cronos
Grupo Trabajo Paciente Crónico de la sefh

REVISIÓN BIBLIOGRÁFICA ABRIL 2021:
Selección de artículos

REVISTAS GERIÁTRICAS

Malnutrition and depression as predictors for 30-day unplanned readmission in older patient: a prospective cohort study to develop 7-point scoring system

Ika Fitriana, Siti Setiati, Edy W Rizal, Rahmi Istanti, Ikhwan Rinaldi, Taro Kojima, Masahiro Akishita & Muhammad Khifzhon Azwar

Abstract

Background

Readmission is related to high cost, high burden, and high risk for mortality in geriatric patients. A scoring system can be developed to predict the readmission of older inpatients to perform earlier interventions and prevent readmission.

Methods

We followed prospectively inpatients aged 60 years and older for 30 days, with initial comprehensive geriatric assessment (CGA) on admission in a tertiary referral centre. Patients were assessed with CGA tools consisting of FRAIL scale (fatigue, resistance, ambulation, illness, loss of weight), the 15-item Geriatric Depression Scale, Mini Nutritional Assessment short-form (MNA-SF), the Barthel index for activities of daily living (ADL), Charlson Comorbidity Index (CCI), caregiver burden based on 4-item Zarit Burden Index (ZBI), and cognitive problem with Abbreviated Mental Test (AMT). Demographic data, malignancy diagnosis, and number of drugs were also recorded. We excluded data of deceased patients and patients transferred to other hospitals. We conducted stepwise multivariate regression analysis to develop the scoring system.

Results

Thirty-day unplanned readmission rate was 37.6 %. Among 266 patients, 64.7 % of them were malnourished, and 46.5 % of them were readmitted. About 24 % were at risk for depression or having depressed mood, and 53.1 % of them were readmitted. In multivariate analysis, nutritional status (OR 2.152, 95 %CI 1.151–4.024), depression status (OR 1.884, 95 %CI 1.071–3.314), malignancy (OR 1.863 95 %CI 1.005–3.451), and functional status (OR 1.584, 95 %CI 0.885–2.835) were included in derivation of 7 score system. The scoring system had maximum score of 7 and incorporated malnutrition (2 points), depression (2 points), malignancy (2 points), and dependent functional status (1 point). A score of 3 or higher suggested 82 % probability of readmission within 30 days following discharge. Area under the curve (AUC) was 0.694 (p = 0.001).

Conclusions

Malnutrition, depression, malignancy and functional problem are predictors for 30-day readmission. A practical CGA-based 7 scoring system had moderate accuracy and strong calibration in predicting 30-day unplanned readmission for older patients.

Disponible en: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-021-02198-7

Efficacy of quetiapine for delirium prevention in hospitalized older medical patients: a randomized double-blind controlled trial.

Saran Thanapluetiwong, Sirasa Ruangritchankul, Orapitchaya Sriwannopas, Sirintorn Chansirikarnjana, Pichai Ittasakul, Tipanetr Ngamkala, Lalita Sukumalin, Piangporn Charernwat, Krittika Saranburut & Taweevat Assavapokee

Abstract

Background

Delirium is a common disorder among hospitalized older patients and results in increased morbidity and mortality. The prevention of delirium is still challenging in older patient care. The role of antipsychotics in delirium prevention has been limited. Therefore, we conducted a trial to investigate the efficacy of quetiapine use to prevent delirium in hospitalized older medical patients.

Methods

This study was a randomized double-blind controlled trial conducted at Ramathibodi Hospital, Bangkok, Thailand. Patients aged ≥65 years hospitalized in the internal medicine service were randomized to quetiapine 12.5 mg or placebo once daily at bedtime for a maximum 7-day duration. The primary end point was delirium incidence. Secondary end points were delirium duration, length of hospital stay, ICU admission, rehospitalization and mortality within 30 and 90 days.

Results

A total of 122 patients were enrolled in the study. Eight (6.6%) left the trial before receiving the first dose of the intervention, whereas 114 (93.4%) were included in an intention-to-treat analysis allocated to the quetiapine or placebo group (n = 57 each). The delirium incidence rates in the quetiapine and placebo groups were 14.0 and 8.8% (OR = 1.698, 95% CI 0.520–5.545, P = 0.381), respectively. Other endpoints in the quetiapine and placebo groups were the median length of hospital stay, 6 (4–8) days versus 5 (4–8) days (P = 0.133), respectively; delirium duration, 4 (2.3–6.5) versus 3 (1.5–4.0) days (P = 0.557), respectively; ICU admission, 3 (5.3%) patients from both groups (P = 1.000); and mortality in the quetiapine and placebo groups, 1 (1.8%) versus 2 (3.5%) at 30 days (P = 0.566) and 7 (12.3%) versus 9 (15.8%) days at 90 days (P = 0.591). There were no significant differences in other outcomes. None of the participants reported adverse events.

Conclusions

Quetiapine prophylaxis did not reduce delirium incidence in hospitalized older medical patients. The use of quetiapine to prevent delirium in this population group should not be recommended.

Disponible en: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-021-02160-7

Effect of antiplatelet persistence on long-term mortality and predictors of non-persistence in ischemic stroke patients 75 years and older: a nationwide cohort study

Seung Jae Kim, Oh Deog Kwon, Ho Chun Choi, Eung-Joon Lee & BeLong Cho

Abstract

Background

We aimed to provide real-world evidence on the benefit of persistence with antiplatelet therapy (APT) on long-term all-cause mortality (ACM) in ischemic stroke patients aged 75 years and older.

Methods

Newly diagnosed ischemic stroke patients aged 75 years and older who initiated aspirin or clopidogrel for the first time were chosen from 2003 to 2010 National Health Insurance Service-National Sample Cohort (NHIS-NSC) of Korea (n = 887), a random cohort sample accounting for 2.2% (n = 1,017,468) of total population (n = 46,605,433). Then subjects were divided into persistent (n = 556) and non-persistent (n = 321) groups according to the persistent status at 6 months. Survivor analysis was performed between the two groups and predictors of non-persistence were analyzed by multivariate logistic regression analysis. Patients were followed up until death or December 31, 2013.

Results

Non-persistence with APT was significantly associated with increased risk of ACM (adjusted hazard ration [aHR] 2.13, 95% confidence interval [CI] 1.72–2.65), cerebro-cardiovascular disease (CVD) mortality (aHR 2.26, 95% CI 1.57–3.24), and non-CVD mortality (aHR 2.06, 95% CI 1.5702.70). More comorbidities (Charlson comorbidity index score ≥ 6) (adjusted odds ratio [aOR], 2.56, 95% CI 1.43–4.55), older age (aOR 1.52, 95% CI 1.11–2.09 for 80–84 years, aOR 1.73, 95% CI 1.17–2.57 for ≥85 years), and less than 4 total prescribed drugs (aOR 1.54, 95% CI 1.08–2.21) were independent predictors of non-persistence.

Conclusions

Persistent with APT after ischemic stroke featured long-term mortality benefit even in patients aged 75 years and older. Thus, improving APT persistence for ischemic stroke patients in this age group is also recommended by understanding factors associated with non-persistence.

Disponible en: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-021-02171-4

Polypharmacy and severe potential drug-drug interactions among older adults with cardiovascular disease in the United States.

Marwan Sheikh-Taha & Myriam Asmar

Abstract

Background

Polypharmacy continues to be a topic of concern among older adults and puts patients at increased risk of potential drug-drug interactions (DDIs) and negative health outcomes. The objective of this study was to assess the prevalence of polypharmacy among older adults with cardiovascular disease (CVD) and to identify severe potential DDIs.

Methods

A retrospective chart review was conducted in a tertiary care center over a three-month period where we reviewed home medications of older adults upon hospital admission. Inclusion criteria were age ≥ 65 years, history of CVD, and admission to the cardiology service. Polypharmacy was defined as 5 or more medications taken concomitantly, hyper-polypharmacy was defined as 10 or more medications taken concomitantly, and severe potential DDIs were considered to be those belonging to category D or X using Lexicomp® Drug Information Handbook. Category D interaction states that modification of

therapy should be considered while category X states that the combination should be absolutely avoided.

Results

A total of 404 patients with a mean age of 76.6 ± 7.4 years were included. Patients were taking an average of 11.6 ± 4.5 medications at home and 385 (95%) received polypharmacy, 278 (69%) received hyper-polypharmacy, and 313 (77.5%) had at least one severe potential DDI. Under category D, the most common potential DDIs were drugs with additive central nervous system (CNS) depressant effect and drugs that increase the risk of QT prolongation. Under category X, the most common potential DDIs were non-selective β-blockers that may diminish the bronchodilator effect of β2 agonists and drugs with anticholinergic properties that enhance the ulcerogenic effect of oral solid potassium.

Conclusions

Polypharmacy, hyper-polypharmacy, and severe potential DDIs are very common in older adults with CVD. Clinicians should vigilantly review patients' drug records and adjust therapy accordingly to prevent adverse drug reactions and negative health outcomes.

Disponible en: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-021-02183-0

Revista Española de Geriatría y Gerontología.

Validation into Spanish of the revised Patients' Attitudes Towards Deprescribing (rPATD) questionnaire to assess patients' attitudes towards deprescribing. Research protocol.

José Ignaciode Juan-RoldánabEnriqueGavilán-MoralbcFranciscaLeiva-FernándezdeAntonio J.García-Ruiza

Abstract

Introduction and objective

Polypharmacy has become a priority public health problem in developed countries. In response to its approach, deprescription stands out. Its success will depend largely on the attitudes and beliefs of patients towards the number of drugs they are taking and their willingness to initiate a process of deprescription. To explore these factors, researchers have developed the *revised Patients' Attitudes Towards Deprescribing* (rPATD) questionnaire, originally in English. The objective of this study is the validation into Spanish of rPATD questionnaire, both older adults and caregivers versions.

Material and methods

A first qualitative validation phase and a second phase of analysis of its psychometric characteristics will be carried out through an observational descriptive study of validation of a measurement instrument. One hundred and twenty subjects (polymedicated older adults and caregivers) from three health centers will be selected by consecutive sampling. The questionnaire will be provided and clinical and sociodemographic data will be collected. Feasibility, reliability (through internal consistency and intraobserver reliability) and validity (apparent, construct and criterion) of the questionnaire will be evaluated.

Expected results

It is expected to obtain a questionnaire that will serve as a tool for the clinician to identify patients with a favorable predisposition to deprescription and that will allow to contribute the patient's perspective to this process.

Conclusion

The use of the rPATD questionnaire, alone or integrated into other more complex interventions, may lead to an improvement in the quality of care for the polymedicated patients.

Disponible en: https://www.sciencedirect.com/science/article/pii/S0211139X21000457?dgcid=coauthor

REVISTAS FARMACÉUTICAS

Pharmacoepidemiology and Drug Safety.

Using machine learning to identify diabetes patients with canagliflozin prescriptions at high-risk of lower extremity amputation using real-world data.

Lanting Yang Nico Gabriel Inmaculada Hernandez Almut G. Winterstein Jingchuan Guo

Abstract

Aims

Canagliflozin, a sodium-glucose cotransporter 2 inhibitor indicated for lowering glucose, has been increasingly used in diabetes patients because of its beneficial effects on cardiovascular and renal outcomes. However, clinical trials have documented an increased risk of lower extremity amputations (LEA) associated with canagliflozin. We applied machine learning methods to predict LEA among diabetes patients treated with canagliflozin.

Methods

Using claims data from a 5% random sample of Medicare beneficiaries, we identified 13 904 diabetes individuals initiating canagliflozin between April 2013 and December 2016. The samples were randomly and equally split into training and testing sets. We identified 41 predictor candidates using information from the year prior to canagliflozin initiation, and applied four machine learning approaches (elastic net, least absolute shrinkage and selection operator [LASSO], gradient boosting machine and random forests) to predict LEA risk after canagliflozin initiation.

Results

The incidence rate of LEA was 0.57% over a median 1.5 years follow-up. LASSO produced the best prediction, yielding a C-statistic of 0.81 (95% CI: 0.76, 0.86). Among individuals categorized in the top 5% of the risk score, the actual incidence rate of LEA was 3.74%. Among the 16 factors selected by LASSO, history of LEA [adjusted odds ratio (aOR): 33.6 (13.8, 81.9)] and loop diuretic use [aOR: 3.6 (1.8,7.3)] had the strongest associations with LEA incidence.

Conclusions

Our machine learning model efficiently predicted the risk of LEA among diabetes patients undergoing

canagliflozin treatment. The risk score may support optimized treatment decisions and thus improve health outcomes of diabetes patients.

Disponible en: https://onlinelibrary.wiley.com/doi/10.1002/pds.5206

British Journal of Clinical Pharmacology

Pharmacist-led interventions to reduce adverse drug events in older people living in residential aged care facilities: A systematic review.

Abstract

Aims

We aimed to investigate the efficacy and effectiveness of pharmacist-led interventions to reduce adverse drug events (ADEs) in older people living in residential aged care facilities (RACFs).

Methods

We systematically searched MEDLINE via PubMed, Embase, Cochrane Central Register of Controlled Trials and PsycINFO from their inceptions to July 2020. We investigated experimental study designs that employed a control group, or quasi-experimental studies conducted in RACFs.

Results

We screened 3826 records and included 23 studies. We found seven single-component and 16 multicomponent pharmacist-led interventions to reduce ADEs in older people living in RACFs. The most frequent single-component pharmacist-led intervention was medication review. Medication review and education provision to healthcare professionals were the most common components in many pharmacist-led multicomponent interventions. Thirteen studies (56%) showed no effect, whereas ten studies (43%) reported significant reductions in ADEs following pharmacist-led interventions either as a sole intervention or as a part of a multi-component intervention. Many interventions focused on reducing the incidence of falls (39%).

Conclusions

This systematic review suggests that pharmacist-led interventions have the potential to reduce the incidence of ADEs in older people living in RACFs. Medication review and educational programmes, particularly academic detailing, either as a single component or as part of multicomponent interventions were the most common approaches to reducing drug-related harm in older people living in RACFs. The lack of a positive association between interventions and ADE in many studies suggests that targeted and tailored pharmacist-led interventions are required to reduce ADEs in older people in RACFs.

Disponible en: https://bpspubs.onlinelibrary.wiley.com/doi/abs/10.1111/bcp.14824?s=09

Pharmacotherapy.

Impact of SGLT2 Inhibitors on Cardiovascular Outcomes in Patients with Heart Failure with Reduced Ejection Fraction

Jessica A. Starr Nathan A. Pinner Katelin M. Lisenby Alyssa Osmonson

Abstract

Heart failure (HF) impacts more than 6 million Americans with an annual mortality rate approaching 22%. Along with optimizing guideline-directed management and therapy (GDMT), the development of treatment options to improve mortality and morbidity in patients with HF with reduced ejection fraction (HFrEF) is paramount. Cardiovascular outcome trials in patients with type 2 diabetes have shown that sodium-glucose cotransporter-2 (SGLT2) inhibitors improve both cardiovascular (CV) and renal outcomes and have consistently reduced hospitalizations for HF in patients with and without a previous history of HF. A precise mechanism by which SGLT2 inhibitors provide benefits for patients with HFrEF has not been identified, and it is probable that multiple pathways may best explain the outcomes seen in recent clinical trials.

The mounting evidence that SGLT2 inhibitors reduce HF-related hospitalizations in patients with type 2 diabetes led to the publication of two pivotal trials, the Dapagliflozin and Prevention of Adverse Outcomes in Heart Failure (DAPA-HF) trial and the Cardiovascular and Renal Outcomes with Empagliflozin in Heart Failure (EMPEROR-Reduced) trial. Data from these publications demonstrate significant benefit of dapagliflozin and empagliflozin on a variety of CV and HF quality of life end points in patients with HFrEF independent of the presence of type 2 diabetes. Now, widespread application of the clinical findings from the DAPA-HF and EMPEROR-Reduced trials must follow with SGLT2 inhibitors incorporated into GDMT for HFrEF regardless of the presence or absence of diabetes. In this review, we examine key literature surrounding the CV outcome data for SGLT2 inhibitors with a specific focus on patients with HFrEF.

Disponible en: https://accpjournals.onlinelibrary.wiley.com/doi/abs/10.1002/phar.2527