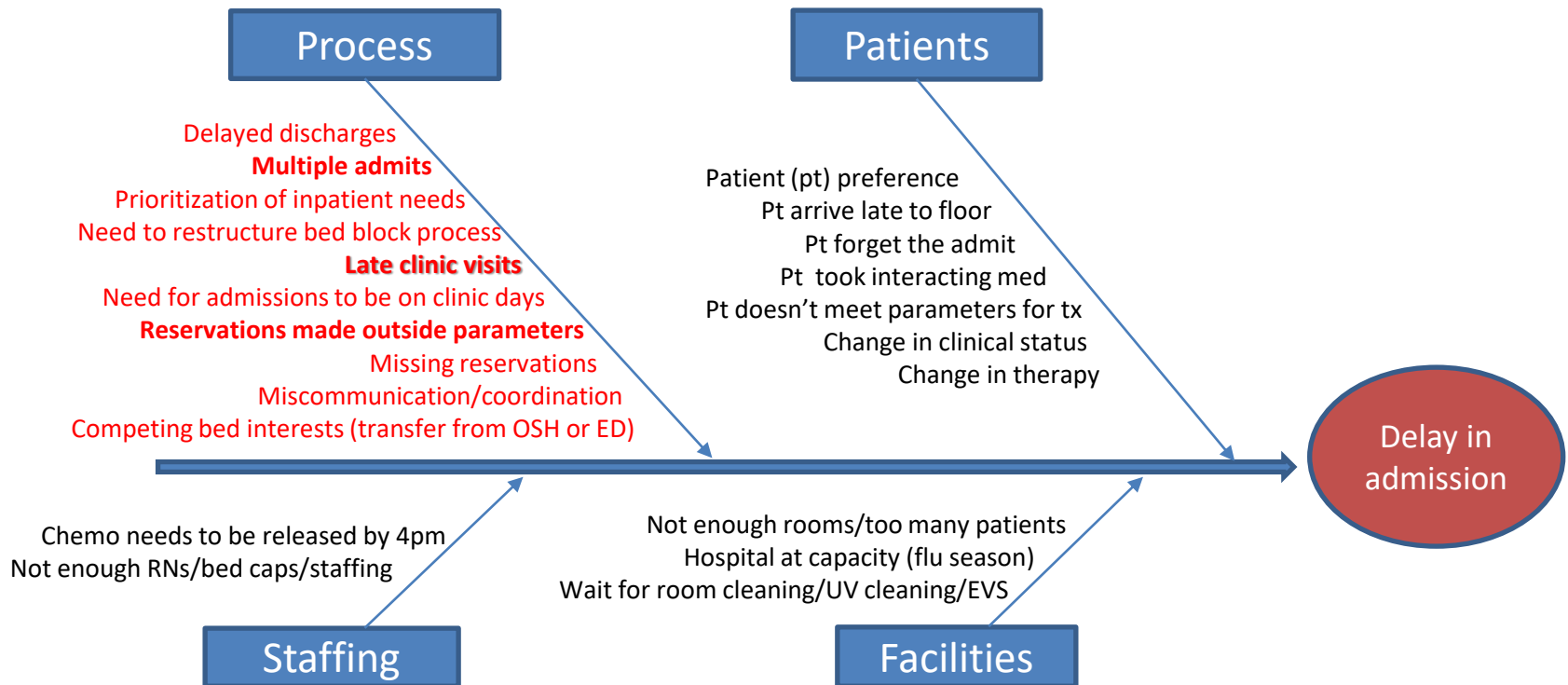
# Process map



Very complex process with overlapping roles, redundant steps, and numerous hand offs. Physician not very involved in the process.



# Cause and Effect diagram



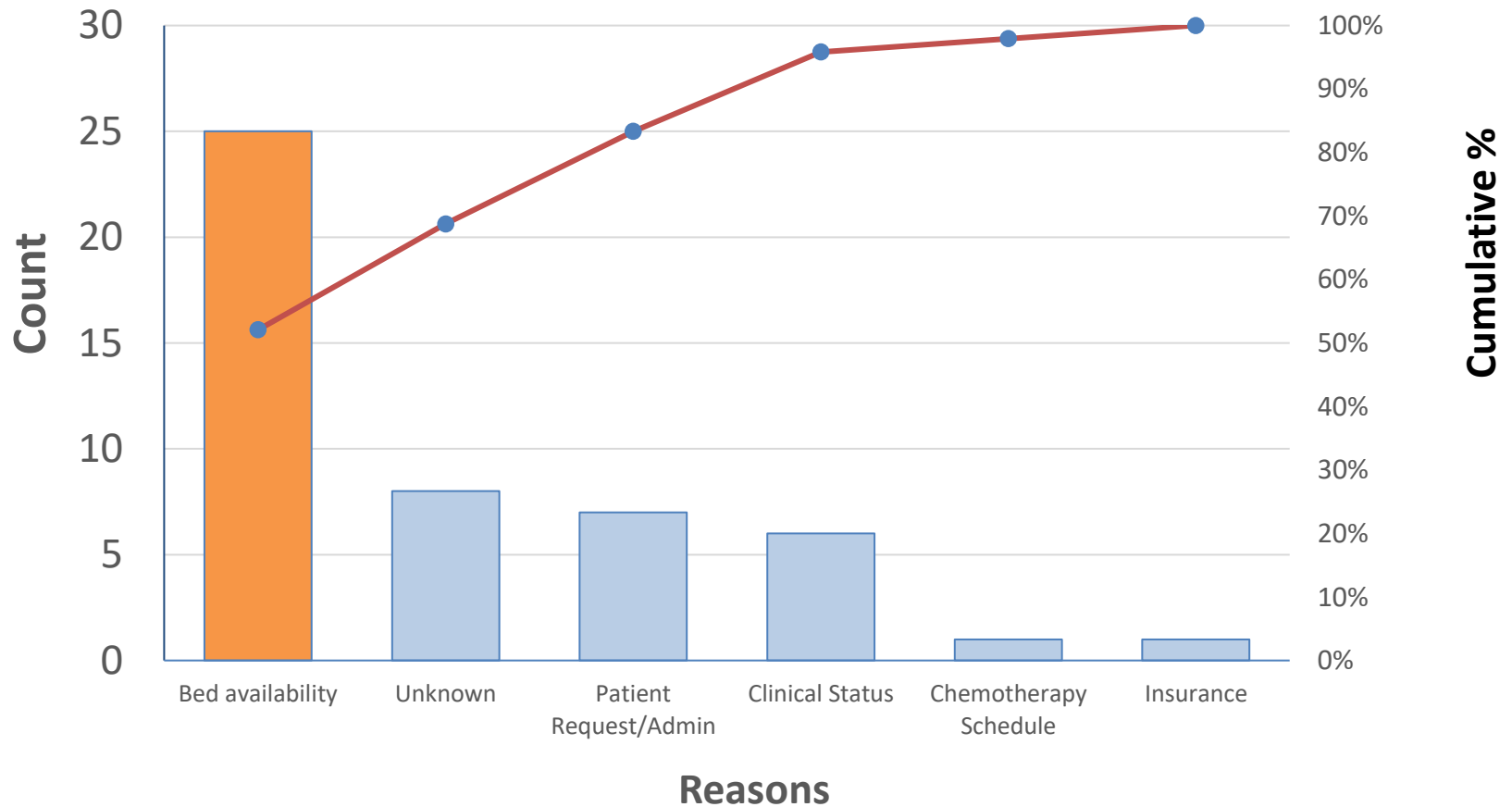
Process is very complicated and inefficient. The default assumption was that bed availability was most important, but the process directly impacts which beds are available.

# Diagnostic Data summary

Item	Description
Measure:	Reasons for rescheduling
Patient population: <i>(Exclusions, if any)</i>	All planned admissions to malignant heme service for chemotherapy (not SCT patients)
Calculation methodology:	Counted reasons that patients had to be rescheduled
Data source:	EMR Authorization Flow sheet
Data collection frequency:	On going (Feb – August)
Data limitations: <i>(if applicable)</i>	Insufficient charting

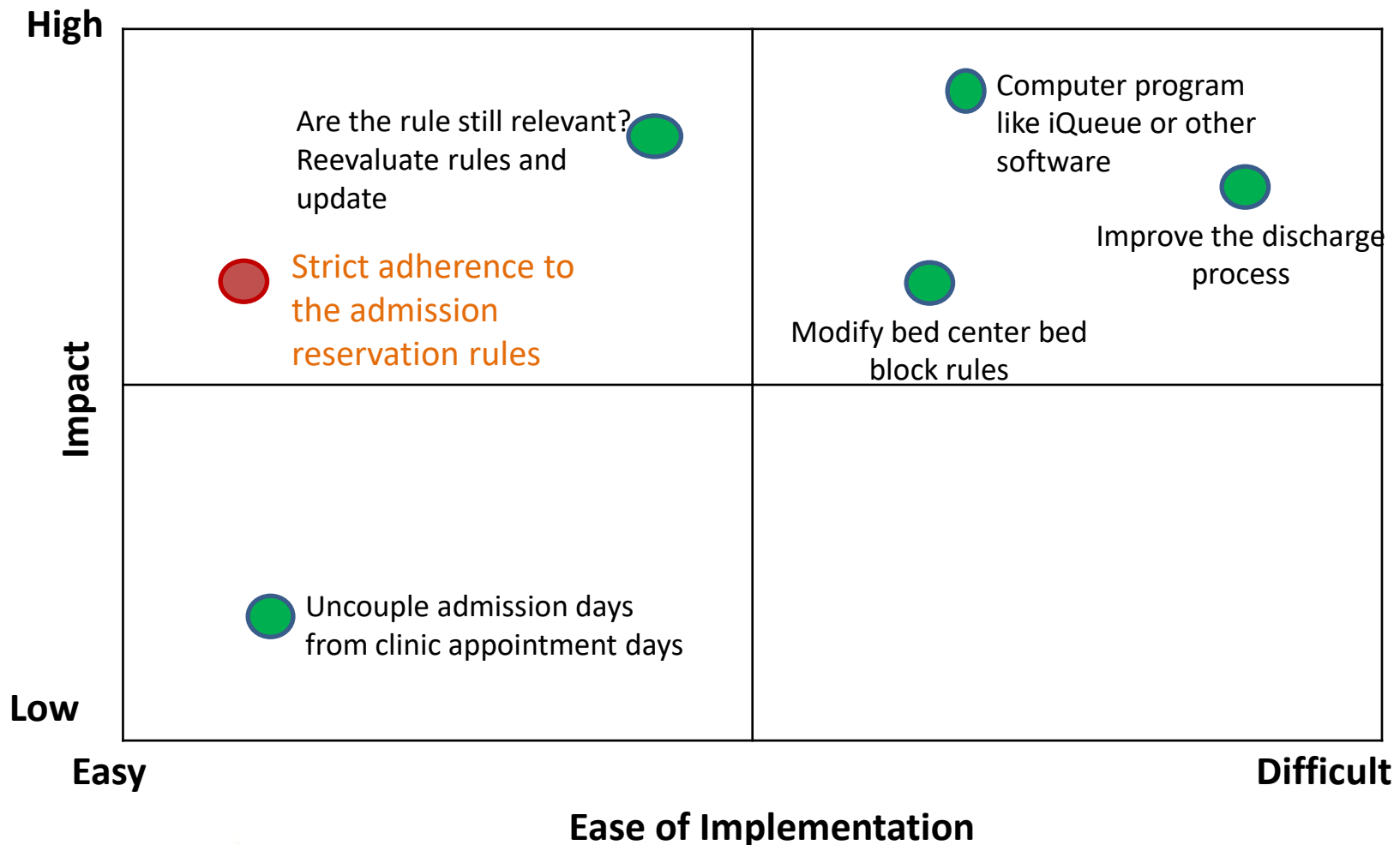
# Diagnostic Data

## Reasons for Re-scheduled Admissions



# Countermeasures

# BED AVAILABILITY



# Diagnostic Data summary

Item	Description
Measure:	Adherence to the admission reservation calendar rules
Patient population: (Exclusions, if any)	All planned admissions for chemotherapy (not SCT patients)
Calculation methodology: (i.e. numerator & denominator)	<b>Numerator:</b> Number of days the admission scheduling rules were violated per week <b>Denominator:</b> Total number of days with planned chemotherapy admissions per week
Data source:	Epic admission flow sheet and admissions calendar
Data collection frequency:	On going
Data limitations: (if applicable)	Data may not have been updated on the flow sheet.

# Admission Request Rules

## Enter details for an expected admission

**Patient classification \***

Neuro-Onc  
 SCT RN  
 Gyn-onc

Resident and Hospitalist/NP reservations are full - maximum 4 per day.  
Resident and Hospitalist/NP reservations are full - maximum 4 per day.  
Resident and Hospitalist/NP reservations are full - maximum 4 per day.  
Resident and Hospitalist/NP reservations are full - maximum 4 per day.  
Resident and Hospitalist/NP reservations are full - maximum 4 per day.

Resident - SCT  
 Resident - BAATS

Resident and Hospitalist/NP reservations are full - maximum 4 per day.

Note: the following restrictions apply:

- 2 Neuro-on/Gyn-onc reservations per day
- 4 SCT admits per week
- 4 scheduled chemo admits per day
- Pharmacy chemo mix time cut-off is 1600

For emergent day of or changes that need to be made with less than a 24 hr notice, contact the inpatient oncology shift manager.

For urgent changes with notification in advance greater than 24 hours contact the inpatient oncology ANM/NM.

Patient Name \*

Patient MRN \*

Diagnosis \*

Isolation status \*

Est. Length of stay \*

Coordinator \*

Physician \*

Treatment \*

Time of admission \*

Note: available slots are limited  
\* = Required field

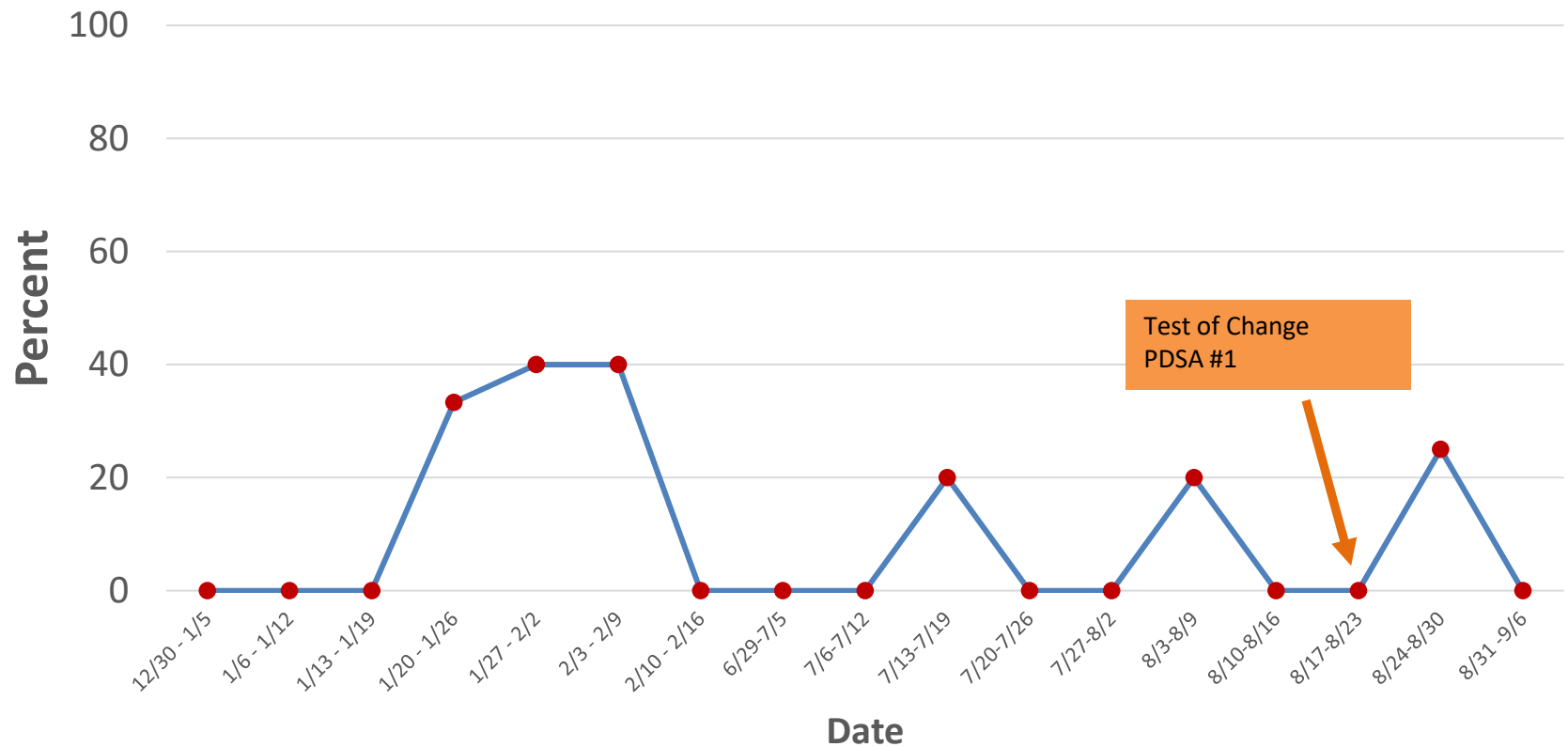
[Add Reservation](#)

## Admission Rules

- 2 Neuro-Oncology admits per **day**
- 4 SCT admits per **week**
- 4 Chemo scheduled admits per **day**

# Diagnostic Data

University of Virginia - 8 West  
% of days with admit rules broken  
(Jan - Sept 2020)



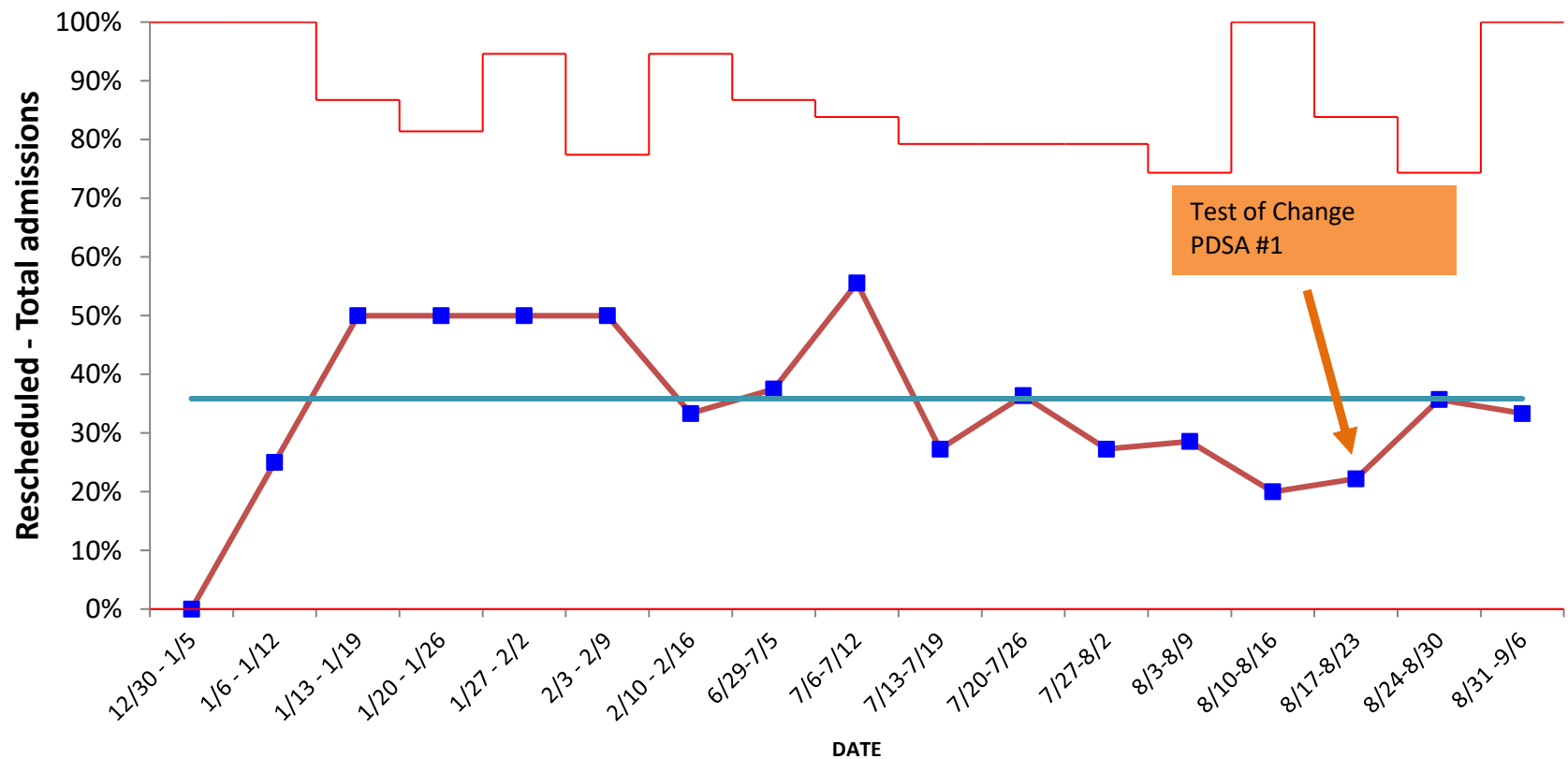
# PDSA Plan

Date	PDSA Description	Result
From 8/17 – 9/11	Ensure strict adherence to the existing reservation rules – no overbooking	Work arounds still exist
9/22	Transition Reservations Calendar to Standardized Epic Admission Request	In process



# Post Countermeasure

University of Virginia - 8 West  
% of patient chemo admits reschedule  
P-chart (3 sigma)



*Next steps*

# Sustainability Plan

Item	Owner
An epic calendar is in development with PFA schedulers enforcing rules – eliminates all work arounds – go live 9/22/20	Laura Gastrell

# Conclusion

- Bed availability is the biggest challenge
- Standard work for reserving beds is not being followed
- ***Number of chemotherapy admits per day*** was the rule broken most frequently
- The manual process for bed reservations allows for development of work arounds
- Data collection will continue for PDSA cycle #1

# Special Thanks!

Duncan Phillips

Michael Keng

The ASCO staff

