# Improving the Rate and Quality of Pre-Procedure Education for Patients by Standardizing the Nursing Approach

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## Background

The 2015 Radiology Patient Satisfaction Survey indicated that the ultrasound (US) and computed tomography (CT) areas scored the lowest in education at 78% and 81% respectively. These results prompted the team members to begin exploring opportunities for improvement.

- The nursing team noticed that patients were arriving to their procedure appointment with minimal to no education resulting in patient cancellations and procedural delays. Highlighting a need for standardized education
- The team noticed many different clinical areas schedule procedures, and each has a non-standardized method of providing patient education.
- The patient appointment guide (PAG) and verbal instructions contain only basic education related to the upcoming procedure

## Define

The aim of this project was to ensure the following subset of patients would receive standardized education prior to their scheduled procedure:

- US organ biopsy patients who have not had a procedure in the last year
- US drain patients
- US patients who are likely to receive sedation
- All CT procedure patients

Our baseline data indicated that this patient subset needed the most education prior to procedure and had the highest cancellation rate due to the lack of education.

Project Kickoff: 05/20/2016

Our quality improvement coach provided education on DMAIC and tools used.

Our team utilized the following tools during the define stage:

Project Charter and A3 Document

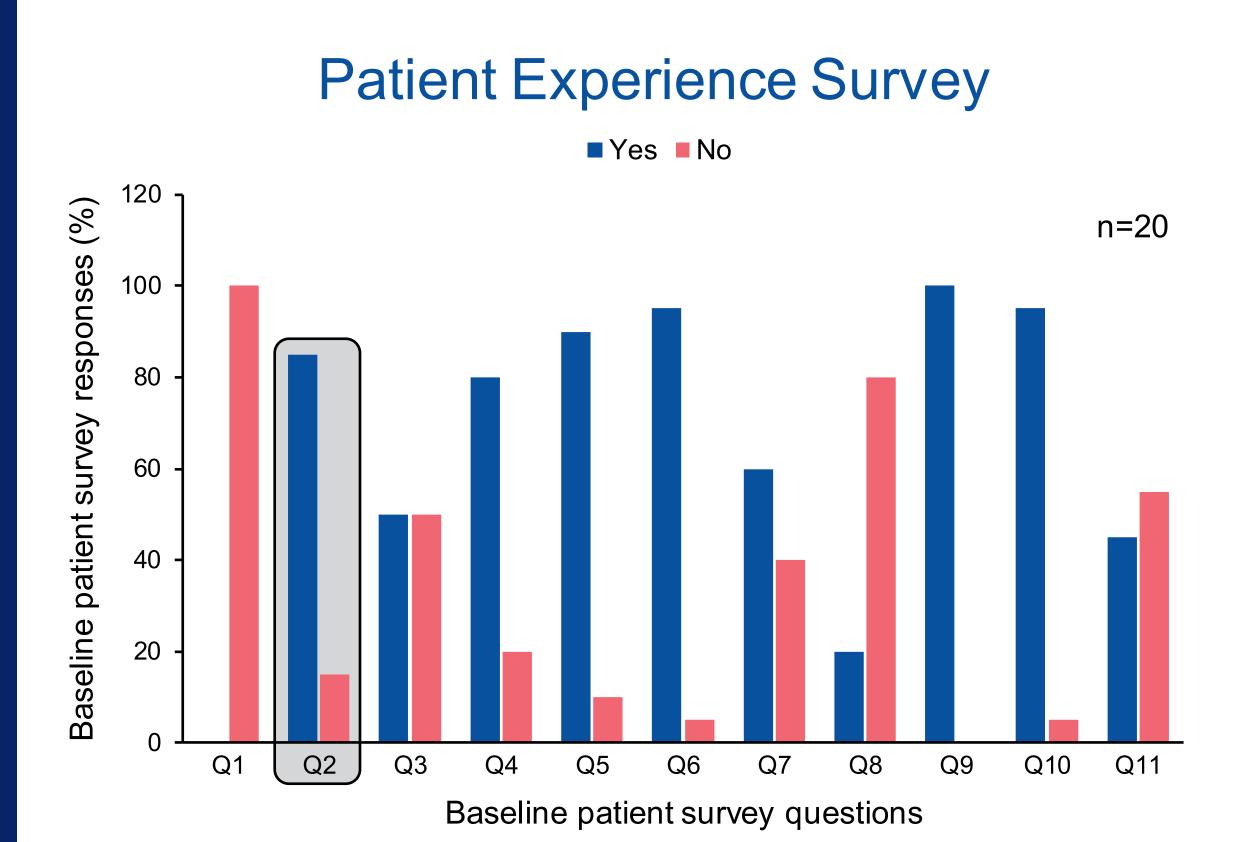
## **Goal Statement**

 Improve the rate of education given to first time patients prior to procedure from 85% to 100% by February 28, 2017, while maintaining a 6% or less delay/cancellation rate of procedures.

## Measure

- Baseline Measurement
- Patient satisfaction gaps were identified using a baseline survey conducted from 9/12/2016 to 9/23/2016. This survey indicated there were gaps in pre-procedural education (see Figure 1 and Survey 1)...
- An 11 question survey was given to 20 patients who had not had a previous procedure on Ch2 (see Survey 1)
- Patients gave Yes/No answers to 11 questions with 3 questions asking for clarification if their answer was Yes (see Survey 1)
- Procedures were cancelled or delayed due to improper medication use. This gap was confirmed by data collected from 10/10/2016 to 10/21/2016 (see Figure 2).
- A tally sheet was the method of data collection





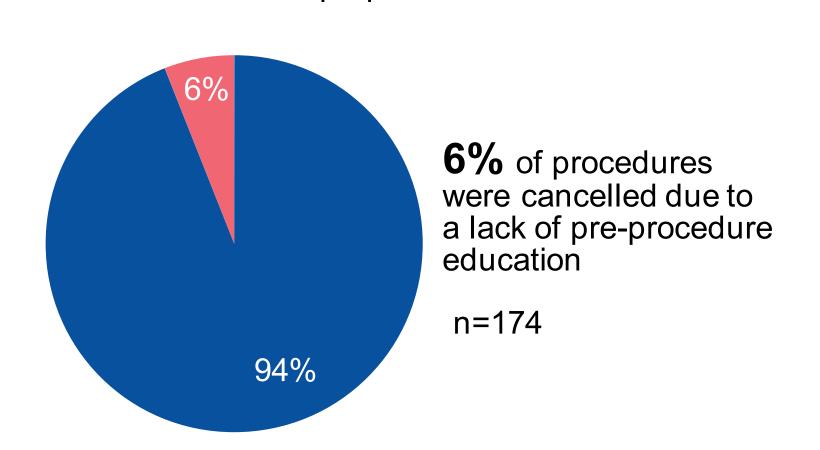
## Survey 1

Patient Experience Survey			
1.	Have you had this procedure before?	Yes	No □
2.	Were you given any education prior to your procedure today?	Yes	No
3.	Would you prefer being contacted via phone the day prior to your		
	procedure?	Yes	No
	If yes: Please indicate below if there is anything specific you wished you would have known prior to your procedure today?		
4.	Did you have adequate time to read through the consent form?	Yes	No
5.	Did you feel you were able to make an informed decision to continue with	Yes	No
0.	your procedure?		
6.	Were you comfortable giving consent in the procedure room?	Yes	No
7	Do you feel it would have been beneficial to have someone update your	Yes	□ No
7.	family as you progressed through the procedure process?		
8.	Were you overwhelmed with the number of staff you encountered today?	Yes	No □
9.	Were there clear introductions made in the procedure room?	Yes □	No □
10.	Was everyone's position clearly defined in how they would play a part in your procedure?	Yes	No
11.	Do you feel it would have been beneficial to have patient education regarding your procedure in the form of pamphlets or video available to you in the check-in lobby?	Yes	No
	If yes: What topic(s) would you like more education about?		

## Figure 2

### Delays and Cancellations due to Improper Medication Use Prior to Procedure

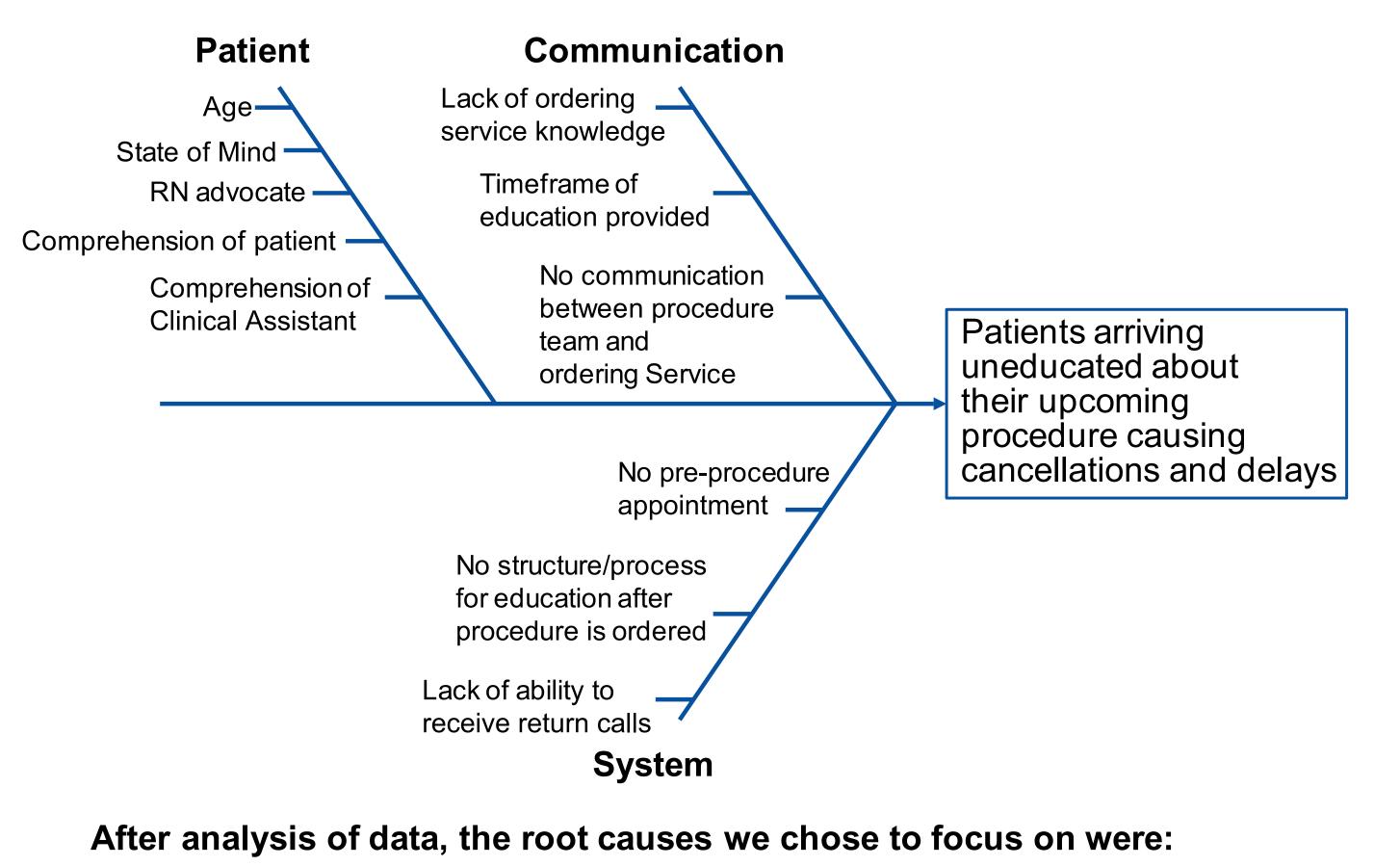
- No Medication Errors Causing Delays/Cancellations
- Delays/Cancellantions due to Improper Medication Use



## Results

- Overall, pre-procedure rate of education was 85%.
- Despite a successful rate of 85% of patients receiving pre-procedure education, the nursing team desired a pre-procedure education rate of 100%
- Themes identified
- Education given before procedure: 15% of patients reported not receiving any education prior to their procedure
- Education given via phone call: 50% of patients reported they would like a phone call the day before the procedure
- Education pamphlet: 45% of patients indicated it would be beneficial to have educational pamphlets in the patient lobby

## Analyze



No structured system in place to educate patients prior to procedure

- Patients' lack of knowledge for procedural preparation
- Poor communication between ordering service and procedural team

Improve

#### **Education to Ordering Services: PDSA 1.0**

Education via presentation given by radiology nurse residency staff

#### Pre-procedure phone calls: PDSA 1.0 & PDSA 1.1

- Charge registered nurses (RNs) completed phone calls from 11/21/2016 to
- Based on specific patient inquiries regarding medications, this cycle was stopped so that further development could occur with physician involvement
- Phone calls were restarted on 1/9/2017 to 2/10/2017
- Data collected was recorded on a shared spreadsheet

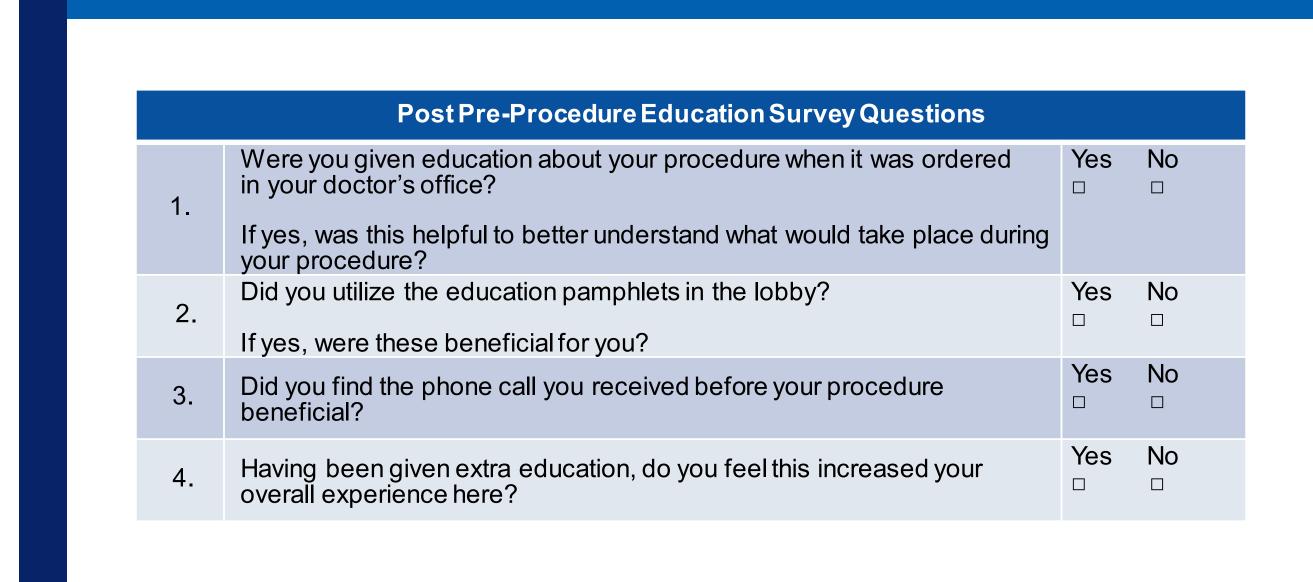
#### Pamphlet Holder: PDSA 1.0

Installed 12/5/2016 in patient lobby

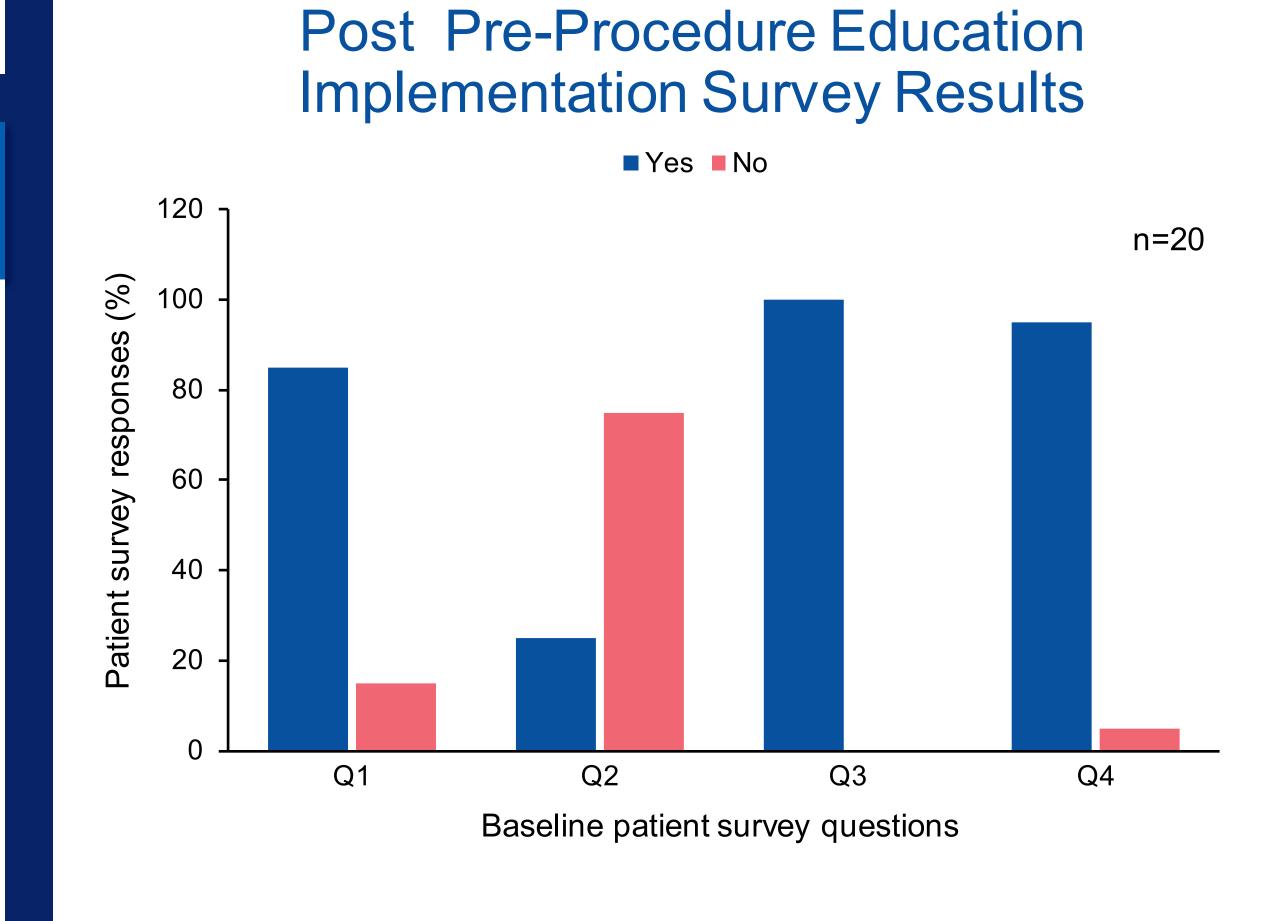
## Final Results

- 100% of patients received at least one method of pre-procedure education that was implemented
- Education given by providers: 85% of patients reported receiving education prior to their procedure (see Figure 3)
- Education given via phone call: 100% of patients perceived the phone call as beneficial before their procedure (see Figure 3)
- Education pamphlet: 25% of patients reported using the educational pamphlets in the patient lobby (see Figure 3)
- 0% of procedures were cancelled due to lack of pre- procedure education (see Figure 4)
- 95% of patients reported having an increase in overall satisfaction due to increased education (see Figure 3)

## Survey 2



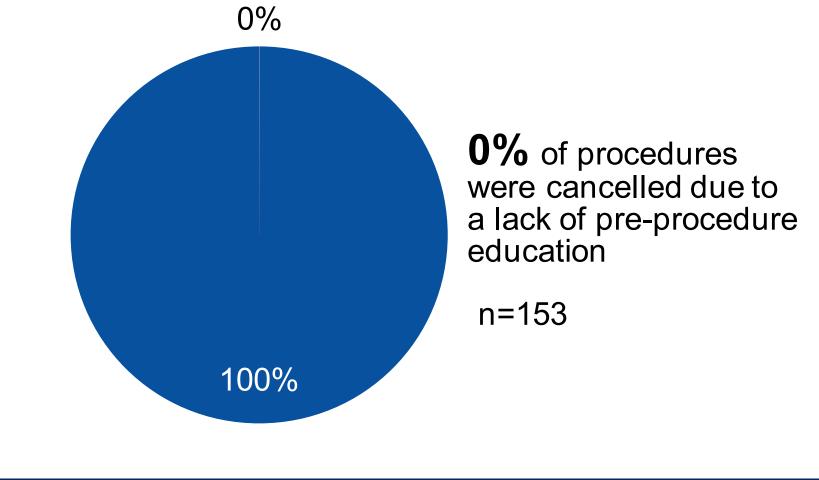
## Figure 3



## Figure 4

Delays and Cancellations due to Improper Medication Use Prior to Procedure

No Medication Errors Causing Delays/Cancellations Delays/Cancellantions due to Improper Medication Use



## Maintenance Plan

- Charge nurses will continue to stock education pamphlets in the patient lobby
- Charge nurses will continue conducting pre-procedure education phone calls
- Charge nurses will train other staff RNs to complete pre-procedure education phone calls Standardized education was provided to relevant ordering services by RNs in the
- nurse residency program Reevaluate patient satisfaction and delay/cancellation rate (due to improper
- medication use) biannually

## Lessons Learned

- The A3 tool was beneficial in visually managing our project
- Communication to all stakeholders is key when trying to implement improvements
- Even though education was provided to ordering services, our post data indicates <100% of the time patients are receiving the pre-procedure education by the ordering service

## Opportunities for Growth

- Future areas for improvement could be:
- Mandatory documentation of pre-procedure education provided by the ordering services to ensure that we are educating 100% of patients

- When a procedure is scheduled, an additional appointment could be created with a procedure nurse for pre-procedure education

- When resources allow, create the ability to leave a message for a patient to return our pre-procedure education phone call

- If data indicates a need for improvement, these pre-procedure education phone calls could be replicated in other radiology units
- Expanding procedure nurses role by properly training them to complete preprocedure education phone calls allowing charge RNs to focus on other clinical responsibilities