

## REVISIÓN BIBLIOGRÁFICA **ENERO 2023**: Selección de artículos

### **REVISTAS FARMACÉUTICAS**

#### **American Journal of Health System Pharmacist**

##### **Provider beliefs about the ideal design of an opioid deprescribing and substitution intervention for older adults**

Alissa M Margraf, PharmD, BCACP, Natalie M Davoodi, MPH, Kevin Chen, ScB, Renee R Shield, PhD, MA, Laura M McAuliffe, PharmD, BCACP, CDCES, Christine M Collins, MBA, Andrew R Zullo, PharmD, PhD

#### **Abstract**

##### **Purpose**

Opportunities exist to meaningfully reduce suboptimal prescription opioid use among older adults. Deprescribing is one possible approach to reducing suboptimal use. Appropriate interventions should outline how to carefully taper opioids, closely monitor adverse events, substitute viable alternative and affordable nonopioid pain treatments, and initiate medications for opioid use disorder to properly manage use disorders, as needed. We sought to document and understand provider perceptions to begin developing effective and safe opioid deprescribing interventions.

##### **Methods**

We conducted 3 semistructured focus groups that covered topics such as participant perspectives on opioid deprescribing in older adults, how to design an ideal intervention, and how to identify potential barriers or facilitators in implementing an intervention. Focus group transcripts were double coded and qualitatively analyzed to identify overarching themes.

##### **Results**

Healthcare providers (n = 17), including physicians, pharmacists, nurses, social workers, and administrative staff, participated in 3 focus groups. We identified 4 key themes: (1) involve pharmacists in deprescribing and empower them as leaders of an opioid deprescribing service; (2) ensure tight integration and close collaboration throughout the deprescribing process from the inpatient to outpatient settings; (3) more expansive inclusion criteria than age alone; and (4) provision of access to alternative pharmacological and nonpharmacological pain management modalities to patients.

## Conclusion

Our findings, which highlight various healthcare provider beliefs about opioid deprescribing interventions, are expected to serve as a framework for other organizations to develop and implement interventions. Future studies should incorporate patients' and family caregivers' perspectives.

**Disponible en:** <https://doi.org/10.1093/ajhp/zxac282>

## Drug Safety

### A Population-Based Study of SGLT2 Inhibitor-Associated Postoperative Diabetic Ketoacidosis in Patients with Type 2 Diabetes

[David Tak Wai Lui, Tingting Wu, Ivan Chi Ho Au, Xiaodong Liu, Matrix Man Him Fung, Chi Ho Lee, Carol Ho Yi Fong, Yu Cho Woo, Brian Hung Hin Lang, Kathryn Choon Beng Tan & Carlos King Ho Wong](#)

## **Abstract**

### Introduction and Objectives

Operations are a major precipitating factor for sodium-glucose co-transporter 2 inhibitor (SGLT2i)-associated diabetic ketoacidosis (DKA). This study aimed to investigate the risks of SGLT2i-associated postoperative DKA.

### Methods

We analysed a population-based cohort of patients with type 2 diabetes who underwent operations during 2015–2020. Patients with SGLT2i prescriptions within 6 months before operations were assigned to the SGLT2i group, while others were assigned to the control group. Inverse probability treatment weighting with propensity scores was used to balance the baseline covariates. Postoperative DKA was defined as DKA within 30 days postoperatively.

## Results

Overall, 147,115 subjects were included (3,419 SGLT2i users; 143,696 controls). Preoperative SGLT2i exposure was associated with increased risks of postoperative DKA (incidence = 6.40/1,000 person-years; incidence rate ratio [IRR] 6.33, 95% confidence interval [CI] 5.57–7.18;  $p < 0.001$ ). Risk factors of SGLT2i-associated postoperative DKA included emergency operation (IRR 24.56, 95% CI 7.42–81.24;  $p < 0.001$ ), preoperative HbA1c  $\geq 8\%$  (IRR 3.10, 95% CI 1.31–7.33;  $p = 0.010$ ) and insulin use (IRR 2.88, 95% CI 1.27–6.51;  $p = 0.011$ ). SGLT2i users who developed postoperative DKA had worse outcomes (invasive mechanical ventilation, dialysis, infections/sepsis, intensive care, and length of hospitalization;  $p < 0.05$ ) than those who did not, although SGLT2i users who developed postoperative DKA had better outcomes than non-SGLT2i users who developed postoperative DKA ( $p < 0.05$ ). The risk of postoperative DKA decreased following the implementation of an automatic electronic health record pop-up alert on perioperative precaution regarding SGLT2i (from IRR 4.06 [95% CI 3.41–4.83] to 2.97 [95% CI 2.41–3.65];  $p$  for interaction = 0.020).

## Conclusions

Preoperative SGLT2i use was associated with increased risks of postoperative DKA in patients with type 2 diabetes. Clinicians could optimize patients' outcomes by appropriate prescription of SGLT2i, while watching out for high-risk features. Implementing automatic electronic health record pop-up alerts may reduce the risk of SGLT2i-associated postoperative DKA.

Disponible en: <https://doi.org/10.1007/s40264-022-01247-3>

# European Journal of Clinical Pharmacology

## Risk of cardiovascular events according to the tricyclic antidepressant dosage in patients with chronic pain: a retrospective cohort study

[Hyunji Koo, Seung Hun You, Sewon Park, Kyeong Hye Jeong, Nakyung Jeon & Sun-Young Jung](#)

### **Abstract**

#### Purpose

We aimed to examine the risk of cardiovascular adverse events by tricyclic antidepressant (TCA) dosage among patients with chronic pain.

#### Methods

A retrospective cohort study was conducted using a nationwide sample cohort. Among patients aged  $\geq 18$  years with a chronic pain diagnosis and no history of cardiovascular events, we extracted users and non-users of TCAs through 1:1 propensity score matching. TCA users were categorized into three groups according to the mean defined daily dose (DDD): very low doses ( $< 0.15$  DDD), low doses ( $0.15\text{--}0.34$  DDD), and traditional doses ( $\geq 0.34$  DDD). A 6-month follow-up was conducted with an intention-to-treat approach. We examined the hazard ratio of cardiovascular adverse events using Cox proportional hazards analysis.

### Results

In total, 16,660 matched patients were followed up (8330 TCA users and 8330 non-users). TCA use did not significantly increase cardiovascular adverse events (hazard ratio [HR] 1.12, 95% confidence interval [CI] 0.94–1.33). Low-dose ( $0.15\text{--}0.34$  DDD) TCAs (HR 1.37, 95% CI 1.08–1.74), particularly low-dose ( $0.15\text{--}0.34$  DDD) nortriptyline (HR 2.11, 95% CI 1.44–3.08), was associated with an increased risk of cardiovascular adverse events. Administration of TCAs at the traditional dose ( $\geq 0.34$  DDD) increased the risk of ischemic stroke (HR 2.08, 95% CI 1.11–3.88).

### Conclusion

Close monitoring of patients on long-term, low-dose use of TCAs should be conducted to avoid an increase in the cumulative dose, which increases the risk of cardiovascular adverse events.

**Disponible en:** <https://doi.org/10.1007/s00228-022-03421-z>

## Pharmacotherapy

### Risk of parkinsonism and related movement disorders with gabapentinoids or tramadol: a case-crossover study

Kairi Ri, Toshiki Fukasawa, Satomi Yoshida, Masato Takeuchi, Koji Kawakami

#### **Abstract**

##### Introduction

A safety signal concerning parkinsonism and related movement disorders with gabapentinoids (gabapentin and pregabalin) or tramadol was detected by reviewing individual case reports and data mining in spontaneous report databases. Well-designed pharmacoepidemiological studies are needed to assess the signal.

##### Objective

This study aimed to investigate the association of exposure to gabapentinoids or tramadol with risk of parkinsonism and related movement disorders.

##### Methods

We conducted a case-crossover study using a Japanese electronic medical records database. Patients with newly diagnosed parkinsonism or related movement disorders between January 1, 2007 and April 14, 2019 were identified. The diagnosis date of outcomes was defined as the index date. We assessed the exposure of each patient to gabapentinoids or tramadol during a 90-day hazard period ending one day before the index date and in three 90-day reference periods. Multivariable conditional logistic regression models were employed to estimate adjusted odds ratios (aORs) and 95% confidence intervals (CIs). To confirm the robustness of the primary findings, we also performed sensitivity analyses using a case-case-time-control design, a different time window for hazard and reference periods, a different definition of outcome, and different number of reference periods.

##### Results

A total of 28,972 eligible cases were included in the primary analysis. Exposure to gabapentinoids (aOR, 2.12; 95% CI, 1.73–2.61) and tramadol (aOR, 2.04; 95% CI, 1.57–2.64) was associated with increased risk. Results were consistent across sensitivity analyses.

##### Conclusion

Our findings serve as a caution to physicians who prescribe gabapentinoids or tramadol in routine clinical practice.

Disponible en: <https://doi.org/10.1002/phar.2761>

## **REVISTAS DE MEDICINA GENERAL**

### **Journal of the American Medical Directors Association**

#### **Cognitive Frailty as a Predictor of Future Falls in Older Adults: A Systematic Review and Meta-Analysis**

[Xiaojing Guo, Juhong Pei, Yuxia Ma, Jiali Guo, Yuting Wei, Lin Han](#)

#### **Abstract**

##### **Objectives**

To examine the association between cognitive frailty and the risk of future falls among older adults.

##### **Design**

Systematic review and meta-analysis. Older people aged  $\geq 60$  years with cognitive frailty from community, hospital, or both.

##### **Methods**

PubMed, EMBASE, Web of Science, the Cochrane Library, Wanfang Database, China Knowledge Resource Integrated Database (CNKI), Weipu Database (VIP), and Chinese Biomedical Database (CBM) were searched for relevant studies published from the inception of the database until June 14, 2022. Stata 16.0 software was used to perform the meta-analysis. A random effects model was used to pool the prevalence of falls in older adults over age 60 years with cognitive frailty and the strength of the association between cognitive frailty and falls [odds ratios (ORs) and 95% CIs]. Quality assessment, heterogeneity, and sensitivity analyses were also conducted. A study protocol was registered in PROSPERO (CRD42022331323).

## Results

The review included 18 studies in qualitative synthesis, 14 of which were in meta-analysis. Eleven sets of cross-sectional data involving 23,025 participants and 5 sets of longitudinal data involving 11,924 participants were used in the meta-analysis. The results showed that the overall prevalence of falls in 1742 people with cognitive frailty was 36.3% (95% CI 27.9-44.8,  $I^2 = 93.4\%$ ). Longitudinal study results showed that cognitively frail individuals had a higher risk of falls (OR 3.02, 95% CI 2.11-4.32,  $I^2 = 0.0\%$ ,  $P = .406$ ), compared to robust participants without cognitive impairment; physically frail people (alone) had a moderate risk of falls (OR 2.16, 95% CI 1.42-3.30,  $I^2 = 9.7\%$ ,  $P = .351$ ); cognitively impaired people (alone) had a lower risk of falls (OR 1.36, 95% CI 1.03-1.79,  $I^2 = 0.0\%$ ,  $P = .440$ ). Among cross-sectional studies, cognitive frailty was associated with the risk of falls (OR 2.74, 95% CI 2.20-3.40,  $I^2 = 53.1\%$ ,  $P = .019$ ). Although high heterogeneity was noted among 11 cross-sectional studies reporting ORs, the sensitivity analysis showed that no single study significantly affected the final pooled results.

## Conclusions and Implications

This systematic review and meta-analysis confirms the findings that cognitive frailty was demonstrated to be a significant predictor of future falls in older adults. However, further prospective investigations are warranted.

Disponible en: <https://doi.org/10.1016/j.jamda.2022.10.011>

## European Journal of Internal Medicine

### Mobile health-technology integrated care in atrial fibrillation patients with heart failure: A report from the mAFA-II randomized clinical trial

[Yutao Guo, Giulio Francesco Romiti, Bernadette Corica, Hui Zhang, Gregory YH Lip](#)

## **Abstract**

### Background

To assess the effect of mobile health (mHealth) technology-implemented 'Atrial fibrillation Better Care' (ABC) pathway-approach (mAFA intervention) in AF patients with Heart Failure (HF).

## Methods

From the Mobile Health Technology for Improved Screening and Optimized Integrated Care in AF (mAFA-II) cluster randomized trial, we evaluated the effect of mAFA intervention on the risk of major outcomes in patients with HF using Inverse Probability of Treatment Weighting. Primary outcome was the composite outcome of stroke/thromboembolism, all-cause death, and rehospitalization. The effect of mAFA and the interaction with HF at baseline was assessed through Cox-regressions.

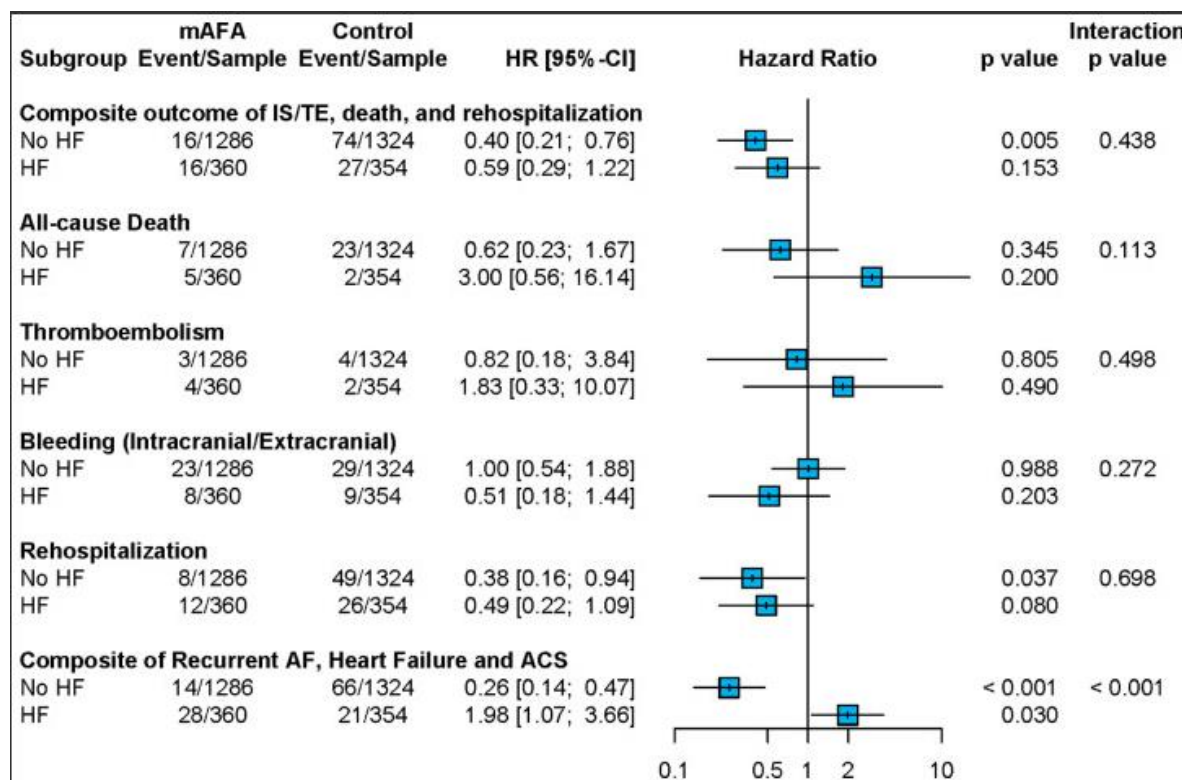
## Results

Among the 3,324 patients originally enrolled in the trial, 714 (21.5%; mean age: 72.7±13.1 years; 39.9% females) had HF. The effect of mAFA intervention on the primary outcome was consistent in patients with and without HF (Hazard Ratio, (HR): 0.59, 95% Confidence Interval (CI): 0.29-1.22 vs. HR: 0.40, 95%CI: 0.21-0.76, p for interaction=0.438); similar findings were found for rehospitalisations and bleeding events. A trend towards lower efficacy of mAFA in HF patients was observed for all-cause death, while the risk of the composite outcome of 'recurrent AF, HF and acute coronary syndrome' was higher among AF-HF patients allocated to mAFA (p for interaction: <0.001).



## Conclusion

A mHealth-technology implemented ABC pathway provides consistent effects on the risks of primary outcome, rehospitalisation and bleeding, in AF patients both with and without HF. However, AF-HF patients may need tailored approaches to improve their overall prognosis, specifically to reduce the risk of recurrent AF, HF and acute coronary syndrome.



**Fig. 1 Risk of major outcomes according to mAFA intervention in patients with vs. without history of HF. Legend: CI= Confidence Interval; HR= Hazard Ratio; HF= Heart Failure.**

Disponible en: <https://doi.org/10.1016/j.ejim.2022.11.002>

## New England Journal of Medicine

### Progression of Atrial Fibrillation after Cryoablation or Drug Therapy

[Jason G. Andrade, M.D., Marc W. Deyell, M.D., Laurent Macle, M.D., George A. Wells, Ph.D., Matthew Bennett, M.D., Vidal Essebag, M.D., Ph.D., Jean Champagne, M.D., Jean-Francois Roux, M.D., Derek Yung, M.D., Allan Skanes, M.D., Yaariv Khaykin, M.D., Carlos Morillo, M.D.,](#)

#### **Abstract**

##### Background

Atrial fibrillation is a chronic, progressive disorder, and persistent forms of atrial fibrillation are associated with increased risks of thromboembolism and heart failure. Catheter ablation as initial therapy may modify the pathogenic mechanism of atrial fibrillation and alter progression to persistent atrial fibrillation.

##### Methods

We report the 3-year follow-up of patients with paroxysmal, untreated atrial fibrillation who were enrolled in a trial in which they had been randomly assigned to undergo initial rhythm-control therapy with cryoballoon ablation or to receive antiarrhythmic drug therapy. All the patients had implantable loop recorders placed at the time of trial entry, and evaluation was conducted by means of downloaded daily recordings and in-person visits every 6 months. Data regarding the first episode of persistent atrial fibrillation (lasting  $\geq 7$  days or lasting 48 hours to 7 days but requiring cardioversion for termination), recurrent atrial tachyarrhythmia (defined as atrial fibrillation, flutter, or tachycardia lasting  $\geq 30$  seconds), the burden of atrial fibrillation (percentage of time in atrial fibrillation), quality-of-life metrics, health care utilization, and safety were collected.

## Results

A total of 303 patients were enrolled, with 154 patients assigned to undergo initial rhythm-control therapy with cryoballoon ablation and 149 assigned to receive antiarrhythmic drug therapy. Over 36 months of follow-up, 3 patients (1.9%) in the ablation group had an episode of persistent atrial fibrillation, as compared with 11 patients (7.4%) in the antiarrhythmic drug group (hazard ratio, 0.25; 95% confidence interval [CI], 0.09 to 0.70). Recurrent atrial tachyarrhythmia occurred in 87 patients in the ablation group (56.5%) and in 115 in the antiarrhythmic drug group (77.2%) (hazard ratio, 0.51; 95% CI, 0.38 to 0.67). The median percentage of time in atrial fibrillation was 0.00% (interquartile range, 0.00 to 0.12) in the ablation group and 0.24% (interquartile range, 0.01 to 0.94) in the antiarrhythmic drug group. At 3 years, 8 patients (5.2%) in the ablation group and 25 (16.8%) in the antiarrhythmic drug group had been hospitalized (relative risk, 0.31; 95% CI, 0.14 to 0.66). Serious adverse events occurred in 7 patients (4.5%) in the ablation group and in 15 (10.1%) in the antiarrhythmic drug group.

## Conclusions

Initial treatment of paroxysmal atrial fibrillation with catheter cryoballoon ablation was associated with a lower incidence of persistent atrial fibrillation or recurrent atrial tachyarrhythmia over 3 years of follow-up than initial use of antiarrhythmic drugs. (Funded by the Cardiac Arrhythmia Network of Canada and others; EARLY-AF ClinicalTrials.gov number, NCT02825979. opens in new tab.)

**Disponible en:** [10.1056/NEJMoa2212540](https://doi.org/10.1056/NEJMoa2212540)

## **Empagliflozin in Patients with Chronic Kidney Disease**

### The EMPA-KIDNEY Collaborative Group

#### **Abstract**

##### Background

The effects of empagliflozin in patients with chronic kidney disease who are at risk for disease progression are not well understood. The emp-a-kidney trial was designed to assess the effects of treatment with empagliflozin in a broad range of such patients.

##### Methods

We enrolled patients with chronic kidney disease who had an estimated glomerular filtration rate (egfr) of at least 20 but less than 45 ml per minute per 1.73 m<sup>2</sup> of body-surface area, or who had an EGFR of at least 45 but less than 90 ml per minute per 1.73 m<sup>2</sup> with a urinary albumin-to-creatinine ratio (with albumin measured in milligrams and creatinine measured in grams) of at least 200. Patients were randomly assigned to receive empagliflozin (10 mg once daily) or matching placebo. The primary outcome was a composite of progression of kidney disease (defined as end-stage kidney disease, a sustained decrease in EGFR to <10 ml per minute per 1.73 m<sup>2</sup>, a sustained decrease in EGFR of ≥40% from baseline, or death from renal causes) or death from cardiovascular causes.

##### Results

A total of 6609 patients underwent randomization. During a median of 2.0 years of follow-up, progression of kidney disease or death from cardiovascular causes occurred in 432 of 3304 patients (13.1%) in the empagliflozin group and in 558 of 3305 patients (16.9%) in the placebo group (hazard ratio, 0.72; 95% confidence interval [ci], 0.64 to 0.82; p<0.001).

Results were consistent among patients with or without diabetes and across subgroups defined according to EGFR ranges. The rate of hospitalization from any cause was lower in the empagliflozin group than in the placebo group (hazard ratio, 0.86; 95% ci, 0.78 to 0.95; p=0.003), but there were no significant between-group differences with respect to the composite outcome of hospitalization for heart failure or death from cardiovascular causes (which occurred in 4.0% in the empagliflozin group and 4.6% in the placebo group) or death from any cause (in 4.5% and 5.1%, respectively). The rates of serious adverse events were similar in the two groups.

### Conclusions

Among a wide range of patients with chronic kidney disease who were at risk for disease progression, empagliflozin therapy led to a lower risk of progression of kidney disease or death from cardiovascular causes than placebo.

Disponible en: [10.1056/NEJMoa2204233](https://doi.org/10.1056/NEJMoa2204233)

## REVISTAS GERIÁTRICAS

### Age and Ageing

#### Weight loss, visit-to-visit body weight variability and cognitive function in older individuals

[Michelle H. Zonneveld, Raymond Noordam, Behnam Sabayan, David J. Stott, Simon P. Mooijaart, Gerard J. Blauw, J. Wouter Jukema, Naveed Sattar, Stella Trompet](#)

#### **Objective**

to investigate the association between variability and loss of body weight with subsequent cognitive performance and activities of daily living in older individuals.

#### **Setting**

PROspective Study of Pravastatin in the Elderly at Risk, multicentre trial with participants from Scotland, Ireland and the Netherlands.

#### **Subjects**

4,309 participants without severe cognitive dysfunction (mean age 75.1 years, standard deviation (SD) = 3.3), at higher risk for cardiovascular disease (CVD).

#### **Methods**

body weight was measured every 3 months for 2.5 years. Weight loss was defined as an average slope across all weight measurements and as  $\geq 5\%$  decrease in baseline body weight during follow-up. Visit-to-visit variability was defined as the SD of weight measurements (kg) between visits. Four tests of cognitive function were examined: Stroop test, letter-digit coding test (LDCT), immediate and delayed picture-word learning tests. Two measures of daily living activities: Barthel Index (BI) and instrumental activities of daily living (IADL). All tests were examined at month 30.

## Results

Both larger body weight variability and loss of  $\geq 5\%$  of baseline weight were independently associated with worse scores on all cognitive tests, but minimally with BI and IADL. Compared with participants with stable weight, participants with significant weight loss performed 5.83 seconds (95% CI 3.74; 7.92) slower on the Stroop test, coded 1.72 digits less (95% CI -2.21; -1.13) on the LDCT and remembered 0.71 pictures less (95% CI -0.93; -0.48) on the delayed picture-word learning test.

## Conclusion

in older people at higher risk for CVD, weight loss and variability are independent risk-factors for worse cognitive function.

Disponible en: <https://doi.org/10.1093/ageing/afac312>

## Chronic pain in people living with dementia: challenges to recognising and managing pain, and personalising intervention by phenotype

[Jemima T Collins, Rowan H Harwood, Alison Cowley, Claudio Di Lorito, Eamonn Ferguson, Marcos F Minicucci, Louise Howe, Tahir Masud, Giulia Ogliari, Rebecca O'Brien ... Show more](#)

## Abstract

Pain is common in people with dementia, and pain can exacerbate the behavioural and psychological symptoms of dementia. Effective pain management is challenging, not least in people with dementia. Impairments of cognition, communication and abstract thought can make communicating pain unreliable or impossible. It is unclear which biopsychosocial interventions for pain management are effective in people with dementia, and which interventions for behavioural and psychological symptoms of dementia are effective in people with pain. The result is that drugs, physical therapies and psychological therapies might be either underused or overused. People with dementia and pain could be helped by assessment processes that characterise an individual's pain experience and dementia behaviours in a mechanistic manner, phenotyping. Chronic pain management has moved from a 'one size fits all' approach, towards personalised medicine, where interventions recommended for an individual depend upon the key mechanisms underlying their pain, and the relative values they place on benefits and adverse effects.

Mechanistic phenotyping through careful personalised evaluation would define the mechanisms driving pain and dementia behaviours in an individual, enabling the formulation of a personalised intervention strategy. Central pain processing mechanisms are particularly likely to be important in people with pain and dementia, and interventions to accommodate and address these may be particularly helpful, not only to relieve pain but also the symptoms of dementia.

Disponible en: <https://doi.org/10.1093/ageing/afac306>

## Archives of Gerontology and Geriatrics

### Effectiveness of Virtual Reality Games in Improving Physical Function, Balance and Reducing Falls in Balance-impaired Older Adults: A Systematic Review and Meta-analysis

[YuanyuanRen1;ChenliLin1;QinZhou;ZhangYingyuan;GuodongWang;AmingLu](#)

#### **Abstract**

##### **Background**

: In recent years, sports games based on virtual reality (VR) have been widely used in the prevention and treatment of diseases related to the elderly. However, there seems to be no consensus on the improvement and comparison of physical function, balance and falls in elderly people with balance impairment.

##### **Objective**

: This study aims to explore the effects of VR intervention on physical function, balance and falls in elderly people with balance impairment.

##### **Methods**

: Systematic literature searches of the PubMed, Web of Science, Elsevier, Cochrane, CNKI, and Wanfang databases were performed for VR games-related randomized controlled trials or comparison studies among elderly participants with impaired balance, published in English or Chinese until March 20, 2022. The Cochrane collaboration risk of bias tool was used to evaluate the methodological quality of the studies. A meta-analysis was performed to calculate the standardized mean deviation or mean difference of the sample and its 95% confidence interval (CI) in VR games.

## Results

: The systematic review included 23 studies. The results showed that VR intervention had significant effects on hand grip strength (MD:1.30,  $P=0.040$ ), knee extension strength (MD:-6.27,  $P<0.001$ ), five times sit-to-stand test scores (MD:1.13,  $P=0.030$ ), timed up-and-go test scores (MD:-1.01,  $P=0.001$ ), berg balance scale scores (MD:2.37,  $P<0.001$ ), and falls efficacy scale scores (SMD:-0.28,  $P=0.020$ ). Subgroup analysis results showed that VR intervention was more effective on improving TUG and BBS scores than the conventional exercise group (MD=-0.54,  $P=0.004$ ; MD=3.24,  $P<0.001$ ) and the non-intervention group (MD=-0.98,  $P=0.001$ ; MD=3.30,  $P<0.001$ ). The balance training-based VR had a significant effect on improving TUG (MD=-1.03,  $P=0.05$ ) and BBS (MD=2.93,  $P<0.001$ ), and 20-45 min intervention,  $\geq 3$  times/wk, 5-8 wk cycles were significant in improving TUG (MD=-0.89,  $P<0.001$ ; MD=-0.75,  $P=0.009$ ; MD=-1.54,  $P<0.0001$ ). VR intervention significantly improved TUG (MD=-2.27,  $P<0.0001$ ) and BBS (MD=3.41,  $P<0.0001$ ) in older adults in the hospital or nursing home compared with those residing in communities.

## Conclusion

: VR interventions can help the elderly with impaired balance to overcome traditional sports obstacles and improve physical function, balance and minimize falls. Balance training-based VR intervention is more effective in balance recovery and fall prevention compared with game program. An intervention plan comprising 20-45 min, 5-8 wk cycles, and  $\geq 3$  times/wk frequency has significantly higher effects for high-risk elderly populations living in hospitals or nursing homes.

Disponible en: <https://doi.org/10.1016/j.archger.2023.104924>

## DRUGS AND AGING

### Effect of Information Intervention on Prescribing Practice for Neuropathic Pain in Older Patients: A Nationwide Register-Based Study

[Iiro Ahomäki, Petri Böckerman, Jaakko Pehkonen, Leena Saastamoinen](#)

## Abstract

### Introduction

Management of prescription medicines is challenging for older patients due to frail health and the prevalence of multiple chronic conditions. A salient policy challenge of prescribing practices is that all physicians are not well informed about the national clinical guidelines. A feasible policy intervention to mitigate the harms caused by Potentially Inappropriate Medications is to influence the frequency of prescribing and other prescribing attributes of the drugs by providing accurate and up-to-date information about the national clinical guidelines.



### **Objectives**

The objective of this study was to examine the effect of a nationwide information intervention on physicians' prescribing practices and patients' healthcare utilization.

### **Methods**

We used a quasi-experimental research design based on difference-in-differences variation and nationwide register data on prescribers and purchasers of pregabalin, nortriptyline, and amitriptyline combinations in Finland between January 2018 and May 2019. The study included 68,914 patients and 11,432 physicians.

### **Results**

We found that the information letter sent to all prescribers of pregabalin, nortriptyline, or amitriptyline combinations to patients aged 75 years or older decreased the probability of prescribing of these medications. The estimated effect of  $-3.3$  percentage points (95% confidence interval  $[-0.041, -0.024]$ ) corresponds to a 29% reduction compared to the baseline mean of the outcome. The filled quantity, measured in Defined Daily Doses, of pregabalin, nortriptyline, and amitriptyline combinations per month was reduced by 11.7%  $[-14.5\% \text{ to } -8.9\%]$  among patients aged 75 years or older. No effect on patients' healthcare utilization was observed.

### **Conclusions**

Findings of the study suggest that personal information intervention was an effective policy tool for nudging physicians to reduce prescribing of potentially inappropriate medicines, whereas the reduction in prescribing was not accompanied by improvements or adverse effects in patients' health.

Disponible en: <https://link.springer.com/article/10.1007/s40266-022-00993-4>

## Journal of Clinical Interventions In Aging

### Current Insights into the Risks of Using Melatonin as a Treatment for Sleep Disorders in Older Adults

Tuft C, Matar E, Menczel Schrire Z, Grunstein RR, Yee BJ, Hoyos CM

**Abstract:** Exogenous melatonin is commonly used for sleep disorders in older adults, and its use is increasing over time. It appears to have modest efficacy in treating insomnia and circadian rhythm sleep-wake disorders. Melatonin is commonly perceived to be a safe alternative to other hypnotics and is available without prescription in some jurisdictions. New evidence suggests that endogenous melatonin has pleomorphic effects on multiple organ systems, many of which are poorly understood. This narrative review summarizes the current evidence regarding the safety of melatonin in older adults (defined by age over 65 years). Melatonin appears to have a favorable safety profile in this population, however there is a dearth of evidence regarding the safety of prolonged use. There are several factors which increase the risk of adverse effects of melatonin in older adults, and these should be taken into consideration when prescribing to this population.

Disponible en: <https://www.dovepress.com/current-insights-into-the-risks-of-using-melatonin-as-a-treatment-for-peer-reviewed-fulltext-article-CIA>

## Journal of the American geriatrics society

### The Modified and Extended Hospital Elder Life Program: A remote model of care to expand delirium prevention

Tamara G. Fong MD, PhD, Jason A. Albaum, Molly L. Anderson BS, Sara G. Cohen MS, Shauni Johnson DNP, Mark A. Supiano MD, AGSF, Philip E. Vlisides MD et al

#### **Abstract**

##### **Background**

Delirium is a common complication of hospitalization and is associated with poor outcomes. Multicomponent delirium prevention strategies such as the Hospital Elder Life Program (HELP) have proven effective but rely on face-to-face intervention protocols and volunteer staff, which was not possible due to restrictions during the COVID-19 pandemic. We developed the Modified and Extended Hospital Elder Life Program (HELP-ME), an innovative adaptation of HELP for remote and/or physically distanced applications.

## Methods

HELP-ME protocols were adapted from well-established multicomponent delirium prevention strategies and were implemented at four expert HELP sites. Each site contributed to the protocol modifications and compilation of a HELP-ME Operations Manual with standardized protocols and training instructions during three expert panel working groups. Implementation was overseen and monitored during seven learning sessions plus four coaching sessions from January 8, 2021, through September 24, 2021. Feasibility of implementing HELP-ME was measured by protocol adherence rates. Focus groups were conducted to evaluate the acceptability, provide feedback, and identify facilitators and barriers to implementation.

## Results

A total of 106 patients were enrolled across four sites, and data were collected for 214 patient-days. Overall adherence was 82% (1473 completed protocols/1798 patient-days), achieving our feasibility target of >75% overall adherence. Individual adherence rates ranged from 55% to 96% across sites for the individual protocols. Protocols with high adherence rates included the nursing delirium protocol (96%), nursing medication review (96%), vision (89%), hearing (87%), and orientation (88%), whereas lower adherence occurred with fluid repletion (64%) and range-of-motion exercises (55%). Focus group feedback was generally positive for acceptability, with recommendations that an optimal approach would be hybrid, balancing in-person and remote interventions for potency and long-term sustainability.

## Conclusions

HELP-ME was fully implemented at four HELP sites, demonstrating feasibility and acceptability. Testing hybrid approaches and evaluating effectiveness is recommended for future work.

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### A qualitative study of multiple voices to inform Aftercare services for older persons following self-harm

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## Abstract

### Objectives

Self-harm and suicide are closely related in older adults, highlighting the opportunity for Aftercare interventions in targeted suicide prevention. The study aims were to explore strengths and shortfalls of current Aftercare services for older adults from the perspective of key stakeholders and researchers; and inform a set of guiding principles for older persons' Aftercare.

## **Methods**

Semi-structured interviews were undertaken with a convenience sample of older people with lived experience of self-harm, clinicians and suicide researchers (n=22). Interviews were focused on current practice (strengths and limitations), potential improvements, and identifying the core components of an acceptable Aftercare model. Interviews were audio-recorded, transcribed and subjected to a reflexive thematic analysis grounded in interpretive description.

## **Results**

Current practice strengths included validation, a person-centred approach and optimising aftercare delivery. Limitations included ageism, practical limitations (lack of service awareness, fragmented service provision, barriers to access, and traumatising approaches), and limited services, funding and training. Overarching themes included anti-ageism; anti-stigma; empowerment and agency; conveying hope; patience and pace; accessible; and finding purpose: connections and meaningful activity.

## **Conclusions**

Older people who have self-harmed have complex, individualised needs. They sit within intersecting systems traversing healthcare, support services, family, and the social environment. Systemic, coordinated Aftercare founded upon core principles of anti-ageism, anti-stigma, partnership, empowerment, accessibility and provision of connections and meaning are needed.

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