

Improving the Feeding Tube Placement Process for Head and Neck Radiation Oncology Patients

Lacey Reddick, Eva Wasseen, and Patty O'Lexey
Sweetwater Regional Cancer Center

December 8, 2023

Institutional Overview

Sweetwater Regional Cancer Center (SRCC) with Memorial Hospital of Sweetwater County (MHSC)

- Offer chemotherapy, external beam radiation therapy, and clinical trials
- Affiliated with the Huntsman Cancer Institute of the University of Utah
- Frontier Cancer Center serves over a 100-mile radius

Team members

Name	Role	Organization
Lacey Reddick	Team Lead; Clinical Trials Facilitator	SRCC
Eva Wasseen	Team Member; Registered Nurse	SRCC – Radiation Onc.
Patty O’Lexey	Team Member; Education Director	MHSC
Josie Ibarra	Team Member; Registered Dietitian	MHSC
Tasha Harris	Sponsor; Radiation Oncology Director	SRCC – Radiation Onc.
Ashraf Mohamed	QI Coach	

Reflections on Our QTP Experience

Sweetwater Regional Cancer Center
with
Memorial Hospital of Sweetwater County

Problem Statement

Between January 1, 2021, and May 31, 2023, 7 newly diagnosed head and neck cancer patients in Radiation Oncology at Memorial Hospital of Sweetwater County required feeding tubes to safely receive effective radiation therapy. 71% percent of these patients had 3 or more rework loops (deviations) within the feeding tube placement process, which led to patient and staff frustration, delayed discharge after feeding tube placement, interrupted radiation treatment, and increased cost.

Outcome Measure

Baseline data summary

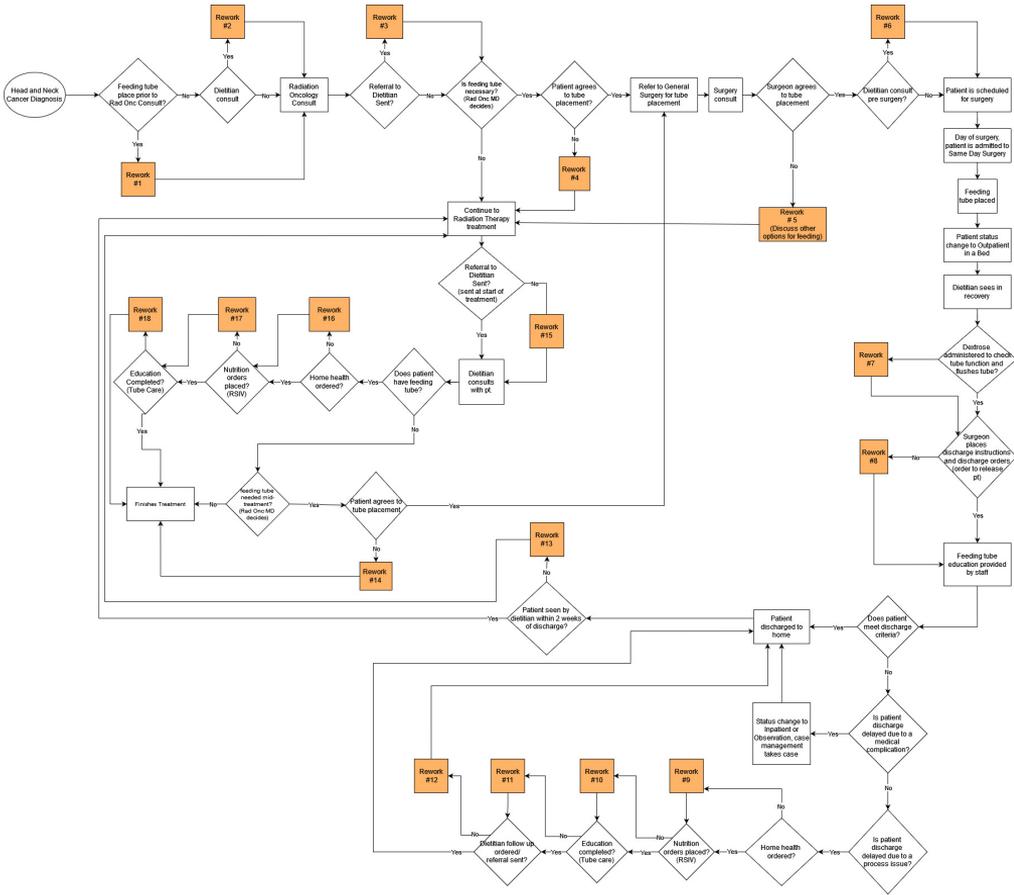
Item	Description
Measure:	Percentage of patients with 3 or more rework loops within the feeding tube placement process
Patient population: <i>(Exclusions, if any)</i>	Head and neck radiation oncology patients treated from January 1, 2021, to May 31, 2023, who required feeding tubes
Calculation methodology: <i>(i.e. numerator & denominator)</i>	Numerator: number of patients with 3 or more rework loops Denominator: total number of patients that required feeding tubes
Data source:	Electronic Medical Record (EMR): Cerner and Quadramed
Data collection frequency:	One-time retrospective chart review
Data limitations: <i>(if applicable)</i>	EMR Conversion on 4/18/2022: The current EMR is more robust, which may have resulted in more rework loops identified for the patients that came after the conversion

Process map

We identified:

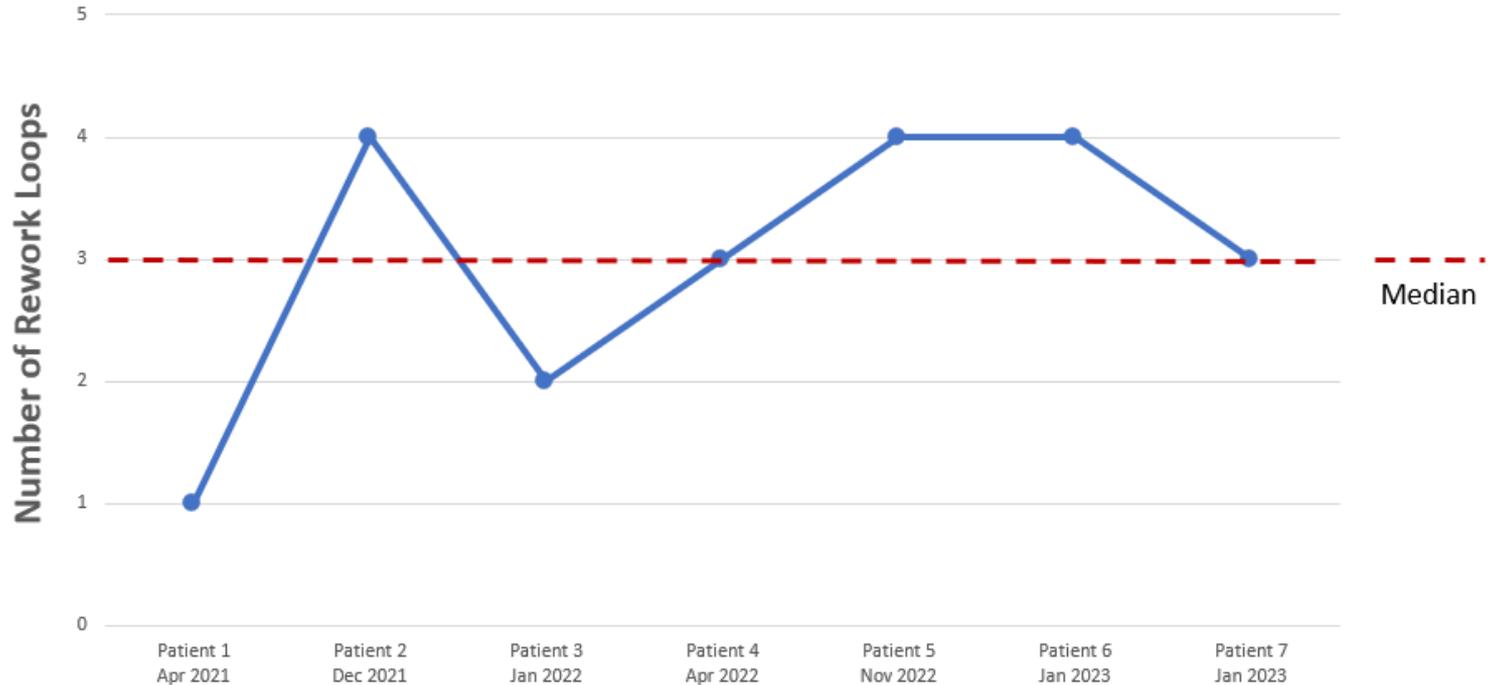
- 18 rework loops
- 24 decision points
- 7 departments involved
- 12 roles involved

No two patients had the same pathway, indicating no clear process existed



Outcome Measure Baseline data

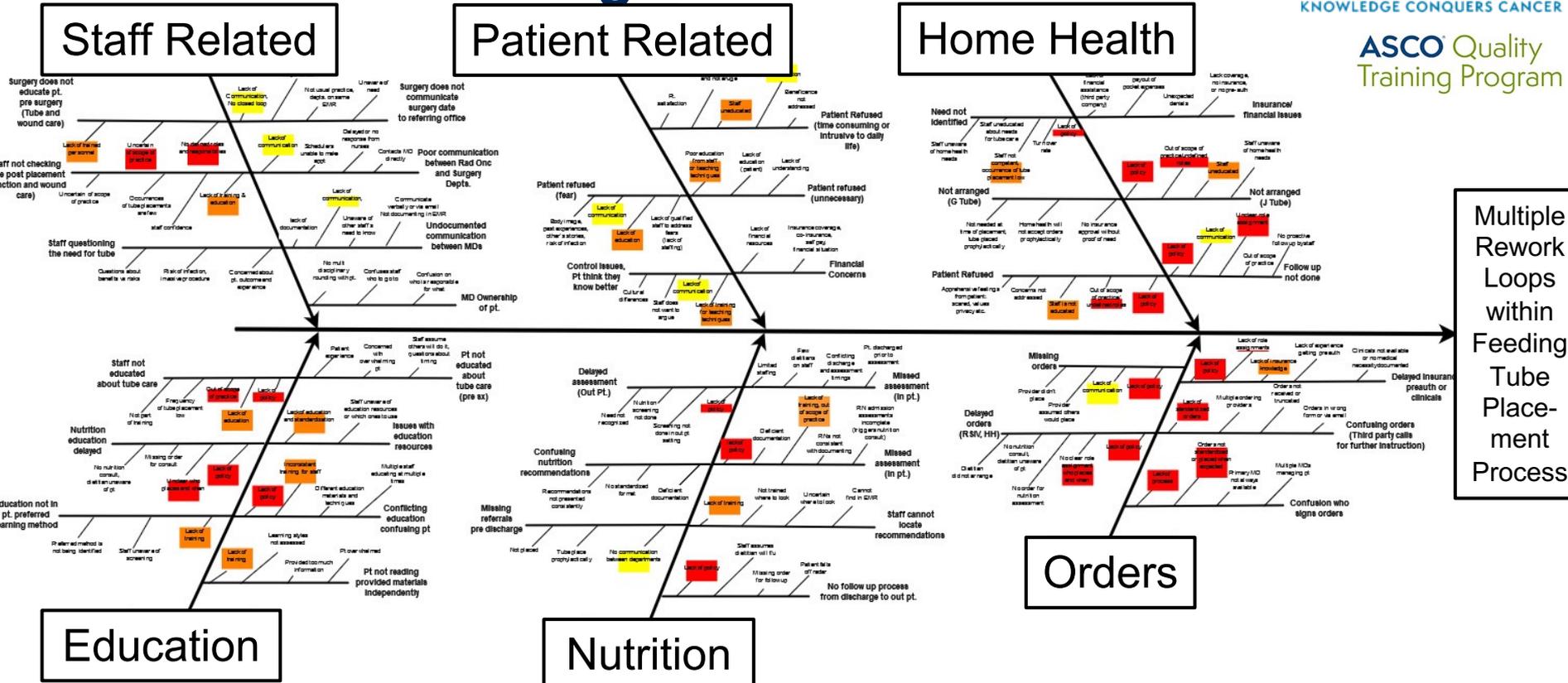
Rework Loop Totals in the Feeding Tube Placement Process for Radiation Oncology Head and Neck Patients



Aim Statement

To decrease the percentage of patients who experience 3 or more rework loops (deviations) in the feeding tube placement process from 71% to less than 50% at Memorial Hospital of Sweetwater County by December 1, 2023.

Cause and Effect Diagram

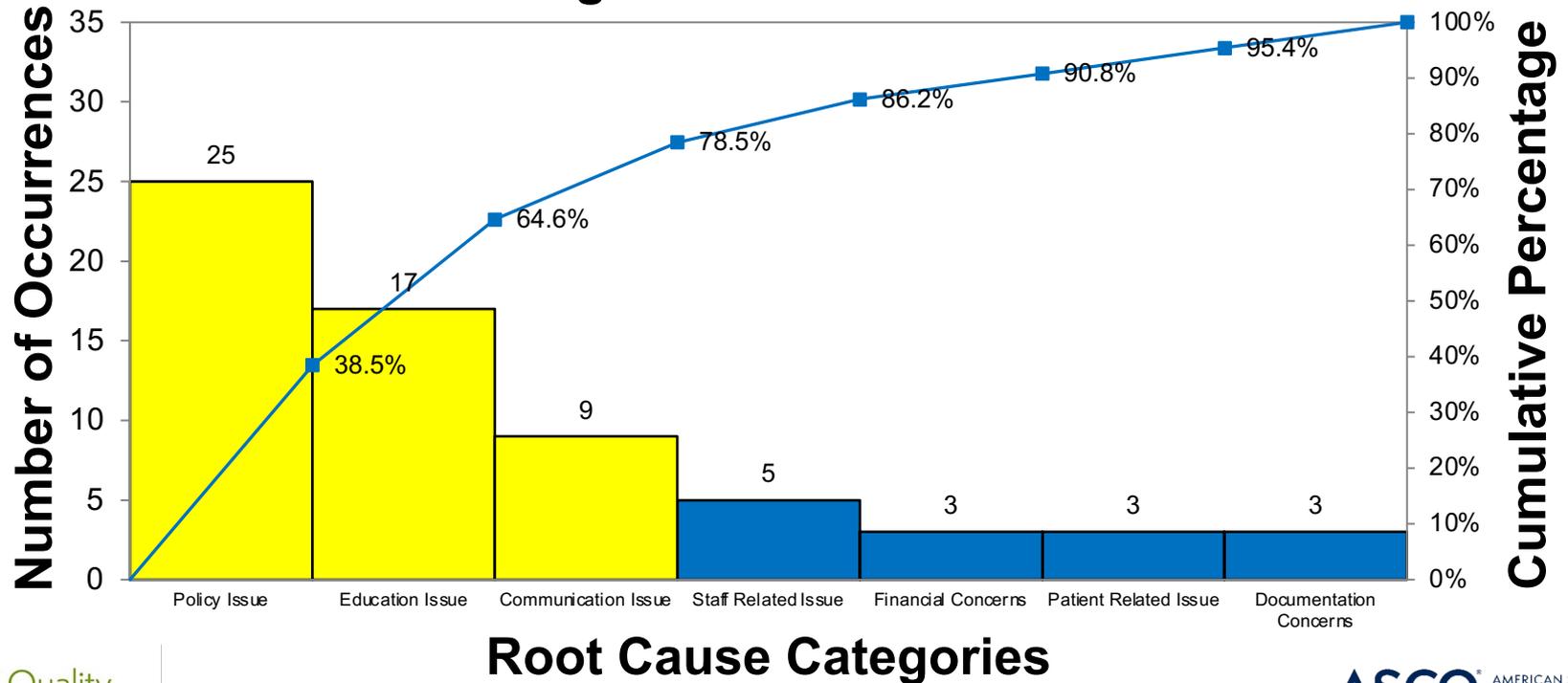


Multiple Rework Loops within Feeding Tube Placement Process

Top Root Cause Categories: ● Policy Issue ● Education Issue ● Communication Issue

Process Measure Diagnostic Data

Occurrences of Root Cause Categories within the Feeding Tube Placement Process



Action Plan

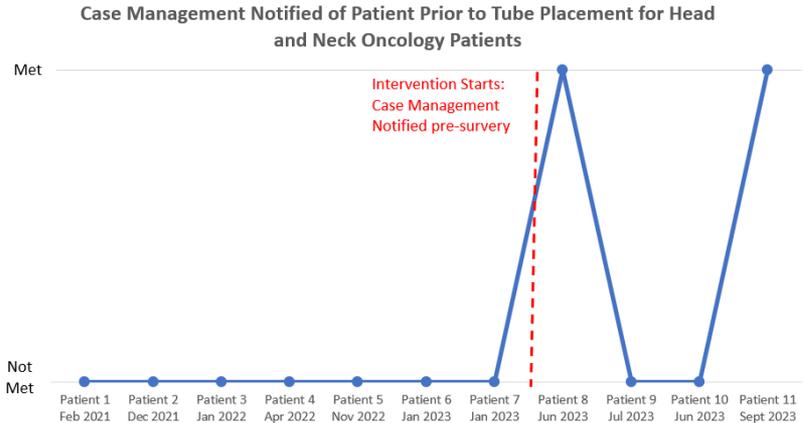
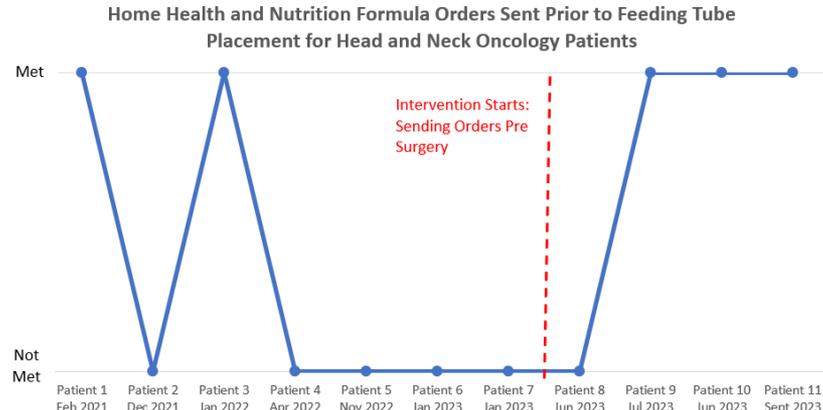
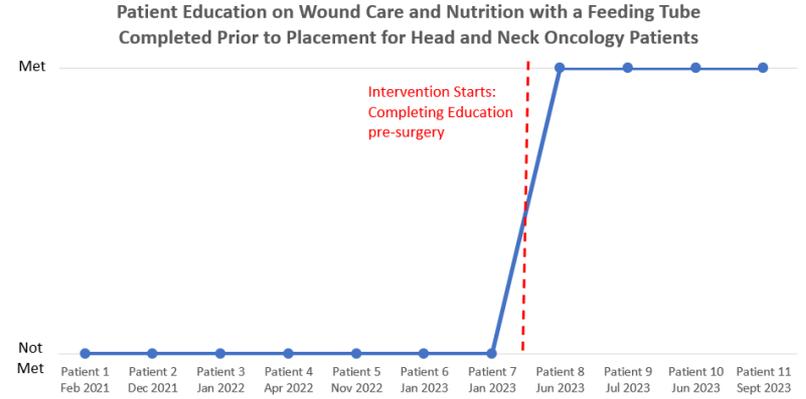
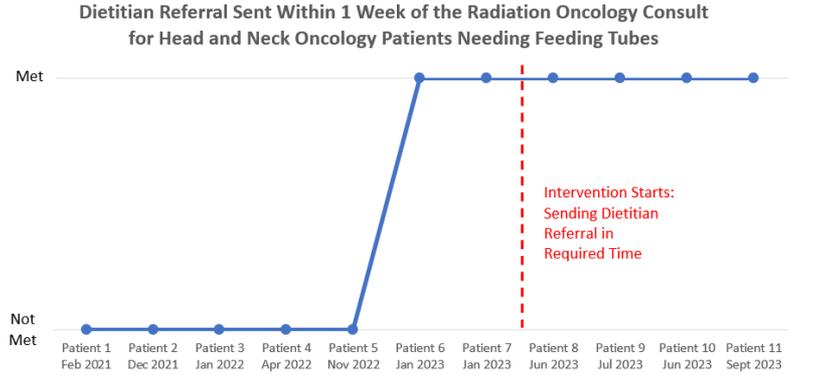
PDSA Cycle 1

	Intervention	PDSA Cycle #	Impact Effort	Pareto Chart Category
Step 1: Create a Process	Assign to Rad Onc RN: send home health and nutrition formula orders pre surgery	C1	High Impact Low Effort	Policy
	Assign patient education to dietitian (nutrition with tube) and Rad Onc RN (tube/wound care) to be completed after the surgery consult and before surgery	C1	High Impact Low Effort	Education
	Assign to the Rad Onc RN: send the dietitian referral within 1 week of the Rad Onc consult	C1	High Impact Low Effort	Policy
	Assign to the Rad Onc RN: notify Case Management about the patient and pertinent details before surgery	C1	High Impact Low Effort	Communication

Process Measures

PDSA Cycle 1

Met or Not Met?



The Patient's Voice!

- Patient Interviews

Asking patients to share their experience

- Their feedback and suggestions will be used as we further develop our process

Overall Take Aways (Group 1, pre PDSA Cycles)

- Prophylactic tube placement needs to be mandatory
- Initiate home health prior to tube placement
- Surgery was expensive
- Patients were not warned or educated enough about pain or infection risk
- Overall satisfaction with tube placement experience was positive

Group 2 interviews are in progress

Action Plan

PDSA Cycle 2

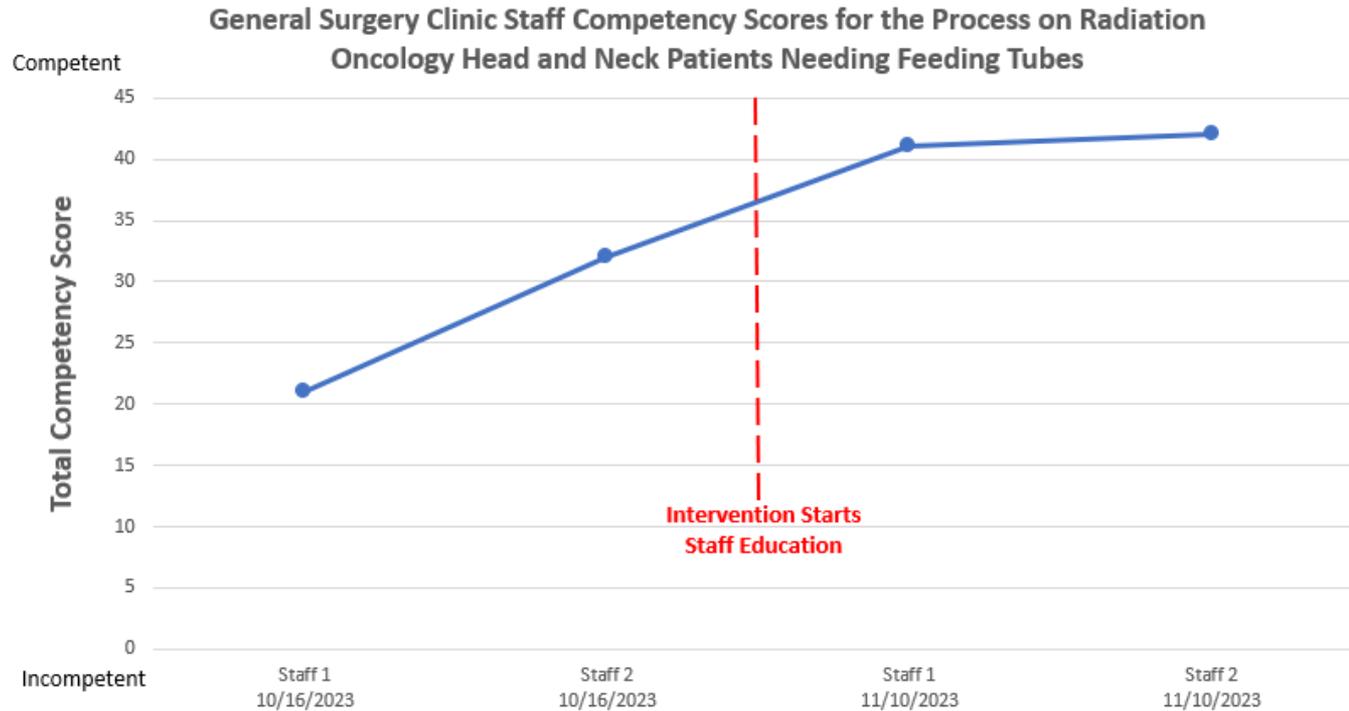
Step 2:
Educate
Others on
the Process

Intervention	PDSA Cycle #	Impact Effort	Pareto Chart Category
Assign to Education Department: Educate the General Surgery Clinic staff about the new process and their responsibilities in it	C2	High Impact High Effort	Education

Process Measure

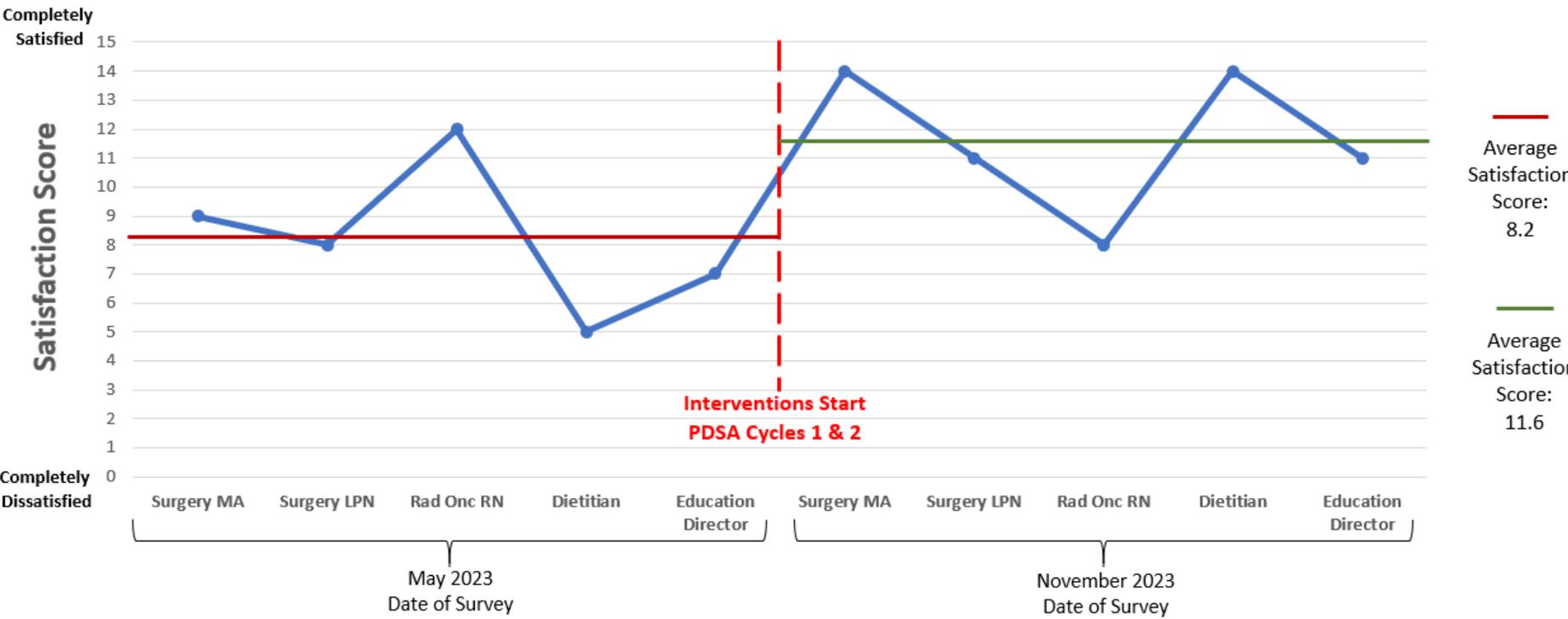
PDSA Cycle 2

Education of Staff on Process



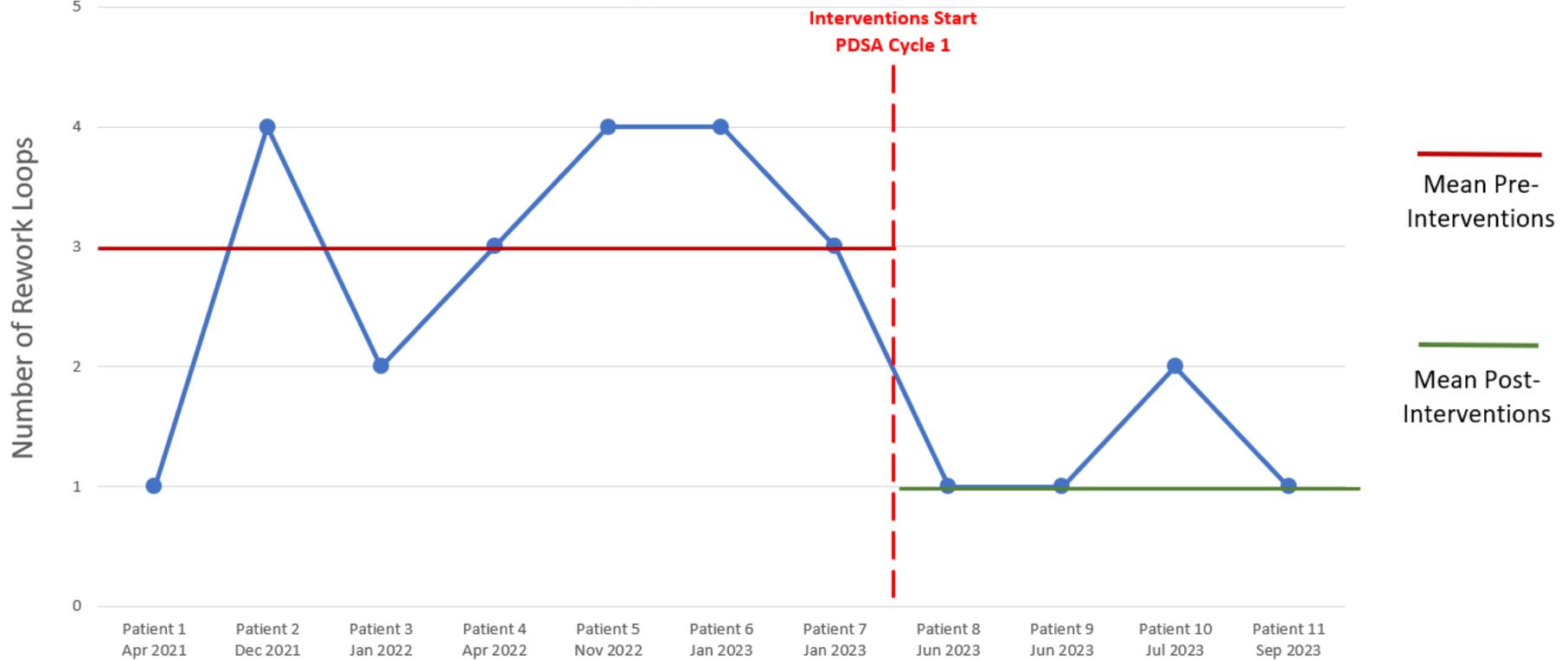
Balance Measure

Staff Satisfaction with the Feeding Tube Placement Process for Radiation Oncology Head and Neck Patients



Outcome Measure

Rework Loop Totals in the Feeding Tube Placement Process for Radiation Oncology Head and Neck Patients

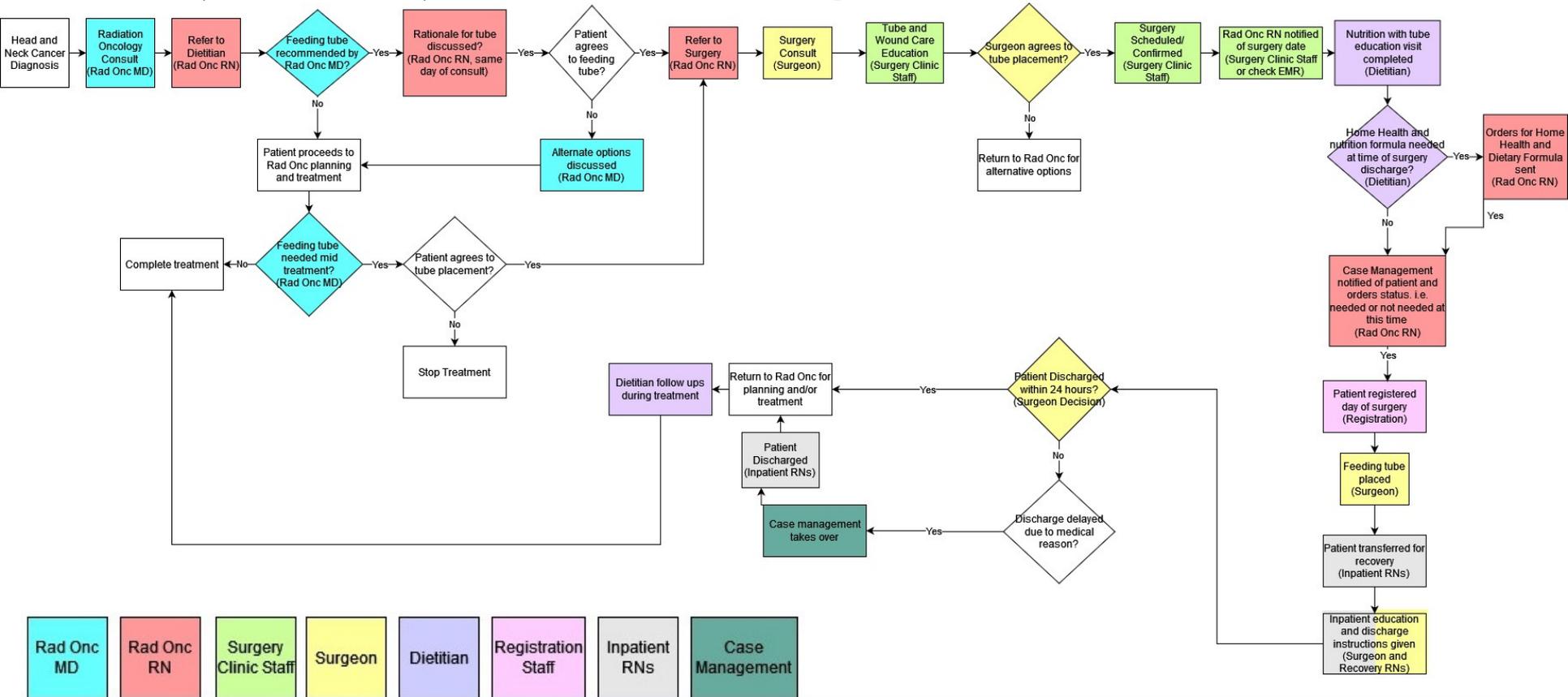


Decreased from 71% to 0% of our patients that had 3 or more rework loops

Sustainability

- Process Map
 - Well defined roles and expectations
 - Minimizing waste in the process by reducing rework loops
 - Checklist
 - A standardized multi-department checklist
 - Electronic checklist within the EMR
 - EMR
 - Enhancing accessibility to documentation of progress for all departments
 - Improving communication
 - Education
 - Educating all staff involved in the process at time of hiring
 - Requiring annual competency
 - Policy
-

Refine, Refine, Refine! Defining Roles and Responsibilities





Thank you!

Contact us for any
questions or
comments!

lreddick@sweetwatermemorial.com