REVISIÓN BIBLIOGRÁFICA **MARZO 2019**: Selección de artículos

REVISTAS GERIÁTRICAS

ARCHIVES OF GERONTOLOGY AND GERIATRICS

Non-vitamin K antagonist oral anticoagulants in elderly patients with atrial fibrillation: A systematic review with meta-analysis and trial sequential analysis

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Abstract

Background
Elderly population is known to be associated with polymedication, comorbidities and altered drug pharmacokinetics. However, the most adequate oral anticoagulant, attending to its relative efficacy and safety, remains unclear.

Methods
We searched for phase III randomized controlled trials (MEDLINE, Cochrane Library, SciELO collection and Web of Science) comparing novel non-vitamin K antagonist oral anticoagulants (NOACs) with Vitamin K antagonists (VKA) in the elderly population (≥75 years-old) in atrial fibrillation (AF). Risk ratios (RR) were calculated using a random effects model. Trial sequential analysis (TSA) was performed in statistically significant results to evaluate whether cumulative sample size was powered.

Results
Four trials rendered data about elderly (≥75 years-old) and younger patients (<75 years-old) with AF. NOACs demonstrated a 30% significant risk reduction (RR 0.70, 95% CI: 0.61 to 0.80) in elderly patients compared to VKA, without heterogeneity across studies (I2 = 0%). The TSA showed that cumulative evidence of this subgroup exceeded the minimum information size required for the risk reduction. In younger patients, VKA and NOACs shared a similar risk of stroke and systemic embolism (RR 0.97, 95% CI: 0.79 to 1.18). Regarding major bleeding risk in the elderly, the overall comparative risk of NOACs was not different from VKA (RR 0.91, 95% CI: 0.72 to 1.16; I2 = 86%).

Conclusions
NOACs reduce significantly the risk of stroke and systemic embolism in elderly patients without increasing major bleeding events. The dimension of stroke risk reduction was significantly higher in the elderly than in younger adults.

Disponible en: https://www.sciencedirect.com/science/article/abs/pii/S0167494318302450

BMC GERIATRICS

FRAILTOOLS study protocol: a comprehensive validation of frailty assessment tools to screen and diagnose frailty in different clinical and social settings and to provide instruments for integrated care in older adults

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Abstract

Background

Dozens of scales and questionnaires have been used in the detection of frailty; however, a generalized method for its screening and diagnosis is still lacking in clinical settings. FRAILTOOLS´ main objective is to evaluate the usefulness of frailty scales in the detection of frailty in different clinical and social settings, and its integration in management algorithms for the frail older patient.

Methods

FRAILTOOLS is an observational, longitudinal and prospective study with a follow-up of 6, 12 and 18 months. People older than 75 years old will be recruited from three separate clinical settings (acute geriatric wards, geriatric outpatient clinics and primary care) and one social setting (nursing homes). Exclusion criteria include Mini-mental State Examination < 20 points, and a Barthel index < 90 points, except in nursing home residents (< 40 points). The participants will be recruited in Spain, Italy, France, United Kingdom and Poland. The total sample size will be of 1.940 subjects, 97 subjects in each clinical setting by center. A personal interview with each participant will take place to register data on comorbidity (Charlson Index), functional (SPPB, Barthel and Lawton indexes), cognitive (MMSE) and frailty status (Fried Phenotype, Frailty Trait Scale – short version, SHARE-FI, 35-Items Rockwood Frailty Index, Clinical Frailty Scale, FRAIL scale and Gérontopôle Frailty Screening Tool) in the baseline visit, month 12 and month 18 visit of follow up. At 6 month a phone call will be made to assess whether there have been falls and to check the vital status.

Discussion

Currently, the usefulness of certain assessment tools in social and clinical settings have not been properly assessed, including their ability to predict the individual risk for different adverse outcomes, which is the main interest in daily practice.

The FRAILTOOLS project concentrates on providing screening and diagnostic tools for frailty in those settings where its prevalence is the highest and where efforts in prevention could make a significant change in the trend towards disability.

Trial registration

Comprehensive validation of frailty assessment tools in older adults in different clinical and social settings (FRAILTOOLS), NCT02637518

Disponible en: https://bmcgeriatr.biomedcentral.com/track/pdf/10.1186/s12877-019-1042-1

DRUGS AND AGING

Interventions to Optimise Prescribing in Older People with Dementia: A Systematic Review

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Abstract

Background
Older adults living with dementia may have a higher risk of medication toxicity than those without dementia. Optimising prescribing in this group of people is a critically important yet challenging process.

Objective
Our aim was to systematically review the evidence for the effectiveness of interventions for optimising prescribing in older people with dementia.

Methods
This systematic review searched the Pubmed, Embase, CINAHL, PsycINFO and Cochrane Library electronic databases for studies that evaluated relevant interventions. Experimental, quasi-experimental and observational studies published in English prior to August 2018 were included. Data were synthesised at a narrative level.

Results
The 18 studies accepted for review included seven randomised, two nonrandomised controlled, five quasi-experimental and four observational studies. Half the studies were conducted in nursing homes and the other half in hospital and community settings. There was great variability in the interventions and outcomes reported and a meta-analysis was not feasible. The three randomised and four nonrandomised studies examining medication appropriateness all reported improvements on at least one measure of the outcome. Six studies reported on interventions that identified and resolved drug-related problems. The results for other outcomes, including the number of medications (10 studies), healthcare utilisation (7 studies), mortality (7 studies), quality of life (3 studies) and falls (3 studies), were mixed and difficult to synthesise because of variability in the study design and measures used.

Conclusion
Emerging evidence suggests that interventions in older people with dementia may have positive effects on medication appropriateness and resolution of drug-related problems; however, whether optimisation of medication results in clinically meaningful outcomes remains uncertain.

Disponible en: https://link.springer.com/article/10.1007/s40266-018-0620-9

Higher Fit-fOR-The-Aged (FORTA) Scores Comprising Medication Errors are Associated with Impaired Cognitive and Physical Function Tests in the VALFORTA Trial

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Abstract

Background

The Fit fOR The Aged (FORTA) list, a drug classification combining positive and negative labelling of drugs, has been clinically (VALFORTA-trial) validated to improve medication quality and clinical endpoints.

Objective

The objective of this study was to determine the association of medication quality with functional abilities tested in cognitive and physical function tests.

Patients and Methods

Data from the prospective, randomized controlled VALFORTA trial on 409 geriatric (mean age 81.53 years) in-hospital patients were tested for associations between the FORTA score (sum of over- and under-treatment errors) on admission and cognitive and physical function tests. Univariate and multivariate linear correlations corrected for age, sex, number of medications, number of chronic conditions, and body mass index as well as comparisons between high and low FORTA-score (cut-off 3) patients were performed.

Results

The FORTA score was significantly correlated with Instrumental Activities of Daily Living ($p < 0.0001$), the Tinetti test ($p < 0.002$), Essen Questionnaire on Age and Sleepiness ($p < 0.0001$), Mini-Mental State Examination ($p < 0.0001$), and handgrip strength ($p < 0.04$) in the univariate analysis, and with Instrumental Activities of Daily Living ($p < 0.003$), the Tinetti test ($p < 0.003$), and the Essen Questionnaire on Age and Sleepiness ($p < 0.0001$) in the multivariate analysis. Effect size was weak for Instrumental Activities of Daily Living (R-squared = 0.12) and the Tinetti test (R-squared = 0.03) and medium for the Essen Questionnaire on Age and Sleepiness (R-squared = 0.22). Significant differences between patients with high and low FORTA scores were found for Instrumental Activities of Daily Living, the Tinetti test, mini-nutritional assessments, Mini-Mental State Examination, Essen Questionnaire on Age and Sleepiness, and the Geriatric Depression Scale. All significant tests revealed that higher FORTA scores (lower medication quality) were associated with less favorable test outcomes.

Conclusions

The FORTA score is associated with relevant aspects of comprehensive geriatric assessment, underlining the importance of medication quality for the functional and cognitive well-being of older patients.

Trial Registration Number

DRKS00000531.

Disponible en: https://link.springer.com/article/10.1007/s40266-018-0626-3

Prescriber Implementation of STOPP/START Recommendations for Hospitalised Older Adults: A Comparison of a Pharmacist Approach and a Physician Approach

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Abstract

Background
Two randomised controlled trials (RCTs) conducted simultaneously in the same Irish university teaching hospital have shown that provision of Screening Tool of Older Persons' Prescriptions (STOPP)/Screening Tool to Alert doctors to Right Treatment (START) recommendations to attending prescribers by a physician or a pharmacist can reduce in-hospital adverse drug reactions (ADRs) in older adults (≥ 65 years). The aims of this study were to compare the prescriber implementation rates of STOPP/START recommendations between the physician approach and the pharmacist approach in these two RCTs and to provide a narrative summary of the comparable clinical outcomes.

Methods
Data were extracted from the two RCT published papers and their associated computerised databases to calculate the percentage prescriber implementation rates for the STOPP/START recommendations. The Chi-square test was used to quantify the differences in prescriber implementation rates, with differences considered statistically significant where $p < 0.05$.

Results
Prescriber implementation rates of the STOPP and START recommendations made by the physician were 81.2% and 87.4% respectively, significantly higher than those made by the pharmacist (39.2% and 29.5% respectively), $p < 0.0001$. A greater absolute risk reduction in patients with ADRs was shown with the physician's intervention compared to the pharmacist's intervention (9.3% vs 6.8%).

Conclusion
This study shows that the methods of communication and the medium through which the STOPP/START recommendations are delivered significantly affect their implementation. Non-implementation of some pharmacist-delivered recommendations may be contributing to preventable ADRs in older adults. Thus, future research should aim to identify the factors influencing prescriber implementation of pharmacist recommendations in order to inform the design of more effective pharmacist interventions in optimising older patients' pharmacotherapy.

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Drugs Contributing to Anticholinergic Burden and Risk of Fall or Fall-Related Injury among Older Adults with Mild Cognitive Impairment, Dementia and Multiple Chronic Conditions: A Retrospective Cohort Study

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Abstract

Background
It is not known whether drugs with different anticholinergic ratings contribute proportionately to overall anticholinergic score.

Objectives
Our objective was to assess the risk of falls or fall-related injuries as a function of the overall anticholinergic score resulting from drugs with different anticholinergic ratings among people with impaired cognition.

Methods
This was a retrospective cohort study of adults aged ≥ 65 years with mild cognitive impairment (MCI) or dementia and two or more additional chronic conditions (N = 10,698) in an integrated delivery system. Electronic health record data, including pharmacy fills and diagnosis claims, were used to assess anticholinergic medication use, quantified using the anticholinergic cognitive burden (ACB) scale, falls and fall-related injuries.

Results
During a median follow-up of 366 days, 63% of the cohort used one or more ACB drug; 2015 (18.8%) people experienced a fall or fall-related injury. Among patients with a daily ACB score of 5, the greatest increase in risk of falls or fall-related injuries was seen when level 2 and level 3 drugs were used in combination [hazard ratio (HR) 2.06; 95% confidence interval (CI) 1.51–2.83]. Multiple ACB level 1 drugs taken together also increased the hazard of a fall or fall-related injury (HR 1.16; 95% CI 1.03–1.32). The risk of fall or fall-related injury as a function of exposure to ACB level 2 drugs (HR 1.56; 95% CI 1.16–2.10) was higher than that for ACB level 1 or 3 drugs.

Conclusions
The same daily ACB score was associated with a different degree of risk, depending on the ACB ratings of the individual drugs comprising the score. Combinations of level 2 and level 3 drugs had the greatest risk of fall or fall-related injury relative to other individuals with the same daily ACB score. Low-potency anticholinergic drugs taken together modestly increased the hazard of a fall or fall-related injury.

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JOURNAL OF THE AMERICAN GERIATRICS SOCIETY

How Chronic Is Polypharmacy in Old Age? A Longitudinal Nationwide Cohort Study

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Abstract

OBJECTIVE

To evaluate the chronicity of polypharmacy among older adults and to identify factors associated with chronic polypharmacy.

DESIGN

Longitudinal cohort study using register data.

SETTING

Nationwide, Sweden.

PARTICIPANTS

All 711,432 older adults (aged 65 years and older) living in Sweden with five or more prescription drugs in October 2010 were included and followed up until December 2013. Mean age at baseline was 77 (SD = 7.8) years, 59% were women, and 7% lived in nursing homes.

MEASUREMENT

Monthly changes in the exposure to polypharmacy. Data regarding prescription drug use were extracted from the Swedish Prescribed Drugs Register.

RESULTS

Overall, 82% were continuously exposed to polypharmacy for 6 months or longer, and 74% for 12 months or longer. The proportion of individuals who remained exposed until the end of the study was 55%. Among the 21,361 individuals who had not been exposed to polypharmacy during the 6-month period before baseline (ie, with a new episode of polypharmacy), only 30% remained exposed for 6 months or longer. The proportion of older adults who spent at least 80% of their follow-up time with polypharmacy was substantially higher among prevalent polypharmacy users at baseline than among those with a new polypharmacy episode (80% vs 24%; $P < .01$). Factors associated with chronic polypharmacy included higher age, female sex, living in an institution, chronic multimorbidity, and multidose dispensing.

CONCLUSION

Polypharmacy is most often chronic, although a substantial share of older adults experience short, recurring episodes of polypharmacy and are thus exposed to its potential harms in a transient rather than persistent manner

Disponible en: https://onlinelibrary.wiley.com/doi/10.1111/jgs.15717

REVISTAS FARMACÉUTICAS

EUROPEAN JOURNAL OF CLINICAL PHARMACOLOGY

Deprescribing in multi-morbid older people with polypharmacy: agreement between STOPPFrail explicit criteria and gold standard deprescribing using 100 standardized clinical cases

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Abstract

Purpose
Older people with advanced frailty are among the highest consumers of medications. When life expectancy is limited, some of these medications are likely to be inappropriate. The aim of this study was to compare STOPPFrail, a concise, easy-to-use, deprescribing tool based on explicit criteria, with gold standard, systematic geriatrician-led deprescribing.

Methods
One hundred standardized clinical cases involving 1024 medications were prepared. Clinical cases were based on anonymized hospitalized patients aged ≥ 65 years, with advanced frailty (Clinical Frailty Scale ≥ 6), receiving ≥ 5 regular medications, who were selected from a recent observational study. Level of agreement between deprescribing methods was measured by Cohen's kappa coefficient. Sensitivity and positive predictive value of STOPPFrail-guided deprescribing relative to gold standard deprescribing was also measured.

Results
Overall, 524 medications (51.2%) of medications prescribed to this frail, elderly cohort were potentially inappropriate by gold standard criteria. STOPPFrail-guided deprescribing led to the identification of 70.2% of the potentially inappropriate medications. Cohen's kappa was 0.60 (95% confidence interval 0.55–0.65; $p < 0.001$) indicating moderate agreement between STOPPFrail-guided and gold standard deprescribing. The positive predictive value of STOPPFrail was 89.3% indicating that the great majority of deprescribing decisions aligned with gold standard care.

Conclusions
STOPPFrail removes an important barrier to deprescribing by explicitly highlighting circumstances where commonly used medications can be safely deprescribed in older people with advanced frailty. Our results suggest that in multi-morbid older patients with advanced frailty, the use of STOPPFrail criteria to address inappropriate polypharmacy may be reasonable alternative to specialist medication review.

Disponible en: https://link.springer.com/article/10.1007/s00228-018-2598-y

REVISTAS DE MEDICINA GENERAL

JAMDA: JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION

Health Outcomes of Deprescribing Interventions Among Older Residents in Nursing Homes: A Systematic Review and Meta-analysis

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Abstract

Objectives

Deprescribing is effective in addressing concerns relating to polypharmacy in residents of nursing homes. However, the clinical outcomes of deprescribing interventions among residents in nursing homes are not well understood. We evaluated the impact of deprescribing interventions by health care professionals on clinical outcomes among the older residents in nursing homes.

Design

Systematic review and meta-analysis of randomized controlled trials. CINAHL, International Pharmaceutical Abstracts, MEDLINE, EMBASE, and Cochrane Library were searched from inception until September 2017; manual searches of reference lists of systematic reviews identified in the electronic search; and online trial registries for unpublished, ongoing, or planned trials. (PROSPERO CRD42016050028).

Setting and Participants

Randomized controlled trials in a nursing home setting that included participants of at least 60 years of age.

Measures

Falls, all-cause mortality, hospitalization, and potentially inappropriate medication were assessed in the meta-analysis.

Results

A total of 41 randomized clinical studies (18,408 residents) that examined deprescribing (defined as either medication discontinuation, substitution, or reduction) in nursing were identified. Deprescribing interventions significantly reduced the number of residents with potentially inappropriate medications by 59% (odds ratio [OR] 0.41, 95% confidence interval [CI] 0.19–0.89). In subgroup analysis, medication review–directed deprescribing interventions reduced all-cause mortality by 26% (OR 0.74, 95% CI 0.65–0.84), as well as the number of fallers by 24% (OR 0.76, 95% CI 0.62–0.93).

Conclusions

Compared to other deprescribing interventions, medication review–directed deprescribing had significant benefits on older residents in nursing homes. Further research is required to elicit other clinical benefits of medication review–directed deprescribing practice.

Disponible en: https://www.jamda.com/article/S1525-8610(18)30606-6/fulltext

EUROPEAN JOURNAL OF INTERNAL MEDICINE

The excess mortality risk associated with anticholinergic burden among older patients discharged from acute care hospital with depressive symptoms

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Abstract

Background
The relationship between anticholinergic burden and mortality is controversial, and the impact of anticholinergic burden on prognosis may vary in presence of other conditions common in old age. We aimed at investigating the role of depressive symptoms as potential effect modifiers in the association between anticholinergic burden and 1-year mortality in older patients discharged from hospital.

Methods
Our series consisted of 576 older patients consecutively admitted to seven geriatric and internal medicine acute care wards in the context of a prospective multicenter observational study. Overall anticholinergic burden was assessed by Anticholinergic Cognitive Burden (ACB) score. Depressive symptoms were assessed by 15-item Geriatric Depression Scale (GDS). The study outcome was all-cause mortality during 12-months follow-up. Statistical analysis was carried out by Cox regression analysis.

Results
After adjusting for potential confounders, discharge ACB score = 2 or more was significantly associated with the outcome among patients with GDS > 5 (HR = 3.70; 95%CI = 1.18–11.6), but not among those with GDS ≤ 5 (HR = 2.32; 95%CI = 0.90–6.24). The association was confirmed among depressed patients after adjusting for ACB score at 3-month follow-up (HR = 3.58; 95%CI = 1.21–10.7), as well as when considering ACB score as a continuous variable (HR = 1.42; 95%CI = 1.10–1.91). The interaction between ACB score at discharge and BADL dependency was statistically significant ($p < .005$).

Conclusions
ACB score at discharge may predict mortality among older patients discharged from acute care hospital carrying high GDS score e. Hospital physician should be aware that prescribing anticholinergic medications in such a vulnerable population may have negative prognostic implications.

Disponible en: https://www.ejinme.com/article/S0953-6205(18)30449-7/fulltext