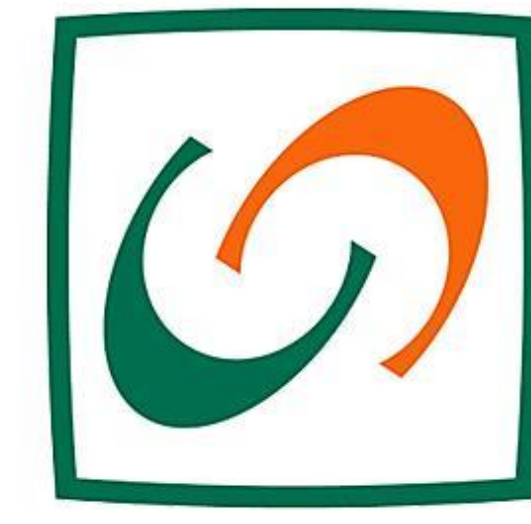


Enhancing Patient Safety via Acknowledgement of Instructions in Electronic System prior Radiation Treatment



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INTRODUCTION

In the Division of Radiation Oncology, a multi-disciplinary team of radiation oncologists, nurses, physicists, dosimetrists & radiation therapists, works cohesively together to provide safe healthcare services to cancer patients. Staff communicate to one another via an electronic platform of communication called Radiation Therapy Treatment (RT RX). Being the last line of defence, it is vital for radiation therapists to read and acknowledge the instructions prior to any radiation treatment. Failing to do so may lead to treatment errors, such as exposure of inadequate or additional radiation.

Examples of vital information found in RT RX are:

- Amendments made by radiation oncologist in the radiation dose prescription and /or treatment field sizes.
- To review patient by radiation oncologist to decide whether to stop the radiation treatment until further notice due to some complications.

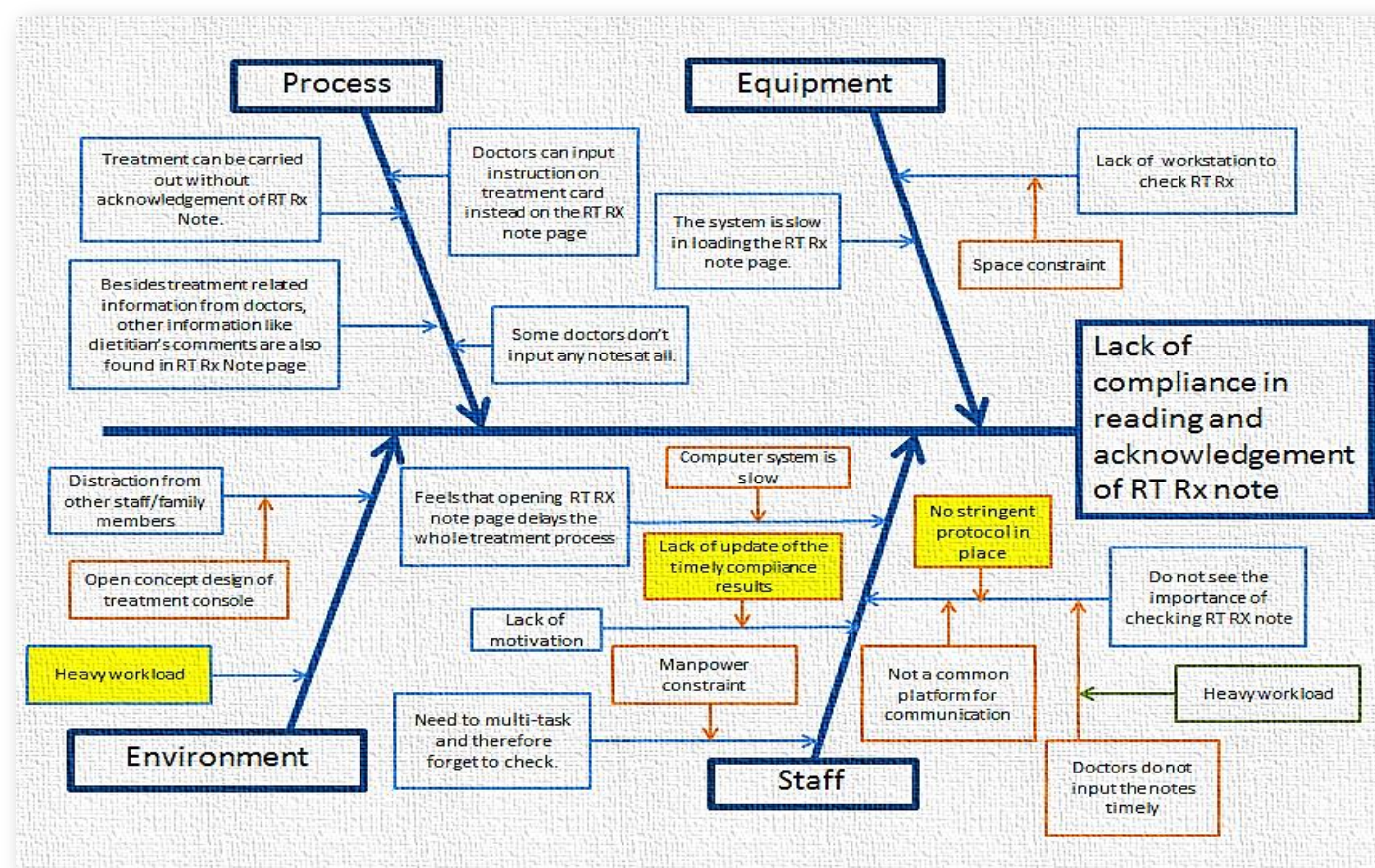
OBJECTIVE

To enhance patient safety by improving compliance rate of radiation therapists acknowledge the instructions in electronic system within 30 minutes prior to radiation treatment from 60% to $\geq 95\%$ from 1st August 2015 till 31st January 2016.

METHODOLOGY

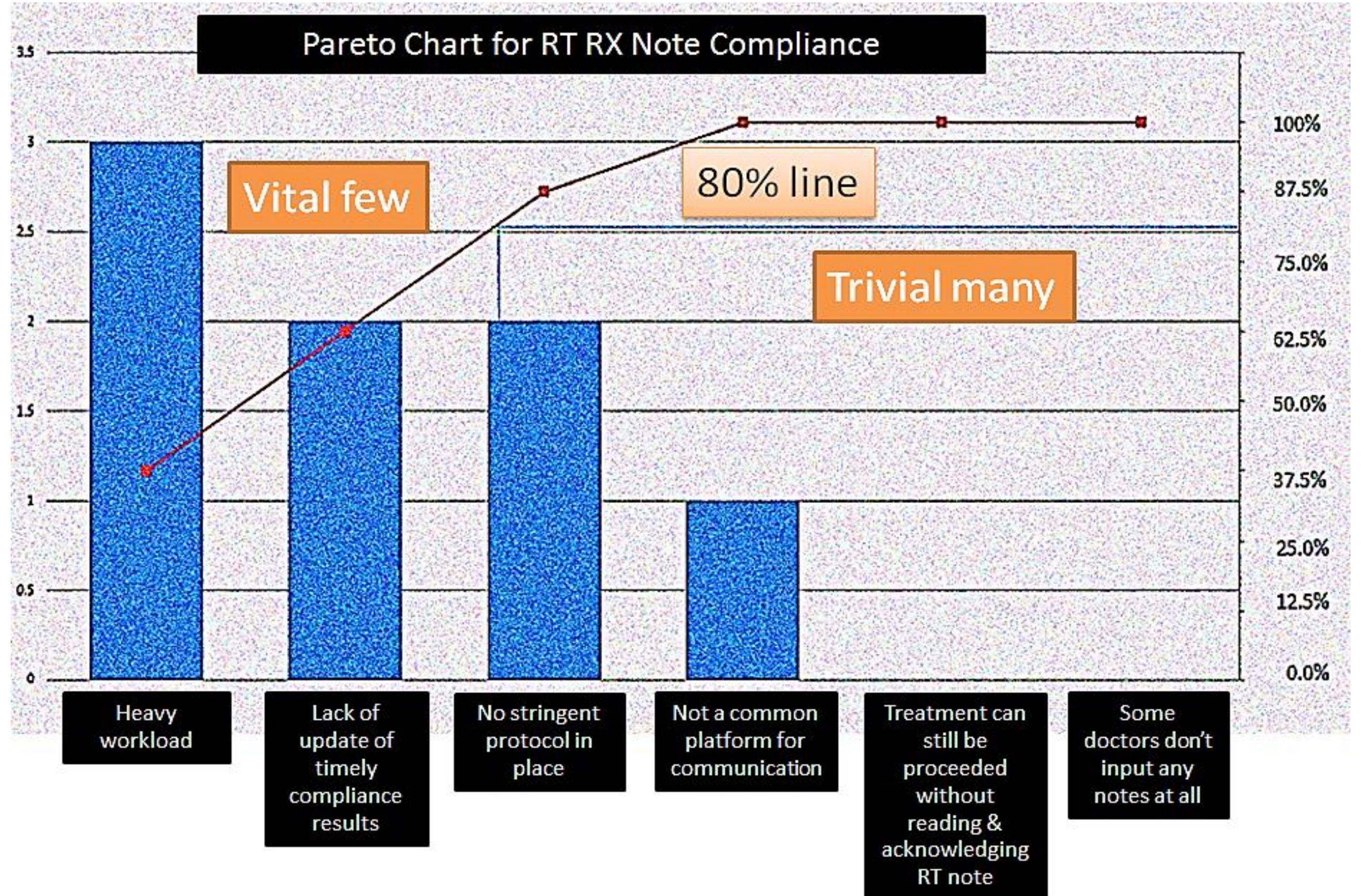
Cause & Effect Diagram

After analyzing the root cause of the problem, it was found that the 3 main factors that contribute to the low compliance rate (within 30 minutes) are heavy workload, lack of update of the timely compliance results and no stringent protocol in place.



Pareto Chart

After Pareto voting, we prioritized the 3 main criteria to enhance our communication strategy. We made it mandatory for every staff to read and acknowledge RT RX note before any radiation treatment. Besides, we also update daily compliance results for each unit on the system.



RISK MITIGATION STRATEGIES



PDSA 1

- Provide continual education to radiation therapists regarding the importance of RT RX note compliance before administering radiation treatment and the possible consequences if they don't comply within 30 minutes, so that they can internalise the practice.



PDSA 2

- Adopt "Pain score entry with 2 radiation therapists' initials" at RT Rx note. This is a hard stop measure to ensure that radiation therapists click on RT Rx note to document pain score and at the same time, read instructions that they may miss out otherwise.
- Monitor the compliance rate at MOSAIQ (IT system) and alert the treatment unit in-charge accordingly.

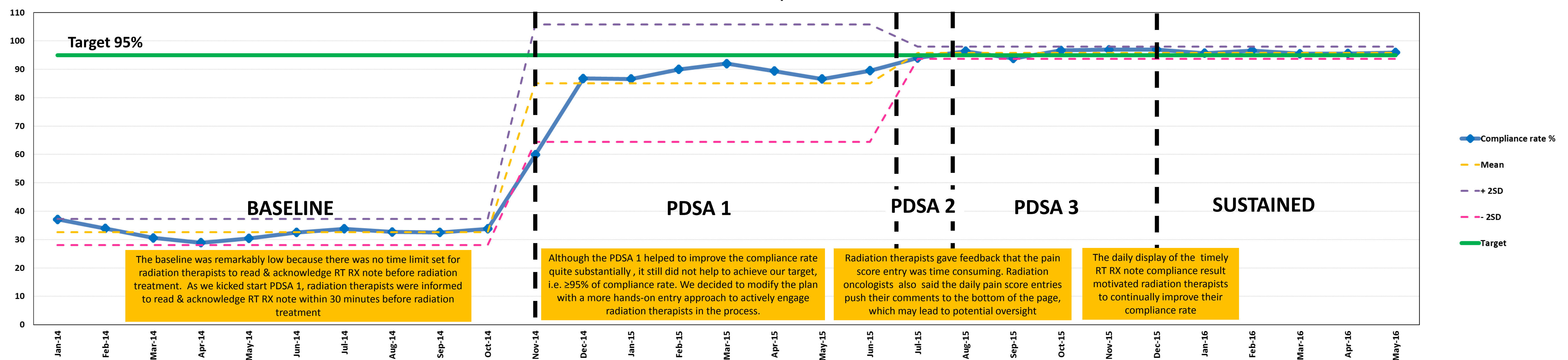


PDSA 3

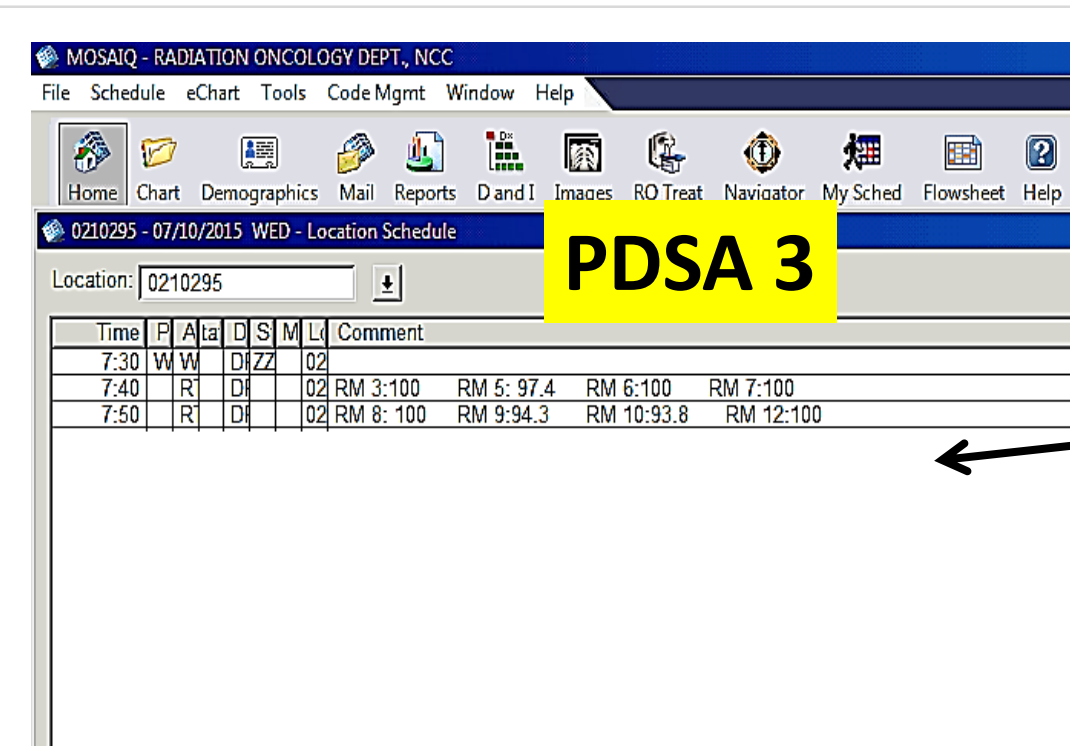
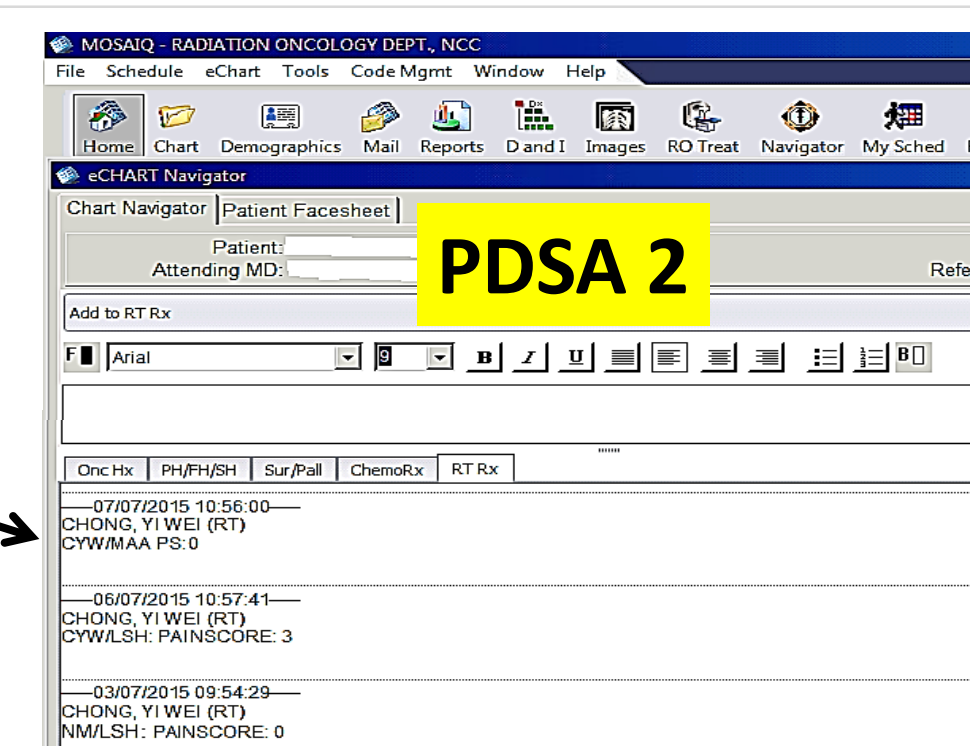
- Provide daily monitoring and update to staff of their performance via online display of the status of RT Rx note compliance rate. This allows staff to strive to improve the compliance rate to achieve the goal.

RESULTS

RT Rx Note Compliance Rate %



Adopted "Pain score entry with 2 radiation therapists' initials" at RT Rx note page



Daily RT Rx note compliance rate is displayed at Mosaiq

CONCLUSION

Being the last line of defense, radiation therapists play an active and important role in enhancing patient safety in the Division of Radiation Oncology by reading and acknowledging the instructions prior to any radiation treatment. With the combination of PDSAs 1, 2 and 3, these had helped us to sustain the RT Rx Note compliance rate among radiation therapists to above 95% till date.

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