Project Title

"Cognitive Spark" Opportunistic Screening of Cognitive Impairment of the Elderly

Project Lead and Members

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Organisation(s) Involved

Yishun Community Hospital

Aims

The aim of the study was to use appropriate cognitive screening tools to improve the opportunistic cognitive screening within 6 months of our elderly patients (aged 65 and above) admitted to Yishun Community Hospital, to provide an early diagnosis, identify risk factors and treat reversible causes, prevent any associated morbidities, maintain quality of life and arrange healthcare and social support and outpatient follow up for further evaluation.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

- Good team work among members is important to achieve the intended outcome.

- The team worked towards common "Buy-in" to overcome the hurdles and to obtain the goal within time frame.
- A consensus on patient care guidelines among healthcare professionals can be challenging.
- The support from the administrators, and the principal occupational therapist has motivated the team to sustain the cognitive screening tools among stable elderly patientsadmitted to Yishun Community Hospital.
- The collaboration efforts and good interdepartmental relationship were established towards patient- centric care.
- Community hospital setting will be more appropriate as these patients are more stable to screen for cognitive impairment compared to acute hospital short stay.

Conclusion

See poster appended/ below

Additional Information

Winner of the AIC Community Care Excellence Award 2020: Team Award – Clinical Quality Improvement category

Project Category

Quality Improvement

Keywords

Quality Improvement, Dementia, Elder Care, Plan Do Study Act, Healthcare Training and Education, Multi-Disciplinary Team, Medical Services, Nursing, Healthcare Administration, Occupational Health, Yishun Community Hospital, Cognitive Screening, Early Detection, Abbreviated Mental Test, Mini-Mental State Examination

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"Cognitive Spark" Opportunistic Screening of Cognitive

[Yishun Community Hospital (YCH)]

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What is the project about and why do we need to work on this?

Generally, in most community hospitals, cognitive screening is not routinely done and at YCH, baseline of screening rate is also low (20%). In view of this high prevalence of dementia in the elderly, a CPIP project was conducted.

Project Goal

The aim of the study was to use appropriate cognitive screening tools to improve the current 20% to 80% of opportunistic cognitive screening within 6 months of our elderly patients (aged 65 and above) admitted to Yishun Community Hospital.

What solutions have been implemented?

Two subacute wards (ward A and ward B) were selected as pilot site. Cognitive screening tools used for this study were Abbreviated Mental Test (AMT) and Mini-Mental State Examination (MMSE). As quoted from one of the journals, routine AMT is advised for hip fracture patients in recognition of high rate of cognitive impairment. Hence ward C (hip fracture ward) was also included in the study period.

In April 2019, the two pilot Wards A & B indicated 22 % of AMT not done. However when the hip fracture ward (ward C) was added in 3" week, the rate was even higher up to three quarter. The rate of AMT not done could be as high as 70% and the rate of MMSE not done in those with AMT less than 8, was 100% as shown in table.

Baseline data of AMT and MMSE done for patients aged 65 and above						
					For AMT less than 8	
Apr-19	Ward	> 65 years	AMT Done (%)	AMT Not Done (%)	MMSE (%) Done	MMSE (%) Not Done
1st Week	A B	22 26	77.3% (n=17) 80.8% (n=21)	22.7% (n=5) 80.8% (n=21)	12.5% (n=18) 0.0%	87.5% (n=7) 100% (n=7)
3rd Week	A B C	11 17 15	100% (n=11) 82.4% (n=14) 26.7% (n=4)	0.0% 17.6% (n=3) 73.3% (n=11)	100% (n=3) 0.0% N.A.	0.0% 100% (n=5) N.A.

Table 1: Baseline Data

A multidisciplinary team consisiting of the administrators, physicians, nursing staffs from wards A, B and C including their respective ward Nurse Manager and occupational therapists were formed. Root causes were evaluated. An algorithm in screening cognitive impairment was created. The team adopted the continuous plan-do-study-act (PDSA) method to evaluate each initiatives.

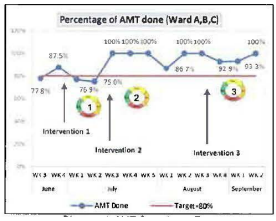
In PDSA 1, the created algorithm guideline was approved by head of department and director of nursing. It included two stage screening with AMT and MMSE. Training was given to nurses to do AMT and documentation of the screenings. Doctors and occupational therapists were trained to do MMSE for those AMT less than 8. For those with abnormal MMSE, blood investigation were done and then sent for further assessment at outpatient clinic. Exclusion criteria were included to minimise false positive result.

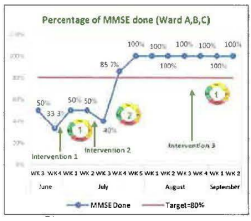
In PDSA 2, we standardised the format which was locally validated for both AMT and MMSE with hard copy and template provided across the wards. Training sessions were conducted to nurses for AMT by nursing clinician and to doctors for MMSE by OT.

Benefits

Following the training session, both nurses and doctors feedback that they were more confident and this corresponded with higher AMT and MMSE screening compliance rate.

Our project have achieved more than 80% screening rate. In this study period, among 204 patients, 164 were stable elderly. However 28% of stable patients were found to have abnormal cognitive score.





Next Steps

1. To ensure sustainability of the cognitive screening:
   - Laminated guideline posted in the wards
   - Continuous regular training programme for nurses and doctors
   - Interval assessment to nursing colleague
   - Regular feedback every month to be done
   - Provide support to staff if any clarification or assistance is required
2. The team will spread the workflow to other wards for early detection and intervention of cognitive impairment with the hope of delaying the progression to dementia.
3. Provide follow-up for those with newly diagnosed or possible cognitive impairment for further evaluation such as imaging, cerebrospinal fluid examination at outpatient specialist setting.