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Nurse administered comprehensive geriatric assessment (CGA), based on the interRAI Acute Care assessment system, accessed online, enables geriatricians to review patients and provide input into care at a distance. This study was designed to determine whether geriatric triage decisions made using CGA performed “online” are less reliable than face-to-face decisions. This was a multi-site non-inferiority prospective cohort study. Patients referred for an acute care geriatric consultation were assessed sequentially by two specialist geriatricians. Patients allocated one face-to-face (FTF) assessment and an additional assessment (either FTF or online (OL)), creating two groups—paired FTF (FTF-FTF) or paired online face-to-face (OL-FTF). Case preparation was conducted by a trained nurse assessor using a web-enabled clinical decision support system. Geriatricians allocated to perform an ‘online’ assessment had access to this information only. Geriatricians allocated FTF reviewed this data, as well as the paper-based medical file and then consulted directly with the patient and attending staff. The primary decision was referral for permanent residential care. Overall percentage agreement ( $P_o$ ) for the FTF-FTF group was 88% (n=71/81) (95% CI: 0.7847, 0.9392), with a Cohen’s kappa of 0.6432 (95% CI: 0.4411, 0.8452). Overall agreement for the OL – FTF group was 91% (n=77/85) (95% CI: 0.8229, 0.9585), with a Cohen’s kappa of 0.7291 (95% CI: 0.5529, 0.9053). The difference in agreement between the two groups was -3% (95% CI: -13%, 7%) indicating that was no difference. Geriatric assessment performed online using a nurse administered structured CGA system was no less reliable than conventional assessment for triage decisions.

#### FREEDOM OF MOVEMENT: A MULTILEVEL INTERVENTION TO REDUCE PHYSICAL RESTRAINTS USE IN ACUTE CARE

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Physical restraints are frequently used in elderly care and justified to prevent falls, control disruptive behavior and allow interventions. Physical restraints do not bring benefit, being associated with poor outcomes like direct injuries, reduced mobility and mortality.

We have implemented an intervention multilevel program involving all the health care team of an acute care Alzheimer unit (SOMADEM) to reduce the use of physical restraints and to promote methods for achieving safety.

SOMADEM (SOMAtic and DEMentia) is an 18-bed unit in a geriatric hospital. Patients admitted in this unit have dementia and at the same time behavioral and psychological symptoms of dementia (BPSD) due to a concomitant acute somatic disease. The intervention model has a longitudinal design in 3 phases: education, specialized consultation and physical restraints alternatives. The educational part consists in a 4-hour training of all unit staff taught by a specialized interdisciplinary team. The content covers risk of falls,

management of disruptive behavior, legal issues regarding physical restraints prescription, alternatives to its use and discussion of clinical vignettes. A weekly specialized consultation by the same team proposes alternative ways.

Prevalence of physical restraints after the intervention program is the primary outcome; evaluation of types of physical restraints, falls and fall-related injuries, psychoactive drugs prescription, disruptive behavior, functional independence status and destination after discharge are secondary outcomes. Data during the 12 months after the start of intervention will be compared to a 15-month period before the intervention used as baseline. Encouraging results will be discussed.

#### POSITIVE BLOOD CULTURE IN ACUTE CARE HOSPITAL FOR MATURE PATIENTS IN JAPAN

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Blood culture is one of the most important clinical examinations for infectious diseases. In this report, we review our blood culture test in recent a couple of years.

From April 2014 to June 2016, 4482 blood culture test were ordered in National Center for Geriatrics and Gerontology in Obu, Japan. In these cases, 611 tests were positive result (positive rate 13.6 %). The percentage for obtaining multiple blood culture sets was 76.6 % during study period.

There were 217 male and 144 female with age 80.4 years old. The cultured bacteria were Escherichia coli 68 cases (17.75 %), S.aureus 32 (8.36), S. epidermidis (MRS) 28 (7.31 %), Klebsiella pneumoniae 24 (6.27), Escherichia coli (ESBL) 22 (5.74), S.aureus (MRSA) 16 (4.18 %),  $\beta$ -Streptococcus (group-G) 11 (2.87 %), Enterococcus faecalis 9 (2.35 %), Serratia marcescens 8 (2.09), Corynebacterium spp. 8 (2.09), St.pneumoniae 6 (1.57), St.agalactiae (B) 6 (1.57 %), S.epidermidis 6 (1.57 %), S. hominis (MRS) 6 (1.57 %), Prop.acnes 6 (1.57 %), E.aerogenes 6 (1.57 %), Proteus mirabilis 5 (1.31 %), Enterococcus faecium 5 (1.31 %), E.cloacae 5 (1.31 %), Bacillus spp. 5 (1.31 %), St.bovis 4 (1.04 %), S. parasanguinis 4 (1.04 %), S. hominis 4 (1.04 %), Corynebacterium striatum 4 (1.04 %), Bacillus cereus 4 (1.04 %), A.baumannii 4 (1.04 %) and others 77 (20.1 %), respectively.

In our institute, reasonable blood culture test was performed as acute care hospital. However we try to obtain more multiple blood culture sets.

#### SEVERE HYPERTENSION ON ADMISSION AND ACUTE PNEUMONIA IN THE ELDERLY WITH ACUTE CEREBRAL HEMORRHAGE

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Objective: Cerebral hemorrhage is frequent condition in the elderly, and acute complications such as pneumonia increases the risk of mortality rate. However, there are few studies about the association with blood pressure on admission. We studied the association between the incidence of pneumonia and blood pressure on admission.

**Methods:** Elderly patients admitted to the Geriatric Emergency Ward of Kanazawa Medical University Hospital with a diagnosis of acute cerebral hemorrhage during 2002–2012 were recruited into the study. (59 men, 58 women, mean ages  $80 \pm 8$  years, range 65–98 years). All patients underwent brain magnetic resonance imaging and magnetic resonance angiography on the first day of admission. The patients were divided into three groups according to the record of the highest mean SBP and/or DBP of two measurements every 2 h during the first 24 h after admission; 21 control patients with normotension to mild hypertension (SBP < 160 mmHg and DBP < 100 mmHg), 37 patients with moderate hypertension (SBP 160–179 mmHg and/or DBP 100–109 mmHg), 30 patients with severe hypertension (SBP 180–199 mmHg and/or DBP 110–119 mmHg), 29 with very severe hypertension (SBP  $\geq$  200 mmHg and/or DBP  $\geq$  120 mmHg). CT images were classified as 37 subcortical, 37 thalamus, 28 basal ganglia, 4 pons brainstem, 11 cerebellum and stratified analyses were performed. The definition of pneumonia includes clinical finding of rales, fever onset, purulent sputum, chest radiograph showing evidence of an infiltrate/consolidation/cavitation, necessity of medical treatment and antibiotic course.

**Results:** After admission, developed acute pneumonia occurred one out of 21 normotensive (4.8%), 7 out of 37 moderate hypertensive (18.9%), 6 out of 30 severe hypertensive (20.0%), 16 out of very severe hypertensive (55.2%). After adjustment by potential confounding factors such as age, sex, JSC, midline shift, hemorrhage volume, diabetes, white blood cell count, CRP, serum albumin, incidence of pneumonia was significantly associated with very severe hypertension comparing with other hypertension groups (OR: 4.89, 95% CI: 1.37–42.5,  $p=0.014$ ).

**Conclusion:** We conclude that very severe hypertension on admission is a risk factor for acute pneumonia in elderly patients with acute cerebral hemorrhage.

#### EBV-POSITIVE DIFFUSE LARGE B-CELL LYMPHOMA OF THE ELDERLY: A DIFFERENTIAL DIAGNOSIS FOR SEPSIS.

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Epstein-Barr virus (EBV)-positive diffuse large B-cell lymphoma (DLBCL) of the elderly is an uncommon aggressive lymphoma subtype arising in immunocompetent patients >50 years. Disease in elderly could have an atypical presentation and compromised functioning. We report a fatal case of EBV-positive DLBCL of the elderly in an 84-year-old man presenting as a respiratory sepsis and multiorgan failure.

Mr. E., an 84-year-old man, was admitted to hospital with a 3-days history of asthenia, functional decline, fever, unintelligible speech, and delusions. It was associated since two months ago with anorexia, weight loss, and an exertional dyspnea. Imaging demonstrated pulmonary infiltrate at right lower lobe. Mr. E. was transferred to Acute Geriatric Unit with diagnosis of pneumonia and delirium. Empirical treatment with antibiotics was started despite which we observed persistent fever, elevated bilirubin and cholestasis. CT-scan

showed pulmonary patched consolidation and retroperitoneal and mediastinal lymphadenopathy.

He developed renal and liver failure, and shock, and he was referred to Intensive Care Unit. Nevertheless he worsened with multiorgan failure, metabolic acidosis, and pancytopenia, and, accordingly, it was done bone marrow aspirate. He died sixteen days after his hospital admission. Bone marrow aspirate showed a neoplastic polymorphous lymphoid population composed of Reed-Sternberg (HSR)-like cells which expressed CD20, CD30, EBV/LMP and MUM-1 and the diagnosis of EBV-positive DLBCL of the elderly was made.

Disease in elderly could have an atypical presentation and compromised functioning. EBV-positive DLBCL is an uncommon aggressive lymphoma subtype and has a worse survival than would be expected in patients with EBV-negative DLBCL.

#### MOVE (MOBILIZATION OF VULNERABLE ELDERLY) AB INITIATIVE FOR INPATIENTS IN ALBERTA COMMUNITY HOSPITALS

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The objective of MOVE AB was to disseminate, implement and evaluate in community hospitals in Alberta, Canada an evidence based strategy that had been successful in promoting early mobilization in older patients admitted to academic hospitals in Ontario, Canada. Early mobilization strategies have been shown to improve both patient and system outcomes.

Four community-based hospitals in Alberta participated. The multi-disciplinary approach focused on three key messages: 1. encourage mobility three times a day, 2. progressive and scaled mobilization, and 3. mobility assessments should be implemented within 24 hours of admission.

MOVE AB was delivered in phases: Planning/pre-intervention, Intervention and Post-intervention. Key planning activities included a Readiness assessment and Barriers and Facilitators survey, which allowed for tailored interventions to each unit participating. Interventions included coaching, fairs, huddles, educational materials, e-modules as well as focusing on natural opportunities.

The primary outcome was the proportion of patients aged 65 and older who were mobilized during their hospital stay. Audits were conducted through all study phases, twice a week, 3 times a day.

Average mobilization rates increased over time (pre-intervention= 42.5%, intervention= 43.4%, post-intervention= 45.6%). Average mobility rates were highest during lunch (57.4%) and increased by 8% from pre-intervention to post-intervention. The majority of mobile activity consisted of sitting in a chair; sitting in bed with legs dangling or standing/walking in room independently. Additional analyses will include examining impact on length of stay and discharge location. However, we were able to successfully disseminate