Quality of Care Project on Promotion of Patient Safety and Staff Wellness

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Introduction
With increasing patient dependency from ageing, disease complexity and comorbidity, the high hospital bed occupancy of over 110% throughout the year in medical and geriatric (M&G) wards aggravated patient’s risk of complications and urged for more nursing cares on prevention of pressure ulcer (PU), fall and infection. Heavy workload and green workforce related to high nursing and supporting staff turnover intensified staff injury especially related to manual handling operation (MHO) during patient care, thus further exacerbating manpower deficit and impairing patient quality care and staff morale. Literature reviews indicate that high incidence rate of PU increases 60% mortality rate and its treatment expense can be 2.5 times of the daily cost that more importantly consumes 50% nursing time. The contributing factors of PU are complex and some commonly seem unavoidable. Intrinsically limited mobility, poor nutrition, comorbidities and incontinence always come with other complications of fall and catheter associated urinary tract infection (CAUTI), while extrinsically insufficient workforce and incompetence have associated with staff injury on duty (IOD).

Objectives
A two-year enhancement program was implemented from 2010 to 2012 to improve quality of care in 13 M&G acute wards in a group 1 hospital to prevent PU, fall and CAUTI, reduce staff MHO related IOD and ultimately to ensure a safe hospital environment for both patient and staff.

Methodology
The enhancement program focused on two aspects: (1) enhancement on workforce and knowledge, and (2) risk reduction. A lifting team of 4 patient care assistants for four high incident-wards was established to facilitate patient mobilization and rehabilitation for PU and fall prevention. The PU link nurse system was established in 13 wards to promote case sharing and disseminate updated knowledge in PU management. A MHO train-the-trainer nurse training program was developed to promote occupation safety health (OSH) culture and proper ergonomic posture in performing MHO tasks. Funding of HK$ 1.5M was provided for equipment support. Public address system was installed to improve communication and education between staff and patients. Risk reduction by purchasing transfer aids,
pressure-reducing mattresses, recliner geriatric chairs and bladder scan machines aimed to avoid PU, incontinence and MHO risks in all wards.

Result
OSH culture was promoted through standardization of MHO training program and 100% staff assessment was achieved on MHO safety. MHO related IOD decreased by 17% from 0.64 in 2010 to 0.53 per 100 supporting staff in 2012. MHO related sick leave dropped by 75% indicating reduced injury severity. A full compliance was observed in patient turning, heel-off and repositioning. Although the prevalence rate of PU was increasing from 4.75 to 5.84 % in two years, PU was decreased by 28.6% from 1.51 to 0.98 per 1000 patient bed days. Significant decrease in the number and severity of stage II PU by 57% was noted resulting in estimated effective savings on treatment cost of HK$ 4.6M and nurse dressing times of 29%, not accounting the cost reduction from declines in both fall incident by 25% and CAUTI by 29% under the program. The most valuable outcomes were improved patient safety and staff job satisfaction especially on morale and productivity as demonstrated in staff survey. Improvement of both patient safety and staff wellness could be in line to achieve a win-win situation when instilling change in the midst of heavy workload. From evidence-based practice, PU could be avoidable!