



**Service Priorities and Programmes**  
**Electronic Presentations**

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**Physiotherapy Program For Head and Neck (H&N) Cancer Patients undergoing Neck Dissection**

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**Introduction**

Shoulder complaints including pain, weakness, and decreased range of motion was first described by Ewing for patient after radical neck dissection (RND) as the resection of spinal accessory nerve leading to loss of function of the trapezius muscle. Subsequent studies showed that shoulder complaint also occur in modified and selective RND with prevalence from 18 to 61% and 29 to 59% respectively. As a result, the deterioration in shoulder function has a negative influence on activities of daily living. Together with the burden of psychosocial problems or adjuvant therapy such as radiotherapy that leads to soft tissue fibrosis, patients' quality of life (QOL) was affected. The Physiotherapy Program for H&N cancer resection clients was compiled by the Physiotherapy Department, UCH in 2009.

**Objectives**

This was a pioneer program aiming at provision of comprehensive physiotherapy service and minimize postoperative complication in shoulder and neck region as mentioned above.

**Methodology**

In this program, suitable target clients were referred by ENT department one month prior to the surgery. Clients would attend one PT session before neck dissection (ND). Outcome measures including shoulder and neck range of motion, shoulder strength, pain intensity, Disabilities of the Arm, Shoulder and Hand (DASH), Chinese Northwick Park Neck Pain Questionnaire (CNPNPQ), Short-form 12 Quality-of-Life questionnaire (SF12) were measured. Educational talk and Home exercise prescription were provided aiming for post RND complication prevention and psychological preparation. Clients will have two more PT follow ups one month (T1) and one year (Final) post RND.

**Result**

Till January 2013, 10 cases with average age 63 years old completed the program with one year follow up. Male to female ratio was 7:3. 5 cases underwent radical RND, 3 cases underwent modified RND and 2 cases underwent selective RND. Cases

showed deterioration in all outcome measures in T1. Improvement was showed in all outcome measures in the Final stage. Only a significant different ( $p=0.025$ ) was found in active right shoulder flexion range of motion between pre-op and final stage. No significant different ( $p>0.05$ ) was found in SF-12, DASH or CNPNPQ between pre-op and final stages. The Physiotherapy Program For Head and Neck (H&N) Cancer patients undergoing neck dissection was effective in maintaining patients' QOL and the shoulder and neck function. Further study with larger sample size and control group would be the future research direction.