

CONFERENCE ABSTRACT

Enhanced initiation of osteoporosis management in hip fracture surgery patients

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Introduction: Hip fracture unit (HFU) is seeing ~350 elderly patients (>60 years old) a year with low trauma fracture. Osteoporosis management is one of the key performance indicators of managing those patients. The evidence showed that patients started on osteoporosis treatment within 3 months post hip fracture surgery had 35% less chance for another hip fracture and 28% reduction in mortality.

As collaboration between osteoporosis clinic and Geriatric falls clinic was limited, several logistic steps took time and hassled patients resulting in delayed treatment and losing follow up. In 2013-14, only 81 (29.5%) out of 275 hip surgery patients were started on osteoporosis treatment.

Practice change implemented: Hence, the HFU team members decided to implement the initiation process of osteoporosis treatment in post-operative patients while waiting for discharge or transfer to rehabilitation units.

Workflow is as follows;

Osteoporosis case manager (OPCM) follows HFU Geriatrician's round.

Geriatrician indicates the patients who benefit from osteoporosis treatment.

Decision of treatment depends on patient's mobility status, renal function, type of fracture and operation, and risk of future hip and major osteoporosis fracture (FRAX score).

Bone mineral density will be done on second post-operative day (POD).

OPCM counsels and educates to the patient and family.

Dental referral is made on POD 3 if patient chooses Denosumab or Zoledronate. Patient will be treated with appropriate dental procedure, if needed, follow up appointment will be given.

All information are written in patient's transfer summary before being discharged to step down rehabilitation units or falls clinic.

OPCM will follow up on treatment initiation.

Aim and Theory of Change: This project was to early initiate process of osteoporosis treatment to maximize the number of appropriate patients receiving treatment without significant delay.

Targeted population and stakeholders: The project was targeted to elderly osteoporotic hip fracture, who underwent hip fracture surgery. Geriatrician, orthopaedic surgeon, dental surgeon, osteoporosis case manager, doctors from rehabilitation unit, and falls clinic nurses are main stake holders in this project.

Timeline: Timeline started in January 2015 and it is ongoing till December 2016.

Highlights: It is the innovative improvement program implemented for hip fracture patients in local healthcare system. Many patients were identified and outcomes have been improved along the way.

In 2015, out of 266 hip fracture surgical patients, 106 (39.8%) patients were seen by osteoporosis case manager. Thirty seven (34.9%) were confirmed for osteoporosis treatment in an assigned timing.

In 2016 till September, 141(57.1%) out of 247 hip fracture surgical patients were educated resulting 1.43 times more coverage and 110 (78%) were confirmed for treatment resulting 2.23 times increased number of patients to start treatment.

Major impact went towards patients who timely received appropriate osteoporosis medication. It proved the result of a team work involving different departments and institutions. It also revealed increased healthcare resource utilization in an organization.

Sustainability: Sustainability was ascertained by continuous outcome improvement, use of non-costly resources, and common data collection system.

Transferability: The project is meant to spread to other geriatric wards for patients who are suitable for osteoporosis treatment.

Keywords: elderly; hip fracture surgery; osteoporosis
