Improving Identification and Management of Delirium in the Orthopaedic Trauma Unit

Dr Louise Beveridge, Specialty Registrar (ST6) Geriatric Medicine, Ninewells Hospital, NHS Tayside

Delirium, a common and serious condition for many older persons, is frequently under recognised and poorly managed. It has well documented associations with poorer outcomes including increased mortality, length of stay, discharge to long-term care and future development of dementia and has strong associations with other hospital associated adverse events including pressure ulcers and falls. It is a frightening and distressing condition for both the person experiencing it, family members and staff. Importantly, delirium is often preventable.

Orthopaedic trauma patients, in particular those over 65 years old with hip fracture, comprise a patient group at significant risk of delirium. UK reports, such as NCEPOD, have reflected poor quality of care in this group. The aim of this project is to improve recognition and management of delirium in orthopaedic trauma patients through introducing the use of the 4AT tool to screen for delirium.

**AIM:** To achieve 95% compliance with the 4AT Tool in patients aged >65 years admitted to orthopaedic trauma unit (Ward 17) by June 2014

**Method**
- **PDSA 1:** Use of SQiD (Single Question in Delirium) on care round sheets to identify patients with change in cognition
- **PDSA 2:** Completion of 4AT by nurse or Foundation Doctor in response to a positive SQiD
- **PDSA 3:** Recognition that SQiD may not identify hypoactive delirium and that all patients should have 4AT done. Testing of 4AT on admission for all patients over 65 admitted to ward 17
  - Education delivered by Nurse (Marie Hanlin) to all ward staff – nurses, health care assistants and doctors
  - Brief presentations after morning trauma meetings with Orthopaedic medical staff
  - Use of SQiD on care rounds
  - Introduction of sticker for 4AT test on patient clerking document and training for junior doctors and use of TIME bundle sheets when delirium identified
  - Sample size of 5 patients/ week measured from ward 17

**Process Change**
- Implementation of 4AT for cognitive screening for all admissions over age 65 on ward 17 instead of ten point MSQ
- Use of the TIME bundle developed for management of delirium

**Achievements**
- Involvement in planning and participating in the first NHS Tayside Delirium Awareness Week
- Greater knowledge and understanding of improvement methodology and measurement for improvement
- Provided leadership amongst colleagues for ongoing improvement
- Delivered education session to registrar colleagues

**Next steps**
- Spread and sustain improved recognition of delirium across orthopaedic wards in NHS Tayside
- Improve management of delirium by testing TIME bundle for management of delirium
- Spread to Acute Medical Admissions Unit and hospital wide
- Develop further improvement projects focused on the older person in the acute hospital

**Key Reference Materials**
2. NICE Clinical Guideline 103: Delirium. July 2010
4. www.4AT.com

**Results**
- Initial use of SQiD demonstrated good compliance however it was apparent that we were still not recognising delirium in all patients. We therefore introduced screening for all patients over 65 years old using 4AT in orthopaedic clerking.

**Conclusions**
- The 4AT is a simple, effective test for delirium and can be easily applied by staff members
- Ongoing education and testing of 4AT and the TIME bundle for management of delirium is required
- Nursing and medical staff more confident in assessment and management of patients with delirium

**Key Learning Points**
- Importance of engagement with all staff not only medical or nursing
- Frequent rotation of medical staff requires continuous program of education
- Periods of time when ward had high use of agency staff, high bed occupancy and medical patients boarding coincided with initiation of project and therefore delay in progressing change
- Application of model for improvement, project management and developing measurement plan
- Leading project based in separate area from daily work can be challenging
- Embrace challenges and use them to motivate continued efforts for improvement
- Small interventions can have significant impact on patient care
- Developing a culture of safety takes time and perseverance

Further information contact: louise.beveridge@nhs.net

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