cronos
Grupo Trabajo Paciente Crónico de la semfh

REVISIÓN BIBLIOGRÁFICA OCTUBRE 2021: Selección de artículos

REVISTAS GERIÁTRICAS

Archives of Gerontology and Geriatrics

Sarcopenia and polypharmacy among older adults: A scoping review of the literature

AnastasiaPanaabcPanayotaSourtziabAthinaKalokairinouaVenetia SofiaVelonakiab

Abstract

Background

Sarcopenia and polypharmacy are both prevalent conditions in the geriatric population, leading to poor quality of life and adverse outcomes.

Objective

To explore the evidence on the relationship between sarcopenia and polypharmacy and to summarize the findings and the gaps from the existing literature.

Method

A systematic scoping review was conducted between March and May 2021, with no restriction on publication date, using the Arksey and O'Malley framework and reported according to PRISMA-ScR. Four bibliographic databases, PubMed, Web of Science, Scopus, Proquest One Academic, and four sources of gray literature were searched for studies written in English or Greek. Data were extracted quantitatively and using thematic analysis.

Results

Of the 397 initially retrieved records, 22 studies were finally included in this review, 20 published articles and 2 posters-presentations. Most of the studies used cross-sectional data. The relationship between sarcopenia and polypharmacy should be interpreted on the basis of the definition of polypharmacy, the diagnostic criteria of sarcopenia used, and the population setting. Sarcopenia or risk for sarcopenia are associated with polypharmacy or the number of medications in community-dwelling older adults, regardless of diagnostic criteria used for sarcopenia.

Conclusion

There is an association between sarcopenia or risk for sarcopenia and polypharmacy or the number of medications in community-dwelling older adults but not among residents of nursing homes or inpatients. Specific widely accepted definitions of polypharmacy and sarcopenia, a consensus on the method of sarcopenia assessment, and prospective studies are needed to identify polypharmacy as a potential risk factor for sarcopenia.

Disponible en: https://www.sciencedirect.com/science/article/pii/S0167494321001837

cronos
Grupo Trabajo Paciente Crónico de la semfh

Associations between polypharmacy and physical performance measures in older adults

Author links open overlay panelSerdarOzkokCaglar OzerAydinDuygu ErbasSacarNezahat MugeCatikkasTugbaErdoganCihanKilicMehmet AkifKaranGulistanBahat

Abstract

Objectives: A preserved ambulation is one of the keypoints for functionality and polypharmacy, a common problem in older adults, is associated with worse functional status. Our aim was to examine the associations of polypharmacy with certain physical performance measures used to evaluate ambulation.

Methods: This retrospective, cross-sectional study was conducted in a geriatric outpatient clinic. Using ≥5 medications was accepted as polypharmacy. Usual gait speed (UGS), chair sit-to-stand test (CSST), timed up and go test (TUG) and short physical performance battery (SPPB) were performed to assess physical performance status. We created two models for logistic regression analyses: Model 1 was adjusted for age, sex and body mass index (BMI). We added comorbidities to Model 1 and further created Model 2.

Results: There were 392 participants (69.1% were female, mean age: 73.9±6.2 years). Polypharmacy was seen in 62.5%. Participants with polypharmacy presented with a poor physical performance compared to the no-polypharmacy group (p<0.001, for each). In multivariate analyses, polypharmacy was independently associated with poor SPPB (*Odds Ratio (OR)=2.5; 95% Confidence Interval (CI)=1.3-4.7* and *OR=2.4; 95% CI=1.2-4.8* for *Model 1 and 2*, respectively) and long CSST (*OR= 2.6; 95% CI=1.3-5.2* and *OR=3.7; 95% CI=1.7-8.2* for *Model 1 and 2*, respectively). There was a significant association between polypharmacy and slow UGS *in Model 1* (*OR=1.9; 95% CI=1.0-3.5*); but relationship did not persist after adding comorbidities into the first model (*OR=1.6; 95% CI= 0.8-3.1*). There was no significant association between long TUG and polypharmacy in any of the models.

Conclusion: Polypharmacy is well-known with its association with falls and fractures in older adults and this might be explained by its association with poor physical performance. Whether polypharmacy causes a deterioration in physical performance is an issue needs to be enlightened by further longitudinal studies.

Disponible en: https://www.sciencedirect.com/science/article/pii/S016749432100217X

BMC Geriatrics

Prevalence of drug-drug interactions in older people before and after hospital admission: analysis from the OPERAM trial

Lorène Zerah, Séverine Henrard, Ingeborg Wilting, Denis O'Mahony, Nicolas Rodondi, Olivia Dalleur, Kieran Dalton, Wilma Knol, Manuel Haschke & Anne Spinewine

Abstract (*N* = 351)

Background

Drug-drug interactions (DDIs) are highly prevalent in older patients but little is known about prevalence of DDIs over time. Our main objective was to assess changes in the prevalence and characteristics of drug-drug interactions (DDIs) during a one-year period after hospital admission in older people, and associated risk factors.

Methods

We conducted a sub-study of the European OPERAM trial (OPtimising thERapy to prevent Avoidable hospital admissions in Multimorbid older people), which assessed the effects of a structured medication review (experimental arm) compared to usual care (control arm) on reducing drug-related hospital readmissions. All OPERAM patients (≥70 years, with multimorbidity and polypharmacy, hospitalized in four centers in Bern, Brussels, Cork and Utrecht between December 2016 and October 2018, followed over 1 year) who were alive at hospital discharge and had full medication data during the index hospitalization (at baseline i.e., enrolment at admission, and at discharge) were included. DDIs were assessed using an international consensus list of potentially clinically significant DDIs in older people. The point-prevalence of DDIs was evaluated at baseline, discharge, and at 2, 6 and 12 months after hospitalization. Logistic regression models were performed to assess independent variables associated with changes in DDIs 2 months after baseline.

Results

Of the 1950 patients (median age 79 years) included, 1045 (54%) had at least one potentially clinically significant DDI at baseline; point-prevalence rates were 58, 57, 56 and 57% at discharge, and 2, 6 and 12 months, respectively. The prevalence increased significantly from baseline to discharge ($P < .001$ [significant only in the control group]), then remained stable over time (P for trend .31). The five most common DDIs –all pharmacodynamic in nature– accounted for 80% of all DDIs and involved drugs that affect potassium concentrations, centrally-acting drugs and antithrombotics. At 2 months, DDIs had increased in 459 (27%) patients and decreased in 331 (19%). The main factor predictive of a change in the prevalence of DDIs was hyperpolypharmacy (≥10 medications).

Conclusions

DDIs were very common; their prevalence increased during hospitalization and tended to remain stable thereafter. Medication review may help control this increase and minimize the risk of adverse drug events.

Disponible en: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-021-02532-z

Journal of Clinical Interventions In Aging

How a Patient Personalised Clinical Pharmacy Programme Can Secure Therapeutic Care in an Orthogeriatric Care Pathway (5P Project)?

Barral M, Martin J, Carre E, Janoly-Dumenil A, Ranchon F, Parat S, Rioufol C, Goutelle S, Bourguignon L, Novais T, Doh S, Malatray M, Chaudier P, Gauthier J, Pivot C, Mouchoux C, Hoegy D

Background: A new model was developed for integrating a personalised clinical pharmacy programme (5P project) into the orthogeriatric care pathway. **Objective:** To secure the therapeutic care of orthogeriatric patients. **Design and Setting:** Prospective descriptive study in a multisite teaching hospital from June 2019 to January 2020. **Subjects:** Patients aged ≥ 75 years admitted for hip fracture.

Methods: A prescription review was performed for all patients at inclusion. Other clinical pharmacy activities (additional prescription review, pharmaceutical interviews, medication reconciliation) were dedicated to "high-risk" patients. Potential medication errors (ME), either pharmaceutical interventions (PI) or unintentional discrepancies (UID), were recorded. The potential clinical impact of PI was evaluated by a pluriprofessional expert panel using a validated tool.
Results: In the 455 patients included, 955 potential ME were detected, that is ≥ 1 potential ME for 324/455 (71%) patients. In acute care, 561 PI were formulated during prescription review for 440/455 (97%) patients and 348/561 (62%) were accepted by physicians. Medication reconciliation was performed for 213 patients, 316 UID were identified. In rehabilitation units, a second prescription review was performed for 112/122 (92%) "high-risk" patients, leading to 61 PI. The clinical impact was evaluated for 519/622 (83%) PI. A consensus was obtained for 310/519 (60%) PI: 147/310 (47%) were rated as having minor clinical impact, 138/310 (45%) moderate, 22/310 (7%) major, 2/310 (0.6%) vital, and 1/310 (0.3%) null.
Conclusion: The 5P project secured the orthogeriatric care pathway by detecting a great number of potential ME, including PI mostly considered as having a significant clinical impact.
Disponible en: https://www.dovepress.com/how-a-patient-personalised-clinical-pharmacy-programme-can-secure-ther-peer-reviewed-fulltext-article-CIA

International Journal of Geriatric Psychiatry

Risk of hospitalization and hip fracture associated with psychotropic polypharmacy in patients with dementia: A nationwide register-based study

Johanne Købstrup Zakarias,Ane Nørgaard,Christina Jensen-Dahm,Christiane Gasse,Thomas Munk Laursen,Henrik Palm,René Ernst Nielsen,Gunhild Waldemar,

Objective

To investigate the association of benzodiazepines and antidepressants on the risk of hospitalization and hip fracture in patients with dementia initiating antipsychotic drug treatment.

Methods

A register-based retrospective cohort study using data on all incident dementia cases (≥65 years) initiating antipsychotic treatment as monotherapy or in combination with benzodiazepines and/or antidepressants in Denmark from 2000 to 2015. The outcomes of interest were all-cause hospitalization and hip fracture. Cox proportional hazards models with adjustment for multiple variables were used to investigate risk of hospitalization and hip fracture within 180 days.

Results

The risk of all-cause hospitalization during 180-days follow-up was significantly increased by 55% (adjusted HR: 1.55, 95% CI: 1.29–1.86, $p < 0.0001$), when antipsychotic use was combined with benzodiazepines, when compared to antipsychotic monotherapy. The association between the combination of antipsychotics and benzodiazepines with the risk of hip fracture did not reach statistical significance (adjusted HR: 1.50, 95% CI: 0.99–2.26, $p = 0.0534$).

Conclusions

The observed increased risk of all-cause hospitalization and hip fracture may indicate increased drug-related adverse events. Thus, careful and regular monitoring is needed to assess response to treatment and decrease the risk of adverse events, when antipsychotics are combined with BZDs, albeit confounding cannot be fully excluded within the current design.

Disponible en: https://onlinelibrary.wiley.com/doi/10.1002/gps.5587

REVISTAS FARMACÉUTICAS

The Annals of Pharmacotherapy

The Impact of Body Weight and Renal Function on the Risk of Bleeding With Direct Oral Anticoagulants in Atrial Fibrillation

Hannah Whittemore, PharmD, Andrew K. Posen, PharmD, Erika L. Hellenbart, PharmD, BCPS, Vicki Groo, PharmD, BCCP, CHC, Eric Wenzler, PharmD, BCPS, BCIDP, AAHIVP, Jessica J. Tilton, PharmD, BCACP

Abstract

Background:

Atrial fibrillation (AF) increases the risk of stroke and direct oral anticoagulants (DOACs) are first-line agents for prevention. Gaps in the literature cause reluctance in prescribing DOACs for patients with renal dysfunction and/or extremes in body weight.

Objective:

To evaluate the impact body weight and renal function have on major and clinically relevant nonmajor (CRNM) bleeding events and ischemic strokes in AF patients receiving a DOAC.

Methods:

This retrospective cohort study included adults with nonvalvular atrial fibrillation (NVAF) or atrial flutter (AFL) receiving a DOAC ≥12 months. The primary outcome was a composite of major and CRNM bleeding events. Secondary outcomes included ischemic stroke and risk factors for bleeding events.

Results:

Of the 233 patients analyzed, 25 patients experienced a bleeding event. Patients who bled weighed 10 kg less (P = 0.043) than those who did not and had a higher HASBLED score (P = 0.003). Multivariate logistic regression identified weight (P = 0.048), serum creatinine (SCr; P = 0.027), and HASBLED score (P = 0.024) as the significant predictors for experiencing a bleed. Three patients experienced a stroke.

Conclusion and Relevance:

This study demonstrates an association between higher baseline SCr, elevated HASBLED score, and lower weight, with an increased risk of bleeding in patients with NVAF or AFL receiving a DOAC. These findings add to prescribing considerations when initiating DOACs. Closer monitoring is advised for patients with significant renal dysfunction and/or low body weight, even with renal dose adjustments.

Disponible en https://journals.sagepub.com/doi/full/10.1177/1060028021995201

The Senior Care Pharmacist (American Society of Consultant Pharmacists)

Implementation of Pharmacist Reviews to Screen for Potentially Inappropriate Medications in Patients With Cognitive Impairment

Pearson, Scott M.; Osbaugh, Nicole A.; Linnebur, Sunny A.; Fixen, Danielle R.; Brungardt, Adreanne; Marcus, Alexandra M.; Lum, Hillary D.

Objective:

To describe two pharmacist-led initiatives aimed to reduce potentially inappropriate medication (PIM) use in community-dwelling patients with dementia or cognitive impairment.

Design:

Retrospective, descriptive analysis of two clinical initiatives.

Setting:

Academic geriatric primary care clinics.

Participants:

Patients were included if they received a Memory Clinic pharmacist review May 1, 2017, to December 31, 2019, or a Living with Dementia (LWD) program pharmacist review November 15, 2018 to December 31, 2019 with provider follow-up within 6 months.

Interventions:

Both initiatives involved medication review by a clinical pharmacist to identify and make recommendations regarding medications that may contribute to cognitive impairment. The Memory Clinic served patients with concerns of cognitive impairment; whereas, the LWD program enrolled patients with an established diagnosis of dementia.

Main Outcome Measure:

Number of PIMs that could negatively impact cognition within each cohort. Additionally, 6-month implementation rates were analyzed for actionable pharmacist recommendations. **RESULTS:** Memory Clinic patients (n = 110) were taking an average of 2.4 PIMs; whereas, LWD patients (n = 40) were taking an average of 1.5 PIMs. Six-month implementation rates for all actionable pharmacist recommendations were 61.0% for the Memory Clinic and 42.4% for the LWD program. Specifically evaluating deprescribing recommendations, the 6-month PIM discontinuation rate was 63.6% for the Memory Clinic group and 60.0% for the LWD group.

Conclusion:

Pharmacists routinely identified PIMs during medication reviews, which led to successful recommendation implementation throughout multiple stages of cognitive decline. Both programs will continue to be adapted to ensure maximal impact.

International Journal of Clinical Pharmacy

Physicians' perceived barriers and enablers for deprescribing among older patients at public primary care clinics: a qualitative study

Balamurugan Tangiisuran, Vijitha Rajendran, Abubakar Sha'aban, Nur Aizati Athirah Daud & Siti Nurbaya Mohd Nawi

Background

Increased harmful effects of medication resulting from polypharmacy, especially among older patients, is a significant concern globally. Hence, continuous medication review and withdrawal of inappropriate medications are essential to improve patient safety.

Objective

To explore physicians' perceived barriers and enablers of deprescribing among older patients in the public primary healthcare setting. Setting Public primary care clinics in the northern states of Malaysia.

Methods

A semi-structured, face-to-face interview was conducted among physicians working in eight primary care clinics in northern Malaysia using a purposive sampling approach. Interviews were conducted using validated topic guides. All the responses were recorded, transcribed verbatim, validated, and analysed for the emerging themes using thematic analysis. Main outcome measure Physicians perceived barriers and enablers of deprescribing among geriatric patients.

Results

A total of eleven physicians were interviewed. Seven emerging themes were identified, which are categorised under barriers and enablers of deprescribing. The barriers were patient-specific, prescriber-specific, and healthcare provision and system. Prescriber deprescribing competencies, medication-specific outcomes, availability of empirical evidence, and pharmacist's role were the enablers identified.

Conclusion

Patient-specific barriers were identified as a significant challenge for deprescribing. Improving competencies on deprescribing was the repeatedly adduced enabler by physicians. The development of targeted educational training can help to reduce the obstacles faced by prescribers.

Disponible en: https://link.springer.com/article/10.1007/s11096-021-01336-w

REVISTAS DE MEDICINA GENERAL

JAMDA: Journal of the American Medical Directors Association

A Systematic Review of Interventions to Improve Analgesic Use and Appropriateness in Long-Term Care Facilities

Laura A. Dowd, BPharm(Hons) Amanda J. Cross, PhD Felicity Veal, PhD Choon Ean Ooi, MClinPharm J. Simon Bell, PhD

Objectives

To systematically review the effectiveness of interventions to improve analgesic use and appropriateness in long-term care facilities (LTCFs).

Design Systematic review.

Setting and participants

MEDLINE, Embase, PsycINFO, and CINAHL Plus were searched from inception to June 2021. Randomized controlled trials (RCTs), controlled and uncontrolled prospective interventions that included analgesic optimization, and reported postintervention change in analgesic use or appropriateness in LTCFs were included.

Methods

Screening, data extraction, and quality assessment were performed independently by 2 review authors.

Results

Eight cluster RCTs, 2 controlled, and 6 uncontrolled studies comprising 9056 residents across 9 countries were included. The 16 interventions included education (n = 13), decision support (n = 7), system modifications (n = 6), and/or medication review (n = 3). Six interventions changed analgesic use or appropriateness, all of which included prescribers, 5 involved multidisciplinary collaboration, and 5 included a component of education. Education alone changed analgesic use and appropriateness in 1 study. Decision support was effective when combined with education in 3 interventions. Overall, 13 studies reported analgesic optimization as part of pain management interventions and 3 studies focused on medication optimization. Two pain management interventions reduced the percentage of residents reporting pain not receiving analgesics by 50% to 60% (P = .03 and P < .001, respectively), and 1 improved analgesic appropriateness (P = .03). One reduced nonsteroidal anti-inflammatory drugs (NSAIDs) (P < .001) and another resulted in 3-fold higher odds of opioid prescription in advanced dementia [95% confidence interval (CI) 1.1-8.7]. One medication optimization intervention reduced NSAID prescription (P = .036), and another reduced as-needed opioid (95% CI 8.6-13.8) and NSAID prescription (95% CI 1.6-4.2).

Conclusions and Implications

Interventions involving prescribers and enhanced roles for pharmacists and nurses, with a component of education, are most effective at changing analgesic use or appropriateness. Interventions combining education and decision support are also promising. Medication review interventions can change analgesic prescription, although there is currently minimal evidence in relation to possible corresponding improvements in resident-related outcomes.

Disponible en: https://www.jamda.com/article/S1525-8610(21)00860-4/fulltext