Reducing Same-Day cancellations and unplanned admissions in the Outpatient Medicine Unit

An Evidence Based Quality Improvement Project by

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Project: Reduce same-day cancelations and unplanned admissions in the Outpatient Medicine Unit (OMU) by identifying trends through reliable data tracking methods, setting standards, and implementing interventions with regular review & remediation as needed.

OMU is an ambulatory medical unit providing a variety of short-stay invasive diagnostic and/or treatment procedures for a wide array of disease processes in an outpatient setting. The problem was identified after reoccurrence of same-day cancellations and/or unplanned admissions for preventable and non-preventable factors. The plan is to identify same-day cancelation and unplanned admission trends by implementing a data tracking tool followed by implementing or revising current practices to reduce those rates which will optimize unit utilization and decrease delays in patient care.

This projected outcome will 1. Create a reliable data tracking tool for same-day cancelations and unplanned admissions in the OMU. 2. Reduce same-day cancelations and unplanned hospital admissions in OMU 3. Improved efficiency and utilization of OMU procedure beds and time blocks. These improvements will trickle down to: Decrease delays in patient care, Increased patient quality care, increase in patient satisfaction & Decrease the units' related financial losses.

Through collaborated effort between OMU and the service teams, goals/standards for these occurrences will be set, barriers to goals identified, and interventions implemented to meet the goals. Data collection and review will continue monthly, and reviewed with service teams. With the set standards in mind, collaboration with the service teams will allow remediation and revision as needed.

Up to this point, same-day cancelations and unplanned admissions have not been tracked in the OMU. Beginning October 2017, Multiple attempts to collect data using existing VA data warehouse have proved unreliable due to data input inconsistencies by a wide array of users, which resulted in months' worth of unusable chart review data, wasted manpower, and zero baseline data. Collaboration between myself, mentors, Health Informatics, VA data analysts, Multi-skills technicians, unit managers, & the VA education division started to create a reliable data tracking tool beginning Mid-April 2018. The tool consists of a flagged data point embedding into the clinical nurses' existing documentation in CPRS. With minimal interruption to the nurses charting, they can include the required data for proper tracking. The nurses were educated on the new documentation fields and rolled out at the end of April 2018. Data analysts send a secure monthly report of the data including patient name so a thorough chart review can

be done. Once the data tool was implemented it took from April 2018 to September 2018 for the analysts to gain proper access keys to pull the data. Once access was gained, we pulled retroactive data back to the rollout of April 2018. It took 11 months of work before any reliable data could be extracted for this project. We have collected 9 months' worth of data regarding same-day cancellations and unplanned admissions thus far.

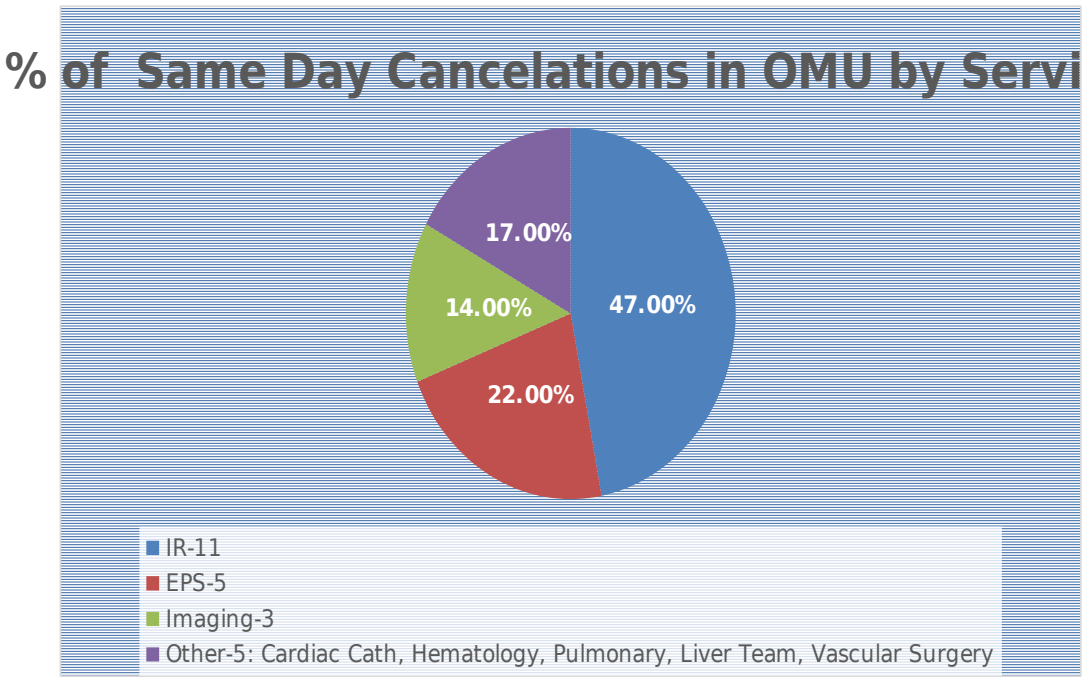
Evidence shows us with proper tracking of unit flow data unit operations can be optimized. *"While certain same day cancelations are unavoidable, it has been reported more than 50% are preventable."- Yu et al. BMC Surgery 2017.* Two main differences were identified in the literature reviews: Tracking patient flow data and the pre-operative process.

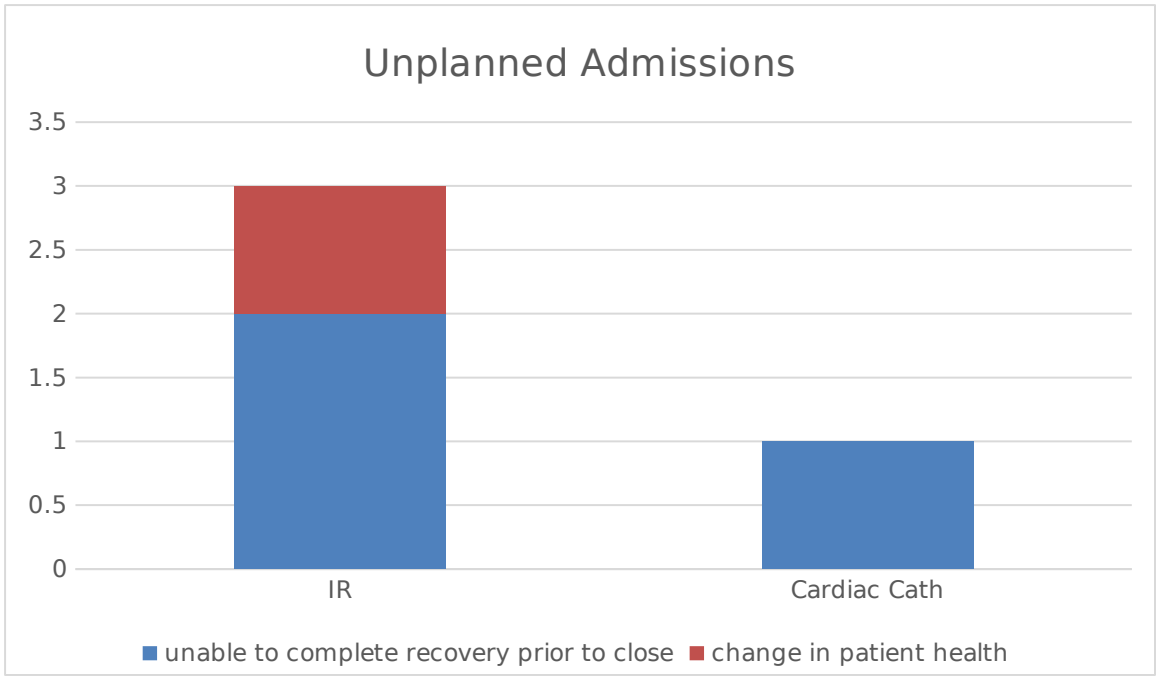
The pre-operative process it quite different in the medicine unit vs. surgical units. Surgical teams have a pre-op process originating from the surgical unit itself involving a designated RN to coordinate the pre-op assessment, initial education, scheduling, travel and care giver coordination, & required tests with follow-up. Their process includes a pre-op readiness check involving a phone call to the patient and/or caregiver to review all pre-op instructions, medications, NPO status, driver and caregiver instructions, check-in time and surgical time, what to expect, procedure education and brief post-op instruction. The OMU differs greatly because the ordering service is responsible for this task, which varies drastically from one service to the next. OMU MSA's are only responsible for scheduling some of the procedures for services teams. Most are coordinated through the ordering service teams nurse care coordinator or facilitator who is responsible for assessing the patient's pre-procedural readiness. Each service has their own unique protocol for scheduling and coordinating patients OMU appointments, some of which are documented while others are not. OMU does not initiate a pre-procedure readiness assessment call prior to appointment.

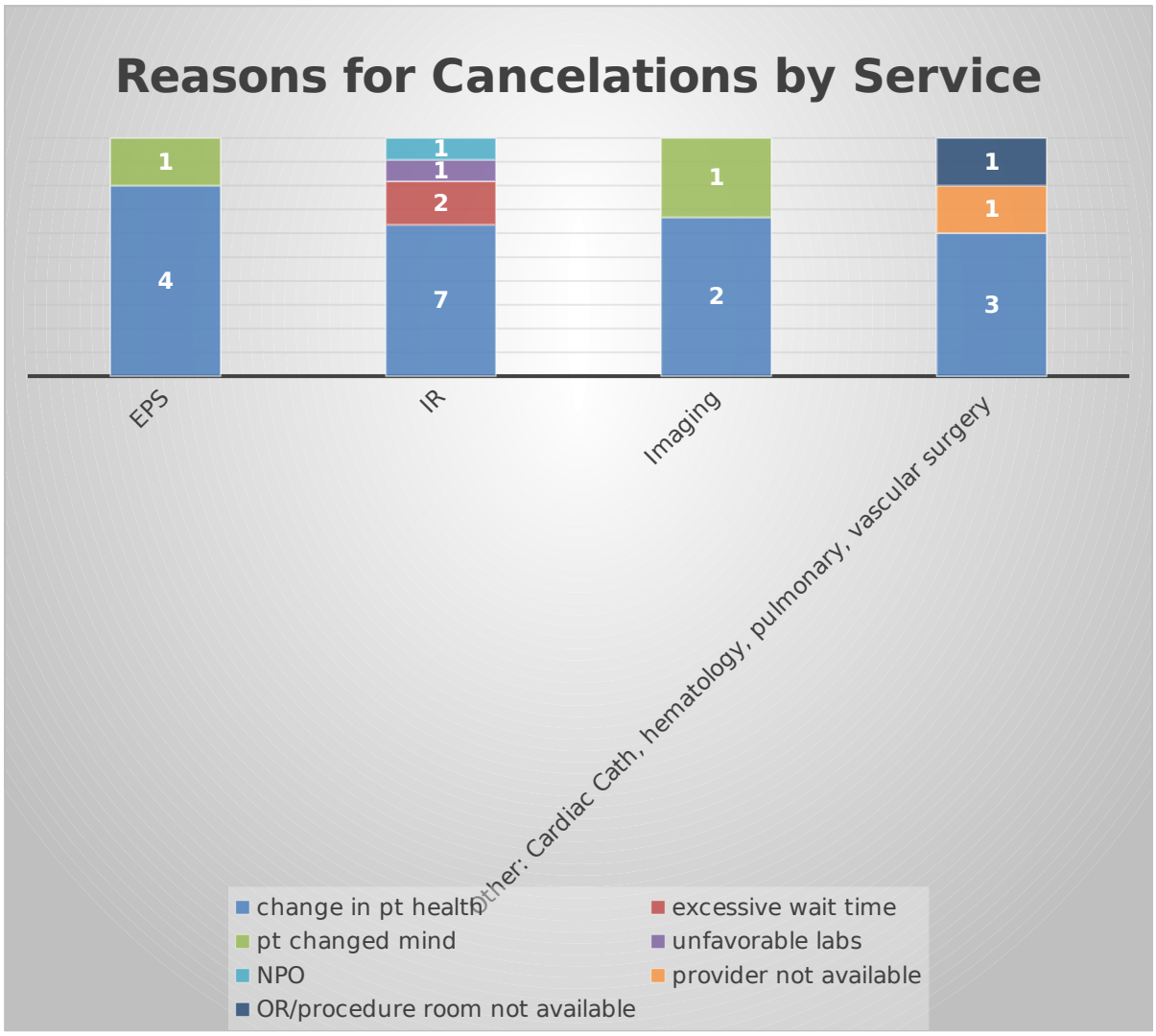
Pre-intervention data was unreliable, therefore could not be used for the purposes of this quality improvement project. The project objective focus moved to creating a reliable data tracking tool first before introducing interventions to decrease the rates of cancelations. Our project went from collecting 0% data to collecting 100% data for same-day cancellations and unplanned admissions.

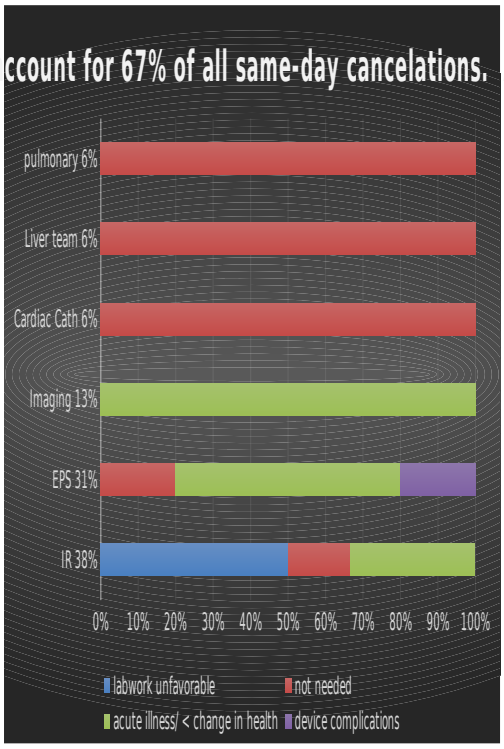
9 months' worth of data so far, from April 2018-December 2018, shows OMU has experienced 24 same-day cancelations and 4 unplanned admissions. The 3 primary services that hit most frequently on same-day cx and unplanned admits: Interventional Radiology (IR), Imaging (IMG), and Electrophysiology Service (EPS). 24 of the 953 scheduled OMU appointments between 8 services proves a 2.5% cancelation rate over a 9-month span. 4 of the 953 OMU appointments prove a 0.4% unplanned admission rate.

While the rate of cancelation looking from the Service providers' total number of scheduled patients is relatively low, same day cancelations from an OMU standpoint are each significant. This rate represents 24 patients who may have experienced a preventable cancelation or 24 missed opportunities to fill the appointment slots with procedure-ready waiting patients. "Same-day cancellations should be viewed as an opportunity for practice improvement"- Smith et al. Journal of Thoracic and Cardiovascular Surgery 2014


% of Same Day Cancelations in OMU by Service
17.00%
14.00%
47.00%
22.00%
IR-11
EPS-5
Imaging-3
Other-5: Cardiac Cath, Hematology, Pulmonary, Liver Team, Vascular Surgery


Unplanned Admissions
3.5
3
2.5
2
1.5
1
0.5
0
IR
Cardiac Cath
unable to complete recovery prior to close
change in patient health

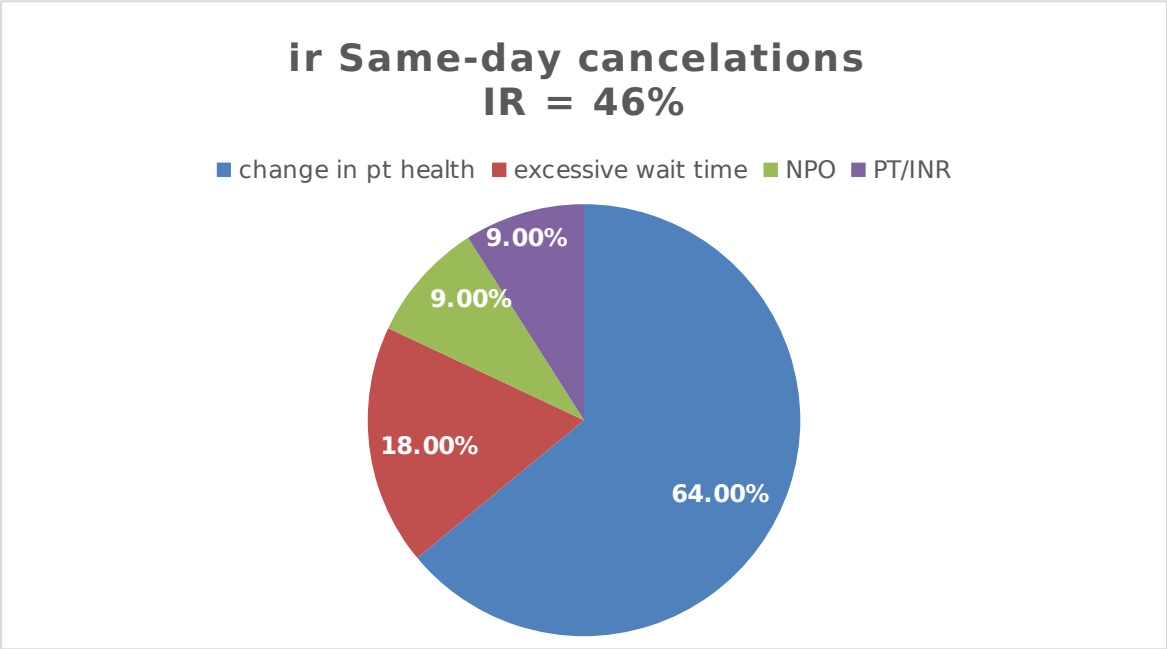

Reasons for Cancelations by Service
1
4
1
1
2
7
1
2
1
1
3
EPS
IR
Imaging
Other: Cardiac Cath, hematology, pulmonary, vascular surgery
change in pt health
excessive wait time
pt changed mind
unfavorable labs
NPO
provider not available
OR/procedure room not available



IR: accounts for 46% off all OMU same-day cancelations, and 75% of unplanned admissions. 11 Out of 171 total IR cases, or 6%, are same-day cancelations. 2% of all IR cases require an unplanned admission

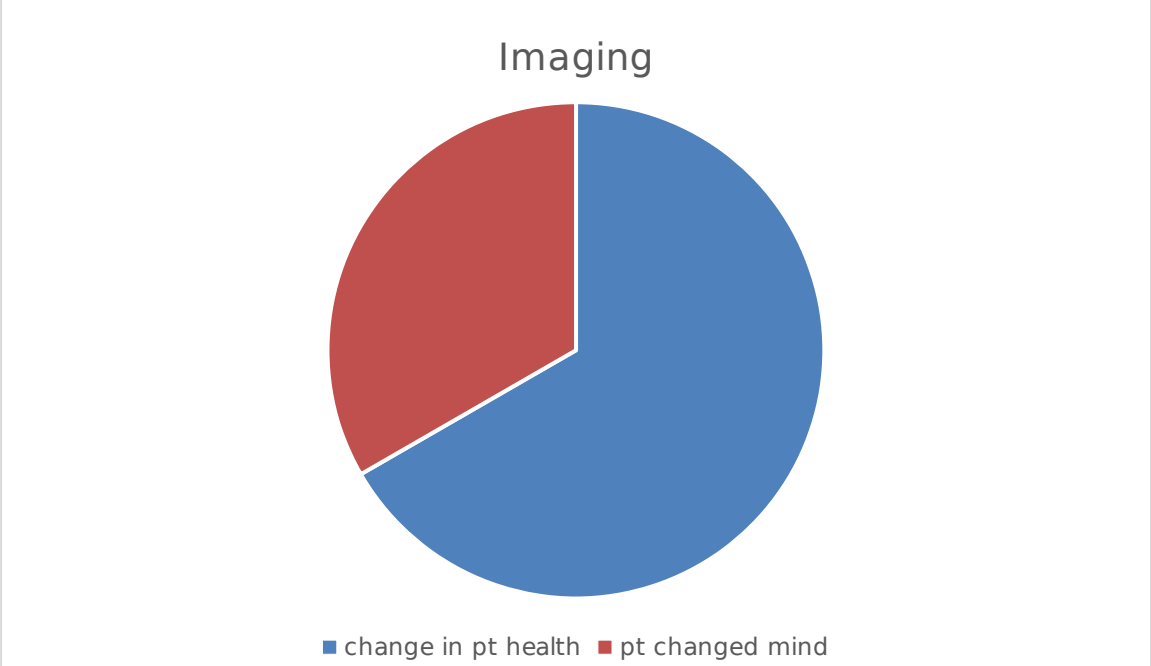
-11 same-day cancelations * most common reason is “change in pt health status” making up 64%, then excessive wait time 18%, NPO status 9%, PT/INR 9%,

-3 unplanned admits. *unplanned admission reason: 1=unable to complete recovery time before OMU closes 66% 2=change in patient health status 33%.



Imaging: accounts for 13% of all OMU same-day cancelations with 0% unplanned admissions. 3 of 141 Imaging cases, or 2%, are canceled the same day.

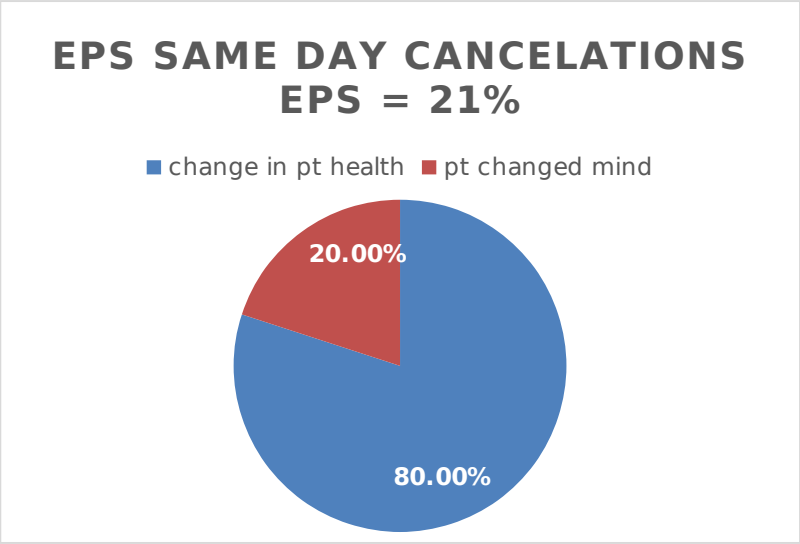
-3 same-day cancelations. 66% are because of "change in patient health." 33% are related to "pt changed mind"



EPS: accounts for 21% of all OMU same-day cancelations, and 0% of unplanned admissions. 5 of 200 total EP cases, or 3%, of EP cases are same-day cancelations.

EPS recently worked on a quality improvement project to improve procedure start times. They implemented a new pre-op clinic that has proved to decrease their occurrences of same-day cancelations*

-5 same-day cancelations * change in pt health status 80%. Pt changed mind 20%



Other Services: include Cardiac Cath, Pulmonary, Hematology, Vascular surgery, and Liver team each with only 1 same-day cancelation. Only the Cardiac Cath service experienced one of each same-day cancelation and unplanned admit. These combined services account for 21% of same day cancelations, and 25% of unplanned admits.

441 Total procedures by service:
Cardiac Cath=200- 1 cx
Hematology=24- 1cx
Neurology=4- 0cx
Liver Team=13- 1cx
Pulmonary=200- 1cx

Evidence gathered from literature and the data collected so far suggests likely improvement of same-day cancelations and unplanned admissions if the patients are contacted by phone within 24-48 hrs prior to procedure. This contact should include a review of their pre-procedure readiness checklist and reminder of pre-procedural instructions including medications to hold/take, NPO status, need of responsible adult if receiving sedation, admission and discharge plan, and travel arrangements. In addition to the phone call, implementing a formal pre-procedural readiness document in CPRS is necessary. The documentation will serve as a clear,

concise communication tool between involved services, and a formal document of accountability for patient's readiness.

This projected outcome of the *Reduction in Same-day Cancelations and Unplanned Admissions* quality improvement project will prove a: 1. Utilization of reliable data tracking tool. 2. Reduction in the same-day cancelation rate in OMU & unplanned hospital admissions 3. Improved efficiency and utilization of OMU procedure beds and time blocks. These improvements will trickle down to: Decrease delays in patient care, Increased patient quality care, increase in patient satisfaction & Decrease the overall financial losses.