

Supplemental file 1: Overview of the national healthcare and long-term care insurance systems

National Health Insurance Programs under Japan's Universal Healthcare System					Health and Welfare Services for the Elderly
Health insurance system	Long Life Medical Care System	National Health Insurance provided by local governments	Employees' Health Insurance	Other insurance programs (e.g., Seaman's Insurance)	Long-Term Care Insurance System
Target population	People aged ≥ 75 years	Unemployed, self-employed, and retired people	Employees and their dependents	Others (e.g., Mariners)	Eligible people who require long-term care or support
		People aged < 75 years	People aged < 75 years		
Copayment rate	10%	20–30%*	30%	30%	10–30%*

* Copayment rates depend on the enrollees' income levels.

Supplemental file 2: Number of billing codes categorized by pharmacological action

Medication groups	No. of billing codes
All approved drugs in 2012	200 091
All approved drugs in 2015	200 596
Anti-dementia medications	215
Antidiabetics	483
Insulin	48
Oral antidiabetics	435
Statins	333
Non-steroidal bronchodilators	288
Benzodiazepines	157
Antidepressants	349
Antihypertensives	1762
Post-stroke medications	173
Antineoplastics	2958
Antianginals	138
NSAIDs, regular use	240
Steroids, oral or inhaled	34

NSAID=Non-steroidal anti-inflammatory drug.

Supplemental file: Patient sex and prescribed medications during the IBP in all subjects and according to age group

	All subjects		Age groups								<i>P</i>
			77–81 years		82–86 years		87–91 years		≥92 years		
No. of subjects	42024		18232		12346		6942		4504		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Female	23766	56.6	9405	51.6	6780	54.9	4252	61.3	3329	73.9	<0.0001
Insulin	677	1.6	203	1.1	295	2.4	134	1.9	45	1	<0.0001
Oral antidiabetics	3428	8.2	1072	5.9	1461	11.8	639	9.2	256	5.7	<0.0001
Statins	7165	17	2194	12	3036	24.6	1407	20.3	528	11.7	<0.0001
Benzodiazepines	3864	9.2	988	5.4	1530	12.4	884	12.7	462	10.3	<0.0001
Antidepressants	1064	2.5	250	1.4	429	3.5	264	3.8	121	2.7	<0.0001
Antiplatelets	7007	16.7	1662	9.1	2647	21.4	1663	24	1035	23	<0.0001
Antianginals	2021	4.8	382	2.1	683	5.5	514	7.4	442	9.8	<0.0001
Anticoagulants	1507	3.6	382	2.1	600	4.9	355	5.1	170	3.8	<0.0001
Antihypertensives	17237	41	4426	24.3	6619	53.6	3858	55.6	2334	51.8	<0.0001
Antineoplastics	8011	19.1	2197	12.1	3257	26.4	1655	23.8	902	20	<0.0001
Non-steroidal bronchodilators	2085	5	510	2.8	772	6.3	478	6.9	325	7.2	<0.0001
Post-stroke medications	907	2.2	221	1.2	327	2.6	221	3.2	138	3.1	<0.0001
NSAIDs, regular use	3205	7.6	679	3.7	1238	10	813	11.7	475	10.5	<0.0001

Steroids, oral or inhaled	1685	4	461	2.5	673	5.5	385	5.5	166	3.7	<0.0001
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IBP=initial background period (April 1 to June 30, 2012), NSAID=non-steroidal anti-inflammatory drug.

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