One Piece Flow in Radiation Oncology Pre- Treatment Setup Procedure

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INTRODUCTION

Radiotherapy patients typically requires Pre- treatment setup procedures involving the fabrication of immobilisation gadgets (ie, mask or mould). Members of DRO Design Thinking Team were assigned to look at ways to improve work processes in response to the mould room setup which was unable to meet the 'One Piece Flow', resulting in functions having to work around the poor setup.

METHODOLOGY

The Lean Design & Go Gemba Principle was used to analyse the

Besides that, there was a need to better utilize the mould room, to work in tandem with the newly installed CT simulator. Adjacent to the mould room is the consultation area where trolley patients were not given privacy while waiting for procedure or admission. The approved budgetted sum to refurbish the mould room area was only S\$35,000



problem. Some of the innovative solutions identified were minor refurbishment of room layout, removing unused inventory, building a new changing room to reduce walking distance for female patients who require the change of a hospital gown prior to procedure.

Value stream mapping looked at both value- add and non-value add processes.



Spaghetti map, 3Ps (Production, Preparation, Process) method and conducting **Root Cause Analysis (RCA)** were adopted to define areas of constraints and efficiency issues.





✓ Storage space increase with the removal of unused inventory
✓ Within the space constraints, an area is assigned for trolley and wheelchairs are demarcated and the single installation of curtains provide privacy for patients
✓ A changing area was created with the sub wait area

This refurbishment of the Mould Room and waiting area has allowed the Mould Room procedure to be performed in a **'One Piece Flow'**, with more patients being scanned for the CT Simulation Scan per day, and providing privacy of non ambulatory patients.