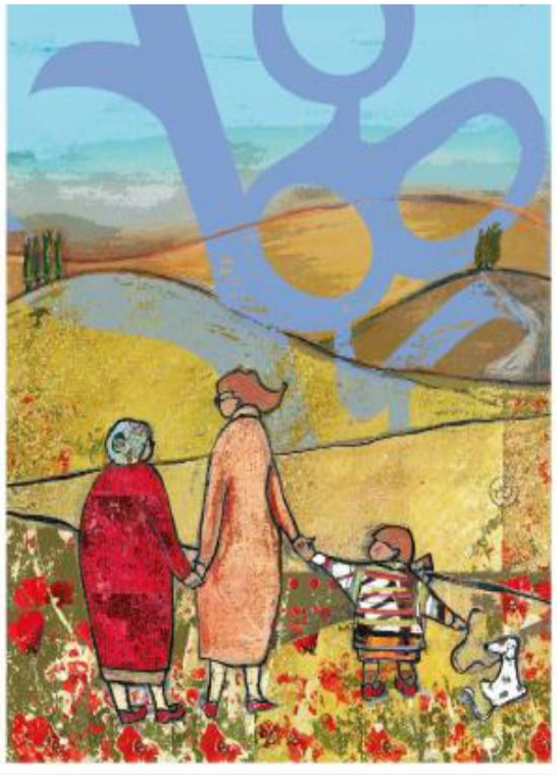
64° CONGRESSO NAZIONALE SIGG

Continuità di affetti, continuità di cure

ROMA, 27/30 NOVEMBRE 2019 - AUDITORIUM DELLA TECNICA



Quali approcci per la deprescrizione farmacologica e l'ottimizzazione della terapia?

A. Mugelli (Firenze)

Comorbidity of 10 common conditions

Percentage of patients with the row condition who also have the column condition

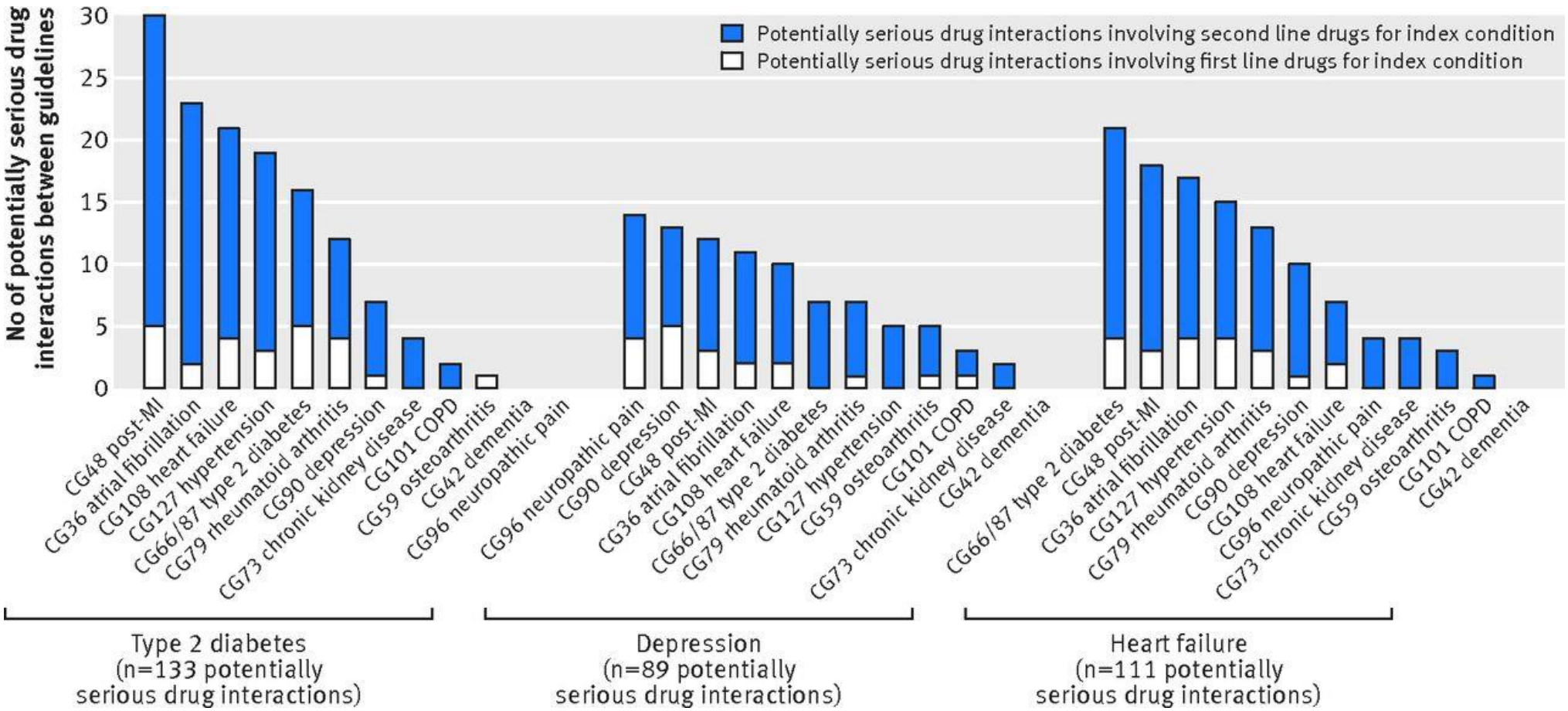
	Coronary heart disease	Hypertension	Heart failure	Stroke/transient ischaemic attack	Atrial fibrillation	Diabetes	Chronic obstructive pulmonary disease	Painful condition	Depression	Dementia	Percentage who only have the row condition*	Mean No of conditions in people aged <65 years with row condition	Mean No of conditions in people aged ≥65 years with row condition
Coronary heart disease		52	14	13	11	22	13	24	17	3	8.8	3.4	4.4
Hypertension	18		5	10	6	18	8	19	14	2	21.9	2.5	3.6
Heart failure	59	57		16	26	23	18	23	17	4	2.8	3.9	5.6
Stroke/transient ischaemic attack	29	61	8		13	19	13	22	21	5	6.0	3.6	4.8
Atrial fibrillation	37	55	21	20		19	13	18	14	5	6.5	3.3	5.0
Diabetes	23	54	6	9	6		8	21	18	2	17.6	2.9	6.5
Chronic obstructive pulmonary disease	19	33	6	8	6	11		23	18	2	14.3	2.8	4.5
Painful condition	16	36	5	6	3	13	10		31	3	12.7	3.1	4.3
Depression	10	23	2	5	2	9	7	27		3	25.4	2.6	4.9
Dementia	21	41	6	18	10	13	9	17	32		5.3	4.1	4.6

* Percentage who do not have one of 39 other conditions in the full count

Guthrie B et al. BMJ 2012;345

BMJ

Potentially serious drug-drug interactions between drugs recommended by clinical guidelines for 3 index conditions and drugs recommended by each of other 11 other guidelines



Dumbreck et al BMJ 2015

Research

Taofikat B Agbabiaka, Neil H Spencer, Sabina Khanom and Claire Goodman

Prevalence of drug–herb and drug–supplement interactions in older adults:

a cross-sectional survey

British Journal of General Practice, October 2018

Design and setting

Cross-sectional survey of older adults registered at two general practices in South East England.

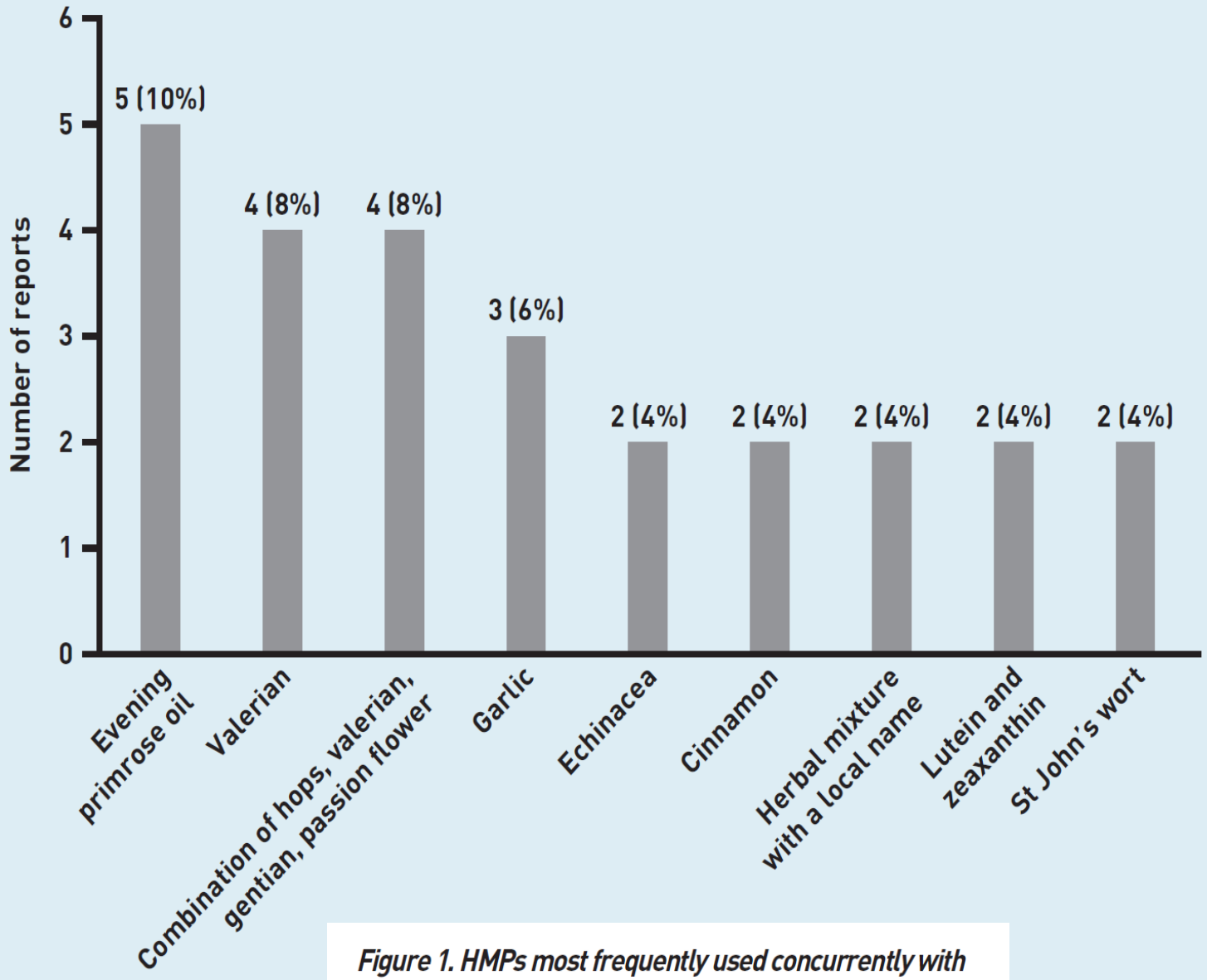


Figure 1. HMPs most frequently used concurrently with prescription by UK older adults. Percentages sum to more than 100% as individuals could report more than one HMP.

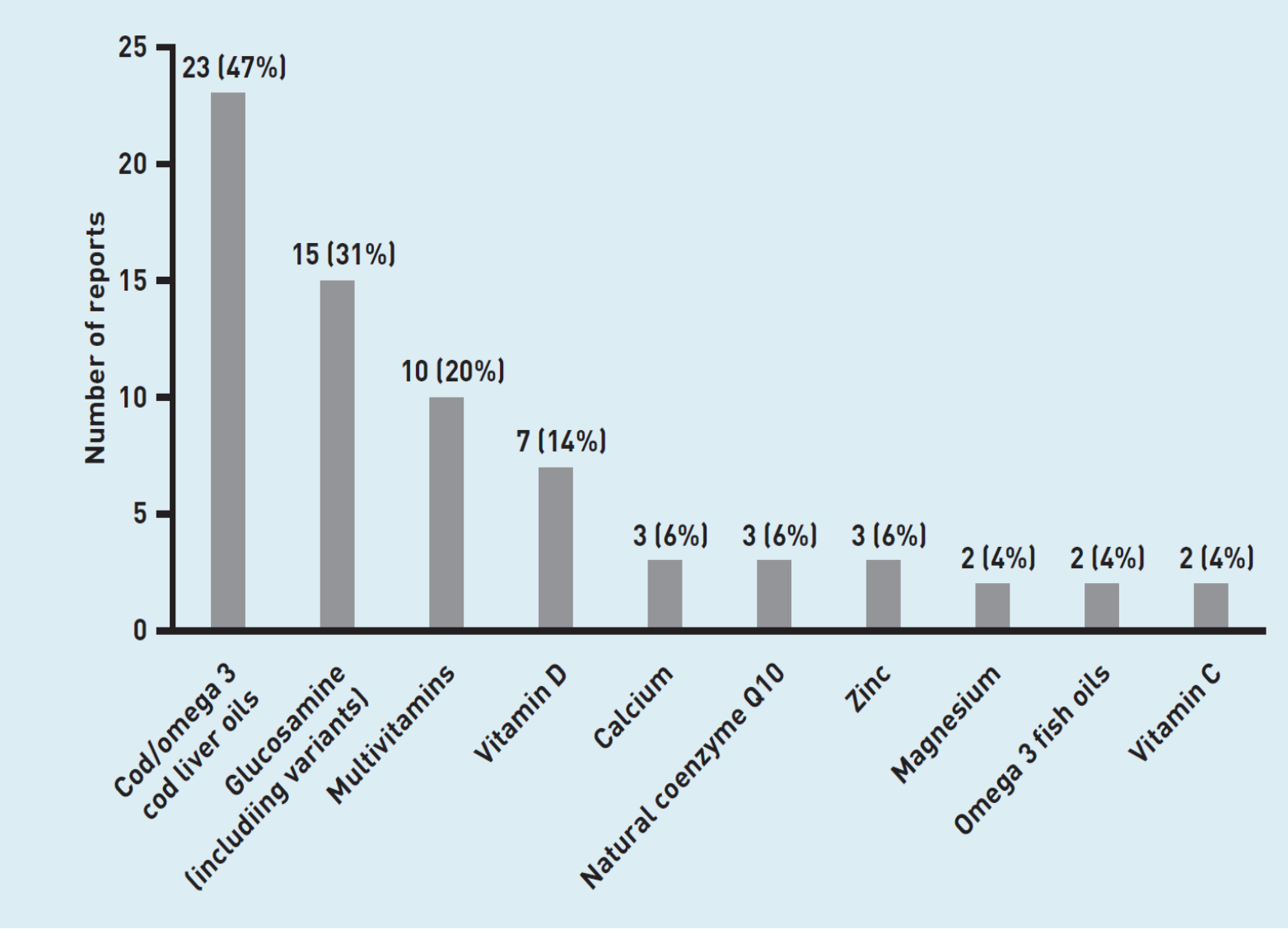


Figure 2. Supplements that are most frequently used concurrently with prescription by UK older adults. Percentages sum to more than 100% as individuals could report more than one HMP.

Box 1. Evaluation of potential interactions from HMPs, dietary supplements, and prescription drugs

HMPs/dietary supplement	Prescription medicine [number of patients[a]]	Possible interactions[b]
HDI category: Significant hazard, dosage adjustment or close monitoring is needed		
Bonecal (Pharmanutra)	Levothyroxine	The efficacy of levothyroxine has been reduced by calcium carbonate. Calcium acetate and calcium citrate reduced levothyroxine absorption in pharmacokinetic studies
Peppermint	Lansoprazole	Antacids may compromise the enteric coating of some commercially available peppermint oil capsules. H_2-receptor antagonists and proton pump inhibitors may interact similarly
St John's wort	Amlodipine	St John's wort significantly reduces the bioavailability of verapamil. Other calcium channel blockers would be expected to interact similarly
HDI category: A potentially hazardous combination		
Glucosamine	Metformin	In a controlled study, glucosamine supplements with chondroitin had no effect on glycaemic control in patients taking oral antidiabetic drugs, but increases in blood glucose concentrations have occurred in patients with treated and untreated diabetes
Omega 3 fish oil	Bisoprolol [2]	The hypotensive effect of propranolol might be enhanced by fish oils
Ginkgo	Rabeprazole	Ginkgo modestly reduces omeprazole levels. Most other proton pump inhibitors are likely to be similarly affected
HDI category: Doubt about outcome of concurrent use[c]		
Omega 3 fish oil	Aspirin [2]	The concurrent use of aspirin and fish oils caused at least additive effects on bleeding time in healthy subjects, but clinical studies in patients taking aspirin alone and with clopidogrel have found no evidence of an increase in incidence of bleeding episodes
Cod liver oil	Aspirin [2]	The concurrent use of aspirin and fish oils caused at least additive effects on bleeding time in healthy subjects, but clinical studies in patients taking aspirin alone and with clopidogrel have found no evidence of an increase in incidence of bleeding episodes
Cod liver oil	Bisoprolol Propranolol	The hypotensive effect of propranolol might be enhanced by fish oils

Older adults use herbal medicinal products (HMPs) and dietary supplements with prescription drugs to manage chronic conditions and to maintain health. The use of HMPs and dietary supplements with prescription drugs among older adults is under-researched. Concurrent use of HMPs and dietary supplements with warfarin, statins, and anti-inflammatory drugs is common among UK older adults. One in three concurrent users is at risk of a potential herb–drug or supplement–drug interaction.

1.3 million older adults in the UK are at risk of at least one potential herb–drug or supplement–drug interaction. Importantly, six combinations (Box 1) have potential for hazardous outcome or significant hazard.

Clinical Inertia as a Clinical Safeguard

Dario Giugliano, MD, PhD

Katherine Esposito, MD, PhD

Non Adherence as a Clinical Safeguard

Journal of the American Geriatrics Society

Decision Making for Older Adults With Multiple Chronic Conditions: Executive Summary for the American Geriatrics Society Guiding Principles on the Care of Older Adults With Multimorbidity

Cynthia Boyd, MD, MPH,[*] Cynthia Daisy Smith, MD,[†] Frederick A. Masoudi, MD, MSPH,[‡] Caroline S. Blaum, MD, MS,[§] John A. Dodson, MD, MPH,[§] Ariel R. Green, MD, MPH,[*] Amy Kelley, MD, MSHS,[¶] Daniel Matlock, MD, MPH,[‖] Jennifer Ouellet, MD,[**] Michael W. Rich, MD,[††] Nancy L. Schoenborn, MD,[*] and Mary E. Tinetti, MD[**]

JAGS 67:665–673, 2019

AGS guiding principles

Elicit and incorporate patient (and family/caregiver) preferences into medical decision making.
Recognize the limitations of the evidence base, and interpret and apply the medical literature specifically for this population.
Frame clinical management decisions within the context of harms, burdens, benefits, and prognosis (eg, remaining life expectancy, functional status, and quality of life).
Consider treatment complexity and feasibility when making clinical management decisions.
Use strategies for choosing therapies that optimize benefit, minimize harm, and enhance quality of life.

JAGS 67:665–673, 2019

AGS guiding principles

Elicit and incorporate patient (and family/caregiver) preferences into medical decision making.
Recognize the limitations of the evidence base, and interpret and apply the medical literature specifically for this population.
Frame clinical management decisions within the context of harms, burdens, benefits, and prognosis (eg, remaining life expectancy, functional status, and quality of life).
Consider treatment complexity and feasibility when making clinical management decisions.
Use strategies for choosing therapies that optimize benefit, minimize harm, and enhance quality of life.

JAGS 67:665–673, 2019

Deprescribing: the process of identifying medications to be **ceased,**
substituted,
or reduced
to address polypharmacy

Deprescribing refers to the programmed reduction in drug number or dosage of inappropriate medications supervised by a health care professional, with a goal to manage polypharmacy and improve outcomes, including adverse drug events

Deprescription Mosaic—The Art of Geriatrics

Courtesy of: Elana M. Shpall, MD, MS, On Lok Lifeways, 225 30th St, San Francisco, CA 94131.

Geriatrician Elana M. Shpall created this mosaic from the pills that she deprescribed from frail older adults.

JAMA Internal Medicine November 2019 Volume 179, Number 11

Medications to cease

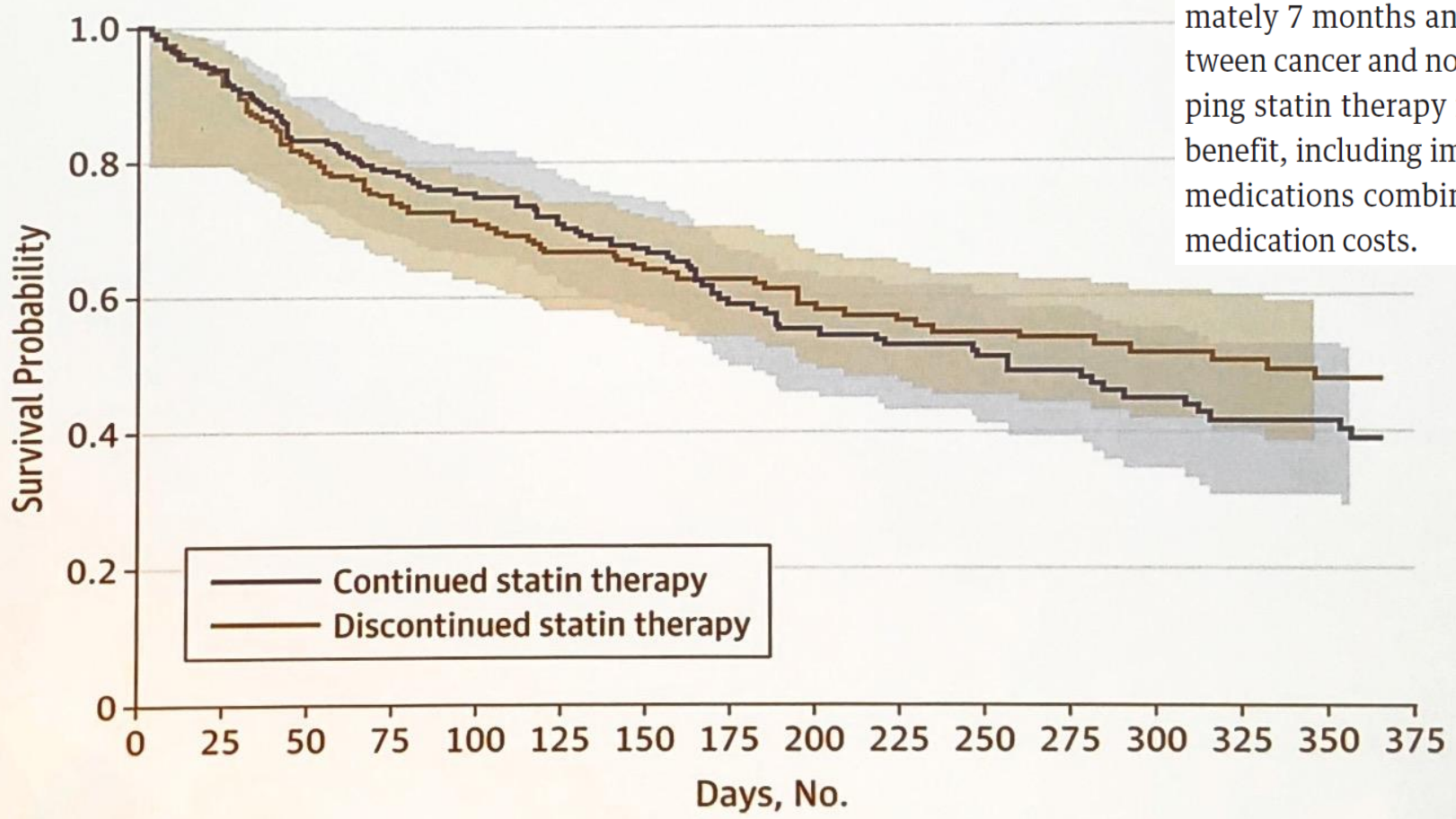
to identify unnecessary polypharmacy

defined as a medication that

- **Has no indication,**
- **is ineffective,**
- **and/or is a therapeutic duplication**

Deprescribing has been expanded to include those medications
that take too long to produce a clinical benefit in those with limited life expectancy

Safety and Benefit of Discontinuing Statin Therapy in the Setting of Advanced, Life-Limiting Illness



In a study population with a median survival of approximately 7 months and primary diseases evenly divided between cancer and noncancer diagnoses, it appears that stopping statin therapy is safe and potentially associated with benefit, including improved QOL and fewer other nonstatin medications combined with a corresponding reduction in medication costs.

Kutner JS et al. JAMA Intern Med. 2015 May ; 175(5): 691–700

The
substitution of a medication often
involves changing a “high risk” drug
as defined by explicit criteria [eg, AGS
(American Geriatrics Society)
Beers criteria, STOPP (Screening Tool of
Older Persons’ Prescriptions)
criteria] to a safer medication
alternative in older adults

What outcomes should be measured to help determine the effects of deprescribing?

ARTICLE IN PRESS

JAMDA xxx (2019) 1–6

JAMDA

journal homepage: www.jamda.com

Original Study

Deprescribing as a Clinical Improvement Focus

Thiruvinvamalai S. Dharmarajan MD, MACP, FRCP(E), AGSF*, Hanbyul Choi MD, Nadia Hossain MD, Uthpala Munasinghe MD, Fehmida Lakhi MD, Dennisdhilak Lourdusamy MD, Somechukwu Onuoha MD, Padmavathi Murakonda MD, Anna Skokowska-Lebelt MD, Madhusudhana Kanagala MD, Robin O. Russell MD

Geriatric Medicine, Montefiore Medical Center, Wakefield Campus, Bronx, NY

The project conducted over a 6-month period from August 2018 to January 2019, by fellows in geriatric medicine (under full faculty supervision), was intended to attempt deprescribing during at least 1 patient encounter per day. The goal was to deprescribe at least 0.5 medication during the encounter, where appropriate. Clinical settings included 2 long-term care facilities and a geriatrics outpatient clinic, all in the Bronx, New York.

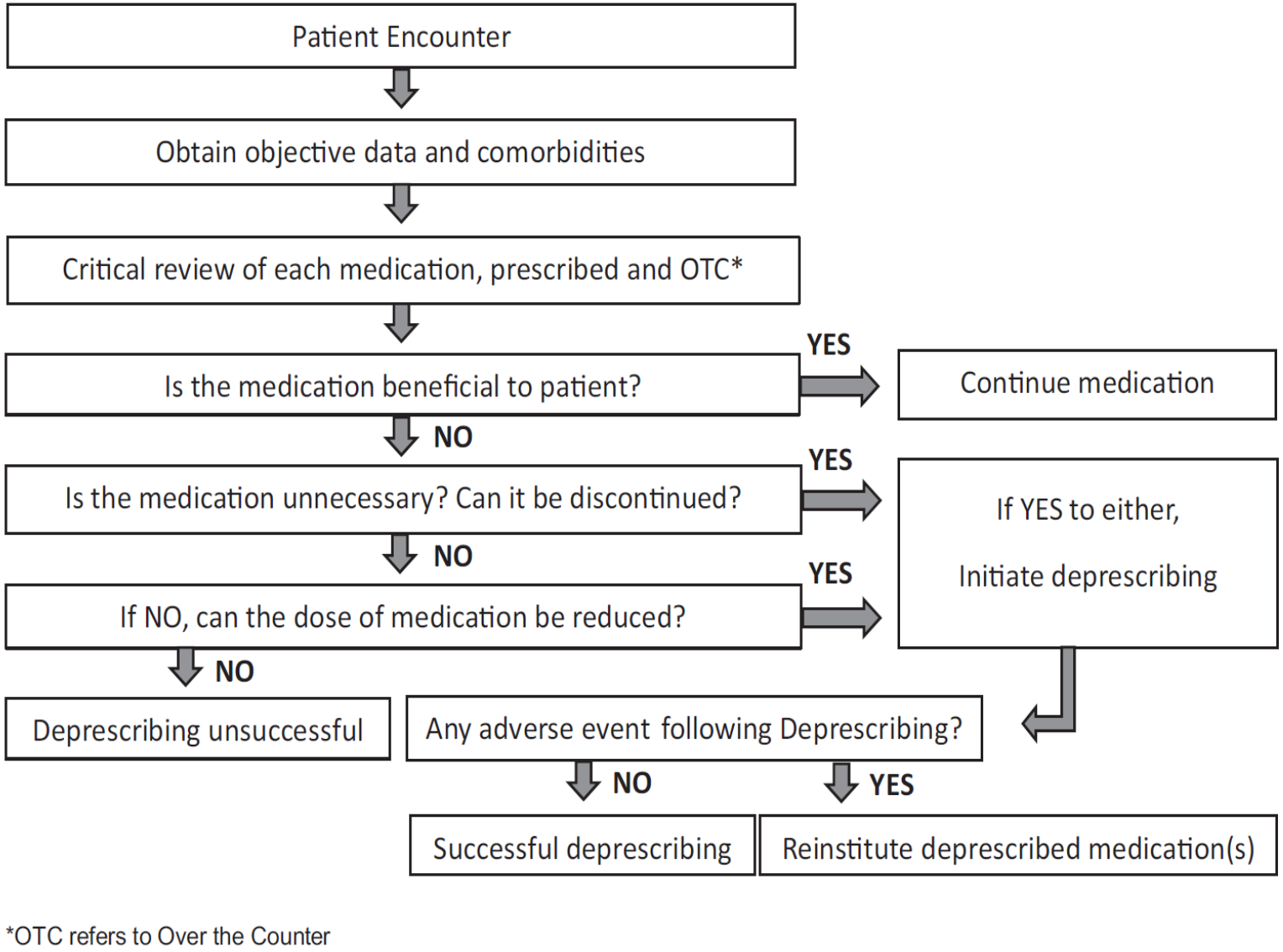


Fig. 1. Deprescribing algorithm. OTC, over the counter.

Demographics, comorbidities,
recent laboratory data, diet, life expectancy,
and a complete
list of medications, including both
prescribed and over the counter,
were collected and tabulated in a data tool
developed for this project

The list of medications was categorized into 21 different drug classes.
Every medication was critically reviewed for potential for discontinuation, or alternatively for reduction in dose.

Where appropriate, suggestions from other health care providers, such as nursing staff or pharmacists, were considered in making decisions relating to deprescribing.

All deprescribing attempts were supervised by board-certified geriatricians.

Meaningful verbal discussion took place with every patient; if the patient did not have capacity, discussions were held with a caregiver to determine ultimate decision regarding deprescribing.

If there was no caregiver, and in the absence of capacity, the provider did what was best in the patient's interests.

Post-deprescribing, patients were closely observed for any adverse consequences following withdrawal of medication(s).

If clinically warranted, the deprescribed medications were reinstituted.

Post data collection, all participating fellows and attending physicians participated in a survey to throw light on factors that influenced the deprescribing process.

The answers fell into 3 categories:

- **factors that facilitated deprescribing,**
- **factors that impeded deprescribing,**
- **factors that prompted reinstitution of deprescribed medications.**

Demographics

383 encounters :
294 long-term care (LTC)
89 outpatient clinic

Females (64.5%)

Average age 78.2 years,
77.9 for LTC residents,
79.1 for those in the outpatient clinic

Average number of comorbidities :
6.5 for the total,
6.7 for LTC residents,
5.8 for outpatients.

Average number of medications before deprescribing attempts was
11.1 for the entire group,
12.1 for LTC residents,
8.0 for outpatients.

Outcomes: Successful Deprescribing

Outcomes were analyzed for both LTC and clinic settings. Deprescribing success rate was 90.1% of total encounters, 96.9% in LTC, and 67.4% in outpatient clinic. The average number of deprescribed medications per encounter was 1.3 in total, 1.4 in LTC, and 1.0 in the outpatient clinic.

Deprescribing Success Rate Based on Drug Classes

Drug Classes	Total Encounters (N = 383)		Long-Term Care (n = 294)		Clinic (n = 89)	
	n	DeP, %	n	DeP, %	n	DeP, %
Antipsychotic medications	75	9.3	71	9.9	4	0
Antidepressant medications	128	0.8	114	0.9	14	0
Anxiolytics and sedative hypnotics	42	14.3	38	13.2	4	25.0
Medications for dementia, eg, donepezil, memantine	55	7.3	50	4.0	5	40.0
Analgesics	242	32.2	213	34.7	29	13.8
Antihypertensive agents	144	20.8	71	21.1	73	20.5
Diuretics	98	9.2	63	9.5	35	8.6
Lipid-lowering agents	201	22.9	139	28.1	62	11.3
Antiplatelet agents	175	13.1	129	13.2	46	13.0
Anticoagulants	54	5.6	47	2.1	7	28.6
Medications for asthma and COPD	79	15.2	70	14.3	9	22.2
Laxatives and stool softeners	250	8.8	226	7.5	24	20.8
Proton pump inhibitors and H2 blockers	107	26.2	91	26.4	16	25.0
5α reductase inhibitors and α1 blockers	62	6.5	58	6.9	4	0
Oral hypoglycemic agents	71	15.5	53	15.1	18	16.7
Insulin	60	13.3	53	13.2	7	14.3
Antihistamines	15	46.7	13	53.8	2	0
Ophthalmic preparations	105	3.8	86	4.7	19	0
Vitamin, mineral, and iron supplements	310	29.7	249	32.5	61	18.0
Thyroid hormone	49	4.1	37	2.7	12	8.3
Other classes of medications	252	17.9	198	18.2	54	16.7

COPD, chronic obstructive pulmonary disease; DeP, deprescribing.
n refers to the number of encounters.
N refers to total number of encounters.

ORIGINAL RESEARCH

Annals of Internal Medicine

Association Among Dietary Supplement Use, Nutrient Intake, and Mortality Among U.S. Adults

A Cohort Study

Fan Chen, MS, MPH; Mengxi Du, MS, MPH; Jeffrey B. Blumberg, PhD; Kenneth Kwan Ho Chui, PhD, MPH; Mengyuan Ruan, MS; Gail Rogers, MA; Zhilei Shan, MD, PhD; Luxian Zeng, MD, MPH; and Fang Fang Zhang, MD, PhD

Ann Intern Med. 2019;170:604-613.

Conclusion: Use of dietary supplements is not associated with mortality benefits among U.S. adults.

Deprescribing Success Rate Based on Drug Classes

Drug Classes	Total Encounters (N = 383)		Long-Term Care (n = 294)		Clinic (n = 89)	
	n	DeP, %	n	DeP, %	n	DeP, %
Antipsychotic medications	75	9.3	71	9.9	4	0
Antidepressant medications	128	0.8	114	0.9	14	0
Anxiolytics and sedative hypnotics	42	14.3	38	13.2	4	25.0
Medications for dementia, eg, donepezil, memantine	55	7.3	50	4.0	5	40.0
Analgesics	242	32.2	213	34.7	29	13.8
Antihypertensive agents	144	20.8	71	21.1	73	20.5
Diuretics	98	9.2	63	9.5	35	8.6
Lipid-lowering agents	201	22.9	139	28.1	62	11.3
Antiplatelet agents	175	13.1	129	13.2	46	13.0
Anticoagulants	54	5.6	47	2.1	7	28.6
Medications for asthma and COPD	79	15.2	70	14.3	9	22.2
Laxatives and stool softeners	250	8.8	226	7.5	24	20.8
Proton pump inhibitors and H2 blockers	107	26.2	91	26.4	16	25.0
5α reductase inhibitors and α1 blockers	62	6.5	58	6.9	4	0
Oral hypoglycemic agents	71	15.5	53	15.1	18	16.7
Insulin	60	13.3	53	13.2	7	14.3
Antihistamines	15	46.7	13	53.8	2	0
Ophthalmic preparations	105	3.8	86	4.7	19	0
Vitamin, mineral, and iron supplements	310	29.7	249	32.5	61	18.0
Thyroid hormone	49	4.1	37	2.7	12	8.3
Other classes of medications	252	17.9	198	18.2	54	16.7

COPD, chronic obstructive pulmonary disease; DeP, deprescribing.
n refers to the number of encounters.
N refers to total number of encounters.

As a basic rule,
it was important for
providers to ensure that patient
safety was never compromised,
irrespective of setting.

We were able to successfully deprescribe in 9 of 10 encounters, until there reached a stage when there were no further opportunities in a given patient

Factors Influencing Deprescribing

Factors that rendered success	• Earnest provider effort • A good patient-physician relationship • Providing relevant patient and caregiver education • Identifying redundant and unnecessary medications based on knowledge (physiology, pharmacology, current guidelines) • Systematic periodic medication review in collaboration with multidisciplinary health care providers
Factors that impeded process	• Insufficient provider effort (ie, lack of time) • New patients (first encounter, awaiting full information) • Those satisfied with current regimens appeared more reluctant to deprescribe • Patient or caregiver belief relating to recommendations from consultants or other providers • Resistance from consultants or other staff
Factors that required reinstitution of deprescribed medications	• Newer goals of care and warranted changes • Medications requiring adjustment based on new laboratory results, vital signs, or clinical manifestations (eg, elevation of blood pressure, hypotension, blood sugar changes, and behavioral manifestations) • Consultant's emphatic recommendations favoring prior regimen

Special Communication | LESS IS MORE

Reducing Inappropriate Polypharmacy
The Process of Deprescribing

Ian A. Scott, MBBS, FRACP, MHA, MEd; Sarah N. Hilmer, MBBS, FRACP, PhD; Emily Reeve, BPharm (Hons), PhD;
Kathleen Potter, PhD, FRACGP; David Le Couteur, PhD, FRACP;
Deborah Rigby, BPharm, GradDipClinPharm, FASCP, FACP, FAICD; Danijela Gnjidic, PhD;
Christopher B. Del Mar, MB, BChir, MD, FRACGP; Elizabeth E. Roughead, PhD; Amy Page, MClinPharm;
Jesse Jansen, MPsych, PhD; Jennifer H. Martin, MB, ChB, FRACP, PhD

JAMA Internal Medicine May 2015 Volume 175, Number 5

Original Article

Singapore Med J 2019; 60(6): 298-302
https://doi.org/10.11622/smedj.2018153

Improving prescribing for older patients – 'Yes S-I-R-E!'

Ting Ting Selina Cheong[1,*], MSc(Clin Pharm), BCGP, *Sharifah Munirah Alhamid*[2,*], MMed, MRCP, *Fu Yin Li*[3], BNurs, MNurs,
Swee Tee Wendy Ang[4], BSc(Hons), MSc, *Kim Hwa Jim Lim*[2], MMed, MRCP

YES S-I-R-E!

- S = symptoms (‘Have symptoms resolved?’),
- I = indication (‘Is there a valid indication?’),
- R = risks (‘Do risks outweigh benefits?’)
- E = end of life (‘Is there short life expectancy limiting clinical benefit?’).

JOB PROFILE DEL FARMACOLOGO CLINICO

Stesura di un documento finalizzato all'**inquadramento** della **figura** del **Farmacologo Clinico** all'interno del **Servizio Sanitario Nazionale**. Obiettivi del Documento sono stati anche quelli di definire le **competenze** del Farmacologo Clinico **MEDICO** e **NON-MEDICO**, far emergere la necessità di creare UOC di Farmacologia Clinica nell'ambito del SSN e di attivare un **Registro dei Farmacologi Italiani Certificati** (RiFarC).

SOCIETÀ ITALIANA DI FARMACOLOGIA

Collegio Nazionale dei Farmacologi Universitari

***Job Profile* del Farmacologo Clinico: proposta di definizione**

A cura della Sezione di Farmacologia Clinica della SIF

Approvato dal Consiglio Direttivo della SIF e dal Collegio Nazionale dei Farmacologi Universitari (CNFU)

Versione 24 Settembre 2018

Deprescription Mosaic—The Art of Geriatrics

Courtesy of: Elana M. Shpall, MD, MS, On Lok Lifeways, 225 30th St, San Francisco, CA 94131.