



Service Priorities and Programmes Electronic Presentations

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Integrated Pulmonary Rehabilitation Programs with Multiple Stratified Access Points

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Introduction

COPD is a prevalent disease (12-25% age>65) with highest unplanned readmission rate (~35%) within HA. COPD management requires multidisciplinary and integrated care approach. Long term rehabilitation goals of this chronic progressive visceral disability are to promote patients to look after themselves, rehabilitate in the community and maintain good quality of life. Key rehabilitation challenges identified by SSF Rehab include service coverage and accessibility, care coordination, transition to community, performance monitoring and system infrastructure.

Objectives

To provide a snapshot on integrated pulmonary rehabilitation programs (PRP) in Tai Po District for service revamp

Methodology

A review of PRP services provision at TPH, AHNH Comprehensive Day Rehabilitation Centre (CDRC) and community with PRP service statistics in recent 3 years.

Result

PRP programs in TPH and AHNH CDRC are supervised by Rehabilitation and Respiratory Medicine specialist. The clinical settings include inpatient (TPH IP since 1998; SARS rehab 2003-04), outpatient (AHNH CDRC since 2005; COPD Alliance for recurrent admitters since 2010 with integrated care pathways starting at AED; COPD clinic), community (Tai Po Baptist Centre with CRN-PEP for mild cases or post-PRP maintenance, Tai Po Market community hall for education forum) and home (supported by COST/ICM case management). There are multiple IP, OP, AED and community access points for PRP. Enrollment criteria of IP PRP are for moderate to severe functional limitation whereas OP PRPs are for milder ambulatory cases. Audits before 2000 showed reduction of unplanned readmission by 20%. Admission care

plan (SPP_7.29, HA Conv. 2015) helps medical trainees in convalescent, rehabilitation and palliative care stratification, coordination and formulating transitional care to community. IP median 10 training days, OP twice per week for 8 weeks with SOPD or FMC follow ups. Components include exercise training, education, psychosocial support and community reintegration. Evaluation include lung function GOLD staging, exercise and sleep oximetry, RPD, RPE, MFAC, EMS, 6MWT and OP CAT scores. From annual chronic diseases rehabilitation audits, first half-year of 2013-2015 served 2059 to 2258 (mean age 81) IP medical rehabilitation care episodes with mean training duration of 13.8 to 12.5 days (mode 8d, median 10d). There were 15.6 to 12.6% COPD, 29 to 33% non-COPD chronic chest, 9.4% cardiac (mainly chronic heart failure) and 45% general medical reconditioning. Mortality rate of COPD was similar to general medical and cardiac groups while more dependent non-COPD chest was twice others. 88% COPD were discharged home, 7.5% needs new placement. After PRP, there were statistically significant improvement in functional ambulation (MFAC), mobility (EMS), dyspnea (RPD) ($p < 0.01$). Estimated annual IP COPD PRP load 570, COPD Alliance OP visits 175, CDRC OP PRP visits 580, COPD clinic visits 500. COPD unplanned readmissions to AHNH was 27% (vs 35% HA benchmark) Most IP COPD rehabilitation involves assisted and dependent walkers with significant functional improvement post-PRP and reduced unplanned admissions. Rehabilitation training benefits in pre-morbid walkers (MFAC III-V) were promising. Pre-morbid non-walkers had much higher in-patient mortality and low likelihood (3%) of improving to walker subgroup despite similar or longer in-patient care with increased risk of nosocomial infections. Community long term care and palliative care appears more appropriate for them. For walkers MFAC III-V attending AED, direct non-acute hospital admission (through We Care pathway, ~200 per year) would focus on short course rehabilitation. For MFAC VI-VII, ambulatory care options (COPD Rehab clinic, CNS, outreach, tele / day / home / community rehabilitation) appears more cost-effective. Manpower, transport and IT support are essential for sustainable improvement and extend health benefits to "yet to diagnose" and younger COPDs.