



## Service Priorities and Programmes Electronic Presentations

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### **Physiotherapy Program for Radial Neck Dissection (RND) client**

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#### **Introduction**

Complications including pain, weakness, and decrease range of motion (ROM) in neck or shoulder regions have been noted for head and neck cancer after RND. Significant decline in quality of life would be resulted.

In 2009, a collaborated program “Physiotherapy Program for Head and Neck Cancer Resection Client” between Ear, Nose & Throat (ENT) and Physiotherapy department has been launched. This is an educational and self-empowerment program.

#### **Objectives**

- To provide a comprehensive physiotherapy program to clients after RND
- To minimize post-operative neck and shoulder complication or disability

#### **Methodology**

Patients pending for RND were referred from ENT department prior to the surgery. Educational talk, pre-operative physical assessment (focus mainly on shoulder and neck regions) and home exercise program were delivered by physiotherapist. Patients were reviewed in one month and one year post-operation. Outcome measures were used as below:

- Numeric pain rating scale
- Neck ROM – Flexion, Extension, Rotation
- Shoulder ROM – Flexion, abduction
- Shoulder muscle strength – Flexion, abduction
- Disabilities of the Arm, Shoulder, and Hand Questionnaire
- Chinese Northwick Park Neck Pain Questionnaire
- Short Form-12

#### **Result**

Till June 2016, 71 cases were recruited to “Physiotherapy Program for Head and Neck Cancer Radial Neck Dissection Client”. 42 cases were failed to complete the program. Half of them (21cases) were passed away during the program while another half of them (21 cases) were failed to contact or refuse to continue the program. 27 cases had completed the program and provided data with outcome measures as mentioned above, for analysis.

Repeated ANOVA and paired t-test were used.

Changes were noted in variables between pre-operation and post-operation 1 year follow up. Statistical significant different ( $p < 0.05$ ) was noted in active ROM of neck extension.

Improvement was noted in all outcome measures between post-operative 1 month and 1 year FU. Statistical significant differences ( $p < 0.05$ ) were noted in all physical variables except Left shoulder flexion AROM.

The result showed that physiotherapy service is effective in minimizing post-operative neck and shoulder complications for case undergone RND. Further investigation on variables of RND cases with or without physiotherapy service and influence of other confounding variables such as surgery types, adjunct therapy e.g. radiotherapy, pectoris major flap, may provide more in-depth guidance on future treatment direction.