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REVISTAS FARMACÉUTICAS

Bristish Journal of Clinical Pharmacy

The impact of including a medication review in an integrated care pathway: A pilot study

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Abstract

Aim

The objective of the present study was to measure the impact of the intervention of combining a medication review with an integrated care approach on potentially inappropriate medications (PIMs) and hospital readmissions in frail older adults.

Methods

A cohort of hospitalized older adults enrolled in the French PAERPA integrated care pathway (the exposed cohort) was matched retrospectively with hospitalized older adults not enrolled in the pathway (unexposed cohort) between January 1st, 2015, and December 31st, 2018. The study was an analysis of French health administrative database. The inclusion criteria for exposed patients were admission to an acute care department in a general hospital, age 75 years or over, at least three comorbidities or the prescription of diuretics or oral anticoagulants, discharge alive and performance of a medication review.

Results

For the study population (n = 582), the mean ± standard deviation age was 82.9 ± 4.9 years, and 380 (65.3%) were women. Depending on the definition used, the overall median number of PIMs ranged from 2 [0;3] on admission to 3 [0;3] at discharge. The intervention was not associated with a significant difference in the mean number of PIMs. Patients in the exposed cohort were half as likely to be readmitted to hospital within 30 days of discharge relative to patients in the unexposed cohort.

Conclusion

Our results show that a medication review was not associated with a decrease in the mean number of PIMs. However, an integrated care intervention including the medication review was associated with a reduction in the number of hospital readmissions at 30 days.

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Calcium-channel blockers: Clinical outcome associations with reported pharmacogenetics variants in 32 000 patients

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Abstract

Aims

Pharmacogenetic variants impact dihydropyridine calcium-channel blockers (dCCBs; e.g., amlodipine) treatment efficacy, yet evidence on clinical outcomes in routine primary care is limited. Reported associations in pharmacogenomics knowledge base PharmGKB have weak supporting evidence. We aimed to estimate associations between reported pharmacogenetic variants and incident adverse events in a community-based cohort prescribed dCCB.

Methods

We analysed up to 32 360 UK Biobank participants prescribed dCCB in primary care (from UK general practices, 1990–2017). We investigated 23 genetic variants. Outcomes were incident diagnosis of coronary heart disease, heart failure (HF), chronic kidney disease, oedema and switching antihypertensive medication.

Results

Participants were aged 40–79 years at first dCCB prescription. Carriers of rs877087 T allele in RYR3 had increased risk of hazard ratio (HF 1.13: 95% confidence interval 1.02 to 1.25, P = .02). Although nonsignificant after multiple testing correction, the association is consistent with prior evidence. We estimated that if rs877087 T allele could experience the same treatment effect as noncarriers, the incidence of HF in patients prescribed dCCB would reduce by 9.2% (95% confidence interval 3.1 to 15.4). In patients with a history of heart disease prior to dCCB (n = 2296), rs877087 homozygotes had increased risk of new coronary heart disease or HF compared to CC variant. rs10898815 in NUMA1and rs776746 in CYP3A5 increased likelihood of switching to an alternative antihypertensive. The remaining variants were not strongly or consistently associated with studied outcomes.

Conclusion

Patients with common genetic variants in NUMA1, CYP3A5 and RYR3 had increased adverse clinical outcomes. Work is needed to establish whether outcomes of dCCB prescribing could be improved by prior knowledge of pharmacogenetics variants supported by clinical evidence of association with adverse events.

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European Journal of Hospital Pharmacy

Criteria for the selection of paediatric patients susceptible to reconciliation error

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Abstract

Objectives

Many medication errors occur during care transitions, which are critical points for patient safety. There is strong evidence in favour of medication reconciliation as a strategy to avoid errors in adults, though few studies have been made in the paediatric setting. Likewise, no recommendations have been established for the selection and/or prioritisation of paediatric patients amenable to reconciliation.

Methods

A retrospective study was conducted involving patients subjected to reconciliation by a pharmacist on admission to hospital and who experienced at least one reconciliation error between January and November 2018. Univariable and multivariable analyses were performed to identify possible factors associated with reconciliation error, using a logistic regression model to determine the odds ratio (OR) with the corresponding 95% confidence interval (95% CI).

Results

The group of patients with at least one reconciliation error included 334 patients, compared with the group of patients without reconciliation errors, which included 1426 patients. It was determined that schoolchildren and adolescent patients had a risk of presenting a reconciliation error on hospital admission that was more than double for younger patients (OR 2.32, 95% CI 1.26 to 4.25, and OR 2.68, 95% CI 1.44 to 4.99, respectively). This risk was multiplied by five if we compared polymedicated patients versus non-polymedicated patients (OR 4.48, 95% CI 3.35 to 5.99). Patients with a neurological or onco-haematological underlying disease had a 12 and 10 times higher risk of presenting a reconciliation error compared with patients with other types of underlying diseases (OR 11.97, 95% CI 7.57 to 18.92, and OR 9.96, 95% CI 6.09 to 16.28, respectively). Finally, patients with narrow therapeutic index medicines in their usual treatment had an almost three times greater risk of presenting a reconciliation error when admitted to the hospital, although this last factor was not determined as an independent risk factor as for the others (OR 2.98, 95% CI 2.22 to 3.99).

Conclusions

The paediatric population is characterised by a number of risk factors for reconciliation error. Knowledge of these factors can allow the prioritisation of medication reconciliation in a concrete group of patients. In order to generalise the results obtained in this study, they must be confirmed in other paediatric care settings involving larger samples and different types of patients.

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European Journal of Clinical Pharmacology

Clinical outcomes of concomitant use of proton pump inhibitors and regorafenib in patients with metastatic colorectal cancer: a multicenter study

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Aim

To compare survival outcomes, response rates, and adverse events (AEs) in proton pump inhibitor (PPI) user and non-user patients with metastatic colorectal cancer (mCRC) treated with regorafenib.

Methods

We included 272 patients with mCRC treated with regorafenib in this study. Patients were divided into two categories according to their status of PPI use. The primary endpoint was overall survival (OS). The secondary endpoints were time to treatment failure (TTF), response rates, and safety. To exclude immortal time bias in survival analyses, we compared PPI non-user patients and all patients.

Results

There were 141 and 131 patients in the PPI non-user and user groups. Baseline characteristics were similar in each group. Pantoprazole was the most used PPI. At the median 35.2 (95% confidence interval (CI): 32.6–37.9) months follow-up, the median OS was similar in PPI non-user and all patients (6.9 months (95% CI: 5.3–8.5) and 7.7 months (95% CI:6.6–8.8), p = 0.913). TTF was also similar in PPI non-user and all patients (3.3 months (95% CI: 2.7–3.9) and 3.5 months (95% CI: 3.0–4.0), p = 0.661). In multivariable analysis, no statistically significant difference was observed between PPI user and non-user groups in OS and TTF (hazard ratio (HR), 0.99; 95% CI, 0.77–1.28; p = 0.963 for OS; HR, 0.93; 0.77–1.20, p = 0.598 for TTF). The objective response rates (ORR) were similar in the PPI non-user and user groups (19.8% and 16.8%, p = 0.455). The rates of any grade AEs were also similar in each group.

Conclusion

This study found no worse outcome in the combined use of PPI and regorafenib among patients with mCRC.

Disponible en: https://link.springer.com/article/10.1007/s00228-022-03403-1

REVISTAS GERIÁTRICAS

Age and Aging

Sarcopenia definition, diagnosis and treatment: consensus is growing

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Abstract

Sarcopenia is a skeletal muscle disorder that commonly occurs with advancing age as well as with a number of long-term conditions. Recognition in clinical practice is relatively recent but important because of the association between sarcopenia and a range of adverse effects on health including impaired mobility, increased morbidity and mortality. Originally characterised as loss of muscle mass, the definition has evolved to focus on loss of skeletal muscle function, particularly strength, through a number of international definitions such as that of the European Working Group on Sarcopenia in Older People most recently revised in 2019. Progress in the decades ahead is likely to be seen with regard to use of routine health data, prescription of resistance exercise, translation of biology and epidemiology into first in man studies for new treatments, and focus on sarcopenia in low and middle-income countries. Immediate next steps include the newly formed Global Leadership Initiative on Sarcopenia to develop international consensus on definition and diagnosis.

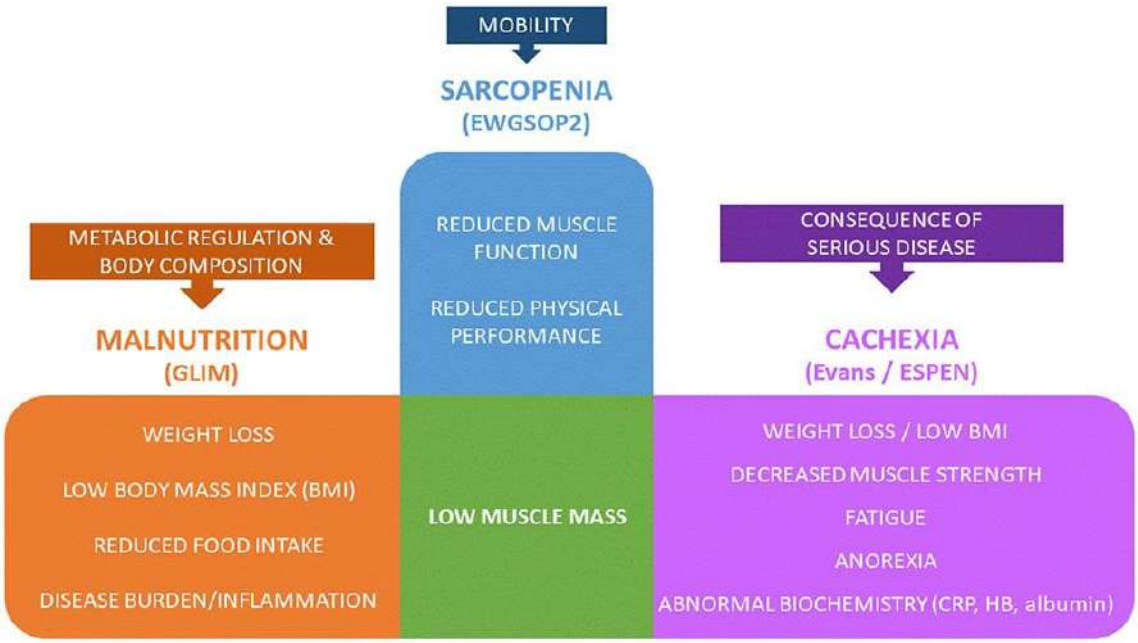

Figura 1: Masa muscular reducida como punto en común de las definiciones de malnutrición, sarcopenia y caquexia.

Disponible en: https://doi.org/10.1093/ageing/afac220

The role of sodium-glucose co-transporter-2 inhibitors in frail older adults with or without type 2 diabetes mellitus

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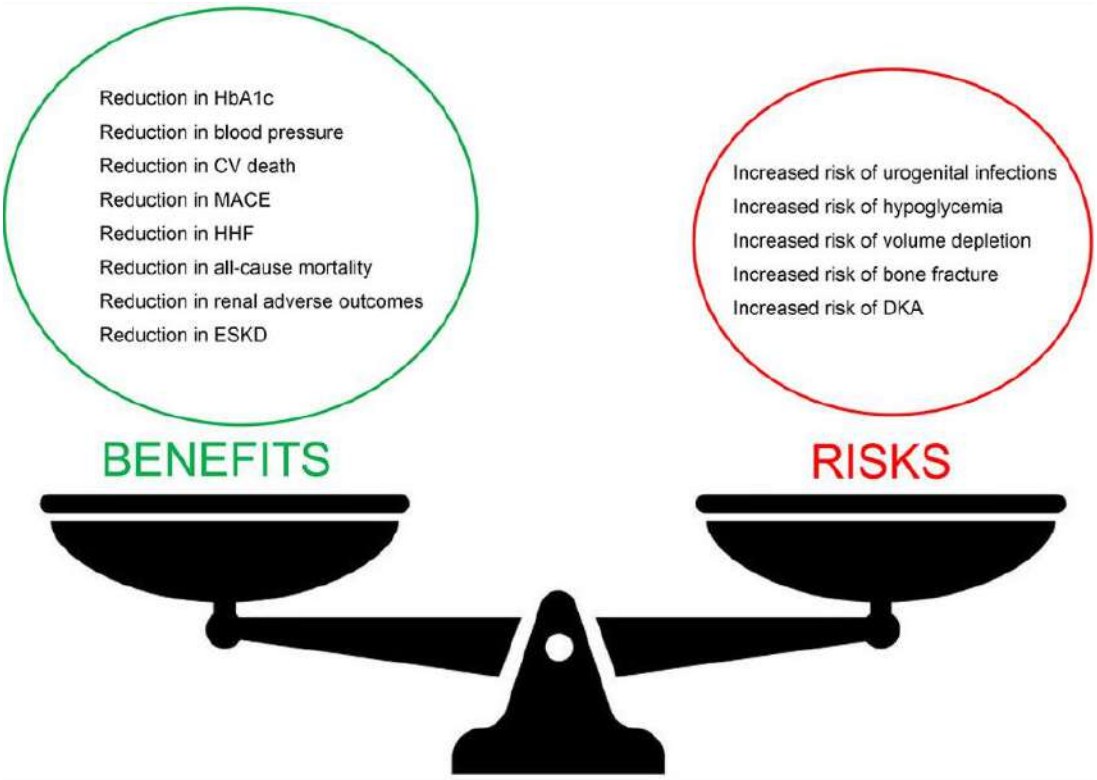
Abstract

Sodium-glucose co-transporter-2 (SGLT2) inhibitors offer significant outcome benefits beyond glucose lowering, including reduced risk of cardiovascular death, all-cause mortality, major adverse cardiovascular events, hospitalisations for heart failure and progression of renal disease. Considering these therapeutic effects, minimal incremental risk for hypoglycaemia and simplicity of administration, this drug class appears to be an attractive therapeutic option for older adults, and post hoc analysis of trial data provides support for the use of SGLT2 inhibitors in this population. Nevertheless, despite favourable clinical trial data, there has been some hesitance in clinical practice prescribing these drugs to older frail adults due to the limited therapeutic experience in this population and insufficient long-term safety data. In this review article, we evaluate the risk–benefit profile for the use of SGLT2 inhibitors in this population and suggest that rather than being a treatment to avoid, SGLT2 inhibitors should be considered a valid therapeutic option for older frail adults with or without diabetes.



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Drugs & Aging

Management of Hypertension in the Elderly and Frail Patient

Luigina Guasti, Marco Ambrosetti, Marco Ferrari, Franca Marino, Marc Ferrini, Isabella Sudano, Maria Laura Tanda, Iris Parrini, Riccardo Asteggiano and Marco Cosentino

Abstract

Hypertension is a frequent finding in elderly patients. Hypertension in older age can be both associated with frailty and represent a risk factor for frailty. Hypertension is recognized as a main risk factor for cardiovascular diseases such as heart failure, atrial fibrillation, and stroke and the occurrence of these diseases may provoke a decline in health status and/or worsen the degree of frailty. Blood pressure targets in hypertensive older and frail patients are not completely defined. However, specific evaluations of individual patients and their co-morbidities and assessment of domains and components of frailty, together with weighted consideration of drug use, may help in finding the appropriate therapy.

Key Points

Frailty and hypertension are frequently found in the elderly and are closely interconnected.
A personalized approach is needed in the management of hypertension in older persons, focusing on hypotension, co-morbidities, and adherence/persistence to medical prescriptions, while considering the specific frailty deficits.
Pharmacogenetics might help in identifying (and preventing) frailty statuses associated with pharmacological treatments.

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Interprofessional Interventions Involving Pharmacists and Targeting the Medicines Management Process Provided to Older People Residing in Nursing Homes: A Systematic Review and Meta-Analysis of Randomised Controlled Trials

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Abstract

Background

Nursing home residents are often prescribed multiple medications, which increases their susceptibility to drug-related problems. The medicines management process involves multiple stages, for example, assessing, prescribing, dispensing, delivering and storing, administering, reviewing and monitoring. The medicine management process aims to optimise medicine use and associated patient outcomes. Interprofessional interventions of healthcare professionals from different disciplines in many clinical settings, including the nursing home setting, have shown success in improving patients' clinical outcomes. However, reporting of the pharmacist's role and the impact of these interventions has been unclear.

Objectives

We aimed to systematically identify and describe interprofessional interventions involving pharmacists that target the medicine management process in nursing homes by (a) describing interprofessional interventions and the role of pharmacists within, (b) describing the impact of these interventions, (c) exploring which of the medicine management process stages were targeted and (d) identifying any reported theoretical underpinning.

Methods

EMBASE, MEDLINE, CINAHL, SCOPUS, PsycInfo, Cochrane library, Web of Science and clinical trial registers were searched from the inception date until August 2021. Randomised controlled trials reporting interprofessional interventions involving pharmacists, targeting at least one stage of the medicine management process and provided to nursing home residents with a mean age ≥ 65 years, were included. The search had no restriction on outcomes measured. Included randomised controlled trials were assessed for quality and risk of bias using the Jadad scale and Cochrane Collaboration tool, respectively. The overall certainty of outcomes was assessed using GRADEpro. If present, details about theoretical underpinning were extracted using the theory coding scheme. Fixed and random-effects models were used to calculate the pooled effect estimates to compare outcomes between intervention and control groups, where feasible, or a narrative description was reported.

Results

Eighteen manuscripts describing interprofessional interventions involving pharmacists were identified: medication review (n = 14), education (n = 3) and medication simplification (n = 1) based interventions. The pharmacists' most frequent role was the provision of medicine-related recommendations, and they worked mostly with general practitioners and nurses. Residents/family members contributed in 44% of included interventions. A meta-analysis identified that interventions were significantly associated with significant improvements in prescribing appropriateness (standard mean difference − 0.20; 95% confidence interval − 0.33 to − 0.77; I2 = 27%) but not with hospitalisation and mortality. None of the included studies reported a theoretical underpinning to intervention development.

Conclusions

This systematic review provides a detailed description of the impact of interprofessional practice, involving pharmacists, which targets at least one stage of the medicine management process in the nursing home setting. The findings suggest that future research should prioritise improving prescribing inappropriateness rather than the number of long-term medications prescribed. It remains unknown if interventions are designed using theory and, therefore, it is not clear whether theory-derived interventions are more effective than those without a theoretical element.

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Efficacy and Safety of Daridorexant in Older and Younger Adults with Insomnia Disorder: A Secondary Analysis of a Randomised Placebo-Controlled Trial

Ingo Fietze, Claudio L. A. Bassetti, David W. Mayleben, Scott Pain, Dalma Seboek Kinter, William V. McCall

Abstract

Background and Objective

The dual orexin receptor antagonist daridorexant, studied in two phase III trials, dose-dependently improved objective and subjective sleep variables and daytime functioning in adults with insomnia. Because treatment of insomnia in older adults is challenging and has limited options, the purpose of the current analysis was to further analyse the phase III trial studying the higher doses of daridorexant, those that showed efficacy (daridorexant 50 mg, daridorexant 25 mg and placebo, nightly for 3 months), and compare the safety and efficacy of daridorexant in patients aged ≥ 65 ('older adults') to those aged < 65 years ('younger adults').

Methods

Analyses by age (≥ 65 years, n = 364; < 65 years, n = 566) were performed on data from the randomised, double-blind, placebo-controlled Trial 1 in adult patients with insomnia (NCT03545191). Efficacy endpoints included a change from baseline at month 1 and month 3 in polysomnography-measured wake after sleep onset (WASO) and latency to persistent sleep (LPS), self-reported total sleep time (sTST) and daytime functioning assessed using the validated Insomnia Daytime Symptoms and Impacts Questionnaire (IDSIQ). Safety endpoints included adverse events and the Visual Analog Scale for morning sleepiness.

Results

At baseline, mean [standard deviation] WASO was numerically greater (110 [39] vs 92 [38] min) in older than younger adults, while LPS was comparable (~ 65 min). Mean baseline IDSIQ total and all domain scores were numerically lower (i.e. better) in older adults. Daridorexant caused similar reductions in WASO and LPS, and similar increases in sTST, from baseline, in both age groups; improvements were numerically greater with daridorexant 50 mg than 25 mg. At month 3, daridorexant 50 mg, compared with placebo, decreased WASO by a least-squares mean of 19.6 (95% confidence interval 9.7, 29.5) in older patients versus 17.4 min (10.7, 24.0) in younger patients and decreased LPS by a least-squares mean of 14.9 (7.5, 22.3) in older patients versus 9.7 min (3.7, 15.7) in younger patients. Daridorexant 50 mg increased sTST from baseline to month 3 by a least-squares mean of 59.9 (49.6, 70.3) in older patients versus 57.1 min (48.9, 65.3) in younger patients. Daridorexant 50 mg progressively improved IDSIQ total and domain scores from week 1 onwards similarly in both groups; daridorexant 25 mg improved IDSIQ scores, but only in younger adults. In both age groups, in comparison with placebo, the overall incidence of adverse events was comparable, and there were fewer falls on daridorexant. Daridorexant improved Visual Analog Scale morning sleepiness in both groups; daridorexant 50 mg increased the mean (standard deviation) Visual Analog Scale morning sleepiness score by 15.9 (20.7) in older adults and by 14.9 (18.7) in younger adults from baseline to month 3. In older adults, there was one case of sleep paralysis, and no cases of narcolepsy, cataplexy, or complex sleep behaviour.

Conclusions

In older patients with insomnia, as in younger patients, the efficacy of daridorexant is maximal on night-time and daytime variables at the higher dose of 50 mg. Older patients particularly require this dose to improve daytime functioning. Older patients are not at an increased risk of adverse events or residual effects the next morning after night-time administration of daridorexant, even at 50 mg. The dose of daridorexant does not need to be decreased for older patients.

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ThinkCascades: A Tool for Identifying Clinically Important Prescribing Cascades Affecting Older People

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Abstract

Background and Objective

Prescribing cascades occur when a drug is prescribed to manage side effects of another drug, typically when a side effect is misinterpreted as a new condition. A consensus list of clinically important prescribing cascades that adversely affect older persons' health (i.e., where risks of the prescribing cascade usually exceed benefits) was developed to help identify, prevent, and manage prescribing cascades.

Methods

Three rounds of a modified Delphi process were conducted with a multidisciplinary panel of 38 clinicians from six countries with expertise in geriatric pharmacotherapy. The clinical importance of 139 prescribing cascades was assessed in Round 1. Cascades highly rated by ≥ 70% of panelists were included in subsequent rounds. Factors influencing ratings in Rounds 1 and 3 were categorized. After three Delphi rounds, highly rated prescribing cascades were reviewed by the study team to determine the final list of clinically important cascades consistent with potentially inappropriate prescribing.

Results

After three rounds, 13 prescribing cascades were highly rated by panelists. Following a study team review, the final tool includes nine clinically important prescribing cascades consistent with potentially inappropriate prescribing. Panelists reported that their ratings were influenced by many factors (e.g., how commonly they encountered the medications involved and the cascade itself, the severity of side effects, availability of alternatives). The relative importance of these factors in determining clinical importance varied by panelist.

Conclusions

A nine-item consensus-based list of clinically important prescribing cascades, representing potentially inappropriate prescribing, was developed. Panelists' decisions about what constituted a clinically important prescribing cascade were multi-factorial. This tool not only raises awareness about these cascades but will also help clinicians recognize these and other important prescribing cascades. This list contributes to the prevention and management of polypharmacy and medication-related harm in older people.

Key Points

Prescribing cascades are under-recognized contributors to polypharmacy, inappropriate prescribing, and medication-related harm; tools are needed to help prescribers identify these cascades.
A modified Delphi process with an international multidisciplinary expert panel was used to develop a tool, ThinkCascades, which provides a short list of nine clinically important prescribing cascades affecting older people.
ThinkCascades raises awareness about these nine prescribing cascades, and the phenomenon of prescribing cascades more broadly.

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European Geriatric Medicine

The association between metabolic syndrome and presence of frailty: a systematic review and meta-analysis

Xiaoman Jiang, Xinyi Xu, Lingyu Ding, Jinling Lu, Hanfei Zhu, Kang Zhao, Shuqin Zhu, Qin Xu

Abstract

Background

Frailty represents a progressive deterioration in multi-system of the body and could increase vulnerability to stressors. Recently, several studies found that metabolic syndrome was significantly associated with frailty and emphasized its role in assessing and preventing frailty. However, these conclusions are controversial. We conducted this systematic review and meta-analysis to evaluate the association between metabolic syndrome and frailty.

Methods

Databases including Pubmed, Embase, Web of Science, CINAHL Complete, China National Knowledge Infrastructure (CNKI) and Wanfang Data Knowledge Service Platform were searched for studies on the association between metabolic syndrome and frailty, from inception to 17th June 2022. Two researchers independently screened the literature, extracted the data and evaluated the quality. Stata/SE 15.0 software was used to perform the statistical analysis.

Results

Eleven studies were included in this review and eight studies were included in the meta-analysis, involving one prospective cohort studies and ten cross-sectional studies with

12,640 participants. The pooled results indicated that metabolic syndrome was significantly associated with frailty (OR = 1.82, 95% CI = 1.46–2.27) with a low heterogeneity (I2 = 32.1%), and there were significant associations between MetS and weakness (OR = 1.35, 95% CI = 1.15–1.58, I2 = 0.0%), slow gait speed (OR = 1.80, 95% CI = 1.51–2.14, I2 = 93.4%), weight loss (OR = 1.77, 95% CI = 1.36–2.29, I2 = 0.0%) and decreased physical activity (OR = 1.87, 95% CI = 1.49–2.35, I2 = 39.7%).

Conclusions

The findings of this systematic review and meta-analysis suggested that metabolic syndrome could be significantly associated with the presence of frailly. Future studies need to further consider the effects of measurement tools, age and specific disease status in this association. Furthermore, the casual relationship between them is to be determined.

Disponible en: https://doi.org/10.1007/s41999-022-00688-4

Gereontology

Polypharmacy and Hyperpolypharmacy in Older Individuals with Parkinson's Disease: A Systematic Review and Meta-Analysis

Bhagavathula A.S., Tesfaye W., Vidyasagar K., Fialova D.

Abstract

Background and Aim

Polypharmacy (concomitant use of 5–9 medicines) and hyperpolypharmacy (concomitant use of over 10 medicines) were observed to be more frequent in older adults (≥65 years) and associated with adverse outcomes. Their prevalence and risk in older patients with Parkinson's disease (PD) remain unknown. We aimed to synthesize the extant evidence on the prevalence and risk of polypharmacy and hyperpolypharmacy in older adults with PD.

Methods

A systematic literature search was performed in PubMed/MEDLINE, Scopus, and Embase databases to identify pertinent studies published from 2000 to July 2021. Observational studies reporting the prevalence and association with disease of polypharmacy/hyperpolypharmacy in older adults with PD were meta-analyzed. Pooled prevalence and odds ratio (OR) with 95% confidence intervals (CIs) were calculated.

Results

Out of the total 499 studies identified, 6 fulfilled the inclusion criteria and comprised 7,171 participants. The overall prevalence of polypharmacy and hyperpolypharmacy was 40% (95% CI: 37–44) and 18% (95% CI: 13–23), respectively. A meta-analysis of 4 studies indicated a significant association between polypharmacy (OR: 1.94, 95% CI: 1.26–2.62; p <

0.001) and PD. Hyperpolypharmacy was also strongly associated with PD (OR: 3.11, 95% CI: 2.08–4.14; p < 0.001).

Conclusion

Polypharmacy (40%) and hyperpolypharmacy (18%) are highly prevalent and eventually increase the risk of drug-related problems in older adults with PD. Therefore, interventions that ensure rational geriatric pharmacotherapy are of critical importance for the older population with neurogenerative disorders.

Disponible en: https://doi.org/10.1159/000521214

Long-Term Effects on Preventing Frailty and Health Care Costs Associated with a Multifactorial Intervention in the Elderly: Three-Year Follow-Up Data from the Pre-Frail 80 Study

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Abstract

Introduction

Preventing or delaying frailty has important benefits. Studies show the effectiveness of multifactorial interventions in the frail and pre-frail elderly, but few have evaluated their long-term effectiveness. Frailty and its consequences have been shown to increase the use of health resources. The main aim was to evaluate the long-term effect of a multifactorial primary healthcare intervention in pre-frail elderly people at 36 months and determine the health resources used and their cost.

Methods

A follow-up of a cohort study of patients who participated in a randomized clinical trial in an urban primary care centre in Barcelona was carried out. We included 200 non-institutionalized people aged ≥80 years who met the Fried pre-frailty criteria. The intervention group (IG) received a 6-month interdisciplinary intervention based on physical exercise, Mediterranean diet advice, assessment of inadequate prescribing in polypharmacy patients, and social assessment, while the control group (CG) received standard of care primary healthcare treatment. Sociodemographic variables were collected at baseline. The Fried criteria, comorbidities, and geriatric syndromes were collected at baseline and 12 and 36 months. For the analysis of health costs, data were collected on visits, complementary tests, hospital admissions, and surgical interventions in the last 36 months. Complexity, the rate of expected emergency admission, and the rate of expected mortality were collected at 36 months. Between-group characteristics were compared at

baseline and 36 months using the χ2 test and the t test for independent samples. The post-intervention (12-month follow-up) versus longitudinal follow-up (36-month follow-up) comparison used McNemar's test for each group. The nonparametric Mann-Whitney test was used to compare health costs.

Results

Of the 200 patients initially included, we evaluated 135 (67.5%) patients who completed the 36-month follow-up. The mean age was 88.5 years and 64.4% were female. At 36 months, the transition to frailty was much lower in the IG than in the CG (22.1% vs. 32.8%, p = 0.013). The total mean health cost at 36 months was 3,110 EUR in the CG and 2,679 EUR in the IG. No significant between-group differences were observed according to Clinical Risk Groups.

Conclusions

A multifactorial, interdisciplinary intervention carried out in primary care prevented frailty in pre-frail elderly people at 36-month follow-up. Although the IG was grouped into higher grade Clinical Risk Groups and therefore had greater morbidity, the cost was lower than that in the CG.

Disponible en: https://doi.org/10.1159/000521497

Zoledronic Acid Contraindications Prevalence among Hip-Fractured Patients Aged 75 Years or Over Hospitalized in an Orthogeriatric Unit

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Abstract

Objective

Zoledronic acid (ZA) is an antiosteoporotic drug that has been proven to reduce mortality after a hip fracture (HF). ZA is however underused with older HF patients. One possible cause may be the high prevalence of severe renal failure and hypocalcemia which contraindicate ZA administration. The aim of this study was to assess the prevalence of these 2 contraindications in patients aged 75 years or older admitted into an orthogeriatric (OG) unit after a low-energy HF. The secondary objective was to assess the prevalence of situations in which ZA must be used with caution.

Methods

Our retrospective descriptive monocentric study was performed in an OG unit on a cohort of elderly patients hospitalized for HF from August 2015 to August 2017. Prevalence of hypocalcemia lower than 2 mmol/L and Cockcroft creatinine clearance lower than 35 mL/min was recorded.

Results

Among the 194 patients admitted for HF, 136 patients (mean age 86 ± 5.6 years; 101 women) were included. The mean length of hospital stay was 15 ± 9 days. 111 (81.5%) had no contraindications to ZA administration. More than 80% presented situations in which ZA had to be used with caution, including 25(OH)D deficiency (20%).

Conclusion

The majority of subjects aged 75 years or older admitted to hospital after an HF seem to have no contraindication for ZA administration during their immediate postoperative hospital stay. The hospitalization period after HF repair gives the opportunity to give most of them this treatment to improve their prognosis, taking into account situations in which ZA must be used with caution.

Disponible en: https://doi.org/10.1159/000520999

Geriatrics and Gerontology International

Comparison of three frailty screening instruments for prediction of adverse outcomes among older adults in the emergency department

Na Shang, Huizhen Liu, Na Wang, Shubin Guo, Lina Ma

Abstract

Aim

To compare the predictive abilities of the FRAIL scale (FS), frailty screening questionnaire (FSQ) and clinical frailty scale (CFS) for adverse outcomes in older adults in the emergency department.

Methods

In total, 317 older adults aged ≥65 years attending emergency department was screened for frailty using the FS, FSQ and CFS. Outcome measures included all-cause 28-day mortality and intensive care unit readmission. Cox proportional hazards model was used for survival comparison. Logistic regression was used to analyze risk factors for readmissions. In addition, we calculated the C-statistic, net reclassification improvement and integrated discrimination improvement to evaluate the predictive value of three scales.

Results

The prevalence of frailty was 55.2% (FS), 47.0% (FSQ) and 69.4% (CFS). Cox regression and logistic regression analysis revealed that frailty screening by FS, FSQ and CFS was an independent risk factor for all-cause 28-day mortality and 30- and 90-day readmission after adjustment. Incorporation of FS, FSQ and CFS into a basic model with other risk factors significantly improved C-statistic. For all-cause 28-day mortality, the model including FS had the highest C-statistic from 0.786 (95% confidence interval: 0.706–0.865) to 0.854 (95% confidence interval: 0.802–0.907) and the improvements in risk prediction were also confirmed by category-free net reclassification improvement and integrated discrimination improvement, suggesting FS was significantly better than CFS and FSQ. The three tools had a low predictive ability for readmission (all C-statistics <0.7).

Conclusions

All three frailty scales showed a predictive ability for 28-day mortality and readmission but FS may be the most valid tool in the emergency department.

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Journal of Geriatric Oncology

Use of geriatric assessment in cancer clinical trials: A systematic review

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Abstract

Background

Older adults are underrepresented in cancer clinical trials despite accounting for most of the disease burden. Geriatric assessment (GA) could be used in clinical trials of cancer drugs for older adults to improve the clinical evidence for cancer drug use among older adults.

Objective

To examine patterns of use of GA in cancer clinical trials.

Methods

We undertook a systematic review of the studies reporting use of GA in a clinical trial setting for all cancer types and published between January 2010 and January 2020. Characteristics of GA use were extracted for each study, along with study phase, cancer type, and participant age (PROSPERO: CRD42020170584).

Results

We identified 320 studies and 63 studies met the final inclusion criteria. Among 74 purposes of GA use, the most common was to examine the association between impairments in GA domains and clinical outcomes (28/74, 38%). Among 258 GA domains assessed across 63 studies, physical status (59/258, 23%) and comorbidities (50/258, 19%) were most often evaluated. There was significant heterogeneity in the instruments used to assess physical function (*n* = 16) and mood disorders (*n* = 7). Most studies were phase 2 (32/63, 51%).

Conclusions

GA is most often used in clinical trial settings to examine associations between GA-identified deficits and clinical outcomes. Significant heterogeneity exists in the GA instruments used across trials. Comprehensive and consistent incorporation of GA into future cancer clinical trial designs could help collect more older adult-specific clinical information and adjust trial eligibility criteria to increase representation by older adults.

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International Journal of Geriatric Psychiatry

Sleep disturbances in Lewy body dementia: A systematic review

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Abstract

Background

Lewy body dementia (LBD) refers to both dementia with Lewy bodies (DLB) and Parkinson's disease with dementia (PDD). Sleep disturbances are common in LBD, and can include poor sleep quality, excessive daytime sleepiness (EDS), and rapid eye movement behaviour disorder (RBD). Despite the high clinical prevalence of sleep disturbances in LBD, they are under-studied relative to other dementias. The aim of the present systematic review was to examine the nature of sleep disturbances in LBD, summarise the effect of treatment studies upon sleep, and highlight specific and necessary directions for future research.

Methods

Published studies in English were located by searching PubMED and PSYCArticles databases (until 10 June 2022). The search protocol was pre-registered in PROSPERO (CRD42021293490) and performed in accordance with PRISMA guidelines.

Results

Following full-text review, a final total of 70 articles were included. These included 20 studies focussing on subjective sleep, 14 on RBD, 8 on EDS, 7 on objective sleep, and 1 on circadian rhythms. The majority of the 18 treatment studies used pharmacological interventions (n = 12), had an open-label design (n = 8), and were of low-to-moderate quality. Most studies (n = 55) included only patients with DLB. Due to the heterogeneity of the studies, we reported a narrative synthesis without meta-analysis.

Conclusions

At least one form of sleep disturbance may be present in as many as 90% of people with LBD. Subjectively poor sleep quality, excessive daytime sleepiness, and RBD are more common and severe in LBD relative to other dementias.

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Journal of Gerontology Series A

Pathophysiological Mechanisms Explaining the Association Between Low Skeletal Muscle Mass and Cognitive Function

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Abstract

Low skeletal muscle mass is associated with cognitive impairment and dementia in older adults. This review describes the possible underlying pathophysiological mechanisms: systemic inflammation, insulin metabolism, protein metabolism, and mitochondrial function. We hypothesize that the central tenet in this pathophysiology is the dysfunctional myokine secretion consequent to minimal physical activity. Myokines, such as fibronectin type III domain containing 5/irisin and cathepsin B, are released by physically active muscle and cross the blood–brain barrier. These myokines upregulate local neurotrophin expression such as brain-derived neurotrophic factor (BDNF) in the brain microenvironment. BDNF exerts anti-inflammatory effects that may be responsible for neuroprotection. Altered myokine secretion due to physical inactivity exacerbates inflammation and impairs muscle glucose metabolism, potentially affecting the transport of insulin across the blood–brain barrier. Our working model also suggests other underlying mechanisms. A negative systemic protein balance, commonly observed in older adults, contributes to low skeletal muscle mass and may also reflect deficient protein metabolism in brain tissues. As a result of age-related loss in skeletal muscle mass, decrease in the

abundance of mitochondria and detriments in their function lead to a decrease in tissue oxidative capacity. Dysfunctional mitochondria in skeletal muscle and brain result in the excessive production of reactive oxygen species, which drives tissue oxidative stress and further perpetuates the dysfunction in mitochondria. Both oxidative stress and accumulation of mitochondrial DNA mutations due to aging drive cellular senescence. A targeted approach in the pathophysiology of low muscle mass and cognition could be to restore myokine balance by physical activity.

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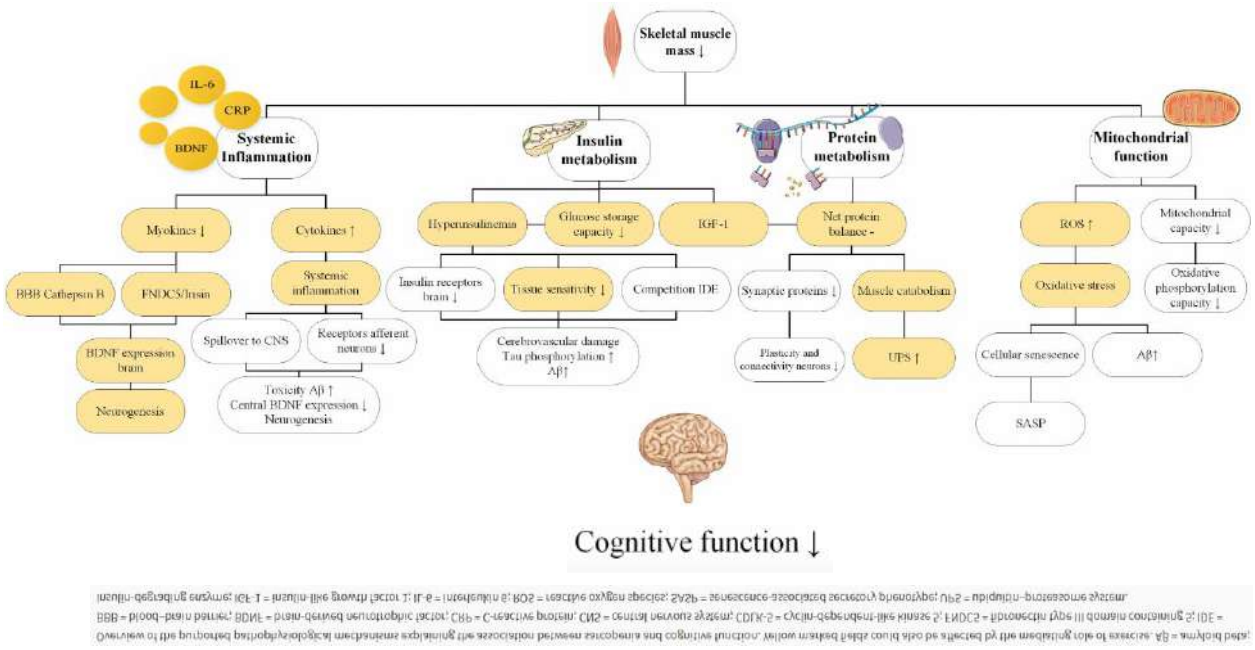

The Gereontologist

Measuring the Quality of Care for Older Adults With Multimorbidity: Results of the MULTIqual Project

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Abstract

Background and Objectives

Providing health care for older adults with multimorbidity is often complex, challenging, and prone to fragmentation. Although clinical decision making should take into account treatment interactions, individual burden, and resources, current approaches to assessing quality of care mostly rely on indicators for single conditions.

The aim of this project was to develop a set of generic quality indicators for the management of patients aged 65 and older with multimorbidity that can be used in both health care research and clinical practice.

Research Design and Methods

Based on the findings of a systematic literature review and eight focus groups with patients with multimorbidity and their family members, we developed candidate indicators. Identified aspects of quality were mapped to core domains of health care to obtain a guiding framework for quality-of-care assessment. Using nominal group technique, indicators were rated by a multidisciplinary expert panel (n = 23) following standardized criteria.

Results

We derived 47 candidate quality indicators from the literature and 4 additional indicators from the results of the focus groups. The expert panel selected a set of 25 indicators, which can be assigned to the levels of patient factors, patient–provider communication, and context and organizational structures of the conceptual framework.

Discussion and Implications

We developed a comprehensive indicator set for the management of multimorbidity that can help to highlight areas with potential for improving the quality of care and support application of multimorbidity guidelines. Furthermore, this study may serve as a blueprint for participatory designs in the development of quality indicators.

Table 1: Description of Quality Indicators Accepted by Expert Panel

Quality indicator	Numerator	Denominator
Screening for depression	No. of patients whose risk of depression was assessed using screening questions	No of patients (65+) with ≥3 cc without a prior diagnosis of depression
Proactive pain assessment	No. of patients who were asked about the presence of pain	No. of patients (65+) with ≥3 cc
Monitoring of pain management	No. of patients with chronic pain whose pain management was monitored and adjusted if necessary	No. of patients (65+) with ≥3 cc
Addressing financial support needs	No. of patients who were asked about their need for financial support	No. of patients (65+) with ≥3 cc
Quality of life assessment	No. of patients who had a discussion about their subjective quality of life	No. of patients (65+) with ≥3 cc
Assessment of symptom burden	No. of patients whose symptom burden was assessed using validated measurement tools	No. of patients (65+) with ≥3 cc
Assessment of biopsychosocial support needs	No. of patients whose biopsychosocial support needs were assessed and documented according to ICF	No. of patients (65+) with ≥3 cc
Eliciting patient preferences	No. of patients whose priorities, goals, and values were discussed and documented	No. of patients (65+) with ≥3 cc
Involving partners, family, and caregivers	No. of patients who had a discussion whether and to what extent partners, family, and caregivers should be involved in important decisions	No. of patients (65+) with ≥3 cc
Patient education/self-management	No. of patients who were offered participation in a patient training or support group or given a written self-management plan	No. of patients (65+) with ≥3 cc
Identification of patients with multimorbidity	No. of patients for whom the presence of multimorbidity was identified and labeled in their file	No. of patients (65+) with ≥3 cc
Information about medication	No. of patients who were informed about their medication (indication, effect, intake)	No. of patients (65+) with ≥3 cc receiving pharmacological treatment

Information about potential benefits and harms of treatment options	No. of patients who were informed about potential benefits and risks of treatment options prior to treatment decisions	No. of patients (65+) with ≥3 cc
Shared decision making	No. of patients who state that they are involved in treatment decisions to the extent they wish	No. of patients (65+) with ≥3 cc
Mutual agreement on treatment goals	No. of patients with whom treatment goals were established	No. of patients (65+) with ≥3 cc
Written treatment plan	No. of patients with a written treatment plan	No. of patients (65+) with ≥3 cc
Medication review	No. of patients who received a review of their medication	No. of patients (65+) with ≥3 cc with long-term medication
Regular updates of medication plan	No. of patients whose medication plan was checked for updates in the last 3 months	No. of patients (65+) with ≥3 cc with ≥3 long-term medications
Monitoring adherence to treatment	No. of patients whose adherence to treatment was assessed	No. of patients (65+) with ≥3 cc
Assessment of treatment burden	No. of patients who had a discussion of their treatment burden	No. of patients (65+) with ≥3 cc
Assigning responsibility for coordination of care	No. of patients with whom it was agreed and recorded which health care provider is responsible for the overall coordination of care	No. of patients (65+) with ≥3 cc
Comprehensive care documentation	No. of patients for whom reports from all health care providers involved are accessible to the care coordinator	No. of patients (65+) with ≥3 cc
Documentation of adverse drug reactions	No. of included practices/units where the identification and documentation of adverse drug reactions follow a standardized procedure	No. of included practices/units
Training programs addressing the management of patients with multimorbidity	No. of practices/units where (a) at least one physician and (b) at least one member of the nonphysician staff have participated in training programs for multimorbidity	No. of included practices/units

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Portal de medicamentos Sacyl

Actualización en las recomendaciones del uso de aspirina en la prevención primaria de la enfermedad cardiovascular

Interesante revisión sobre los criterios de uso de ácido acetil salicílico para la prevención primaria de eventos cardiovasculares en pacientes, a partir de las nuevas recomendaciones del U. S. Preventive Services Task Force (USPSTF) publicadas en abril de 2022.

La enfermedad cardiovascular (ECV) es una de las causas principales de mortalidad. Las recomendaciones del uso de aspirina del USPSTF se aplica a adultos ≥ 40 años sin ECV conocida, incluidos antecedentes de infarto agudo de miocardio (IAM) o accidente cerebrovascular (ictus), y sin aumento en el riesgo de hemorragia (p. Ej., Sin antecedentes de úlceras gastrointestinales (G-I), hemorragia reciente u otras afecciones médicas, o uso de medicamentos que aumenten el riesgo de hemorragia).

La edad es uno de los factores de riesgo (FR) más importantes de enfermedad cardiovascular (ECV). Los hombres soportan una mayor carga general de ECV, aunque las mujeres experimentan una mayor mortalidad por ciertos eventos CV, como el ictus. Los hombres tienden a experimentar eventos más precoces de ECV en la vida en comparación con las mujeres. La carga de las ECV también difiere según la raza y el origen étnico. Entre ambos sexos, los afroamericanos tienen la mayor prevalencia de ECV.

La USPSTF recomienda utilizar las ecuaciones de cohorte agrupadas del American College of Cardiology/American Heart Association (ACC/AHA) para estimar el riesgo de ECV a 10 años. La calculadora de la ACC/AHA tiene ecuaciones específicas por sexo y raza, incluidos los factores de riesgo de edad, niveles de colesterol, nivel de presión arterial sistólica (PAS), tratamiento antihipertensivo, presencia de diabetes mellitus (DM) y tabaquismo, y se centra en los resultados clínicos duros (IAM y muerte por causas coronarias), enfermedad cardíaca, ictus isquémico y muerte relacionada con ictus).

Es importante señalar que el riesgo de ECV a 10 años estimado por la calculadora de riesgo de ACC/AHA está fuertemente influenciado por el aumento de la edad y estima un mayor riesgo en las personas afroamericanas que en las personas blancas.

Beneficios del uso de aspirina	Evidencia **adecuada** de un **pequeño beneficio** de la aspirina en dosis bajas para reducir el riesgo de **eventos CV** (IAM no fatal e ictus) en adultos ≥ 40 años que no tienen antecedentes de ECV, pero tienen un mayor riesgo de ECV. La evidencia muestra que la magnitud del beneficio aumenta con el aumento del riesgo de ECV a 10 años, y que la magnitud de los beneficios de por vida es mayor cuando se inicia el tratamiento con aspirina a una edad más temprana.
Daños del uso de aspirina	Evidencia **adecuada** del **aumento** del **riesgo** en adultos con el uso de aspirina de hemorragia G-I, hemorragia intracraneal e ictus hemorrágico. El USPSTF determinó que la magnitud de los **daños** es pequeña en general, pero **aumenta en los grupos de mayor edad**, sobre todo en adultos **> 60 años.**
Evaluación USPSTF	El USPSTF concluye con **certeza moderada** que existe un **beneficio neto** pequeño con el uso de aspirina para la prevención primaria (PP) de eventos CV en adultos de **40 - 59** años que tienen > 10% de riesgo de ECV a 10 años. Por tanto, la decisión de inicio en este grupo de edad ha de valorarse individualizadamente. El USPSTF concluye con **certeza moderada** que **iniciar** el uso de aspirina para la PP de eventos de ECV en adultos **≤ 60 años** no tiene un **beneficio neto**. Por tanto, no se debe iniciar tratamiento en este grupo.

ECV: enfermedad cardiovascular; **USPSTF**: U. S. Preventive Services Task Force. **PP**: prevención primaria.

Beneficios:

– En los adultos de **40 - 59 años** que tienen ***> 10% de riesgo de ECV a 10 años*** *el uso de aspirina para la prevención primaria de ECV (infarto agudo de miocardio no fatal e ictus) existe un* ***beneficio neto pequeño****. La valoración de la recomendación del inicio de la terapia con aspirina en estos grupos de edad ha de hacerse de* ***forma individual*** *(Calificación C).*

– ***No*** *existe* ***beneficio neto*** *sobre el uso de aspirina para la prevención primaria de ECV en* ***> 60 años****. Por tanto, la recomendación es no iniciar tratamiento con aspirina en este grupo de edad para la prevención primaria de ECV. (Calificación D).*

Daños:

– Existe **aumento del riesgo** en adultos con el uso de aspirina de ***hemorragia G-I, hemorragia intracraneal e ictus hemorrágico***. Se ha observado que la magnitud de los **daños aumenta** en los grupos de mayor edad, sobre todo en **adultos ≥ 60 años**.

Conclusiones del USPSTF

Disponible en:
https://www.saludcastillayleon.es/portalmedicamento/es/terapeutica/ojo-markov/actualizacion-recomendaciones-uso-aspirina-prevencion-prima