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A Case Study: Role of Fragility Liaison Nurse (FLN) on Managing Fragility Fracture Patients and the Concept of Early 3I (Identification, Investigation and Intervention)

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Introduction

Osteoporosis and associated fragility fractures are the major challenge in public health care. Fragility Fracture service is worldwide recommended in both primary and secondary care in identification, investigation of osteoporosis, and promotion of bone sparing medication for prevention of secondary fracture. From 1/8/2017, FLN service was established in Orthopaedic and Traumatology Department of United Christian Hospital to serve fragility fracture cases.

Objectives

This is a case study to demonstrate the success and importance of FLN's role on early identification, investigation and intervention (3I) for managing and preventing secondary fracture on fragility fracture patients.

Methodology

Ms Yip, a 73 years-old women, walks unaided, admitted for persistent low back pain after a low energy trauma of lifting light object, was newly diagnosed with osteoporotic 3rd lumbar collapse. After injury, patient needed a stick for indoor mobilization, a wheelchair for outdoor activity and was mainly home bounded. Bone health education and calcium supplement were delivered to patient after FLN assessment. The patient was suggested and referred by FLN for private DEXA scan before discharge, with a result of T score -3 (hip) and -2.3 (spine). After FLN discussed between orthopaedic doctor and patient's family during follow up, they agreed for operation (vertebroplasty) and early start of Denosumab injection for osteoporosis treatment.

Result

Post-operation follow-up was offered in Fragility Nurse Clinic. Patient was able to come with stick and revealed a significant decrease in numeric pain rating scale (from 10/10 to 7/10). No fall readmission was noticed since from her discharge on 11/11/2017. Meanwhile the Fall Risk Assessment Tool showed low risk of fall (5/20) and patient's Barthel Index was 20/20. Patient reported a great satisfaction in pain

relief and mobility improvement. Patient's care-givers and FLN team gained satisfaction and accomplishment on patient's outcome improvement. Fragility Liaison Nurse service is beneficial to patients, care givers and health care providers. The success of 3I concept was well demonstrated via early patient identification followed by incident of fragility fracture, early investigation referral and early treatment together with regular follow up which improve patient's outcomes including pain level, performance of mobility and daily-life activity, prevent secondary fragility fracture and fall related readmission.