

# Service Priorities and Programmes Electronic Presentations

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## Physiotherapy plays an important role in gaining shoulder functions after complex breast cancer surgery

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#### **Introduction**

Due to the advancement in technology and surgical procedures, the survivals of patients with breast cancer are greatly improved after surgery, chemotherapy and radiotherapy. However, patients often experience a reduced shoulder range of motion (ROM) after complex surgery (e.g. flap reconstruction and axillary dissection) due to avoidance of pain which might greatly affect or delay subsequent radiotherapy procedures. During the radiotherapy procedure, patient needs to adopt a desirable position in supine with shoulder in maximal flexion and lateral rotation ROM. Thus, post-operative physiotherapy is required to facilitate and enable a smooth post-surgery radiotherapy.

#### **Objectives**

To evaluate the effectiveness of physiotherapy in improving the shoulder ROM in order to achieve the desirable position for radiotherapy after complex breast surgery and the overall subjective satisfaction rate of the participants.

#### **Methodology**

A retrospective review of patients with shoulder stiffness after complex breast surgery was performed. The patients were referred for intensive out-patient physiotherapy during the period from October 2015 to August 2017. Physiotherapy intervention consists of individual consultation with shoulder stretching exercise, mobilization exercise, scar management and education. The outcome measures include shoulder range (flexion and external rotation) and self-reported satisfactory rate.

#### Result

A total of 33 female patients age from 32-84 were reviewed. Twenty-five patients (78.5%) completed the treatment sessions with eight patients (24.2%) defaulted. Within these 25 patients, they were given treatments up to 2-3 sessions/week, and attended an average of 9 treatment sessions within 2 months.

The mean shoulder flexion and lateral rotation ROM were 139.2 degrees (SD 26.4) and 63.4 degrees (SD 16.8) respectively pretreatment. Upon discharging from the

physiotherapy sessions, the mean shoulder flexion ROM improved by 24.4 degrees (SD 18.7) and lateral rotation ROM enhanced by 16.6 degrees (SD 16.8). All patients requiring radiotherapy could proceed to the scheduled appointment successfully with a mean satisfaction rate of 78%.

Physiotherapy interventions were effective in improving shoulder ROM for patients who underwent advance breast cancer surgery. Timely referrals to physiotherapy were deemed necessary for patients after breast cancer surgery whether or not require radiotherapy.