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REVISTAS FARMACÉUTICAS

BMC Geriatrics

Reproducibility and responsiveness of the Frailty Index and Frailty Phenotype in older hospitalized patients

[Marlies Feenstra](#), [Frederike M.M. Oud](#), [Carolien J. Jansen](#), [Nynke Smidt](#), [Barbara C. van Munster](#) & [Sophia E. de Rooi](#)

ABSTRACT

Background

There is growing interest for interventions aiming at preventing frailty progression or even to reverse frailty in older people, yet it is still unclear which frailty instrument is most appropriate for measuring change scores over time to determine the effectiveness of interventions. The aim of this prospective cohort study was to determine reproducibility and responsiveness properties of the Frailty Index (FI) and Frailty Phenotype (FP) in acutely hospitalized medical patients aged 70 years and older.

Methods

Reproducibility was assessed by Intra-Class Correlation Coefficients (ICC), standard error of measurement (SEM) and smallest detectable change (SDC); Responsiveness was assessed by the standardized response mean (SRM), and area under the receiver operating characteristic curve (AUC).

Results

At baseline, 243 patients were included with a median age of 76 years (range 70–98). The analytic samples included 192 and 187 patients in the three and twelve months follow-up analyses, respectively. ICC of the FI were 0.85 (95 % confidence interval [CI]: 0.76; 0.91) and 0.84 (95% CI: 0.77; 0.90), and 0.65 (95% CI: 0.49; 0.77) and 0.77 (95% CI: 0.65; 0.84) for the FP. SEM ranged from 5 to 13 %; SDC from 13 to 37 %. SRMs were good in patients with unchanged frailty status (< 0.50), and doubtful to good for deteriorated and improved patients (0.43–1.00). AUC's over three months were 0.77 (95% CI: 0.69; 0.86) and 0.71 (95% CI: 0.62; 0.79) for the FI, and 0.68 (95% CI: 0.58; 0.77) and 0.65 (95% CI: 0.55; 0.74) for the FP. Over twelve months, AUCs were 0.78 (95% CI: 0.69; 0.87) and 0.82 (95% CI: 0.73; 0.90) for the FI, and 0.78 (95% CI: 0.69; 0.87) and 0.75 (95% CI: 0.67; 0.84) for the FP.

Conclusions

The Frailty Index showed better reproducibility and responsiveness properties compared to the Frailty Phenotype among acutely hospitalized older patients.

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Do prescription rates of psychotropic drugs change over three years from nursing home admission?

Enrico Callegari, Jūratė Šaltytė Benth, Geir Selbæk, Cato Grønnerød & Sverre Bergh

Background

In this longitudinal study, we describe how psychotropic drugs (PTDs) are prescribed in nursing home (NH) patients from admission and over a 3-year period, to understand which clinical and environmental factors are associated with PTD prescription.

Methods

We used data from the Resource Use and Disease Course in Dementia – Nursing Home (REDIC-NH) study, examining physical and mental health, dementia, and PTD prescription during a 3-year period from admission to a NH. Data were collected every six months. At baseline, we included 696 participants from 47 Norwegian NHs. We presented prevalence, incidence, and deprescribing rates of PTD prescriptions for each assessment point. We calculated the odds of receiving PTDs and used a generalized linear mixed model to analyze the variables associated with a change in odds throughout the 3-year period.

Results

PTD prescriptions were frequent throughout the 3-year period. Antidepressants had the highest prescription rates (28.4%–42.2%). Every PTD category had the highest incidence rate between admission and six months, and antipsychotics had the highest values (49.4%). Deprescribing rates were comparable between assessment points. The odds of antipsychotic prescriptions were lower for older people (OR = 0.96, 95%CI:0.92–0.99, $p = 0.023$). People with more severe dementia had lower odds of being prescribed sedatives/hypnotics (OR = 0.89, 95%CI:0.85–0.94, $p < 0.001$).

Conclusions

PTDs, particularly antidepressants, are widely prescribed over time to NH patients. Older patients are less likely to receive antipsychotics. A higher severity of dementia decreases the odds of being prescribed sedatives/hypnotics. Close attention should be paid to PTD prescriptions during long-term NH stay to avoid prolonged and excessive treatment with these types of drugs.

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Drugs and Aging

Direct Oral Anticoagulants and Non-valvular Atrial Fibrillation: Compliance with Dose Level Guidelines in Patients Aged 80 Years and Over

Marie Cavillon Decaestecker, Laurie Ferret, Kevin Decaestecker, Sophie Gautier, Stéphane Verdun & Essé Sylvestre Tsogli

Background

Direct oral anticoagulants (DOACs) are currently recommended as first-line or (after vitamin K antagonists) second-line therapy for preventing stroke and systemic embolism in patients with non-valvular atrial fibrillation. In patients aged 80 years and over, however, the fear of DOAC-associated bleeding and the complexity of DOAC dosing regimes may prompt physicians to prescribe inappropriate dose levels.

Objective

The objective of this study was to determine compliance with French and European guidelines of doses of three DOACs (apixaban, dabigatran and rivaroxaban) prescribed to patients aged over 80 years in an indication of non-valvular atrial fibrillation, and to identify factors associated with poor compliance.

Methods

We performed a retrospective single-centre study of patients aged over 80 years routinely treated with a DOAC (apixaban, dabigatran or rivaroxaban) for non-valvular atrial fibrillation at Valenciennes General Hospital (Valenciennes, France) between 1 January, 2016 and 31 December, 2017. We determined compliance with French and European guidelines of DOAC doses as a function of each patient's clinical and laboratory parameters, and thus classified the regime as being appropriately dosed, overdosed or underdosed.

Results

A total of 703 patients (371 taking apixaban, 92 taking dabigatran and 240 taking rivaroxaban) were included in the study. We found that 274 patients (39%) had been prescribed an inappropriate DOAC regime, with underdosing in 241 cases (34%) and overdosing in 33

cases (5%). Underdosing mainly concerned the two most widely prescribed DOACs, i.e. apixaban (39% of all apixaban prescriptions were underdosed) and rivaroxaban (40%). Concomitant treatment with an antidepressant was associated with underdosing of rivaroxaban or apixaban ($p = 0.0339$). In contrast, initial management in a neurology department was associated with appropriate dosing ($p = 0.000146$) for both these DOACs.

Conclusions

Among patients with non-valvular atrial fibrillation aged 80 years and over, about 40% of DOAC prescriptions feature inappropriate dose levels. It might be possible to reduce inappropriate dosing by raising awareness among hospital-based and private-practice prescribers, providing prescription support tools for DOACs, and performing medication reconciliations and reviews at hospital and in private practice.

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Geriatrics and Gerontology International

Association between number of medications and mortality among older adult patients in a specialized cardiology hospital

Takuto Arita, Shinya Suzuki, Naoharu Yagi, Takayuki Otsuka, Mikio Kishi, Hiroto Kano, Shunsuke Matsuno, Yuko Kato, Tokuhisa Uejima, Yuji Oikawa, Minoru Matsuhama

Aim

Although polypharmacy has been associated with poor clinical outcomes, whether taking an increased number of medications is harmful or beneficial for older adult patients treated for cardiovascular diseases might require further discussion.

Methods

We analyzed data of 2089 patients aged ≥ 75 years in a single hospital-based cohort. The study population was divided into three groups according to the tertiles of the number of medications at baseline: <3 ($n = 647$), $3-7$ ($n = 707$) and ≥ 8 ($n = 735$).

Results

The cumulative incidences of all-cause death at 3 years among patients taking less than three, three to seven and eight or more medications were 3.7%, 4.1% and 7.8%, respectively (log-rank test $P = 0.015$). In a Cox regression analysis, taking eight or more total

medications (vs 0–2) was independently associated with all-cause death (hazard ratio 1.67, 95% CI 1.01–2.78). For predicting mortality using the number of medications, the maximum Youden Index was 7. In subgroups with certain heart diseases, no regular tendency of an increase in the risk of all-cause death was observed with an increase in the number of medications.

Conclusions

The number of medications taken was independently associated with mortality among older adult patients, with a relatively high cut-off point. This association was not observed in patients with certain heart diseases, possibly indicating the merit – rather than the harm – of medical treatment in the cardiovascular field.

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REVISTAS GERIÁTRICAS

AJHP American Journal of Health System Pharmacist

Persistent postoperative opioid use after total hip or knee arthroplasty: A systematic review and meta-analysis

Hui Ping Tay, BPharm, Xinyi Wang, BPharm, Sujita W Narayan, PhD, Jonathan Penm, PhD, Asad E Patanwala, PharmD, MPH

Disclaimer

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Purpose

To identify the proportion of patients with continued opioid use after total hip or knee arthroplasty.

Methods

This systematic review and meta-analysis searched Embase, MEDLINE, the Cochrane Central Register of Controlled Trials, and International Pharmaceutical Abstracts for articles

published from January 1, 2009, to May 26, 2021. The search terms (*opioid, postoperative, hospital discharge, total hip or knee arthroplasty, and treatment duration*) were based on 5 key concepts. We included studies of adults who underwent total hip or knee arthroplasty, with at least 3 months postoperative follow-up.

Results

There were 30 studies included. Of these, 17 reported on outcomes of total hip arthroplasty and 19 reported on outcomes of total knee arthroplasty, with some reporting on outcomes of both procedures. In patients having total hip arthroplasty, rates of postoperative opioid use at various time points were as follows: at 3 months, 20% (95% CI, 13%-26%); at 6 months, 17% (95% CI, 12%-21%); at 9 months, 19% (95% CI, 13%-24%); and at 12 months, 16% (95% CI, 15%-16%). In patients who underwent total knee arthroplasty, rates of postoperative opioid use were as follows: at 3 months, 26% (95% CI, 19%-33%); at 6 months, 20% (95% CI, 17%-24%); at 9 months, 23% (95% CI, 17%-28%); and at 12 months, 21% (95% CI, 12%-29%). Opioid naïve patients were less likely to have continued postoperative opioid use than those who were opioid tolerant preoperatively.

Conclusion

Over 1 in 5 patients continued opioid use for longer than 3 months after total hip or knee arthroplasty. Clinicians should be aware of this trajectory of opioid consumption after surgery.

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British Journal of Clinical Pharmacology

Utilization and long-term persistence of direct oral anticoagulants among patients with nonvalvular atrial fibrillation and liver disease

Antonios Douros, Ying Cui, Robert W. Platt, Kristian B. Fillion, Giada Sebastiani, Christel Renoux,

Aims

We characterized the utilization and long-term treatment persistence of direct oral anticoagulants (DOACs) in patients with nonvalvular atrial fibrillation (NVAf) and liver disease.

Method

Using the UK Clinical Practice Research Datalink, we assembled a population-based cohort of NVAf patients with liver disease initiating oral anticoagulants between 2011 and 2020. Logistic regression estimated odds ratios (ORs) and 95% confidence intervals (CIs) of the

association between patient characteristics and initiation of DOACs vs vitamin K antagonists (VKAs). Cox proportional hazards models estimated hazard ratios (HRs) and 95% CIs of the association between patient characteristics and the switch from VKAs to DOACs vs remaining on VKAs. We also assessed the 5-year treatment persistence with DOACs vs VKAs, and whether ischemic stroke or bleeding preceded treatment discontinuation.

Results

Our cohort included 3167 NVAf patients with liver disease initiating DOACs (n = 2247, 71%) or VKAs (n = 920, 29%). Initiators of DOACs were more likely to have prior ischemic stroke (OR 1.44, 95% CI 1.12-1.85) than VKA initiators but less likely to have used antiplatelet agents (OR 0.66, 95% CI 0.53-0.82). Patients switching to DOACs were more likely to have used selective serotonin reuptake inhibitors (HR 1.64, 95% CI 1.13-2.37) than those remaining on VKAs. At 5 years, 31% of DOAC initiators and 9% of VKA initiators remained persistent. Only few patients were diagnosed with ischemic stroke or bleeding prior to treatment discontinuation.

Conclusion

Most NVAf patients with liver disease initiated treatment with DOACs. Long-term persistence with DOACs was higher than with VKAs but remained relatively low.

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The Senior Care Pharmacist (American Society of Consultant Pharmacists)

Older Patients' Perceptions of Medicines and Willingness to Deprescribe

Arnoldussen, Denise L. 1 ; Keijsers, Karen 1 ; Drinkwaard, Judith 2 ; Knol, Wilma 2 ; van Marum, Rob J. 1

Introduction

Major barriers in deprescribing are the ambivalence of patients, resistance to change, and poor acceptance of alternative treatments.

Objective

To investigate older patients' beliefs, understanding and knowledge, satisfaction with medicine use, health outcome priorities, their attitude toward deprescribing, and to identify associated patient factors.

Methods

This multi-center cross-sectional, semistructured survey study involved older outpatients (70 years of age and older) with polypharmacy. The survey comprised three validated questionnaires: Beliefs about Medicines Questionnaire, Patients' Attitudes Towards Deprescribing questionnaire, and the Health Outcome Prioritization tool, with additional questions about understanding and satisfaction. The association between questionnaire outcomes and patient characteristics was investigated.

Results

Fifty participants were included; they used an average of 9 (+/- SD 2.7) medicines. For most participants (82%), the necessity of using medicines outweighed their concerns. Participants could name 35% of their medicines and 43% of the indications. Overall, 76% were satisfied with the effect of their medicines, but 94% would be willing to stop their medication if advised by their doctor. Maintaining independence (46%) and reducing pain (31%) were the most important health outcome priorities reported by the patients; staying alive had the lowest priority (51%). Participants with higher levels of educational attainment had better knowledge and had more concerns about harmful effects.

Conclusions

Patients are open to deprescribing but would probably not initiate the conversation themselves because they are generally very satisfied with their medicines. Knowledge about their medicines and their indications is poor. If doctors initiate deprescribing, patients are probably willing to follow their advice. Patients' life priorities should be discussed in deprescribing conversations.

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Pharmacoepidemiology and Drug Safety

Proton pump inhibitors long term use-trends and patterns over 15 years of a large health maintenance organization

Vered Rosenberg,Roie Tzadok,Gabriel Chodick,Revital Kariv,

Abstract

Background

Proton pump inhibitors (PPI) are used for a variety of indications. Despite reported associations with undesirable effects, their long-term use is on the rise, while appropriate indications, dose, and treatment duration may deviate from guideline recommendations.

Objectives

Primary to examine the annual patterns of PPI use. Secondary- to assess indications for initiating PPI treatment, long-term use, and factors associated with long-term use in a large Israeli health maintenance organization.

Methods

A historical cohort study of 528 420 eligible PPI users during 2000–2015, analyzed PPI use using defined daily doses and the proportion of patients covered method. Data on indications for treatment initiation, clinical and socio-demographic parameters were captured as well. A multivariable logistic-regression model was used to identify factors associated with long-term use of PPI.

Results

The annual incidence rates of patients initiating PPI treatment were relatively constant, ranging between 2.4% and 3.1% of the adult population, with a monotonic increase in annual consumption and prevalence (reaching 12.7% in 2015). Reflux, functional symptoms, and Helicobacter pylori eradication were the most common indications for initiating PPI therapy. However, 27% of patients had no recorded indication for treatment. Fifteen percent of patients used PPI for over 6 months, especially in older age groups.

Conclusions

Utilization of PPI increases steadily, mainly due to chronic use. Prolonged consumption is associated with specific clinical indications and older age. Health organizations should encourage awareness of appropriate use among physicians, specifically in the elderly, patients with reflux, and those with functional disorders.

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REVISTAS MEDICINA GENERAL

JAMDA: Journal of the American Medical Directors Association

Centrally Acting Anticholinergic Drugs Used for Urinary Conditions Associated with Worse Outcomes in Dementia

Delia Bishara, MSc Gayan Perera, PhD Daniel Harwood, MD Nicola Funnell, MD

Abstract

Objectives

To investigate the associations between central anticholinergic burden and mortality, hospitalization, and cognitive impairment in people with dementia prescribed anticholinergic drugs for urinary symptoms.

Design

Retrospective cohort study.

Setting and Participants

Patients diagnosed with dementia receiving anticholinergic medication for bladder conditions (N = 540), assembled from a large healthcare database.

Methods

Central anticholinergic burden related to bladder drugs was estimated using the anticholinergic effect on cognition scale. Data were linked to national mortality and hospitalization data sources, and serially recorded Mini-Mental State Examination scores were used to investigate cognitive decline.

Results

Patients had a median survival of 4.1 years. Urinary drugs with a high anticholinergic effect on cognition score (tolterodine, oxybutynin) were associated with a 55% increased mortality risk (hazard ratio 1.55; 95% confidence interval 1.19–2.01; $P = .001$) compared with drugs with low or no central anticholinergic burden (darifenacin, fesoterodine, trospium, mirabegron, solifenacin). Cognitive decline over a 24-month period around diagnosis was only detectable in the high central anticholinergic group, but there was no significant difference in cognitive trajectories between the high and low/no anticholinergic bladder drug groups. No increase of emergency hospitalization risk was seen in relation to central anticholinergic burden.

Conclusions and Implications

Urinary drugs with high central anticholinergic burden cause more harm than those acting peripherally and should be avoided in people with dementia. Further research is needed to test whether centrally acting anticholinergic agents in general cause worse outcomes in dementia.

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Atención Primaria

Salud autopercebida en ancianos jóvenes españoles y portugueses tras la recesión según la Encuesta Europea de Salud: un estudio transversal

Ana M. Pereira-de-Sousa, Juan A. López-Rodríguez

Objetivo

Describir el estado de salud autopercebida (SAP) en la población de entre 65 y 74 años de España y Portugal y analizar los factores asociados a buena salud medidos en la Encuesta Europea de Salud (European Health Interview Survey [EHIS]) de 2014.

Diseño

Análisis retrospectivo de datos secundarios provenientes de la EHIS de 2014.

Ámbito

Comunitario.

Participantes

Se analizaron todos los individuos entre 65 y 74 años de España y Portugal encuestados con datos disponibles.

Mediciones principales

Se recogió la SAP en cinco niveles (de muy buena a muy mala) con escala Likert, variables sociodemográficas, clínicas, enfermedades crónicas, estilos de vida y utilización de recursos sanitarios. Se realizó un análisis multivariante mediante un modelo de regresión logística (muy buena/buena SAP vs resto) para estudiar el efecto del país ajustado por los diferentes factores sociodemográficos, clínicos y/o de estilos de vida usando estimadores robustos.

Resultados

Se estudió un total de 5.977 sujetos, de los cuales el 42,6% eran hombres y el 57,5% mujeres. La buena SAP varió entre países (52,9% España vs. 19% Portugal; $p < 0,001$) y sexos (44% hombres vs. 31,3% mujeres; $p < 0,001$). Ambos países presentaron elevada multimorbilidad (64,7% España vs. Portugal 76,3%; $p < 0,001$), aunque la distribución de enfermedades crónicas no difirió, salvo depresión (13,2% España vs. 20,3% Portugal; $p < 0,001$). Entre los factores individuales relacionados con la buena SAP encontramos la nacionalidad española (OR: 4,52; IC95%: 4,05-5,04), el sexo masculino (OR: 1,10; IC95%: 1,01-2,21), haber completado la enseñanza primaria (OR: 1,28; IC95%: 1,24-1,31) o superior (OR: 2,43; IC95%: 1,14-5,17) frente a estudios primarios incompletos, y realizar ejercicio físico dos o más días por semana (OR: 1,87; IC95%: 1,39-2,5). Factores que afectan negativamente la SAP fueron la presencia de multimorbilidad (OR: 0,19; IC95%: 0,12-0,31) y la depresión (OR: 0,32; IC95%: 0,25-0,41).

Conclusión

La presencia de buena SAP es mayor en ancianos jóvenes españoles comparado con portugueses. Tener un nivel de estudios superiores y realizar ejercicio físico regular fueron los factores que más aumentaron la probabilidad de buena SAP.

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