

Supplementary Table 1

Most Common MAGS Per Type

Final Generic Name	Frequency	Percent (of Total Number of MAGS of Each Type)
Total Active Meds	86,174	
Total Delirium MAGS	13,457	100
Top 10 Delirium MAGS		
Oxycodone	2307	17.14
Hydrocodone-Acetaminophen	660	4.9
Tramadol	594	4.41
Morphine	569	4.23
Famotidine	552	4.1
Mirtazapine	515	3.83
Ranitidine	486	3.61
Lorazepam	412	3.06
Loratadine	406	3.02
Loperamide	404	3
Total Cognitive Impairment MAGS	14,576	100
Top 10 Cognitive Impairment MAGS		
Oxycodone	2307	15.83
Hydrocodone-Acetaminophen	660	4.53
Tramadol	594	4.08
Morphine	569	3.9
Famotidine	552	3.79
Mirtazapine	515	3.53
Ranitidine	486	3.33
Lorazepam	412	2.83
Loratadine	406	2.79
Loperamide	404	2.77
Total Fall MAGS	43,861	100
Top 10 Fall MAGS		
Metoprolol	2384	5.44
Oxycodone	2307	5.26
Gabapentin	1910	4.35
Amlodipine	1831	4.17
Lisinopril	1583	3.61
Torsemide	1325	3.02
Insulin	1185	2.7
Furosemide	1157	2.64
Tamsulosin	1067	2.43
Fluticasone	934	2.13
Total Depression MAGS	15,322	100
Top 10 Depression MAGS		
Metoprolol	2384	15.56
Oxycodone	2307	15.06
Fluticasone	934	6.1
Prednisone	753	4.91
Carvedilol	692	4.52
Hydrocodone-Acetaminophen	660	4.31
Tramadol	594	3.88
Morphine	569	3.71
Budesonide- Formoterol	465	3.03
Loperamide	404	2.64
Total Weight Loss MAGS	3655	100
Top 10 Weight Loss MAGS		
Metformin	1068	29.22
Sertraline	685	18.74
Duloxetine	482	13.19
Bupropion	353	9.66
Fluoxetine	291	7.96
Donepezil	259	7.09
Azithromycin	144	3.94
Topiramate	64	1.75
Liraglutide	54	1.48
Amantadine	40	1.09
Total Incontinence MAGS	12,889	100
Top 10 Incontinence MAGS		
Oxycodone	2307	17.9
Gabapentin	1910	14.82
Torsemide	1325	10.28
Furosemide	1157	8.98
Hydrocodone-Acetaminophen	660	5.12
Tramadol	594	4.61
Morphine	569	4.41

(continued)

Supplementary Table 1 (continued)

Final Generic Name	Frequency	Percent (of Total Number of MAGS of Each Type)
Spironolactone	494	3.83
Oxycodone-Acetaminophen	373	2.89
Tiotropium Bromide	316	2.45
Total Incontinence-Women MAGS	1359	100
Top Incontinence-Women MAGS		
Tamsulosin	1067	78.51
Terazosin	129	9.49
Doxazosin	103	7.58
Alfuzosin	39	2.87
Prazosin	19	1.4
Dutasteride-Tamsulosin	2	0.15

Supplementary Table 2

Association Between MAGS Quartiles and Hospitalization During the Index 60-Day HHC Episode (Independent Effects)

Outcome: Hospitalization	Hazard Ratio	P Value	95% Confidence Interval	
MAGS quartiles: Ref = MAGS quartile 1 (0–3, mean = 2.1)				
MAGS quartile 2 (4–5, mean = 4.47)	1.095	.376	0.896	1.337
MAGS quartile 3 (6–7, mean = 6.44)	1.112	.330	0.898	1.377
MAGS quartile 4 (8–20, mean = 9.69)	1.123	.325	0.891	1.416
Quartiles of non-MAGS medications (ref = non-MAGS quartile 1, [0–5 non-MAGS medications, mean = 3.65])				
Non-MAGS quartile 2 (6–7, mean = 6.50)	0.862	.182	0.693	1.072
Non-MAGS quartile 3 (8–10, mean 8.88)	1.097	.362	0.899	1.339
Non-MAGS quartile 4 (11–21, mean = 13.12)	1.230	.065	0.987	1.533
Age	0.997	.464	0.989	1.005
Female	0.845	.024	0.729	0.978
Married (vs not married)	0.899	.216	0.759	1.064
Race/ethnicity (ref = White)				
Non-White	1.147	.168	0.944	1.394
Living arrangement (ref = living with others)				
Living alone	0.848	.083	0.704	1.022
Living in aggregate settings	0.901	.433	0.693	1.170
Medicare-Medicaid dual eligibility (ref = Medicare only)	1.154	.342	0.859	1.551
Referral source (ref: community)				
Acute care hospital	1.501	.000	1.245	1.810
Post-acute care facilities	1.108	.451	0.849	1.445
Total number of diagnoses	1.018	.000	1.012	1.024
Alzheimer disease and related dementias (diagnosis or symptom)	1.118	.166	0.955	1.309
Depression (diagnosis of symptom)	1.070	.391	0.917	1.247
Limitations in ADL activities	0.999	.985	0.925	1.079
Caregiver support (ref = adequate caregiver assistance)				
Inadequate caregiver assistance	0.923	.382	0.771	1.105
Average number of HHC visits per wk	1.003	.000	1.003	1.004

Supplementary Table 3

Sensitivity Analysis: Association Between MAGS (Tertiles) and Hospitalization During the Index 60-Day HHC Episode

Outcome: Hospitalization	Hazard Ratio	P Value	95% Confidence Interval	
Grouping based on MAGS tertiles and number of diagnoses				
Ref = MAGS tertile 1 (0–4, mean = 2.74) and total diagnoses <10				
MAGS tertile 2 (5–6, mean = 5.47)*Diagnosis <10	1.165	.480	0.762	1.782
MAGS tertile 3 (7–16, mean = 8.75)*Diagnosis <10	1.240	.362	0.781	1.969
MAGS tertile 1*Diagnosis ≥10	2.163	<.001	1.644	2.846
MAGS tertile 2*Diagnoses ≥10	2.244	<.001	1.685	2.988
MAGS tertile 3*Diagnoses ≥10	2.210	<.001	1.660	2.940
Quartiles of non-MAGS medications (ref = non-MAGS quartile 1, [0–5 non-MAGS medications, mean = 3.65])				
Non-MAGS quartile 2 (6–7, mean = 6.50)	0.855	.159	0.688	1.063
Non-MAGS quartile 3 (8–10, mean 8.88)	1.097	.358	0.900	1.336
Non-MAGS quartile 4 (11–21, mean = 13.12)	1.323	.009	1.071	1.635
Age	0.995	.260	0.987	1.003
Female	0.851	.031	0.735	0.985
Married (vs not married)	0.913	.289	0.771	1.081
Race/ethnicity (ref = White)				
Non-White	1.151	.158	0.947	1.398
Living arrangement (ref = living with others)				
Living alone	0.859	.108	0.713	1.034
Living in aggregate settings	0.881	.341	0.678	1.144
Medicare-Medicaid dual eligibility (ref = Medicare only)	1.155	.339	0.860	1.552
Referral source (ref: community)				
Acute care hospital	1.498	<.001	1.243	1.806
Post-acute care facilities	1.086	.543	0.832	1.417
Alzheimer disease and related dementias (diagnosis or symptom)	1.108	.201	0.947	1.298
Depression (diagnosis or symptom)	1.076	.343	0.925	1.251
Limitations in ADL activities	1.018	.642	0.944	1.098
Caregiver support (ref = adequate caregiver assistance)				
Inadequate caregiver assistance	0.918	.355	0.767	1.100
Average number of HHC visits per wk	1.004	<.001	1.003	1.004

Supplementary Table 4

Sensitivity Analysis: Association Between MAGS (Quintiles) and Hospitalization During the Index 60-Day HHC Episode

Outcome: Hospitalization	Hazard Ratio	P Value	95% Confidence Interval	
Grouping based on MAGS quintiles and number of diagnoses				
Ref = MAGS quintile 1 (0–3, mean = 2.13) and total diagnoses <10				
MAGS quintile 2 (4–4, mean = 4)*Diagnosis <10	0.843	.534	0.492	1.443
MAGS quintile 3 (5–5, mean = 5)*Diagnosis <10	0.864	.629	0.478	1.562
MAGS quintile 4 (6–7, mean = 6.44)*Diagnosis <10	1.396	.159	0.878	2.222
MAGS quintile 5 (8–16, mean = 9.69)*Diagnosis <10	1.125	.698	0.620	2.044
MAGS quintile 1* Diagnosis ≥10	1.969	<.001	1.423	2.724
MAGS quintile 2*Diagnosis ≥10	2.239	<.001	1.581	3.171
MAGS quintile 3*Diagnosis ≥10	2.182	<.001	1.540	3.093
MAGS quintile 4*Diagnosis ≥10	2.020	<.001	1.457	2.799
MAGS quintile 5*Diagnosis ≥10	2.244	<.001	1.608	3.130
Quartiles of non-MAGS medications (ref = non-MAGS quartile 1 [0–5 non-MAGS medications, mean = 3.65])				
Non-MAGS quartile 2 (6–7, mean = 6.50)	0.845	.131	0.679	1.052
Non-MAGS quartile 3 (8–10, mean = 8.88)	1.079	.454	0.885	1.316
Non-MAGS quartile 4 (11–21, mean = 13.12)	1.292	.019	1.043	1.599
Age				
Female	0.996	.287	0.988	1.004
Married (vs not married)				
Female	0.854	.034	0.737	0.988
Married (vs not married)				
Married	0.912	.283	0.770	1.079
Race/ethnicity (ref = White)				
Non-White	1.151	.158	0.947	1.399
Living arrangement (ref = living with others)				
Living alone	0.862	.117	0.716	1.038
Living in aggregate settings	0.885	.359	0.681	1.149
Medicare-Medicaid dual eligibility (ref = Medicare only)				
Dual eligible	1.153	.347	0.857	1.550
Referral source (ref: community)				
Acute care hospital	1.504	<.001	1.248	1.813
Post-acute care facilities	1.092	.517	0.837	1.425
Alzheimer disease and related dementias (diagnosis or symptom)				
ADRD	1.110	.194	0.948	1.300
Depression (diagnosis or symptom)				
Depression	1.068	.398	0.917	1.243
Limitations in ADL activities				
ADL limitations	1.017	.663	0.943	1.098
Caregiver support (ref = adequate caregiver assistance)				
Inadequate caregiver assistance	0.918	.350	0.766	1.099
Average number of HHC visits per wk				
Number of visits	1.004	<.001	1.003	1.004