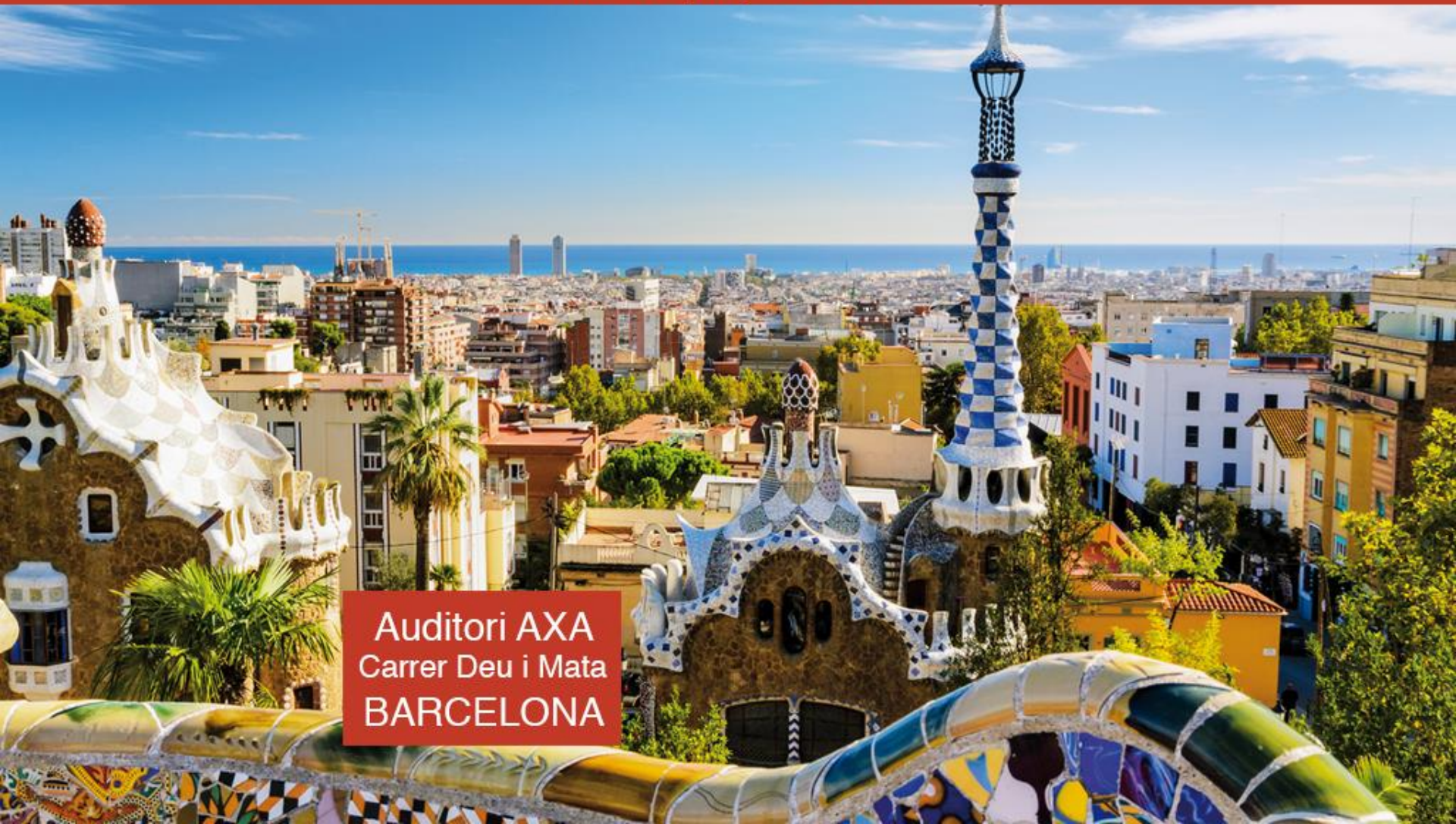
SOCIETAT CATALANOBALEAR DE MEDICINA INTERNA

XVI Congres de la Societat Catalano-Balear de Medicina Interna

2 i 3 de juny de 2016



11:45-13:15 h **TAULA RODONA 4**
CRONICITAT

Moderadors:
Dr. Antoni Castro Salomó
Servei de Medicina Interna
Hospital Universitari Sant Joan de Reus. Tarragona

Dra. Esther Dorca Badia
Cap de Servei de Medicina Interna
Vicepresident SCBMI
Hospital Sant Celoni. Barcelona

11:45-12:05 h **Prescripció inapropiada de medicaments en pacients grans ingressats en Serveis de Medicina Interna**
Dr. Antonio San José Laporte
Servei de Medicina Interna
Hospital Universitari Vall d'Hebron. Barcelona

12:05-12:25 h **Complexitat i cronicitat: model d'atenció integrada de l'Alt Penedès**
Dr. José Carlos Molina Hinojosa
Servei de Medicina interna
Hospital Comarcal de l'Alt Penedès
Vilafranca del Penedès, Barcelona

12:25-12:45 h **L'estratègia de l'abordatge de la cronicitat en xifres: impactes en salut 2011-2015**
Dr. Carles Blay Pueyo
Responsable del Programa de Prevenció i atenció a la cronicitat Departament de Salut-Gencat

2 comunicacions orals a la Taula

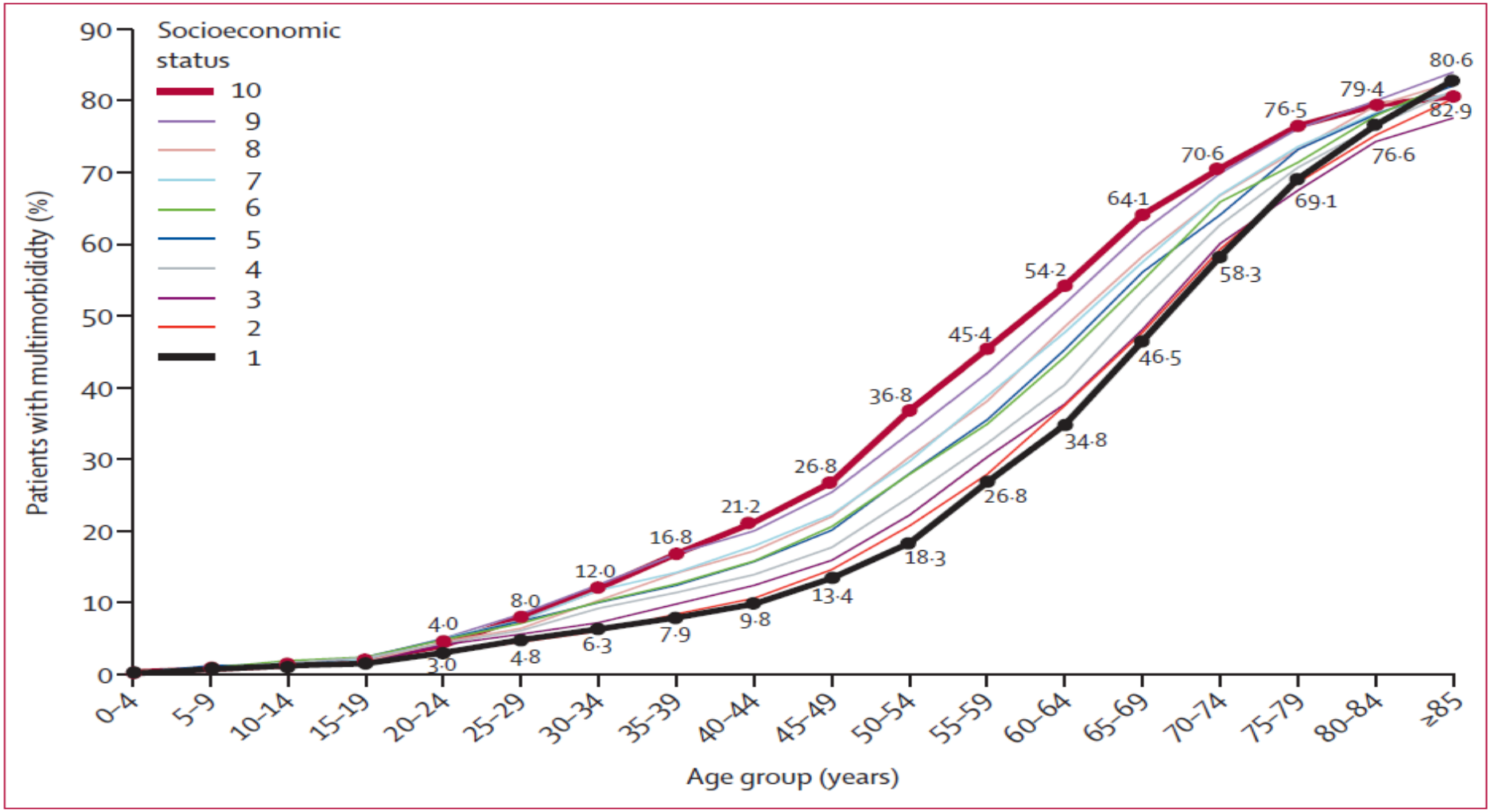


Figure 2: **Prevalence of multimorbidity by age and socioeconomic status**
On socioeconomic status scale, 1=most affluent and 10=most deprived.

Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

Karen Barnett, Stewart W Mercer, Michael Norbury, Graham Watt, Sally Wyke, Bruce Guthrie

www.thelancet.com **Published online May 10, 2012**

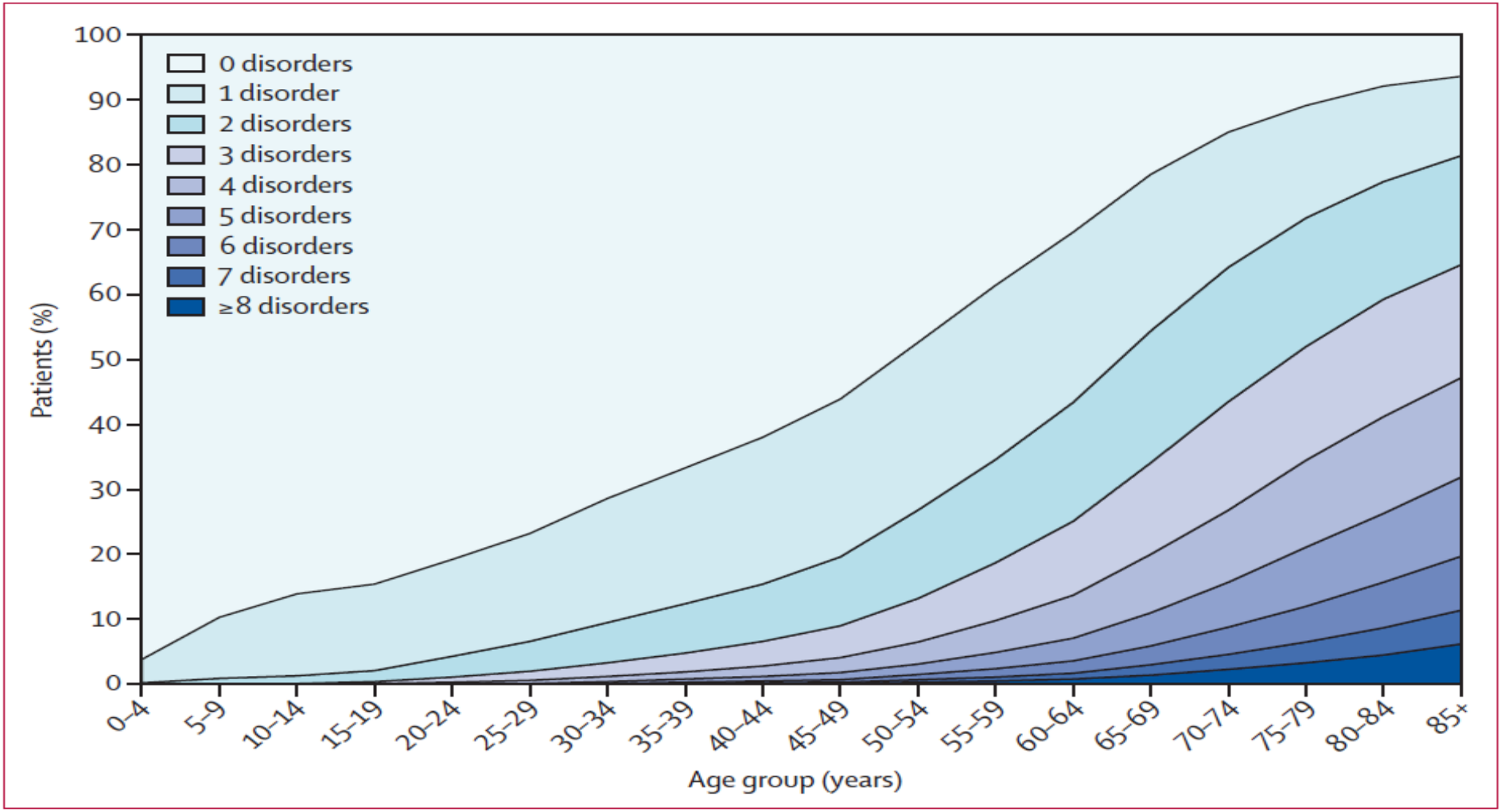


Figure 1: **Number of chronic disorders by age-group**

Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

Karen Barnett, Stewart W Mercer, Michael Norbury, Graham Watt, Sally Wyke, Bruce Guthrie

www.thelancet.com **Published online May 10, 2012**

The Persistent Exclusion of Older Patients From Ongoing Clinical Trials Regarding Heart Failure

Antonio Cherubini, MD, PhD; Joaquim Oristrell, MD, PhD; Xavier Pla, MD; Carmelinda Ruggiero, MD, PhD; Roberta Ferretti, MD; Germán Diestre, MD; A. Mark Clarfield, MD, FRCPC; Peter Crome, MD, DSc; Cees Hertogh, MD, PhD; Vita Lesauskaite, MD, PhD; Gabriel-Ioan Prada, MD, PhD; Katarzyna Szczerbinska, MD, PhD; Eva Topinkova, MD, PhD; Judith Sinclair-Cohen, BSD; David Edbrooke, MD, FRCA; Gary H. Mills, MD, PhD

Background: Much clinical research of relevance to elderly patients examines individuals who are younger than those who have the disease in question. A good example is heart failure. Therefore, we investigated the extent of exclusion of older individuals in ongoing clinical trials regarding heart failure.

Methods: In the context of the Increasing the PaRticipation of the ElDerly in Clinical Trials (PREDICT) study, data from ongoing clinical trials regarding heart failure were extracted from the World Health Organization Clinical Trials Registry Platform on December 1, 2008. Main outcome measures were the proportion of trials excluding patients by an arbitrary upper age limit or by other exclusion criteria that might indirectly cause limited recruitment of older individuals. We classified exclusion criteria into 2 categories: justified or poorly justified.

Results: Among 251 trials investigating treatments for heart failure, 64 (25.5%) excluded patients by an arbitrary upper age limit. Such exclusion was significantly more common in trials conducted in the European Union than in the United States (31/96 [32.3%] vs 17/105 [16.2%]; $P=.007$) and in drug trials sponsored by public institutions vs those by private entities (21/59 [35.6%] vs 5/36 [13.9%]; $P=.02$). Overall, 109 trials (43.4%) on heart failure had 1 or more poorly justified exclusion criteria that could limit the inclusion of older individuals. A similar proportion of clinical trials with poorly justified exclusion criteria was found in pharmacologic and nonpharmacologic trials.

Conclusion: Despite the recommendations of national and international regulatory agencies, exclusion of older individuals from ongoing trials regarding heart failure continues to be widespread.

Arch Intern Med. 2011;171(6):550-556

BMJ

BMJ 2012;345:e6341 doi: 10.1136/bmj.e6341 (Published 4 October 2012)

ANALYSIS

Adapting clinical guidelines to take account of multimorbidity

Care of patients with multimorbidity could be improved if new technology is used to bring together guidelines on individual conditions and tailor advice to each patient's circumstances, say **Bruce Guthrie and colleagues**

Bruce Guthrie *professor of primary care medicine*[1], Katherine Payne *professor of health economics*[2], Phil Alderson *associate director*[3], Marion E T McMurdo *professor of ageing and health*[1], Stewart W Mercer *professor of primary care research*[4]

[1]Population Health Sciences Division, Medical Research Institute, University of Dundee, Dundee DD2 4BF, UK ; [2]School of Community Based Medicine, University of Manchester, Manchester, UK; [3]Centre for Clinical Practice, National Institute for Health and Clinical Excellence, Manchester, UK ; [4]University of Glasgow, Glasgow, UK

Age and Ageing Advance Access published August 21, 2012

Age and Ageing 2012; **0:** 1–8
doi: 10.1093/ageing/afs100

Guidelines for people not for diseases: the challenges of applying UK clinical guidelines to people with multimorbidity

LLOYD D. HUGHES[1], MARION E. T. MCMURDO[2], BRUCE GUTHRIE[3]

[1]Medical School, University of Dundee, MSO Level 10, Ninewells Hospital, Dundee, UK
[2]Department of Medicine, University of Dundee, Ninewells Hospital, Dundee DD1 9SY, UK
[3]Population Health Sciences, University of Dundee, Dundee, Tayside, UK

Conclusion

Clinical guidelines have played an important role in improving health care for people with long-term conditions. However, in people with multimorbidity current guideline recommendations rapidly cumulate to drive polypharmacy, without providing guidance on how best to prioritise recommendations for individuals in whom the treatment burden will sometimes be overwhelming. Such prioritisation will always require the exercise of clinical judgement and meaningful engagement with patient preferences. Developing guidelines for people rather than guidelines for diseases will better ensure that treatment is in the individual's best interests.

Key points

- The use of clinical guidelines in health-care services has helped to reduce practice variation, deaths and hospitalisations
- Clinical guidelines are known to be limited in their focus on single diseases and the evidence which these guidelines are based upon apply only to subsets of the population
- This study showed that explicitly following clinical guidelines for two hypothetical patients with physical and mental health comorbidities produced complex treatment regimes with a significant risk of adverse drug reactions.
- To make clinical guidelines more applicable to patients with comorbidity, future clinical guidelines should provide practical examples of how patient-centred care can be achieved for a disease process. Attempts should be made to integrate guidelines for similar disease processes.

Association between guideline recommended drugs and death in older adults with multiple chronic conditions: population based cohort study

Mary E Tinetti,[1] Gail McAvay,[2] Mark Trentalange,[2] Andrew B Cohen,[2] Heather G Allore[2]

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Cite this as: *BMJ* 2015;351:h4984
doi: 10.1136/bmj.h4984

Accepted: 1 September 2015

ABSTRACT

OBJECTIVE

To estimate the association between guideline recommended drugs and death in older adults with multiple chronic conditions.

DESIGN

Population based cohort study.

SETTING

Medicare Current Beneficiary Survey cohort, a nationally representative sample of Americans aged 65 years or more.

PARTICIPANTS

8578 older adults with two or more study chronic conditions (atrial fibrillation, coronary artery disease, chronic kidney disease, depression, diabetes, heart failure, hyperlipidemia, hypertension, and thromboembolic disease), followed through 2011.

EXPOSURES

Drugs included β blockers, calcium channel blockers, clopidogrel, metformin, renin-angiotensin system (RAS) blockers; selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs); statins; thiazides; and warfarin.

MAIN OUTCOME MEASURE

Adjusted hazard ratios for death among participants with a condition and taking a guideline recommended drug relative to participants with the condition not taking the drug and among participants with the most common combinations of four conditions.

RESULTS

Over 50% of participants with each condition received the recommended drugs regardless of coexisting conditions; 1287/8578 (15%) participants died during the three years of follow-up. Among cardiovascular drugs, β blockers, calcium channel blockers, RAS blockers, and statins were associated with reduced mortality for indicated conditions. For example, the adjusted hazard ratio for β blockers was 0.59 (95% confidence interval 0.48 to 0.72) for people with atrial fibrillation and 0.68 (0.57 to 0.81) for those with heart failure. The adjusted hazard ratios for cardiovascular drugs were similar to those with common combinations of four coexisting conditions, with trends toward variable effects for β blockers. None of clopidogrel, metformin, or SSRIs/SNRIs was associated with reduced mortality. Warfarin was associated with a reduced risk of death among those with atrial fibrillation (adjusted hazard ratio 0.69, 95% confidence interval 0.56 to 0.85) and thromboembolic disease (0.44, 0.30 to 0.62). Attenuation in the association with reduced risk of death was found with warfarin in participants with some combinations of coexisting conditions.

CONCLUSIONS

Average effects on survival, particularly for cardiovascular study drugs, were comparable to those reported in randomized controlled trials but varied for some drugs according to coexisting conditions. Determining treatment effects in combinations of conditions may guide prescribing in people with multiple chronic conditions.

Introduction

Most deaths in developed countries occur in people aged more than 65 years who have multiple chronic conditions that cause, or contribute to, death.[1-5] Guidelines for chronic conditions recommend drugs based

Reacciones adversas Polifarmacia	Sobreutilización de medicamentos Medicamentos inapropiados	Reducir “n” medicamentos Evitar “ciertos” medicamentos
Medicina basada en pruebas	Infrautilización de medicamentos eficaces	Aumentar la utilización de “ciertos” medicamentos

Criterios de Beers

- Explicit criteria for determining inappropriate medication use in nursing home residents.

  Arch Intern Med 1991; 151: 1825-1832
- Explicit criteria for determining potentially inappropriate medication use by the elderly. An Update.

  Arch Intern Med 1997; 157: 1531-1536
- Updating the Beers criteria for potentially inappropriate medication use in older adults. Results of US consensus panel of experts.

  Arch Intern med 2003; 163: 2716-2724
- American geriatrics society updated Beers criteria por potentially inappropriate medication use in older adults.

  JAGS 2012

JAGS 63:2227–2246, 2015

American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

By the American Geriatrics Society 2015 Beers Criteria Update Expert Panel

The 2015 American Geriatrics Society (AGS) Beers Criteria are presented. Like the 2012 AGS Beers Criteria, they include lists of potentially inappropriate medications to be avoided in older adults. New to the criteria are lists of select drugs that should be avoided or have their dose adjusted based on the individual's kidney function and select drug–drug interactions documented to be associated with harms in older adults. The specific aim was to have a 13-member interdisciplinary panel of experts in geriatric care and pharmacotherapy update the 2012 AGS Beers Criteria using a modified Delphi method to systematically review and grade the evidence and reach a consensus on each existing and new criterion. The process followed an evidence-based approach using Institute of Medicine standards. The 2015 AGS Beers Criteria are applicable to all older adults with the exclusion of those in palliative and hospice care. Careful application of the criteria by health professionals, consumers, payors, and health systems should lead to closer monitoring of drug use in older adults. J Am Geriatr Soc 63:2227–2246, 2015.

Key words: Beers List; medications; Beers Criteria; drugs; older adults; polypharmacy

older adults is one strategy to decrease the risk of adverse events. Interventions using explicit criteria have been found to be an important component of strategies for reducing inappropriate medication usage.[3–5]

The AGS Beers Criteria for PIM Use in Older Adults are one of the most frequently consulted sources about the safety of prescribing medications for older adults. The AGS Beers Criteria are used widely in geriatric clinical care, education, and research and in development of quality indicators. In 2011, the AGS assumed the responsibility of updating and maintaining the Beers Criteria and, in 2012, released the first update of the criteria since 2003. The AGS has made a commitment to update the criteria regularly. The changes in the 2015 update are not as extensive as those of the previous update, but in addition to updating existing criteria, two major components have been added: 1) drugs for which dose adjustment is required based on kidney function and 2) drug–drug interactions. Neither of these new additions is intended to be comprehensive, because such lists would be too extensive. An interdisciplinary expert panel focused on those drugs and drug–drug interactions for which there is evidence in older adults that they are at risk of serious harm if the dose is not adjusted or the drug interaction is overlooked.

Criterios STOPP/START

- **STOPP**. 2008. **S**creening **T**ool of **O**lder person's ***P****otentially inappropriate* **P**rescriptions
- **START**. 2007. **S**creening **T**ool to **A**lert doctors to the **R**ight, i.e. *Appropriate, indicated* **T**reatment

Age and Ageing Advance Access published October 16, 2014

Age and Ageing 2014; **0:** 1–6
doi: 10.1093/ageing/afu145

STOPP/START criteria for potentially inappropriate prescribing in older people: version 2

Denis O'Mahony[1,2], David O'Sullivan[3], Stephen Byrne[3], Marie Noelle O'Connor[2], Cristin Ryan[4], Paul Gallagher[2]

Rev Esp Geriatr Gerontol. 2015;**50(2)**:89–96

ELSEVIER

Revista Española de Geriatría y Gerontología

www.elsevier.es/regg

ARTÍCULO ESPECIAL

Mejorando la prescripción de medicamentos en las personas mayores: una nueva edición de los criterios STOPP-START

E. Delgado Silveira[a], B. Montero Errasquín[b], M. Muñoz García[a], M. Vélez-Díaz-Pallarés[b], I. Lozano Montoya[b], C. Sánchez-Castellano[b] y A.J. Cruz-Jentoft[b,*]

[a] *Servicio de Farmacia, Hospital Universitario Ramón y Cajal, Madrid, España*
[b] *Servicio de Geriatría, Hospital Universitario Ramón y Cajal, Madrid, España*

Prevalence of potentially inappropriate prescribing in an acutely ill population of older patients admitted to six European hospitals

Gallagher P; Lang PO; Cherubini A; Topinkova E; Cruz A; Montero B et al

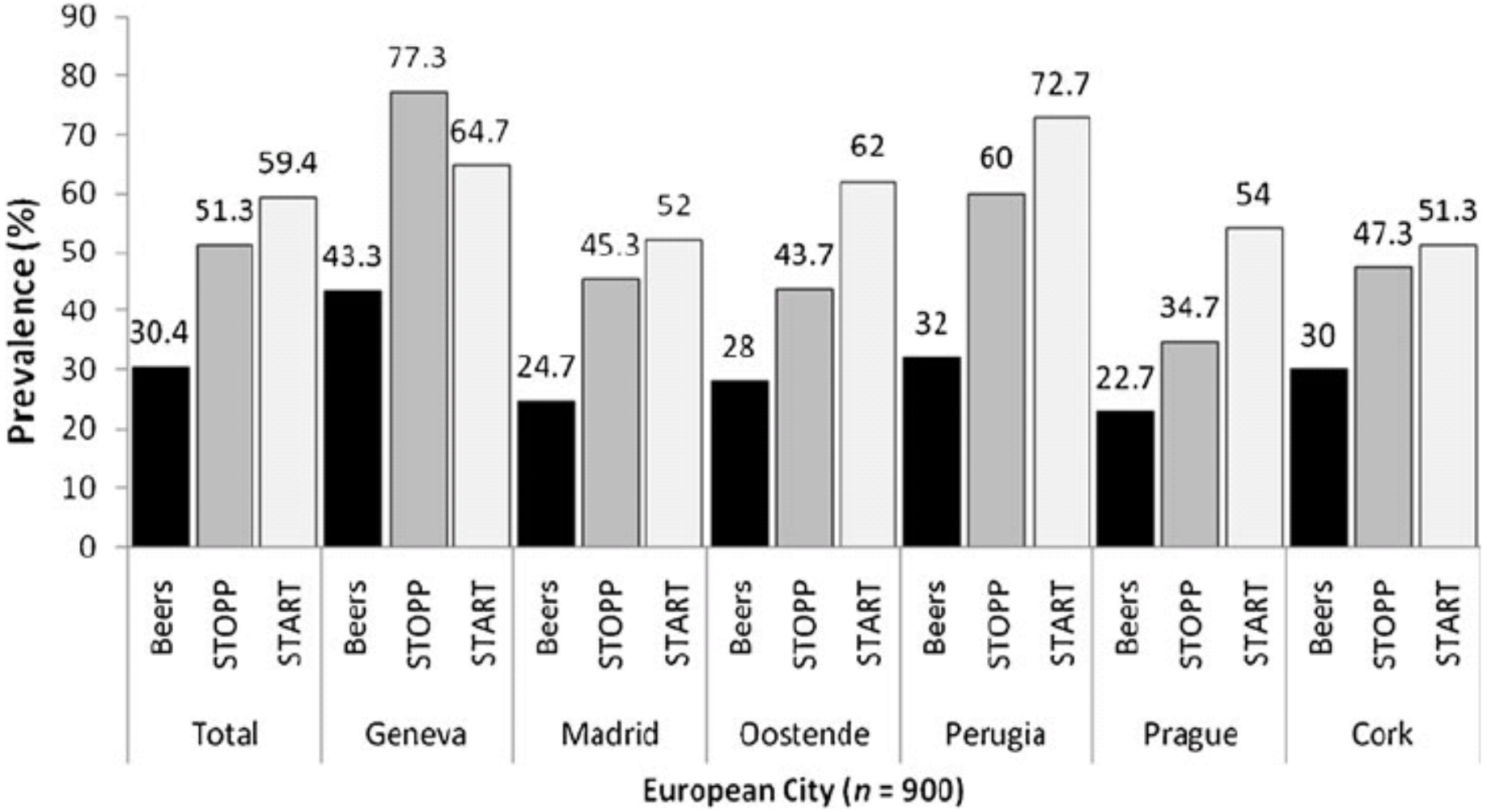
Eur J Clin Pharmacol 2011; 67: 1175-1188

Europeo Multicéntrico

- 900 pacientes de 65 y más años
- 6 Hospitales universitarios Europa
- 150 ingresos consecutivos desde urgencias entre agosto y diciembre 2008
- Ingresados por enfermedad aguda en Unidades de Geriatría
- Excluidos pacientes ingresados para valoraciones geriátricas

Eur J Clin Pharmacol 2011; 67: 1175-1188

Europeo Multicéntrico



STOPP criteria, % (*n*)	
BDZs in those prone to falls	9.1 (82)
Any regular duplicate drug class prescription	8.7 (78)
PPIs for peptic ulcer disease at full therapeutic dosage for>8 weeks	8.2 (74)
Neuroleptic drugs in those prone to falls	6.1 (55)
Aspirin without coronary, cerebral or peripheral arterial symptoms	4.9 (44)
Long-term aspirin>150 mg/day	4.4 (40)
Calcium channel blocker with chronic constipation	4.2 (38)
Long-term, long acting benzodiazepines	4.0 (36)
Long-term neuroleptics with Parkinsonism	4.0 (36)
Long-term neuroleptics as hypnotics	3.4 (31)

START criteria (prescribing omissions), % (*n*)	
Calcium/vitamin D with known osteoporosis	14.1(127)
Statin with known coronary, cerebral or peripheral vascular disease	9.7 (87)
Statin with diabetes mellitus and≥1 major cardiovascular risk factor	8.7 (79)
ACE inhibitor with chronic heart failure	8.7 (79)
Aspirin or clopidogrel with known atherosclerotic coronary, cerebral or peripheral vascular disease	8.2 (74)
Antidepressant drug with moderate-severe depressive symptoms lasting≥3 months	7.3 (66)
Metformin with type 2 diabetes mellitus±metabolic syndrome	7.3 (66)
Regular inhaled beta-2 agonist or anticholinergic agent for mild-moderate asthma or COPD	5.5 (50)
Fibre supplement with chronic symptomatic diverticular disease with constipation	5.0 (45)
Anticoagulant with chronic atrial fibrillation	4.9 (44)

Multicéntrico Europeo
Predictores independientes de prescripción potencialmente inapropiada

- Según criterios STOPP:
- Incremento en el consumo de medicamentos
  - OR para 6-10 medicamentos: 2,31 (1,68-3,18); p< 0,001
  - OR para > 10 medicamentos: 7,22 (4,3-12,1); p< 0,001
- Según criterios de Beers
- Incremento en el consumo de medicamentos
  - OR para 6-10 medicamentos: 2,5 (1,75-3,56); p<0,001
  - OR para > 10 medicamentos: 4,87 (3,0-7,9); p< 0,001

Multicéntrico Europeo
Predictores independientes de prescripción potencialmente inapropiada

- Según criterios START:
- Edad => 85 años
  - OR: 1,8 (1,18-2,75); p= 0,006
- Aumento comorbilidad. Charlson => 2
  - OR: 3,25 (2,01-5,26); p<0,001

Estudio sobre la Utilización Inapropiada de Medicamentos en pacientes de edad avanzada hospitalizados en servicios de Medicina Interna de siete hospitales españoles (estudio PUMEA)

San José A, Agustí A, Vidal X, Formiga F, López-Soto A, Fernández-Moyano A, García J, Torres O, Ramírez-Duque N, Barbé J

Analizar el consumo de medicamentos y su prescripción inapropiada (PI) al ingreso hospitalario en los Servicios de Medicina Interna en pacientes de edad avanzada. Tanto la prescripción potencialmente inadecuada (*PIMs*) como la infraprescripción o potencialmente omitida (*PPOs).*

Convocatoria de 2010. Concesión de ayudas para el fomento de la investigación clínica independiente.
Dirección General de Farmacia y Productos Sanitarios. Ministerio de Sanidad y Política Social
Resolución definitiva: 27 de diciembre de 2010. Clasificación de la AEMPS: EPA-AS: 21 de enero de 2011

Objetivos Secundarios

- Comparar diferentes instrumentos de Prescripción Inapropiada Global (PI Global) centrados en la Prescripción Potencialmente Inapropiada de Medicamentos (PIM) (criterios STOPP y criterios de Beers), y en la Omisión Potencialmente Inapropiada de Medicamentos (PPO) (criterios START y criterios ACOVE).
- Comparar las características clínicas y la evolución de los pacientes que presentan PI Global; PIM y PPO con aquellos que no.
- Estudiar los factores asociados a PI Global, PIM y PPO
- Determinar los patrones de PI Global; PIM y PPO en función de la edad (de 75 a 84 años y $\geq$ 85 años).

Hospitales Participantes

- Hospital Coordinador
  - Hospital Universitario Vall d'Hebron, Barcelona
- Hospitales Participantes
  - Hospital Clínic, Barcelona
  - Hospital Juan Ramón Jiménez, Huelva
  - Hospital San Juan de Dios de Aljarafe, Sevilla
  - Hospital Santa Creu i Sant Pau, Barcelona
  - Hospital Universitario Bellvitge, Hospitalet de Llobregat
  - Hospital Universitario Vall d'Hebron, Barcelona
  - Hospital Universitario Virgen del Rocío, Sevilla

European Journal of Internal Medicine 25 (2014) 710–716

Contents lists available at ScienceDirect

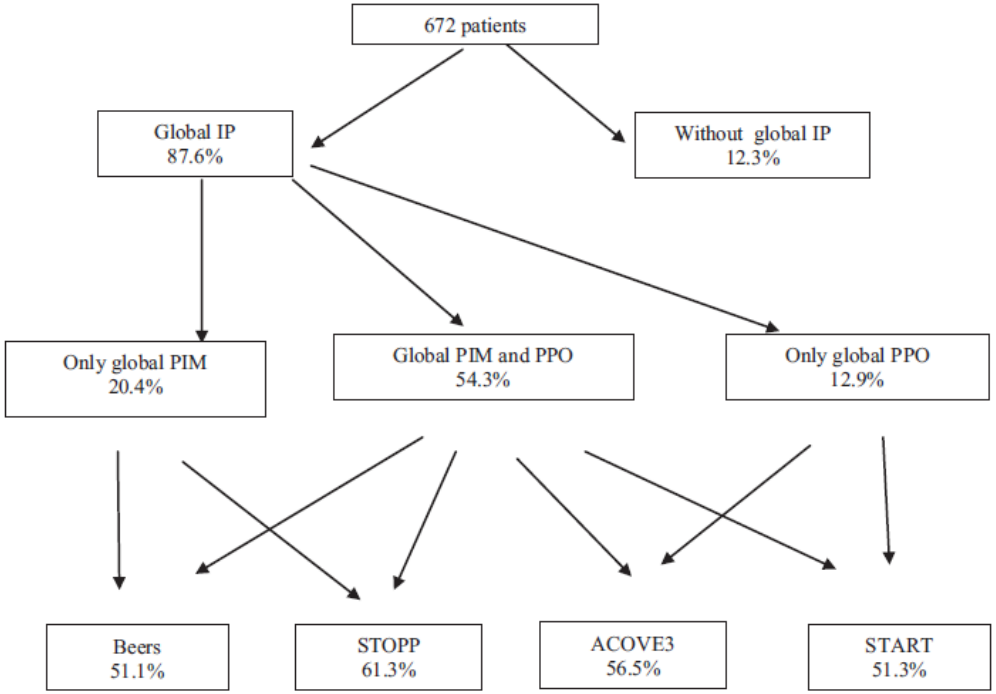
European Journal of Internal Medicine

journal homepage: www.elsevier.com/locate/ejim

Original Article

Inappropriate prescribing to older patients admitted to hospital: A comparison of different tools of misprescribing and underprescribing

Antonio San-José [a,b,l,*], Antonia Agustí [c,d,e], Xavier Vidal [c,d,e], Francesc Formiga [f,l], Alfonso López-Soto [g,l], Antonio Fernández-Moyano [h,l], Juana García [i,l], Nieves Ramírez-Duque [j,l], Olga H. Torres [b,k,l], José Barbé [a,b,l], on behalf of Potentially Inappropriate Prescription in Older Patients in Spain (PIPOPS) Investigators' Project



Conclusions: A high prevalence of polypharmacy and PIMs and PPOs were reported. More than half the patients had simultaneous PIMs and PPOs. The related factors to PIMs and PPOs were different.

STOPP-listed PIM

System	Drug	%
Drugs that adversely affect those who are prone to falls	Benzodiazepines	15.0
Central nervous system	Long-term, long-acting benzodiazepines	11.5
Musculoeskeletal system	Long-term NSAID for relief of mild–moderate joint pain in osteoarthritis	8.5
Duplicate drug classes	Any regular duplicate drug class prescription	8.3
Cardiovascular system	Aspirin with no history of coronary, cerebral or peripheral arterial symptoms or occlusive arterial event	7.6

START-listed PPO

System	Drug	%
Cardiovascular system	ACE inhibitor with chronic heart failure.	13.4
Cardiovascular system	Warfarin in the presence of chronic atrial fibrillation	11.2
Cardiovascular system	Statin therapy with a documented history of coronary, cerebral or peripheral vascular disease, where the patient's functional status remains independent for activities of daily living and life expectancy is >5 years.	8.2
Musculoeskeletal system	Calcium and vitamin D supplement in patients with known osteoporosis (radiological evidence or previous fragility fracture or acquired dorsal kyphosis).	7.6
Respiratory System	Regular inhaled beta-2 agonist or anticholinergic agent for mild to moderate asthma or COPD.	6.1

Table 4
Independent risk factors associated with Beers, STOPP, START and ACOVE3 criteria. Multivariate logistic regression analysis.

Risk factor	STOPP (n: 414)	No STOPP (n: 258)	OR	95% CI
Multimorbidity[a]				
• Yes	63.54	59.38	0.57	0.36–0.92
• No	36.46	40.62	1	
Number of medicines				
• 10 or more	64.17	42.71	8.21	3.47–19.44
• 5–9	33.45	41.49	4.13	1.74–9.78
• 0–4	2.38	15.79	1	
Barthel Index basal				
• Total dependence	13.07	6.58	3.79	1.5–9.54
• Severe dependence	8.22	10.89	1.1	0.46–2.63
• Moderate dependence	19.35	21.1	1.33	0.62–2.84
• Mild dependence	49.06	44.98	1.68	0.86–3.3
• Independence	10.3	16.45	1	
ACOVE3 criteria				
• Yes	65.63	41.94	2.68	1.77–4.06
• No	34.37	58.06	1	

Table 4
Independent risk factors associated with Beers, STOPP, START and ACOVE3 criteria. Multivariate logistic regression analysis.

Risk factor	START (n: 374)	No START (298)	OR	95% CI
Multimorbidity				
• Yes	70.53	52.88	1.76	1.14–2.7
• No	29.47	47.12	1	
Global PIM				
• Yes	56.01	37.38	1.6	1.02–2.51
• No	43.99	62.62	1	
Dwelling				
• Others	16.77	8.75	1.82	1.02–3.24
• Community	83.23	91.25	1	

San-José et al. BMC Geriatrics (2015) 15:42
DOI 10.1186/s12877-015-0038-8

BMC Geriatrics

RESEARCH ARTICLE Open Access

Inappropriate prescribing to the oldest old patients admitted to hospital: prevalence, most frequently used medicines, and associated factors

Antonio San-José[1,9*], Antonia Agustí[2], Xavier Vidal[2], Francesc Formiga[3,9], Mercedes Gómez-Hernández[4,9], Juana García[5,9], Alfonso López-Soto[6,9], Nieves Ramírez-Duque[7,9], Olga H Torres[8,9], José Barbé[1,9] and on behalf of Potentially Inappropriate Prescription in Older Patients in Spain (PIPOPS) Investigators' project

Research: Treatment

Inappropriate prescribing in elderly people with diabetes admitted to hospital

F. Formiga[1,2], X. Vidal[3,4], A. Agustí[3,4], D. Chivite[1,2], B. Rosón[1], J. Barbé[2,5,6], A. López-Soto[2,7], O. H. Torres[2,8], A. Fernández-Moyano[2,9], J. García[2,10], N. Ramírez-Duque[2,11] and A. San José[2,5,6] on behalf of Potentially Inappropriate Prescription in Older Patients in Spain (PIPOPS) Investigators' Project

Diabet. Med. 33, 655–662 (2016)

Eur J Clin Pharmacol (2016) 72:755–764
DOI 10.1007/s00228-016-2032-2

PHARMACOEPIDEMIOLOGY AND PRESCRIPTION

Elderly patients treated with psychotropic medicines admitted to hospital: associated characteristics and inappropriate use

Xavier Vidal[1] · Antonia Agustí[1] · Antoni Vallano[2] · Francesc Formiga[3,4] · Antonio Fernández Moyano[5,4] · Juana García[6,4] · Alfonso López-Soto[7,4] · Nieves Ramírez-Duque[8,4] · Olga H. Torres[9,4] · José Barbé[1,4] · Antonio San-José on behalf of Potentially Inappropriate Prescription in Older Patients in Spain (PIPOPS) Investigators' project

ÚS RACIONAL DE FÀRMACS: Maneig de la medicació en el pacient crònic: CONCILIACIÓ, REVISIÓ, DESPRESCRIPCIÓ I ADHERÈNCIA

Figura 1: Etapes del procés de conciliació

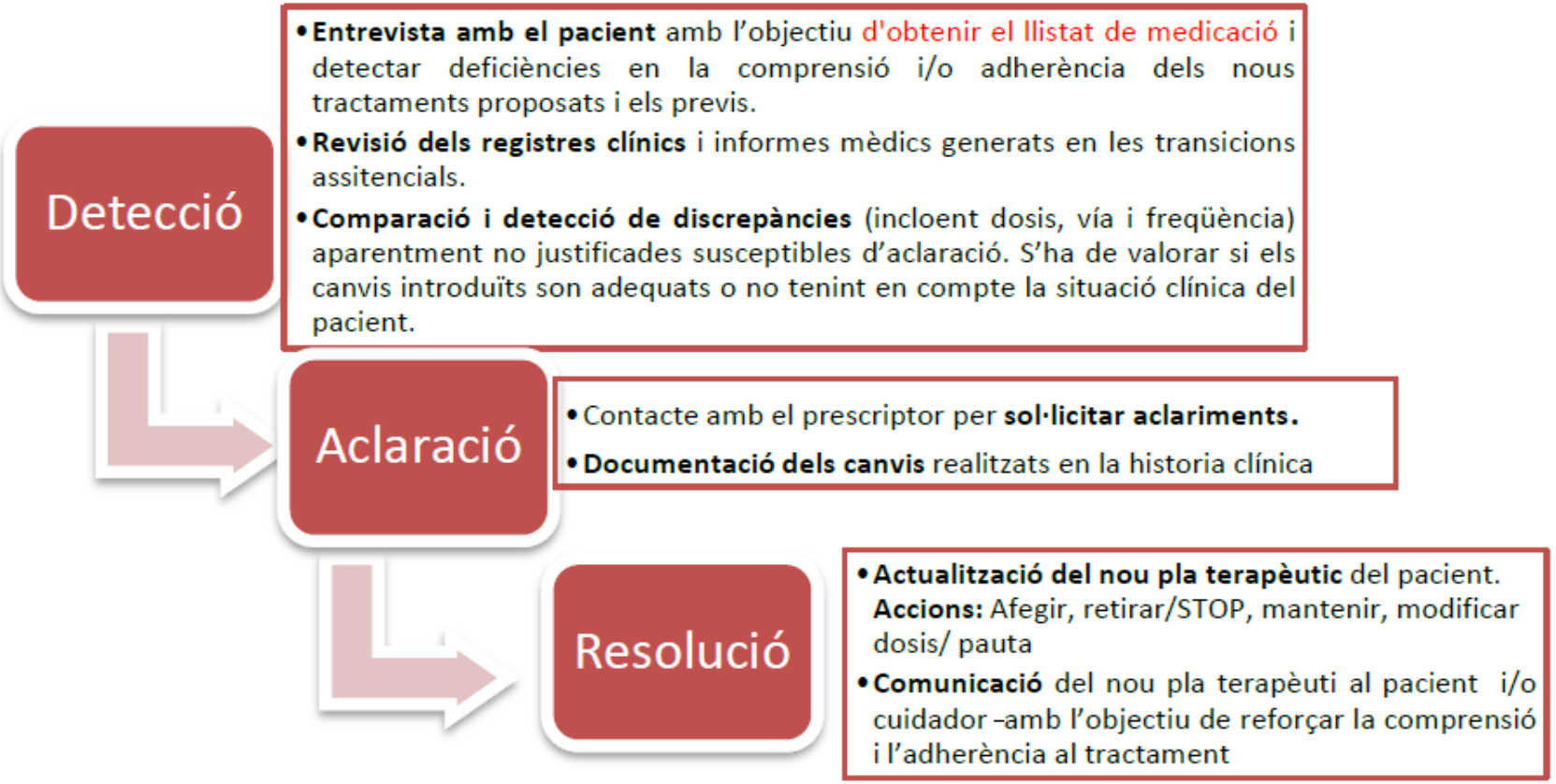


Figura 4: Etapes de la revisió clínica

1er PAS: Jerarquitatzió de les patologies tenint en compte el criteri del professional i del pacient

2on PAS: Associar els medicaments a les patologies que presenta el pacient

3er PAS: Establir l'objectiu terapèutic per cada tractament tenint en compte l'edat i condicions clíniques del pacient

4art PAS: Aplicar l'algoritme de revisió clínica de la medicació(figura 4) per valorar indicació, adequació, efectivitat, seguretat, cost i adherència

Etapes de la Desprescripció

Reconeixer la necessitat

- Pacient polimedicat
- Possibles RAM (incloses caigudes i desorientació de gent gran)
- Canvis en els objectius terapèutics per situació de malaltia crònica avançada (malaltia oncològica, demència, altra malaltia crònica), falta d'efectivitat d'un medicament.

↓

Preparar al pacient

Avalua el pacient en el seu context, negocia, consensua i planifica amb ell. Prepararar-lo per posibles efectes adversos.

↓

Retirar medicaments →

PRIORITZA: Començar la retirada per aquells que es sospita que hagin causat RAM o tinguin risc/benefici desfavorable, o que siguin de dubtosa eficàcia o ja no tinguin indicació.

RETIRA: Retirar gradualment, fent seguiment dels tractaments que actúen sobre el sistema nerviós central o cardiovascular o corticosteroides

AVALUA: Retirar gradualment, fent seguiment dels tractaments que actúen sobre el sistema nerviós central o cardiovascular o corticosteroides

Transitional Care Interventions to Prevent Readmissions for Persons With Heart Failure

A Systematic Review and Meta-analysis

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Background: Nearly 25% of patients hospitalized with heart failure (HF) are readmitted within 30 days.

Purpose: To assess the efficacy, comparative effectiveness, and harms of transitional care interventions to reduce readmission and mortality rates for adults hospitalized with HF.

Data Sources: MEDLINE, Cochrane Library, CINAHL, ClinicalTrials.gov, and World Health Organization International Clinical Trials Registry Platform (1 January 1990 to late October 2013).

Study Selection: Two reviewers independently selected randomized, controlled trials published in English reporting a readmission or mortality rate within 6 months of an index hospitalization.

Data Extraction: One reviewer extracted data, and another checked accuracy. Two reviewers assessed risk of bias and graded strength of evidence (SOE).

Data Synthesis: Forty-seven trials were included. Most enrolled adults with moderate to severe HF and a mean age of 70 years. Few trials reported 30-day readmission rates. At 30 days, a high-intensity home-visiting program reduced all-cause readmission and the composite end point (all-cause readmission or death; low SOE). Over 3 to 6 months, home-visiting programs and multidisciplinary heart failure (MDS-HF) clinic interventions reduced all-cause readmission (high SOE). Home-visiting programs reduced HF-specific readmission and the composite end point (moderate SOE). Structured telephone support (STS) interventions reduced HF-specific readmission (high SOE) but not all-cause readmissions (moderate SOE). Home-visiting programs, MDS-HF clinics, and STS interventions produced a mortality benefit. Neither telemonitoring nor primarily educational interventions reduced readmission or mortality rates.

Limitations: Few trials reported 30-day readmission rates. Usual care was heterogeneous and sometimes not adequately described.

Conclusion: Home-visiting programs and MDS-HF clinics reduced all-cause readmission and mortality; STS reduced HF-specific readmission and mortality. These interventions should receive the greatest consideration by systems or providers seeking to implement transitional care interventions for persons with HF.

Primary Funding Source: Agency for Healthcare Research and Quality.

Ann Intern Med. 2014. www.annals.org

For author affiliations, see end of text.

This article was published online first at www.annals.org on 27 May 2014.

Annals of Internal Medicine | SUPPLEMENT

Medication Reconciliation During Transitions of Care as a Patient Safety Strategy

A Systematic Review

Janice L. Kwan, MD*; Lisha Lo, MPH*; Margaret Sampson, MLIS, PhD; and Kaveh G. Shojania, MD

Medication reconciliation identifies and resolves unintentional discrepancies between patients' medication lists across transitions in care. The purpose of this review is to summarize evidence about the effectiveness of hospital-based medication reconciliation interventions. Searches encompassed MEDLINE through November 2012 and EMBASE and the Cochrane Central Register of Controlled Trials through July 2012. Eligible studies evaluated the effects of hospital-based medication reconciliation on unintentional discrepancies with nontrivial risks for harm to patients or 30-day postdischarge emergency department visits and readmission. Two reviewers evaluated study eligibility, abstracted data, and assessed study quality.

Eighteen studies evaluating 20 interventions met the selection criteria. Pharmacists performed medication reconciliation in 17 of the 20 interventions. Most unintentional discrepancies identified had no clinical significance. Medication reconciliation alone probably does not reduce postdischarge hospital utilization but may do so when bundled with interventions aimed at improving care transitions.

Ann Intern Med. 2013;158:397-403. www.ann
For author affiliations, see end of text.
* Dr. Kwan and Ms. Lo contributed equally to this manuscript.

Key Summary Points

Medication reconciliation is widely recommended to avoid unintentional discrepancies between patients' medications across transitions in care.

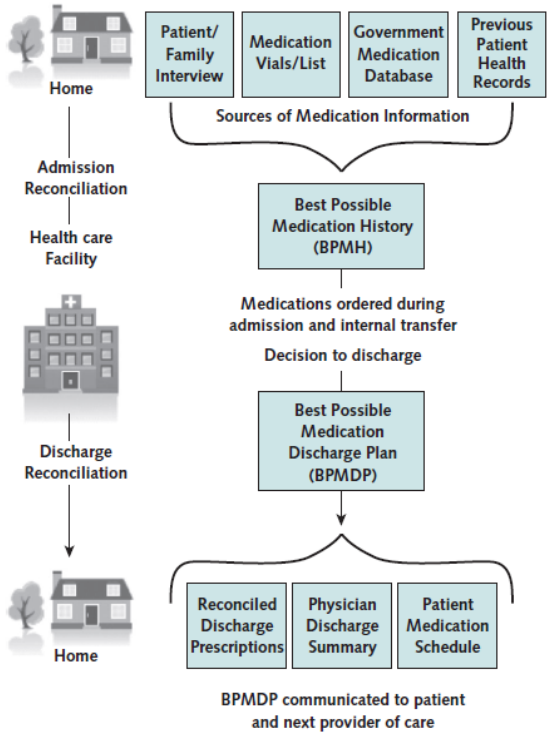
Clinically significant unintentional discrepancies affect only a few patients.

Medication reconciliation alone probably does not reduce postdischarge hospital utilization within 30 days but may do so when bundled with other interventions that improve discharge coordination.

Pharmacists play a major role in most successful interventions.

Commonly used criteria for selecting high-risk patients do not consistently improve the effect of medication reconciliation.

Figure. Overview of medication reconciliation in acute care.



Adapted, with permission, from Fernandes OA. Medication reconciliation. Pharmacy Practice. 2009;25:26.

Good Palliative-Geriatric Practice Algorithm
Arch Intern Med 2010; 170: 1648-54

¿Existe evidencia basada en el consenso sobre indicación, dosis y adecuación en este grupo de edad, nivel de incapacidad, y los beneficios superan a posibles efectos adversos conocidos?

Sí → Continuar con la misma dosis

No, no seguro

¿La indicación es válida y relevante en este grupo de edad y nivel de incapacidad?

No → RETIRAR

Sí

¿Los posibles efectos adversos conocidos superan el posible efecto beneficioso en pacientes ancianos con incapacidad?

Sí → RETIRAR

No

¿Algún síntoma adverso puede ser atribuido al fármaco?

Sí → cAMBIAR

No

¿Sería preferible algún otro fármaco?

Sí → cAMBIAR

No

¿Se puede reducir la dosis sin un riesgo significativo?

No → Continuar con la misma dosis

Sí → Reducir la dosis

Reducing Inappropriate Polypharmacy
The Process of Deprescribing

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Inappropriate polypharmacy, especially in older people, imposes a substantial burden of adverse drug events, ill health, disability, hospitalization, and even death. The single most important predictor of inappropriate prescribing and risk of adverse drug events in older patients is the number of prescribed drugs. Deprescribing is the process of tapering or stopping drugs, aimed at minimizing polypharmacy and improving patient outcomes. Evidence of efficacy for deprescribing is emerging from randomized trials and observational studies. A deprescribing protocol is proposed comprising 5 steps: (1) ascertain all drugs the patient is currently taking and the reasons for each one; (2) consider overall risk of drug-induced harm in individual patients in determining the required intensity of deprescribing intervention; (3) assess each drug in regard to its current or future benefit potential compared with current or future harm or burden potential; (4) prioritize drugs for discontinuation that have the lowest benefit-harm ratio and lowest likelihood of adverse withdrawal reactions or disease rebound syndromes; and (5) implement a discontinuation regimen and monitor patients closely for improvement in outcomes or onset of adverse effects. Whereas patient and prescriber barriers to deprescribing exist, resources and strategies are available that facilitate deliberate yet judicious deprescribing and deserve wider application.

JAMA Intern Med. doi:10.1001/jamainternmed.2015.0324
Published online March 23, 2015.

Invited Commentary

Related article

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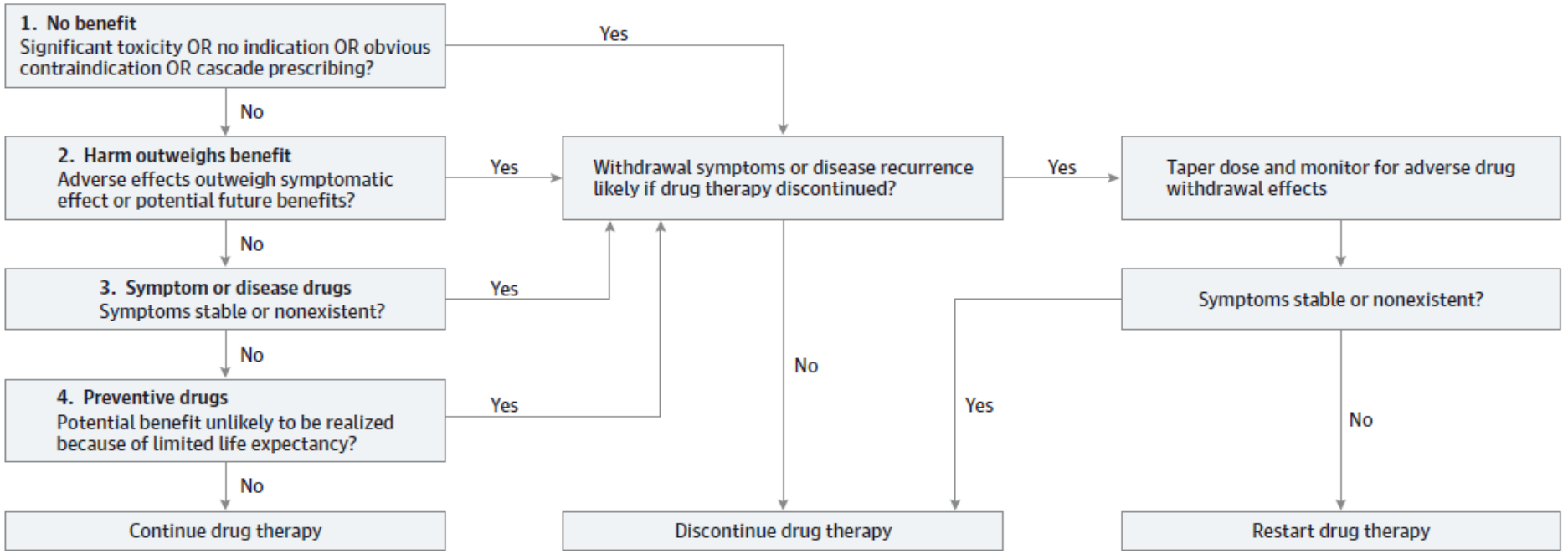
Figure. Algorithm for Deciding Order and Mode in Which Drug Use Could Be Discontinued



Conclusions

Inappropriate drug use and its associated harm is a growing issue among older patients. It calls for deliberate yet judicious prescribing that includes a systematic approach toward deprescribing applied by all prescribers and supported and reinforced by pharmacists and others responsible for optimizing use of drugs. Widespread adoption of a deprescribing protocol in clinical care has its challenges but also considerable potential to relieve unnecessary suffering and disability in older patients. More high-quality research is needed in defining the circumstances under which deprescribing confers maximal benefit in terms of improved clinical outcomes and should be more widely practiced.