



## Service Priorities and Programmes Electronic Presentations

**Convention ID:** 159

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### **Efficiency Enhancement of Radiotherapy Planning Process for Ca Breast Patient**

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#### **Keywords:**

waiting time

role expansion

efficiency

#### **Introduction**

For Ca Breast patient, planning process is necessary before radiotherapy treatment. The planning process can be sub-divided into several processes, including moulding, treatment region definition, CT simulation and computer planning. Moulding process is important for patient immobilization and deciding treatment position for following planning CT as well as the RT treatment. Traditionally, oncologists will define the treatment region preliminarily after the moulding. Treatment region was crucial for subsequent planning processes. This processes have been used in the past decades. However, patients complained long waiting time. They felt cold and tired while waiting oncologists, which also affected the efficiency of mould room. After a visit of Australia Radiotherapy Center, colleague shared the working practices there which can improve logistic workflow. The main concept is the role expanding of Radiation Therapists. The implementation plan is to define treatment region for CT simulation preliminarily by Radiation Therapists instead of oncologists. In order to empower the change, an Associate Consultant (Trainer) provided an in-house training program to Radiation Therapists. The performance of Radiation Therapists were audited by the trainer. In view of patient safety, oncologists will finalize the treatment region without patient by reviewing the CT images only.

#### **Objectives**

There are two objectives in this project: 1. To reduce patient waiting time 2. To increase daily capacity of Mould Room

#### **Methodology**

Patient waiting time of 30 cases were assessed for both before and after the implementation of new workflow. Total 60 cases were measured in Q1 2015. The medians of both groups were compared to assess the effectiveness of the new workflow. Monthly attendances of mould room before and after the implementation were recorded and compared.

#### **Result**

For patient waiting time, median waiting time was reduced by 83%. The lead time was

decreased from 119mins to 38 mins. The percentage value added time was increased from 21% to 65.8%. The difference was up to 44.8%. For mould room utilization, the monthly attendances were increased by 33%. To conclude, the new workflow increased the planning process efficiency. There are three improvements through this project including shortening patient waiting time for RT planning, improving patient comfort during planning, and increasing the daily capacity of mould room.