

BACKGROUND

Current radiation oncology practice relies heavily on image-based planning and delivery that requires acquisition and integration of multiple imaging modalities, including CT, PET and MRI.

The first step of the planning process is performance of a CT simulation (CTS). This requires proper documentation from the physician prior to the scan. This document shows the intended form of treatment, as well as the appropriate site to be treated. The electronic CT Order is a necessary component in order for the planning scan to be performed.

PROJECT AIM

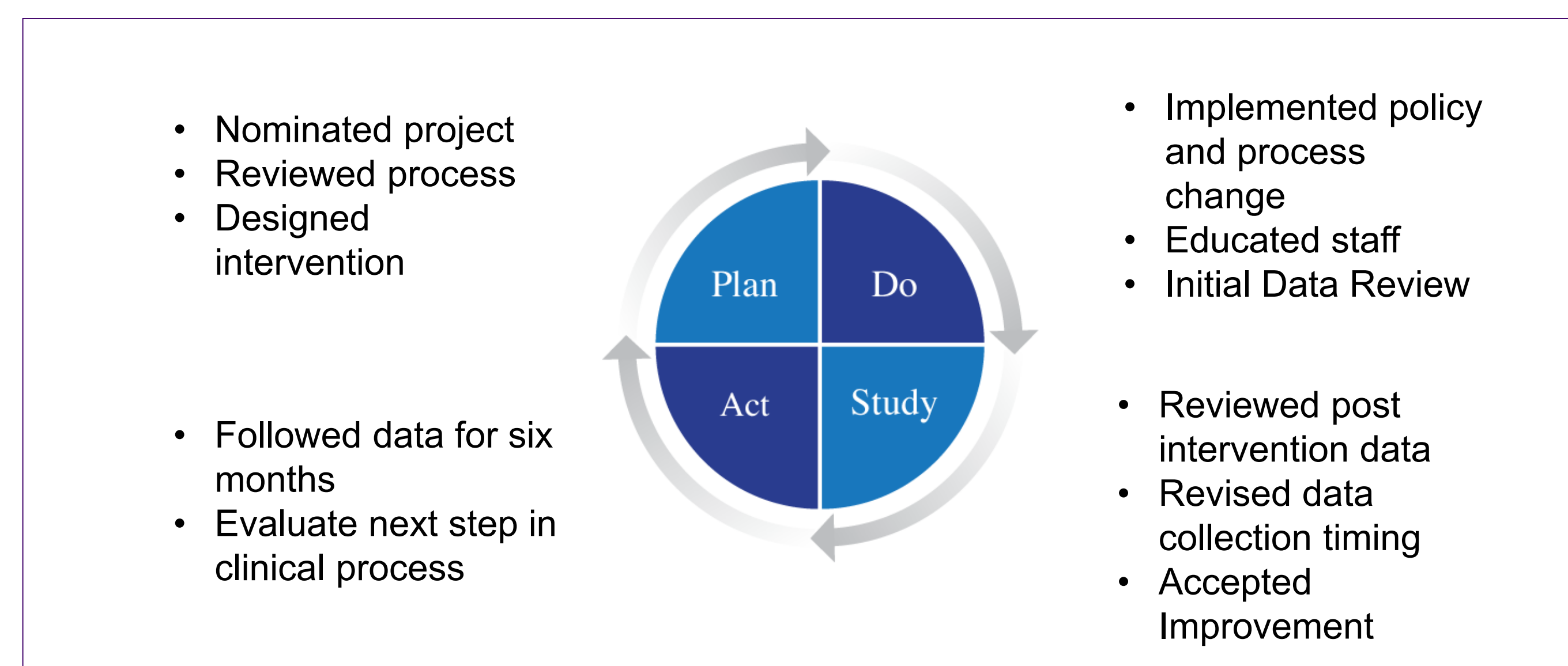
The purpose of this study was to implement a new paper form which will take place of the CT Order in the electronic form. With the creation of the CT Appointment Request form, reduction in the number of times CT-Simulations were delayed would hopefully decrease over time.

PROJECT DESIGN/STRATEGY

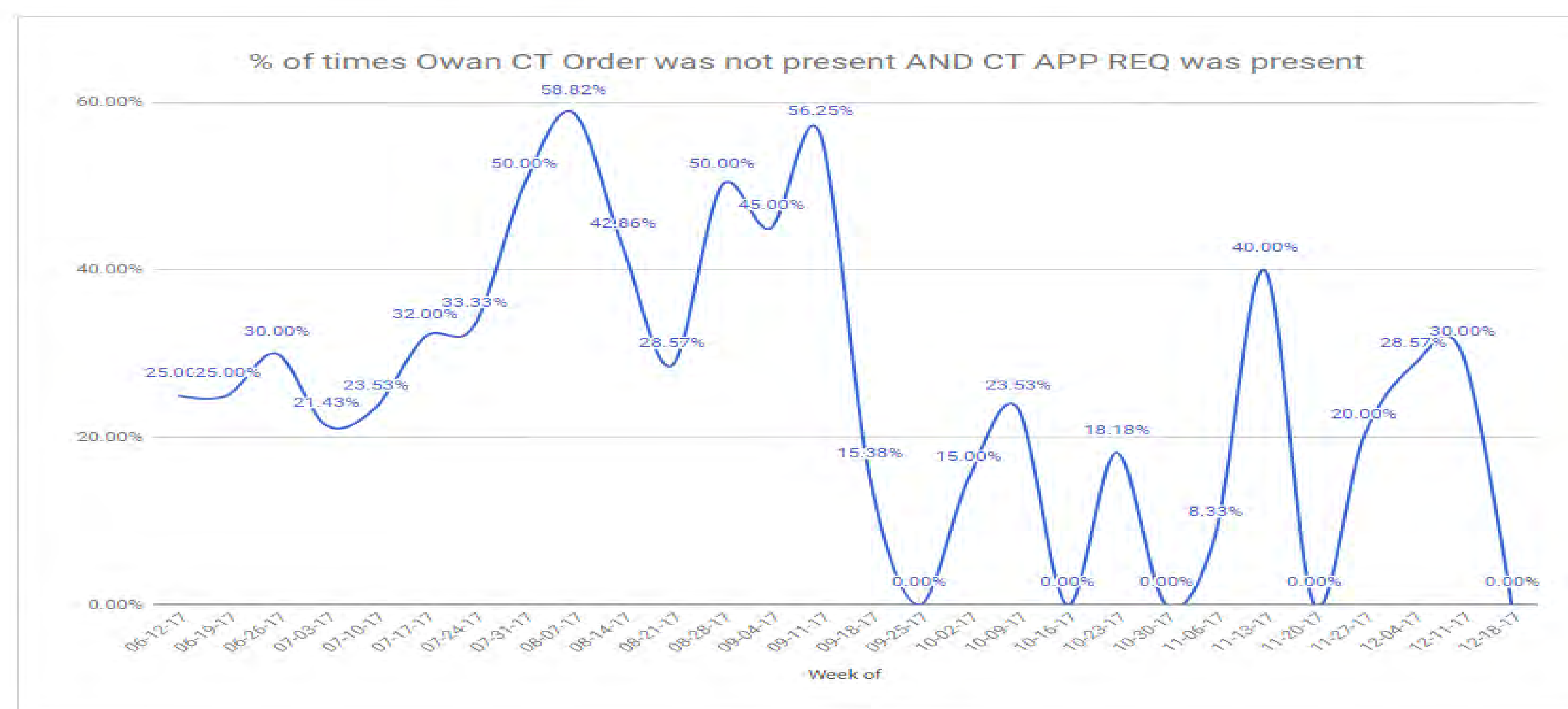
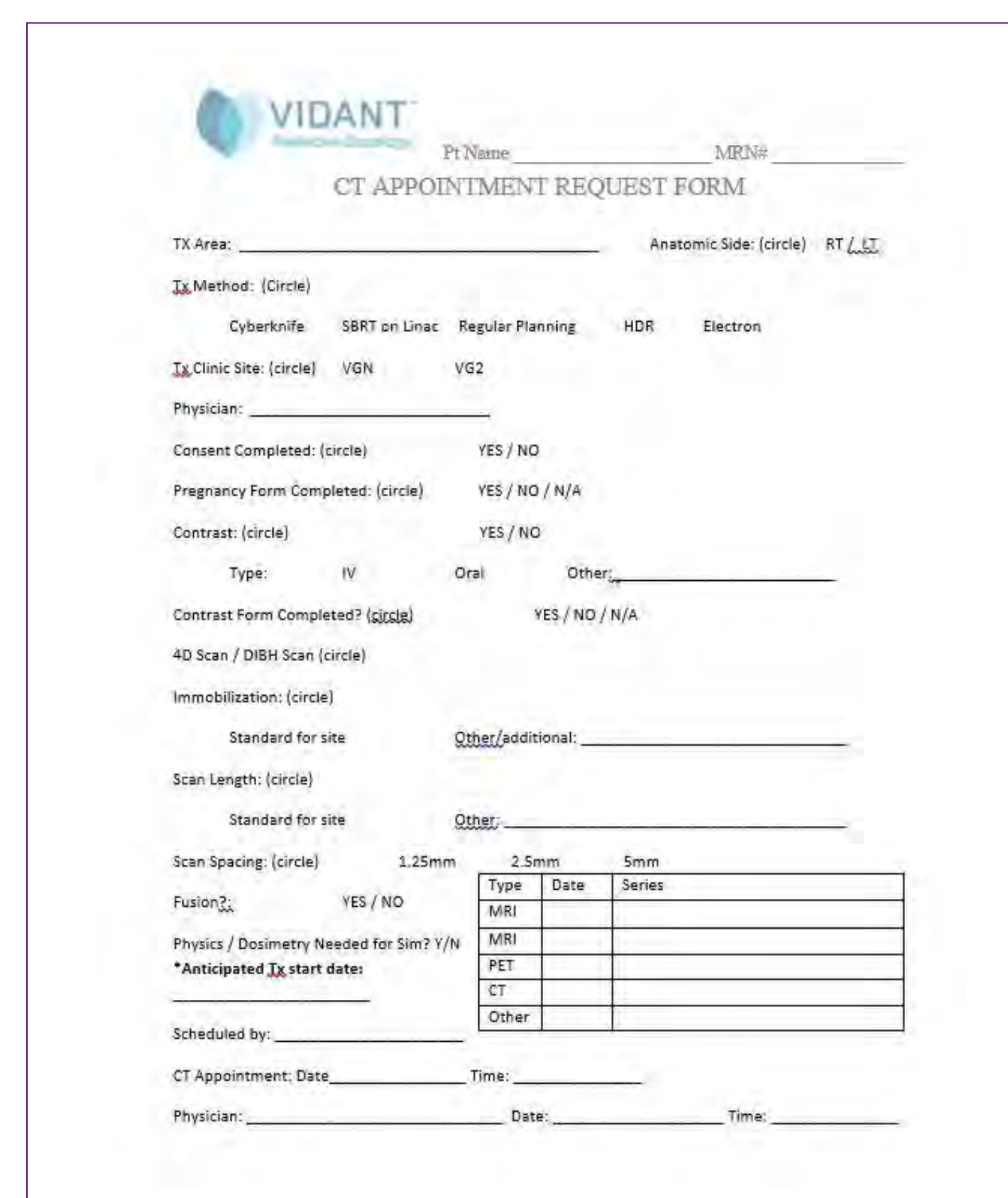
Prior to the implementation of this new process, the problem areas for delays in CTS were identified. One of the main reasons for delays was known to be the absence of the electronic CT Order.

Data was collected between June and December 2017; this data determined the number of times the electronic CT Order was not present, yet the CT Appointment Request form had been filled out by the physician. The data showed a significant change over the six-month period. Due to the implementation of this new form, there was an obvious decrease in delays for CT-Simulations to start the planning process for radiation therapy patients.

CHANGES MADE (PDSA CYCLES)



RESULTS/OUTCOMES

Week start date	# patients	# times Owan CT Order was not present	%
06-12-17	16	4	25.00%
06-19-17	12	3	25.00%
06-26-17	20	6	30.00%
07-03-17	14	3	21.43%
07-10-17	17	4	23.53%
07-17-17	25	8	32.00%
07-24-17	15	5	33.33%
07-31-17	10	5	50.00%
08-07-17	17	10	58.82%
08-14-17	21	9	42.86%
08-21-17	14	4	28.57%
08-28-17	12	6	50.00%
09-04-17	20	9	45.00%
09-11-17	16	9	56.25%
09-18-17	13	2	15.38%
09-25-17	4	0	0.00%
10-02-17	20	3	15.00%
10-09-17	17	4	23.53%
10-16-17	9	0	0.00%
10-23-17	11	2	18.18%
10-30-17	13	0	0.00%
11-06-17	12	1	8.33%
11-13-17	15	6	40.00%
11-20-17	6	0	0.00%
11-27-17	15	3	20.00%
12-04-17	14	4	28.57%
12-11-17	10	3	30.00%
12-18-17	14	0	0.00%

LESSONS LEARNED

Provision of optimal oncology care requires departmental operations that minimize delayed or cancelled appointments that contribute to prolonged time to treatment initiation (TTI). The system that was implemented for this project was used to decrease delays in CTS, which could lead to delays in TTI.

Review of data in one particular week in August shows that the CT Appointment Request Form helped to reduce patient delay significantly. Without the new paper form the CTS would have been delayed in 58% of patients due to the lack of the electronic CT Order.

The overall improvement noted as a result of this project was a combination of: 1) process improvement, 2) enhanced compliance, and 3) revisions in data collection timing relative to scheduled procedure.

NEXT STEPS

Data will be collected as an ongoing quality monitor and reported at the monthly department quality committee meeting until a 95% compliance rate is attained for six consecutive reporting periods. Interventions and policies will be amended, as necessary, to maintain threshold. Subsequent CQI projects will examine performance of serial processes "downstream" from the CTS procedure to evaluate overall improvements in TTI.

ACKNOWLEDGEMENTS

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