



# REVISIÓN BIBLIOGRÁFICA DICIEMBRE 2019:

## Selección de artículos

### REVISTAS GERIÁTRICAS

#### **BMC Geriatrics**

##### **Characteristics of febrile urinary tract infections in older male adults**

Alex Smithson, Javier Ramos, Esther Niño, Alex Culla, Ubaldo Pertíerra, Michele Friscia & María Teresa Bastida

##### **Abstract**

##### **Background**

Urinary tract infections (UTI) are among the most frequent bacterial infections in older adults. The aim of the study was to analyse the existence of differences in clinical features, microbiological data and risk of infection by multidrug-resistant organisms (MDRO) between older and non-older men with febrile UTI (FUTI).

##### **Methods**

This was an ambispective observational study involving older males with a FUTI attended in the Emergency Department. Variables collected included age, comorbidity, diagnostic of healthcare-associated (HCA)-FUTI, clinical manifestations, hospitalization, mortality, and microbiological data.

##### **Results**

Five hundred fifty-two males with a FUTI, 329 (59.6%) of whom were older adults, were included. Older males had a higher frequency of HCA-FUTI ( $p < 0.001$ ), increased Charlson scores ( $p < 0.001$ ), had received previous antimicrobial treatment more frequently ( $p < 0.001$ ) and had less lower urinary tract symptoms ( $p < 0.001$ ). Older patients showed a lower frequency of FUTI caused by *E. coli* ( $p < 0.001$ ) and a higher rate of those due to *Enterobacter* spp. ( $p = 0.003$ ) and *P. aeruginosa* ( $p = 0.033$ ). Resistance rates to cefuroxime ( $p = 0.038$ ), gentamicin ( $p = 0.043$ ), and fluoroquinolones ( $p < 0.001$ ) in *E. coli* isolates and the prevalence of extended-spectrum beta-lactamase and AmpC producing *E. coli* and *Klebsiella* spp. strains ( $p = 0.041$ ) and MDRO ( $p < 0.001$ ) were increased in older males. Inadequate empirical antimicrobial treatment ( $p = 0.004$ ), frequency of hospitalization ( $p < 0.001$ ), and all cause in-hospital mortality ( $p = 0.007$ ) were higher among older patients. In the multivariate analysis, being admitted from a long term care facility (OR 2.4; 95% CI: 1.06–5.9), having a urinary tract abnormality (OR 2.2; 95% CI: 1.2–3.8) and previous antimicrobial treatment (OR 3.2; 95% CI: 1.9–5.4) were associated to FUTI caused by MDRO.

##### **Conclusions**

Older male adults with a FUTI have different clinical characteristics, present specific microbiological features, and antimicrobial resistance rates. In the multivariate analysis being an older male was not associated with an increased risk of FUTI caused by MDRO.

Disponible en: <https://bmcriatr.biomedcentral.com/articles/10.1186/s12877-019-1360-3>



## A prospective study of hepatic safety of statins used in very elderly patients

Meizi Guo, Junli Zhao, Yingjiu Zhai, Panpan Zang, Qing Lv & Dongya Shang

### Abstract

#### Background

Statins play an important role in the care of patients with cardiovascular disease and have a good safety record in clinical practice. Hepatotoxicity is a barrier that limits the ability of primary care physicians to prescribe statins for patients with elevated liver transaminase values and/or underlying liver disease. However, limited population-based data are available on the use of statin therapy and on the hepatotoxicity of statins in very elderly patients. This prospective study evaluated the liver enzyme elevation during statin therapy in very elderly patients ( $\geq 80$  years old).

#### Methods

Patients with hypercholesterolemia (LDL-C levels  $\geq 3.4$  and  $< 5.7$  mmol/L), atherosclerosis, coronary heart disease (CHD), or a CHD-risk equivalent were enrolled and received once-daily statin treatment. Multivariate logistic regression models were used to study the impact of age, gender, hepatitis B infection, fatty liver disease, biliary calculus, other chronic diseases, drug kinds, alcohol abuse, statin variety, and statin dose variables.

#### Results

A total of 515 consecutive patients ranging from 80 to 98 years old were included in the analysis. These patients were treated with simvastatin, fluvastatin, pravastatin, rosuvastatin, or atorvastatin. Twenty-four patients (4.7, 95% CI 2.7–6.6) showed an increase in their hepatic aminotransferase levels. No significant difference of hepatic aminotransferase elevation rates was observed in different statin treatment groups. The incidence of mild, moderate, and severe elevation of aminotransferase levels was 62.5% (15/24), 29.2% (7/24), and 8.3% (2/24), respectively. None of the patients developed hepatic failure. Nine patients with moderate or severe aminotransferase elevations discontinued therapy. The time of onset of hepatic aminotransferase elevation ranged from 2 weeks to 6 months after statin treatment. The onset of hepatic aminotransferase elevation was within 1 month for 70.8% of patients. The patients took 2 weeks to 3 months to recover their liver function after statin therapy cessation. Multivariate analysis identified chronic hepatitis B infection and alcohol consumption as independent factors associated with the hepatic response to statins: OR, 12.83; 95% CI (4.36–37.759) and OR, 2.736; 95% CI (1.373–5.454), respectively.

#### Conclusion

The prevalence of elevated transaminases was higher than published data in very elderly patients. Overall, statin treatment is safe for patients  $\geq 80$  years old

Disponible en: <https://bmgeriatr.biomedcentral.com/articles/10.1186/s12877-019-1361-2>



# **DRUGS AND AGING**

## **Blockade of Renin–Angiotensin–Aldosterone System in Elderly Patients with Heart Failure and Chronic Kidney Disease: Results of a Single-Center, Observational Cohort Study**

Juan Martínez-Milla, Marcelino Cortés García, Mikel Taibo Urquía, Marta López Castillo, Ana Devesa Arbiol, Ana Lucía Rivero Monteagudo, María Luisa Martín Mariscal, Sem Briongos Figuero, Juan Antonio Franco-Pelaéz & José Tuñón

### **Abstract**

#### **Background**

Angiotensin-converting enzyme inhibitors/angiotensin receptor blockers (ACEis/ARBs) and mineralocorticoid receptor antagonists (MRAs) have been shown to benefit patients with heart failure with reduced ejection fraction (HFrEF). However, there is a lack of information on the advantages of these drugs for patients with chronic kidney disease (CKD), and this gap is especially pronounced in elderly patients.

#### **Objective**

The objective of this study was to assess the role of treatment consisting of ACEi/ARBs and MRAs in patients  $\geq 75$  years of age with CKD.

#### **Methods**

From January 2008 to July 2014, 390 consecutive patients  $\geq 75$  years of age with an ejection fraction  $\leq 35\%$  and a glomerular filtration rate (GFR)  $\leq 60$  mL/min/1.73 m<sup>2</sup> were included. We analyzed the relationship between treatment with ACEi/ARBs and MRAs and mortality or cardiovascular events.

#### **Results**

Three hundred and ninety patients were included, with a mean age of  $82.6 \pm 4.1$  years. Mean ejection fraction was  $27.9 \pm 6.5\%$ . Renal dysfunction was mild (GFR 45–60 mL/min/1.73 m<sup>2</sup>) in 50.3% of patients, moderate (GFR 30–44 mL/min/1.73 m<sup>2</sup>) in 37.4%, and severe (GFR  $< 30$  mL/min/1.73 m<sup>2</sup>) in 12.3%. After  $32 \pm 23$  months, 68.7% of patients were receiving ACEi/ARBs and 40% were receiving MRAs; 65.9% developed a cardiovascular event and 54.4% had died. After multivariate Cox regression analysis, ACEi/ARB treatment was independently associated with a decreased rate of cardiovascular events (hazard ratio 0.71 [95% confidence interval 0.50–0.98]) and MRAs were not associated with a decrease in cardiovascular events or total mortality.

#### **Conclusions**

Treatment with ACEi/ARBs in elderly patients with HFrEF and CKD was associated with a lower rate of cardiovascular events, though MRA treatment failed to reduce the risk of morbidity and mortality in our population.



# **JOURNAL OF THE AMERICAN GERIATRICS SOCIETY**

## **Self-Reported Prescription Drug Use for Pain and for Sleep and Incident Frailty**

Gulcan Cil PhD Juyoung Park PhD Andrew W. Bergen

### **Abstract**

### **OBJECTIVES**

We aimed to estimate incident frailty risks of prescription drugs for pain and for sleep in older US adults.

### **PARTICIPANTS**

Community-living respondents aged 65 years and older, excluding individuals who received recent treatment for cancer ( $N = 14,208$ ). Our longitudinal analysis sample included respondents who were not frail at baseline and had at least one follow-up wave with complete information on both prescription drug use and frailty, or date of death ( $N = 7201$ ).

### **MEASUREMENTS**

Prescription drug use for pain and sleep, sociodemographics, other drug and substance use, and Burden frailty model components. Multivariable drug use stratified hazard models with death as a competing risk evaluated frailty risks associated with co-use and single use of prescription drugs for pain and for sleep.

### **RESULTS**

Proportions endorsing prescription drug use were 22.1% for pain only, 6.8% for sleep only, and 7.7% for both indications. Burden frailty model prevalence was 41.0% and varied significantly by drug use. Among non-frail individuals at baseline, proportions endorsing prescription drug use were 14.9%, 5.6%, and 2.2% for the three indications. Prescription drug use was associated with increased risk of frailty (co-use adjusted subhazard ratio [sHR] = 1.95; 95% confidence interval [CI] = 1.6-2.4; pain only adjusted sHR = 1.58; CI = 1.4-1.8; sleep-only adjusted sHR = 1.35; CI = 1.1-1.6; no use = reference group). Cumulative incidence of frailty over 8 years for the four groups was 60.6%, 50.9%, 45.8%, and 34.1%. Sensitivity analyses controlling for chronic diseases associated with persistent pain resulted in minor risk reductions.

### **CONCLUSION**

Prescription pain and sleep drug use is significantly associated with increased incidence of frailty. Research to estimate effects of pain and sleep indications and of drug class-specific dosage and duration on incident frailty is indicated before advocating deprescribing based on these findings.

Disponible en: <https://onlinelibrary.wiley.com/doi/10.1111/jgs.16214>



# **JOURNAL OF GERONTOLOGY**

## **Implementation of the Stopping Elderly Accidents, Deaths, and Injuries Initiative in Primary Care: An Outcome Evaluation**

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### **Abstract**

#### **Background and Objectives**

Older adult falls pose a growing burden on the U.S. health care system. The Centers for Disease Control and Prevention's Stopping Elderly Accidents, Deaths, and Injuries (STEADI) initiative was developed as a multifactorial approach to fall prevention that includes screening for fall risk, assessing for modifiable risk factors, and prescribing evidence-based interventions to reduce fall risk. The purpose of this study was to determine the impact of a STEADI initiative on medically treated falls within a large health care system in Upstate New York.

#### **Research Design and Methods**

This cohort study classified older adults who were screened for fall risk into 3 groups: (a) At-risk and no Fall Plan of Care (FPOC), (b) At-risk with a FPOC, and (c) Not-at-risk. Poisson regression examined the group's effect on medically treated falls when controlling for other variables. The sample consisted of 12,346 adults age 65 or older who had a primary care visit at one of 14 outpatient clinics between September 11, 2012, and October 30, 2015. A medically treated fall was defined as a fall-related treat-and-release emergency department visit or hospitalization.

#### **Results**

Older adults at risk for fall with a FPOC were 0.6 times less likely to have a fall-related hospitalization than those without a FPOC ( $p = .041$ ), and their postintervention odds were similar to those who were not at risk.

#### **Discussion and Implications**

This study demonstrated that implementation of STEADI fall risk screening and prevention strategies among older adults in the primary care setting can reduce fall-related hospitalizations and may lower associated health care expenditures.

Disponible en: <https://academic.oup.com/gerontologist/article/59/6/1182/5103473>



## REVISTAS FARMACÉUTICAS

### AJHP AMERICAN JOURNAL OF HEALTH SYSTEM PHARMACIST

#### **Effect of medication reconciliation interventions on outcomes: A systematic overview of systematic reviews**

Laura J Anderson, Jeff L Schnipper, Teryl K Nuckols, Rita Shane, Michael M Le, Karen Robbins, Joshua M Pevnick, Members of the PHARM-DC group

#### **Abstract**

#### **Purpose**

To evaluate and summarize published evidence from systematic reviews examining medication reconciliation.

#### **Methods**

MEDLINE, the Cochrane Database of Systematic Reviews, and the Database of Abstracts of Reviews of Effects were searched for English-language systematic reviews published from January 2004 to March 2019. Reviewers independently extracted information and scored review quality using the Assessment of Multiple Systematic Reviews (AMSTAR) tool. For reviews with AMSTAR scores above 7, Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology was applied to assess evidence quality, with evidence summarized and conclusions compared across reviews.

#### **Results**

Eleven reviews met the inclusion criteria, 5 of which used meta-analytic pooling. Most systematic reviews included primary studies of comprehensive bundled interventions that featured medication reconciliation as a central component. Reviews largely focused on transitions into and out of hospital settings. Five reviews focused exclusively on pharmacist-led interventions. Of the 5 reviews that considered all types of medication discrepancies, 3 reviews found very low-quality evidence that interventions reduced medication discrepancies. Neither of the 2 reviews that examined clinically significant medication discrepancies found any intervention effect. Of the 5 reviews that examined healthcare utilization outcomes, only 1 found any intervention effect, and that finding was based on low- to very low-quality evidence. Four reviews considered clinical outcomes, but none found any intervention effect.

#### **Conclusion**

An overview of systematic reviews of medication reconciliation interventions found 9 high-quality systematic reviews. A minority of those reviews' conclusions were consistent with medication reconciliation alone having a measurable impact, and such conclusions were almost all based on very low-quality evidence.

Disponible

en:

[https://academic.oup.com/ajhp/article-](https://academic.oup.com/ajhp/article-abstract/76/24/2028/5649011?redirectedFrom=fulltext)

[abstract/76/24/2028/5649011?redirectedFrom=fulltext](https://academic.oup.com/ajhp/article-abstract/76/24/2028/5649011?redirectedFrom=fulltext)



# DRUG SAFETY

## **Comparative Effectiveness and Safety of Direct Oral Anticoagulants: Overview of Systematic Reviews**

Emanuel Raschi, Matteo Bianchin, Milo Gatti, Alessandro Squizzato, Fabrizio De Ponti

### **Abstract**

#### **Background**

Direct oral anticoagulants are now recommended by major guidelines as first-choice agents for both stroke prevention in non-valvular atrial fibrillation and treatment/prevention of venous thromboembolism in non-cancer patients. Although there are no published head-to-head trials comparing different direct oral anticoagulants, a growing body of evidence from indirect comparisons and observational studies is suggesting that each direct oral anticoagulant may have a specific risk profile. This review aims to (1) synthesize and critically assess the latest evidence in comparative effectiveness and safety research in the aforementioned consolidated therapeutic uses, by performing an overview of systematic reviews and (2) highlight current challenges, namely underexplored areas, where research should be directed, also considering ongoing unpublished studies.

#### **Methods**

We searched MEDLINE-PubMed to extract relevant articles on the comparative effectiveness and safety of DOACs in non-valvular AF and VTE published till 15 June, 2019, using a combination of the following terms: “direct oral anticoagulants, dabigatran, rivaroxaban, apixaban, edoxaban, atrial fibrillation, venous thromboembolism, comparative effectiveness, comparative safety”, and through pre-specified filters “systematic reviews, meta-analysis, observational study, publication dates [last 3 years], English language”. We performed an overview of SRs with the following mutually exclusive priority: (1) SRs with or without meta-analyses of observational studies and (2) SRs with or without meta-analyses of RCTs using indirect comparisons (the network meta-analysis, NMA): SRs of NMAs were selected in case multiple NMAs were available. Snowballing of retained SRs was performed.

#### **Results and conclusion**

The evidence gathered so far on the risk–benefit profile of direct oral anticoagulants is appraised in the light of existing guidelines to discuss whether further implementation should be proposed

Disponible en: <https://link.springer.com/article/10.1007/s40264-019-00866-7>



# **EUROPEAN JOURNAL OF CLINICAL PHARMACOLOGY**

## **Association between anticholinergic (atropinic) drug exposure and cognitive function in longitudinal studies among individuals over 50 years old: a systematic review**

Laurine Andre, Adeline Gallini, François Montastruc, Jean-Louis Montastruc, Antoine Piau, Maryse Lapeyre-Mestre & Virginie Gardette

### **Abstract**

### **Purpose**

With increasing age, adults are often exposed to anticholinergic drugs and are prone to potential adverse drug reaction, among which cognitive impairment. If the short-term cognitive effects of anticholinergic drugs are well established, their long-term cognitive effects have less been studied.

### **Objective**

To provide a systematic review of longitudinal studies which assessed the effect of anticholinergic exposure on cognition in individuals over 50 years.

### **Materials**

We searched the MEDLINE database for studies with a minimal 6-month follow-up, assessing anticholinergic exposure through a biological measure or a clinical list and reporting at least one cognitive outcome. We used the modified Newcastle-Ottawa scale and additional criteria regarding the anticholinergic exposure to assess studies' methodological quality. Given the heterogeneity of the studies, we performed a systematic review.

### **Results**

Among the 1574 references retrieved, 25 studies were included. Anticholinergic medications were mostly defined through the Anticholinergic Cognitive Burden Scale ( $n = 14/25$ ). Six studies evaluated baseline drug collection, 14 used longitudinal aggregated measure, and 5 multiple drug exposure measures over time. Seventeen studies assessed anticholinergic burden. Cognitive function was assessed by mild cognitive impairment/dementia incidence ( $n = 15$ ) or neuropsychological tests ( $n = 14$ ). Most studies were of poor quality and retrieved discordant results. However, studies with good quality ( $n = 4$ ) suggested a relationship between anticholinergic drug exposure and/or burden and cognitive function.

### **Conclusion**

Our review suggests a deleterious effect of anticholinergic exposure on mid/long-term cognitive function but should be confirmed in studies with improved methodology. Meanwhile, prescription of anticholinergic drugs should remain cautious.

Disponible en: <https://link.springer.com/article/10.1007/s00228-019-02744-8>



# Study of the strength of the evidence and the redundancy of the research on pharmacological treatment for Alzheimer's disease: a cumulative meta-analysis and trial sequential analysis

Lídia Blanco-Silvente, Xavier Castells, Garre-Olmo, Joan Vilalta-Franch, Marc Saez, Maria Antònia Barceló, Dolors Capellà

## Abstract

## Background

To study the strength of the evidence on efficacy, safety and acceptability of cholinesterase inhibitors (ChEI) and memantine for Alzheimer's disease (AD); and to determine the number of redundant post-authorisation trials.

## Methods

A cumulative meta-analysis with a trial sequential analysis (TSA) was performed. Primary outcomes were cognitive function assessed with ADAS-cog or SIB scales, discontinuation due to adverse events (AE) and discontinuation for any reason. The redundancy of post-authorisation clinical trials was studied by determining the novel aspects of each study on patient, intervention, comparator and trial outcome characteristics. Two criteria of futile trial (lenient and strict) were used.

## Results

A total of 63 randomised clinical trials (RCTs) (16,576 patients) were included. It was conclusive that neither ChEI nor memantine achieved clinically significant improvement in cognitive function. In relation to safety, there was sufficient evidence to conclude that donepezil caused a clinically relevant increase on dropouts due to AE whereas the evidence was inconclusive for the remaining interventions. Regarding acceptability, it was conclusive that no ChEI improved treatment discontinuation while it was uncertain for memantine. The proportion of redundant trials was 5.6% with the lenient criteria and 42.6% with the strict one.

## Conclusions

The evidence is conclusive that ChEI and memantine do not achieve clinically significant symptomatic improvement in AD while the acceptability of ChEI is unsatisfactory. Although evidence on the safety of pharmacological interventions for AD and acceptability of memantine is inconclusive, no further RCTs are needed as their efficacy is not clinically relevant. Redundant trials were identified but their number depends on the criteria of futility used.

Disponible en: <https://link.springer.com/article/10.1007/s00228-019-02742-w>



## **PHARMACOEPIDEMIOLOGY AND DRUG SAFETY**

### **Features of anticholinergic prescriptions and predictors of high use in the elderly: Population-based study**

Kyung-in Joung Ju-Young Shin Sung-il Cho

#### **Abstract**

#### **Purpose**

Older people are especially vulnerable to negative anticholinergic effects. Although anticholinergic drugs are commonly used among older people, drugs with potent antimuscarinic properties are considered as potentially inappropriate medications for older people. Here, we examined features of anticholinergic use and investigated predictors for the high use of strong anticholinergic agents (ACs) in the elderly.

#### **Methods**

A total of 388,629 Korean elderly aged  $\geq 70$  years were recruited from the 2012 National Health Insurance Service Elderly cohort database. The use of ACs in 2012 was quantitatively assessed by calculating standardized prescribed doses. Multivariate logistic regression was conducted to identify predictors of the high use of strong ACs ( $\geq 90$  doses).

#### **Results**

Almost half of the subjects (47.2%) used more than 15 doses of strong ACs during 2012. 17.0% of the subjects had an annual cumulative use of strong ACs over 90 doses. Morbidities such as depression (odds ratio [OR], 95% confidence interval [CI] = 2.56, 2.48–2.63), Parkinson's disease (2.41, 2.26–2.56), genitourinary diseases (2.12, 2.07–2.16), polypharmacy (3.28, 3.21–3.36), and low income (1.29, 1.25–1.33) were strong predictors of their high use. Antihistamines (chlorpheniramine) and antidepressants (amitriptyline) greatly contributed to the total prescription of strong ACs.

#### **Conclusions**

Despite the vulnerability of older people to the adverse reactions of strong ACs, their use seems to be at a high level in terms of cumulative usage among some elderly. More attention should be paid to older people with predictive factors of high use of strong ACs.

Disponible en: <https://onlinelibrary.wiley.com/doi/10.1002/pds.4902>



# REVISTAS DE MEDICINA GENERAL

## JAMDA: JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION

### **Effects of Statins on Relative Risk of Fractures for Older Adults: An Updated Systematic Review With Meta-Analysis**

Rui Shi, Zubing Mei, Zhijun Zhang, Zhenjun Zhu

#### **Abstract**

#### **Objectives**

Basic and translational studies have found statin treatment may have beneficial effects on bone metabolism; however, whether statins reduce the risk of fractures in older adults is still in debate. Therefore, we aimed to summarize the up-to-date evidence on risk of fracture among older individuals with statin use.

**Design** Systematic literature review and meta-analysis.

#### **Setting and Participants**

Twenty-one observational studies and 2 randomized controlled trials (RCTs) comprising 1,783,123 participants aged at least 50 years were retrieved from PubMed, Embase, and the Cochrane Library.

#### **Measures**

We estimated summary relative risks (RRs) with 95% confidence intervals (CIs) using the random-effects model. Subgroup analysis was performed to explore the potential source of heterogeneity.

#### **Results**

Meta-analysis of observational studies suggested that statin treatment was significantly associated with reduced risk of all fractures (RR 0.80, 95% CI 0.72–0.88), among which hip fracture (RR 0.73, 95% CI 0.64–0.82) and lower extremity fracture (RR 0.69, 95% CI 0.54–0.88) showed consistent results, whereas no significant decreased risk was observed with respect to other fracture sites. Subgroup analyses showed that among the statin users, fracture risk was reduced in both genders, older adults ≥50 years old, those with short drug duration (< year) or medium to high statin dose (>90 defined daily dose), those taking atorvastatin, and in Europeans and Americans. Meta-analysis of RCTs revealed no significant effect of statin treatment on the risk of fractures (RR 1.00, 95% CI 0.87–1.15).

#### **Conclusions and Implications**

Overall, the findings of this updated meta-analysis indicated no solid evidence supporting that statins have a beneficial effect associated with reduced risk of fractures for older adults. Our findings should be further confirmed in future larger population-based prospective cohort studies or well-designed RCTs.

Disponible en: [https://www.jamda.com/article/S1525-8610\(19\)30523-7/fulltext](https://www.jamda.com/article/S1525-8610(19)30523-7/fulltext)



# **ANNALS OF INTERNAL MEDICINE**

## **Treatments for Poststroke Motor Deficits and Mood Disorders: A Systematic Review for the 2019 U.S. Department of Veterans Affairs and U.S. Department of Defense Guidelines for Stroke Rehabilitation**

Kristen E. D'Anci, Stacey Uhl, Jeffrey Oristaglio, Nancy Sullivan, BA; Amy Y. Tsou,

### **Abstract**

#### **Background:**

Early rehabilitation after stroke is essential to help reduce disability.

#### **Purpose:**

To summarize evidence on the benefits and harms of nonpharmacologic and pharmacologic treatments for motor deficits and mood disorders in adults who have had stroke.

#### **Data Sources:**

English-language searches of multiple electronic databases from April 2009 through July 2018; targeted searches to December 2018 for studies of selective serotonin reuptake inhibitors (SSRIs) or serotonin–norepinephrine reuptake inhibitors.

#### **Study Selection:**

19 systematic reviews and 37 randomized controlled trials addressing therapies for motor deficits or mood disorders in adults with stroke.

#### **Data Extraction:**

One investigator abstracted the data, and quality and GRADE assessment were checked by a second investigator.

#### **Data Synthesis:**

Most interventions (for example, SSRIs, mental practice, mirror therapy) did not improve motor function. High-quality evidence did not support use of fluoxetine to improve motor function. Moderate-quality evidence supported use of cardiorespiratory training to improve maximum walking speed and repetitive task training or transcranial direct current stimulation to improve activities of daily living (ADLs). Low-quality evidence supported use of robotic arm training to improve ADLs. Low-quality evidence indicated that antidepressants may reduce depression, whereas the frequency and severity of antidepressant-related adverse effects was unclear. Low-quality evidence suggested that cognitive behavioral therapy and exercise, including mind–body exercise, may reduce symptoms of depression and anxiety.

#### **Limitation:**

Studies were of poor quality, interventions and comparators were heterogeneous, and evidence on harms was scarce.

#### **Conclusion:**

Cardiorespiratory training, repetitive task training, and transcranial direct current stimulation may improve ADLs in adults with stroke. Cognitive behavioral therapy, exercise, and SSRIs may reduce symptoms of poststroke depression, but use of SSRIs to prevent depression or improve motor function was not supported.

Disponible en: <https://annals.org/aim/article-abstract/2755729/treatments-poststroke-motor-deficits-mood-disorders-systematic-review-2019-u>