

## Supplementary Online Content

Herrinton LJ, Lo K, Alavi M, et al. Effectiveness of bundled hyperpolypharmacy deprescribing compared with usual care among older adults: a randomized clinical trial. *JAMA Netw Open*. 2023;6(7):e2322505. doi:10.1001/jamanetworkopen.2023.22505

**eTable 1.** Deprescribing Process Variables Among Those Who Agreed to the Intervention (n = 1062)

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This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1.** Deprescribing Process Variables Among Those Who Agreed to the Intervention (n = 1062)

<b>Per Person</b>		<b>N</b>	<b>%</b>
Average days from allocation to the first encounter		23 (range 1-119)	
Spoke with			
	Patient	889	84
	Authorized individual	42	4
	Caregiver	131	12
Number of cycles administered			
	1	663	62
	2	176	17
	3	115	11
	4	50	5
	≥5	58	5
No. of medications discussed <sup>a</sup>			
	0	323	30
	1	397	37
	2	227	21
	3	88	8
	≥4	27	3
No. of medication classes deprescribed			
	0	322	30
	1	413	39
	2	226	21
	3	79	7
	≥4	21	2

<sup>a</sup>Each medication was counted only once per person even if it was discussed over multiple cycles.

**eTable 2.** Medication Classes Discussed Among 739 Patients and Deprescribing Actions

Per medication class	Number and % of medications	
	N	%
<b>Medication class discussed<sup>a</sup></b>		
Antiemetics	9	1
Antihistamines	52	4
Antipsychotics	3	0
Antitussives	20	2
Aspirin/clopidogrel	49	4
Asthma/COPD	60	5
Bisphosphonates	30	3
Digoxin	10	1
Dm	95	8
Ezetimibe	1	0
Fibrates	5	0
Gabapentin	92	8
Gout	12	1
H2R-agonist	103	9
Hypertension	47	4
Levothyroxine	90	8
Nitrates	27	2
NSAIDs	64	5
Potassium	28	2
PPIs	133	11
Skeletal muscle relaxants	22	2
Statins	39	3
TCAs	25	2
Diabetes test strips	1	0
Urinary antispasmodics	41	3
Vitamin D	47	4
Others	87	7
<b>Recommended deprescribing action</b>		
Change medication	101	8
Discontinue medication	283	23
Increase dose	8	1
Initiate medication	2	0
No action taken at this time	321	26
Reduce dose of medication	433	35
Reduce dose to PRN	37	3
Restart medication	1	0
Not recorded	46	4
<b>Patient response to recommendation</b>		
Accepted	752	61
Declined	195	16
Decision deferred	210	17
Not recorded	75	6

Per medication class	Number and % of medications	
	N	%
<b>Other actions by Pharmacist, if not deprescribed</b>		
Reconcile medications	97	19
Education patient	210	42
Send recommendation to primary care provider	152	30
Send recommendation to specialist/department	22	4
Refer to advice nurse or appointment line	3	1
Other action	19	4

<sup>a</sup>The number of medications discussed was larger than the number recommended for deprescribing because some patients used multiple medications in the same class. Patients were counted multiple times if they were deprescribed multiple medications.

**eTable 3.** Association of Bundled Hyperpolypharmacy Deprescribing Intervention vs Usual Care With Components of Geriatric Syndrome

Group	Cognitive % (95% CI)	Urinary % (95% CI)	Falls % (95% CI)	Pain % (95 %CI)
Usual care (N=1233)				
Baseline	23.7 (21.3 to 26.1)	12.2 (10.3 to 14.0)	17.7 (15.6 to 19.8)	18.5 (16.3 to 20.7)
Post	25.7 (23.3 to 28.2)	12.2 (10.3 to 14)	17.8 (15.6 to 19.9)	19.2 (17 to 21.4)
Difference	2.0 (-0.7 to 4.8)	0.0	0.1 (-2.4 to 2.6)	0.7 (-1.8 to 3.3)
Intervention, intention to treat (N=1237)				
Baseline	20.2 (18.0 to 22.5)	10.1 (8.4 to 11.8)	16.2 (14.2 to 18.3)	19.9 (17.7 to 22.1)
Post	22.6 (20.3 to 25.0)	9.9 (8.2 to 11.5)	17.9 (15.8 to 20.1)	20.7 (18.4 to 22.9)
Difference	2.4 (-0.2 to 5.0)	-0.2 (-2.0 to 1.6)	1.7 (-0.1 to 4.2)	0.8 (-1.8 to 3.4)
DID <sup>a</sup>	0.4 (-3.5 to 4.3)	-0.2 (-2.9 to 2.4)	1.6 (-1.9 to 5.2)	0.1 (-3.6 to 3.8)
P value	0.84	0.86	0.37	0.97
Intervention, as-treated (N=1062)				
Baseline	18.6 (16.2 to 20.9)	9.6 (7.8 to 11.4)	15.5 (13.4 to 17.7)	19.9 (17.5 to 22.3)
Post	22.4 (19.9 to 24.9)	9.7 (7.9 to 11.5)	17 (14.8 to 19.3)	20.8 (18.4 to 23.3)
Difference	3.9 (0.9 to 6.7)	0.1 (-1.8 to 2.1)	1.5 (-1.3 to 4.3)	0.9 (-1.9 to 3.8)
DID	1.8 (-2.2 to 5.9)	0.1 (-2.7 to 2.9)	1.4 (-2.3 to 5.1)	0.2 (-3.7 to 4.1)
P value	0.37	0.95	0.45	0.92
Intervention, accepted deprescribing (N=438)				
Baseline	16.7 (13.2 to 20.2)	8.7 (6.0 to 11.3)	15.6 (12.3 to 19.2)	19.4 (15.7 to 23.1)
Post	20.1 (16.3 to 23.8)	8.7 (6.0 to 11.3)	14.8 (11.5 to 18.2)	20.3 (16.6 to 24.1)
Difference	3.4 (-0.9 to 7.8)	0.0 (-2.9 to 2.9)	-0.9 (-5.3 to 3.4)	0.9 (3.6 to 5.4)
DID	1.4 (-3.8 to 6.6)	0.0 (-3.6 to 3.6)	-1.0 (-6.0 to 4.0)	1.8 (-5.0 to 5.4)
P value	0.60	1.00	0.70	0.95

<sup>a</sup>DID = difference in difference comparing intervention to usual care.

**eTable 4.** Risk of Death During Follow-up, Usual Care Compared With Intervention Groups

Group	Statistic
Usual care (N=1233)	N=124 (10.1%, with 95% CI 8.4% to 11.9%)
Intervention, intention to treat (N=1237)	N=131 (10.6% with 95% CI 8.9% to 12.4%)
Risk difference (95% CI)	0.5% (95% CI -1.9 to 2.9%)
P value	0.67