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

REVISTAS GERIÁTRICAS

BMC GERIATRICS

The effect of SENATOR (Software ENgine for the Assessment and optimisation of drug and non-drug Therapy in Older peRsons) on incident adverse drug reactions (ADRs) in an older hospital cohort – Trial Protocol

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Abstract

Background
The aim of this trial is to evaluate the effect of SENATOR software on incident, adverse drug reactions (ADRs) in older, multimorbid, hospitalized patients. The SENATOR software produces a report designed to optimize older patients' current prescriptions by applying the published STOPP and START criteria, highlighting drug-drug and drug-disease interactions and providing non-pharmacological recommendations aimed at reducing the risk of incident delirium.

Methods
We will conduct a multinational, pragmatic, parallel arm Prospective Randomized Open-label, Blinded Endpoint (PROBE) controlled trial. Patients with acute illnesses are screened for recruitment within 48 h of arrival to hospital and enrolled if they meet the relevant entry criteria. Participants' medical history, current prescriptions, select laboratory tests, electrocardiogram, cognitive status and functional status are collected and entered into a dedicated trial database. Patients are individually randomized with equal allocation ratio. Randomization is stratified by site and medical versus surgical admission, and uses random block sizes. Patients randomized to either arm receive standard routine pharmaceutical clinical care as it exists in each site. Additionally, in the intervention arm an individualized SENATOR-generated medication advice report based on the participant's clinical and medication data is placed in their medical record and a senior medical staff member is requested to review it and adopt any of its recommendations that they judge appropriate. The trial's primary outcome is the proportion of patients experiencing at least one adjudicated probable or certain, non-trivial ADR, during the index hospitalization, assessed at 14 days post-randomization or at index hospital discharge if it occurs earlier. Potential ADRs are identified retrospectively by the site researchers who complete a Potential Endpoint Form (one per type of event) that is adjudicated by a blinded, expert committee. All occurrences of 12 pre-specified events, which represent the majority of ADRs, are reported to the committee along

with other suspected ADRs. Participants are followed up 12 (+/− 4) weeks post-index hospital discharge to assess medication quality and healthcare utilization.
This is the first clinical trial to examine the effectiveness of a software intervention on incident ADRs and associated healthcare costs during hospitalization in older people with multi-morbidity and polypharmacy.

Trial registration number
Clinicaltrials.gov NCT02097654, 27 March 2014.

Disponible en: https://bmcgeriatr.biomedcentral.com/track/pdf/10.1186/s12877-019-1047-9

DRUGS AND AGING

Apixaban Levels in Octogenarian Patients with Non-valvular Atrial Fibrillation

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Abstract

Background
There is a paucity of data on apixaban levels among octogenarians with non-valvular atrial fibrillation (NVAF). We aimed to compare apixaban levels between octogenarians (with and without dose reduction) and younger patients, to assess the frequency of high and above-range drug levels.

Methods
A cross-sectional, prospective study of 80 patients treated with apixaban for NVAF was conducted. Apixaban levels were compared among octogenarians treated with 5 mg twice daily (bid), octogenarians with appropriately reduced dose (2.5 mg bid), octogenarians with inappropriately reduced dose and younger patients (age < 70 years). Trough and peak levels were measured by a chromogenic assay calibrated for apixaban and compared to predicted manufacturer levels.

Results
A significant proportion of the cohort had above-range trough [n = 11 (13.8%)] and peak [n = 16 (20%)] levels, especially octogenarians with the 5-mg bid dosage [n = 6 (30%) for trough and n = 8 (40%) for peak]. No significant differences were found in the trough or peak geometric mean (GM) levels among the groups, apart from the peak GM levels between the 5-mg octogenarian group and the other two 2.5-mg bid octogenarian groups (p = 0.0004). The frequency of apixaban peak levels within the upper quartile was significantly higher in the 5-mg octogenarian group compared to the other groups [n = 12 (60%) of measurements, p = 0.019), whereas trough levels were comparable between groups.

Conclusion
High and above-range peak apixaban steady-state levels are highly prevalent in octogenarians receiving the appropriate dosage of 5 mg bid for NVAF stroke prevention. Age above 80 strongly affects apixaban levels.

Trial Registration
ClinicalTrials.gov Identifier number NCT02623049.

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EUROPEAN GERIATRIC MEDICINE

Association of polypharmacy and hyperpolypharmacy with frailty states: a systematic review and meta-analysis

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Abstract

Purpose
To investigate: (1) the cross-sectional association between polypharmacy, hyperpolypharmacy and presence of prefrailty or frailty; (2) the risk of incident prefrailty or frailty in persons with polypharmacy, and vice versa.
Methods
A systematic review and meta-analysis was performed according to PRISMA guidelines. We searched PubMed, Web of Science, and Embase from 01/01/1998 to 5/2/2018. Pooled estimates were obtained through random effect models and Mantel–Haenszel weighting. Homogeneity was assessed with the I2 statistic and publication bias with Egger's and Begg's tests.

Results
Thirty-seven studies were included. The pooled proportion of polypharmacy in persons with prefrailty and frailty was 47% (95% CI 33–61) and 59% (95% CI 42–76), respectively. Increased odds ratio of polypharmacy were seen for prefrail (pooled OR = 1.52; 95% CI 1.32–1.79) and frail persons (pooled OR = 2.62, 95% CI 1.81–3.79). Hyperpolypharmacy was also increased in prefrail (OR = 1.95; 95% CI 1.41–2.70) and frail (OR = 6.57; 95% CI 9.57–10.48) persons compared to robust persons. Only seven longitudinal studies reported data on the risk of either incident prefrailty or frailty in persons with baseline polypharmacy. A significant higher odds of developing prefrailty was found in robust persons with polypharmacy (pooled OR = 1.30; 95% CI 1.12–1.51). We found no papers investigating polypharmacy incidence in persons with prefrailty/frailty.

Conclusions
Polypharmacy is common in prefrail and frail persons, and these individuals are also more likely to be on extreme drug regimens, i.e. hyperpolypharmacy, than robust older persons. More research is needed to investigate the causal relationship between polypharmacy and frailty syndromes, thereby identifying ways to jointly reduce drug burden and prefrailty/frailty in these individuals.

Prospero registration number
CRD42018104756.

Disponible en: https://link.springer.com/content/pdf/10.1007%2Fs41999-018-0124-5.pdf

The Easy Dysphagia Symptom Questionnaire (EDSQ): a new dysphagia screening questionnaire for the older adults

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Abstract

Purpose
The early detection of dysphagia, a common clinical issue among older adults, is important. However, healthcare professionals sometimes experience difficulties in applying the current screening tools to older adults. Therefore, we developed the Easy Dysphagia Symptom Questionnaire (EDSQ), a simplified tool for the older adults, and investigated its reliability and validity.
Methods
The 12-item “yes/no” EDSQ assesses dysphagia symptoms, with a total score being the sum of all “yes” responses. Each item was determined by consensus of three physiatrists after reviewing the previous dysphagia questionnaires. Participants were aged 65 years or older who either complained of or were suspected by a physician of facing swallowing disturbance. They completed the EDSQ, modified water swallow test (MWST), and videofluoroscopic swallowing study. The EDSQ’s internal consistency was assessed. Correlations between the EDSQ total score and the MWST, American Speech–Language–Hearing Association’s National Outcome Measurement System (ASHA NOMS) swallowing scale, and videofluoroscopic dysphagia scale (VDS) were analyzed.

Results
The sample comprised 51 participants (29 male, 56.9%; mean age 76.7 ± 6.6 years). Mean EDSQ total score was 4.33 ± 3.03 (range 0–12). Regarding the EDSQ’s reliability, the Cronbach’s α coefficient was 0.785. The EDSQ total score correlated with the MWST ($r = -0.468$, $p = 0.001$), ASHA NOMS swallowing scale ($r = -0.635$, $p < 0.001$), and VDS ($r = 0.449$, $p = 0.001$). The receiver-operating characteristic analysis revealed an optimal cut-off score of ≥ 5, with a sensitivity of 90.9% and a specificity of 67.5%.

Conclusions
The EDSQ showed acceptable reliability and validity, indicating its applicability to older adults as a simple screening tool for safe swallowing.

Disponible en: https://link.springer.com/article/10.1007/s41999-018-0133-4

REVISTAS FARMACÉUTICAS

Qualitative analysis of community pharmacists' opinions on their involvement in reducing potentially inappropriate prescribing

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Abstract

Purpose
Older people are at risk of potentially inappropriate prescribing (PIP) due to polypharmacy arising from multi-morbidity. Despite available explicit criteria to reduce PIP, it is highly prevalent. Whilst community pharmacists have the required knowledge to help reduce PIP, they are not currently engaged with the problem. This study explores the views of community pharmacists on their potential involvement in reducing PIP and determines the challenges to its implementation.

Methods
Semi-structured interviews with pharmacists working in community pharmacies in Ireland. The theoretical domains framework (TDF) was used to develop the topic guide and to analyse the transcripts. Domains of highest relevance for PIP reduction were identified based on their frequency or whether the participants emphasised the impact of constructs within a domain. Local ethical approval was obtained.

Results
Of 18 participants, 12 were female, median age was 30 years (IQR, 27–35) with a median of 6 years (IQR, 3–8) of experience. Seven TDF domains were identified as relevant to PIP reduction. Pharmacists were uncertain about their role in reducing PIP and reluctant to challenge physicians' prescribing decisions. Challenges pertained to the environment, knowledge, social influences, professional role and identity.

Conclusions
Pharmacists welcomed new responsibilities in reducing PIP as part of their daily practice but expressed a need for removal of social and environmental barriers as well as, provision of relevant guidelines and education about PIP. This study provides useful insights into the target domains for overcoming barriers of pharmacist involvement in reducing PIP.

Disponible en: https://link.springer.com/article/10.1007/s00228-018-2578-2

THE ANNALS OF PHARMACOTHERAPY

Association Between Cognitive Tests and Antiretroviral Medication Adherence in Older Adults With HIV

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Abstract

Background
One of the fastest growing populations living with HIV is older adults especially those 65 years of age or older. Current antiretroviral therapy (ART) has prolonged life expectancy of persons with HIV. However, for therapy to be effective, patients need to be adherent. Over time, older persons with HIV may experience HIV-associated neurocognitive disorders or other factors that could affect ART adherence. The use of expedient cognitive tests that help measure medication adherence may be useful for the optimal care of these patients.

Objective
To investigate the association between cognitive tests and ART adherence.

Methods
This was a prospective study evaluating patients 65 years of age or older with HIV. Cognitive tests used included the Executive Clock-Drawing Task (CLOX) 1 and 2, Trail Making Test parts A and B, and Grooved Pegboard Test (GPB). The medication event monitoring system cap over 1 month was used as the primary measure for adherence.

Results
CLOX 1 and GPB were significantly related to adherence ($P < 0.05$). Comparison of the magnitude of each measure's relation to adherence suggests that the GPB is a better indicator of ability to adhere ($R = 0.514$ vs $R = 0.381$).

Conclusion and Relevance
CLOX 1 and GPB demonstrated an association with adherence in patients 65 years of age or older with HIV. Although the use of these tests to measure adherence in older persons with HIV seems promising, more research is needed to ascertain their ultimate utility.

Disponible en: https://journals.sagepub.com/doi/full/10.1177/1060028018798327

AMERICAN SOCIETY OF CONSULTANT PHARMACISTS

A Review of Clinical Guidelines and Pharmacotherapeutic Management of Hypertension in Older Adults

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Abstract

Objective
To provide an up-to-date review of current hypertension (htn) guidelines and discuss pharmacotherapeutic management of htn in the older adult population.

Data sources
A pubmed search of articles published through june 2018 was performed using a combination of the following words: elderly, older adults, geriatric, and htn.

Study selection/data extraction
Relevant original research, review articles, and guidelines were assessed for the management of htn in older adults. References from the above literature were also evaluated. Articles were selected for inclusion based on relevance to the topic, detailed methods, complete results, and after a thorough discussion among the authors.

Data synthesis
Htn is a common chronic disease state in older adults. Until recently, most guidelines recommended a higher threshold for blood pressure targets in this population, compared with the general adult population. In 2017, two new guidelines for the management of htn were published, which provided conflicting recommendations for blood pressure goals in the older population. This article reviews current u. S. Htn guidelines published in 2014 to 2017 that most commonly influence patient care, and it specifically addresses the blood pressure targets and pharmacotherapeutic management of htn in older adults.

Conclusion
Management of htn in older adults is important to avoid further complications and improve outcomes in this population. Blood pressure targets and htn management should be individualized in older adults based on comorbid conditions, life expectancy, and risk for adverse drug events.

Disponible en: https://www.ingentaconnect.com/contentone/ascp/tscp/2019/00000034/00000002/art00004

INTERNATIONAL JOURNAL OF CLINICAL PHARMACY

Translation and validation of a tool to assess the impact of clinical pharmacists' interventions

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Abstract

Background
The tool CLEO in French language is designed for estimating the potential relevance of pharmacists' interventions (PIs) in three independent dimensions with regard to process-related, clinical, economic, and humanistic impact.

Objective
We aimed to translate CLEO into German (CLEOde), to demonstrate its feasibility in daily practice, and to validate the German version.

Setting
Convenience sample of three Swiss hospitals with established clinical pharmacy services.

Method
We translated CLEO according to the ISPOR Principles of Good Practice. The potential relevance of PIs performed within a 13-day period of routine clinical pharmacy services was then estimated with CLEOde. Ten clinical pharmacists experienced with CLEOde subsequently completed a 19-item questionnaire to assess user's agreement on appropriateness, acceptability, feasibility, and precision of the tool. Additionally, each pharmacist evaluated 10 model cases with CLEOde. Main outcome measure User satisfaction; interrater reliability and test–retest reliability.

Results
CLEOde was used to estimate the potential relevance of 324 PIs. The reported time needed to complete a single estimation was less than 1 min. The use of CLEOde was seen as appropriate, acceptable, feasible, and precise. Interrater reliability was good for the clinical and economic dimensions and was poor for the organisational dimension; test–retest correlation was strong for all three dimensions with excellent to fair reliability.

Conclusion
We present CLEOde as a validated tool in German language suitable to estimate the potential relevance of PIs. After further refinement of the organisational dimension, CLEOde could provide a qualitative value to quantitative information on PIs.

Disponible en: https://link.springer.com/article/10.1007/s11096-018-0755-0

REVISTAS DE MEDICINA GENERAL

REVISTA CLINICA ESPAÑOLA

Rendimiento de los indicadores tras la implementación del Documento de consenso español para el control de la hiperglucemia en el hospital y al alta

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RESUMEN

Antecedentes y objetivos
La información sobre el manejo de los pacientes diabéticos en el momento del alta hospitalaria es reducida. El objetivo del estudio fue evaluar el impacto de la implementación de las recomendaciones del Consenso español para el manejo del alta hospitalaria en pacientes con diabetes tipo 2 (DM2) o hiperglucemia durante la hospitalización.

Métodos
Estudio observacional con un grupo de recogida prospectiva y otra retrospectiva de pacientes con DM2/hiperglucemia (> 140mg/dl) durante la hospitalización de 19 hospitales españoles. Se recopilaron indicadores de calidad en el informe de alta, terapia hipoglucémica, HbA1c y eventos adversos al ingreso, en el momento del alta y a los 3 meses del alta.

Resultados
Se incluyó a 199 pacientes en el grupo prospectivo y 75 en el retrospectivo. Los indicadores de calidad del informe de alta hospitalaria fueron mayores en el grupo prospectivo (p<0,001). La proporción de pacientes con tratamiento de insulina, fármacos antidiabéticos orales (ADO) e insulina+ADO sufrió modificaciones en el momento del alta hospitalaria de los pacientes del grupo prospectivo con HbA1c<7,5% (p<0,005) y ≥ 7,5% (p<0,001), y en los pacientes del grupo retrospectivo con HbA1c ≥ 7,5% (p<0,001). En el mes 3 tras el alta, los niveles de HbA1cdescendieron de 8,2± 1,9% a 7,3±1,2% (p<0,001) en el grupo prospectivo y desde 8,2±1,9% a 7,3±1,2% (p<0,001) en el retrospectivo. Los episodios de hipoglucemia e hiperglucemia así como los de reingreso fueron semejantes en ambos grupos.

Conclusiones
La aplicación del documento español de consenso de las recomendaciones para el manejo del alta hospitalaria en pacientes con DM2 o hiperglucemia mejora de forma considerable el registro de indicadores de calidad en el informe de alta. La conciliación de la medicación antidiabética en el momento del alta hospitalaria mejora el control glucémico después del alta.

Disponible en: https://www.revclinesp.es/es-rendimiento-los-indicadores-tras-implementacion-articulo-S0014256518301838

BMJ: BRITISH MEDICAL JOURNAL

Effectiveness and safety of electronically delivered prescribing feedback and decision support on antibiotic use for respiratory illness in primary care: REDUCE cluster randomised trial

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Abstract

Objectives
To evaluate the effectiveness and safety at population scale of electronically delivered prescribing feedback and decision support interventions at reducing antibiotic prescribing for self limiting respiratory tract infections.

Design
Open label, two arm, cluster randomised controlled trial.

Setting
UK general practices in the Clinical Practice Research Datalink, randomised between 11 November 2015 and 9 August 2016, with final follow-up on 9 August 2017.

Participants
79 general practices (582 675 patient years) randomised (1:1) to antimicrobial stewardship (AMS) intervention or usual care.

Interventions
AMS intervention comprised a brief training webinar, automated monthly feedback reports of antibiotic prescribing, and electronic decision support tools to inform appropriate prescribing over 12 months. Intervention components were delivered electronically, supported by a local practice champion nominated for the trial.

Main outcome measures
Primary outcome was the rate of antibiotic prescriptions for respiratory tract infections from electronic health records. Serious bacterial complications were evaluated for safety. Analysis was by Poisson regression with general practice as a random effect, adjusting for covariates. Prespecified subgroup analyses by age group were reported.

Results
The trial included 41 AMS practices (323 155 patient years) and 38 usual care practices (259 520 patient years). Unadjusted and adjusted rate ratios for antibiotic prescribing were 0.89 (95% confidence interval 0.68 to 1.16) and 0.88 (0.78 to 0.99, P=0.04), respectively, with prescribing rates of 98.7 per 1000 patient years for AMS (31 907 prescriptions) and 107.6 per 1000 patient years for usual care (27 923 prescriptions). Antibiotic prescribing was reduced most in adults aged 15-84 years (adjusted rate ratio 0.84, 95% confidence interval 0.75 to 0.95), with one antibiotic prescription per year avoided for every 62 patients (95% confidence interval 40 to 200). There was

no evidence of effect for children younger than 15 years (adjusted rate ratio 0.96, 95% confidence interval 0.82 to 1.12) or people aged 85 years and older (0.97, 0.79 to 1.18); there was also no evidence of an increase in serious bacterial complications (0.92, 0.74 to 1.13).

Conclusions
Electronically delivered interventions, integrated into practice workflow, result in moderate reductions of antibiotic prescribing for respiratory tract infections in adults, which are likely to be of importance for public health. Antibiotic prescribing to very young or old patients requires further evaluation.

Trial registration ISRCTN95232781.

Disponible en: https://www.bmj.com/content/bmj/364/bmj.l236.full.pdf

Acute care assessment of older adults living with frailty

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Abstract

Older adults living with frailty are frequent users of emergency services. Acute care settings are stressful for patients, care givers, and staff. The focus on prompt assessment, rapid decision making, and constant patient flow make the environment less suited to the older adult. We suggest an approach for clinicians to assess older adults living with frailty who present to acute care settings such as emergency departments, medical units, or out of hours general practice. Our approach is evidence based where possible but mindful of time and resource constraints.1 2 We focus on assessment as early recognition of frailty and accompanying problems facilitates appropriate onward referral and management.

Disponible en:
https://www.bmj.com/content/bmj/364/bmj.l13.full.pdf?casa_token=HCkWf9k43CsAAAAA:zcLE9S4mgHvmAbMGX3pmKKZDk7KlN8qU5TJVzce3W5vq3uvP0q2ogbBK1tGdTmBKXoGnx9fFtuQv