

Supplementary Table A. PBS listed glaucoma medicines, 2012-2019, included in the analysis, ATC codes, strength, and dose.

ATC code	Medicine class	PBS-listed medicines	Strength, form, pack size
S01EA	Sympathomimetics in glaucoma therapy (α -2 agonist)	- apraclonidine - brimonidine	- 0.5%, 10 ml (drops) - 0.15-0.2%, 5 ml (drops)
S01EB	Parasympathomimetics	- pilocarpine	- 1-4%, 15 ml (drops)
S01EC	Carbonic anhydrase inhibitors	- acetazolamide - brinzolamide - dorzolamide	- 250 mg (100 tablets) - 1%, 5 ml (drops) - 2%, 5 ml (drops)
S01ED	Beta blocking agents	- betaxolol - timolol	- 0.25%, 0.5%, 5 ml (drops) - 0.1%, 0.25-0.5%, 2.5-5 ml (drops)
S01EE	Prostaglandin analogues	- bimatoprost - latanoprost - tafluprost travoprost (2 formulations s and c BAK)	- 0.03%, 30x 0.4ml (units) /0.03%, 3 ml (drops) - 0.005%, 2.5 ml (drops) - 0.0015%, 30x0.3 ml(units) - 0.004%, 2.5 ml (drops)
FDCs	Sympathomimetics in glaucoma therapy + beta blocking agents	- brimonidine+ timolol	- 0.5%, 5 ml (drops)
	Carbonic anhydrase inhibitors + beta blocking agents	- brinzolamide+ timolol - dorzolamide+ timolol	- 1%+0.5%, 5 ml (drops) - 2%+0.5%, 5 ml (drops)
	Prostaglandin analogue + beta blocking agents	- bimatoprost + timolol - latanoprost + timolol - travoprost + timolol	- 0.03%+0.5%, 30x0.4 ml(units) /0.03%+0.5%, 3 ml (drops) - 0.005%+0.5%, 2.5 ml (drops) - 0.004%+0.5%, 2.5 ml (drops)

ATC code	Medicine class	PBS-listed medicines	Strength, form, pack size
	Carbonic anhydrase inhibitors + sympathomimetics in glaucoma therapy	- brinzolamide+ brimonidine	- 1%+0.2%, 5 ml (drops)

ATC = Anatomical Therapeutic Chemical; DDD = defined daily dose (World Health Organisation drug classification); FDC = fixed dose combination; PBS = Pharmaceutical Benefits Scheme.

Supplementary Table B. Annual prevalence of glaucoma medicine use per 10,000 population in Australia 2013-2019 by patient characteristics and treatment.

	2013	2014	2015	2016	2017	2018	2019
Overall (per 10,000 population)	180	183	184	184	184	184	184
Sex							
Female	191	193	194	192	191	19	191
Male	168	172	174	175	176	178	177
Age group, years							
18 – 34	12	14	13	13	15	16	16
35 – 49	29	3	3	3	31	32	33
50 – 64	147	145	146	146	143	144	141
65 – 74	481	484	48	474	464	455	448
75 – 84	961	959	947	924	908	894	883
85+	1,186	1,215	1,234	1,237	1,240	1,242	1,230
Medicine class							
Prostaglandin analogues	109	108	108	106	103	101	99
Fixed dose combinations	63	66	69	72	75	77	77
Carbonic anhydrase inhibitors	29	3	31	31	31	31	32
Beta blocking agents	27	25	24	22	21	2	2
Para-sympathomimetics	4	4	3	3	3	3	3
Sympathomimetics	2	21	22	21	19	18	17

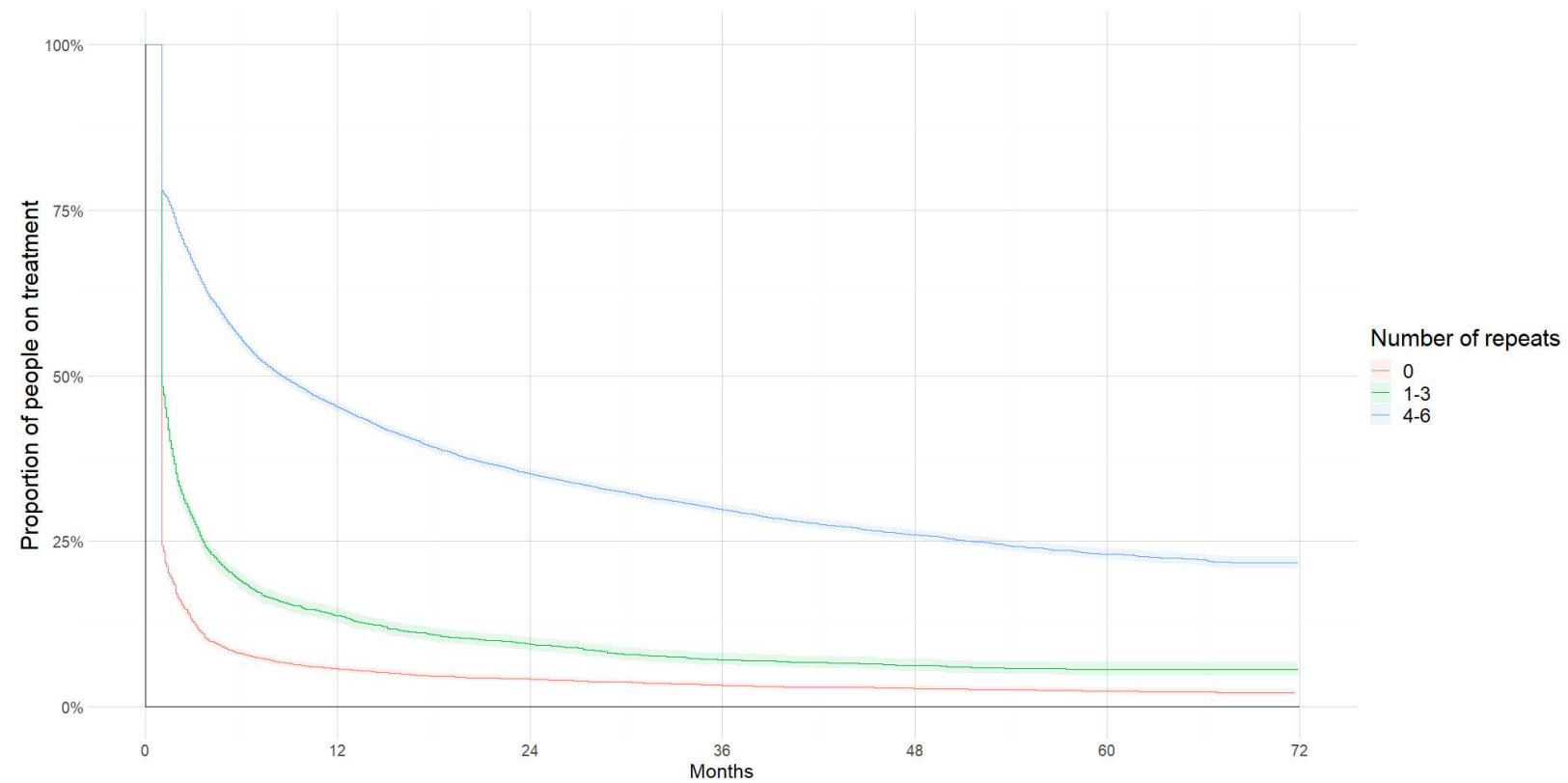
Supplementary Table C. Annual incidence of glaucoma medicine treatment per 10,000 population in Australia 2014-2019 by patient characteristics and initiated medicine.

	2014	2015	2016	2017	2018	2019
Total (per 10,000 population)	36	35	35	35	37	37
Sex						
Female	37	36	37	36	37	31
Male	35	34	34	34	36	29
Age group, years						
18 – 34	9	8	9	10	11	11
35 – 49	12	13	13	14	15	15
50 -64	40	39	41	38	42	40
65 – 74	94	91	87	87	87	89
75 – 84	132	129	124	121	119	123
85+	121	112	110	111	116	95
Medicine class of initiation						
Prostaglandin analogues	15	14	14	12	12	12
Carbonic anhydrase inhibitors	7	7	7	7	8	8
Sympathomimetics	4	4	4	3	3	3
Fixed dose combinations	3	3	3	3	4	4
Beta blocking agents	3	3	2	2	2	2
Multiple medicines	2	2	2	1	1	1
Para-sympathomimetics	1	1	1	1	1	1

Supplementary Table D. Kaplan-Meier estimates of the proportion of patients on treatment at 6, 12, 18, and 36 months from initiation, and median time on glaucoma medical treatment.

	Proportion on treatment at <i>n</i> months, %				Median time on treatment (IQR)
	6	12	18	36	
Glaucoma medicine initiators; stratified by period of time used to define a break in treatment					
30 days	26.5	18.7	14.7	9.2	1.4 (1.0 – 6.8)
90 days	37.0	29.8	25.6	19.2	2.3 (1.0 – 19.2)
180 days	47.7	41.4	37.8	32.1	4.9 (1.0 – NR)
Glaucoma medicine initiators; stratified by initiated medicine class					
Prostaglandin analogues	61.8	51.4	44.8	34.5	13.2 (2.5 – NR)
Beta blocking agents	35.3	26.3	22.0	15.4	2.5 (1.0 – 13.8)
Multiple medicines	31.1	24.1	20.7	15.5	2.2 (1.0 – 10.9)
FDCs	30.0	22.5	19.0	12.5	2.0 (1.0 – 2.1)
Sympathomimetics	12.3	9.1	7.3	4.9	1.0 (1.0 – 2.1)
Parasympathomimetics	12.1	8.2	6.4	4.3	1.0 (1.0 – 1.0)
Carbonic anhydrase inhibitors	7.1	4.8	3.3	2.0	1.0 (1.0 – 2.3)
Glaucoma medicine initiators; stratified by age group at initiation					
18 – 34 years	11.0	7.4	4.8	2.7	1.0 (1.0 – 1.0)
35 – 49 years	20.2	13.9	10.9	7.2	1.0 (1.0 – 4.1)
50 – 64 years	32.8	25.5	21.4	15.4	1.7 (1.0 – 12.5)
65 – 74 years	43.3	35.8	31.2	23.5	3.6 (1.0 – 31.4)
75 – 84 years	48.6	40.4	35.6	27.8	5.5 (1.0 – 45.5)
85+ years	51.3	43.9	38.4	30.7	6.8 (1.0 – 54.0)

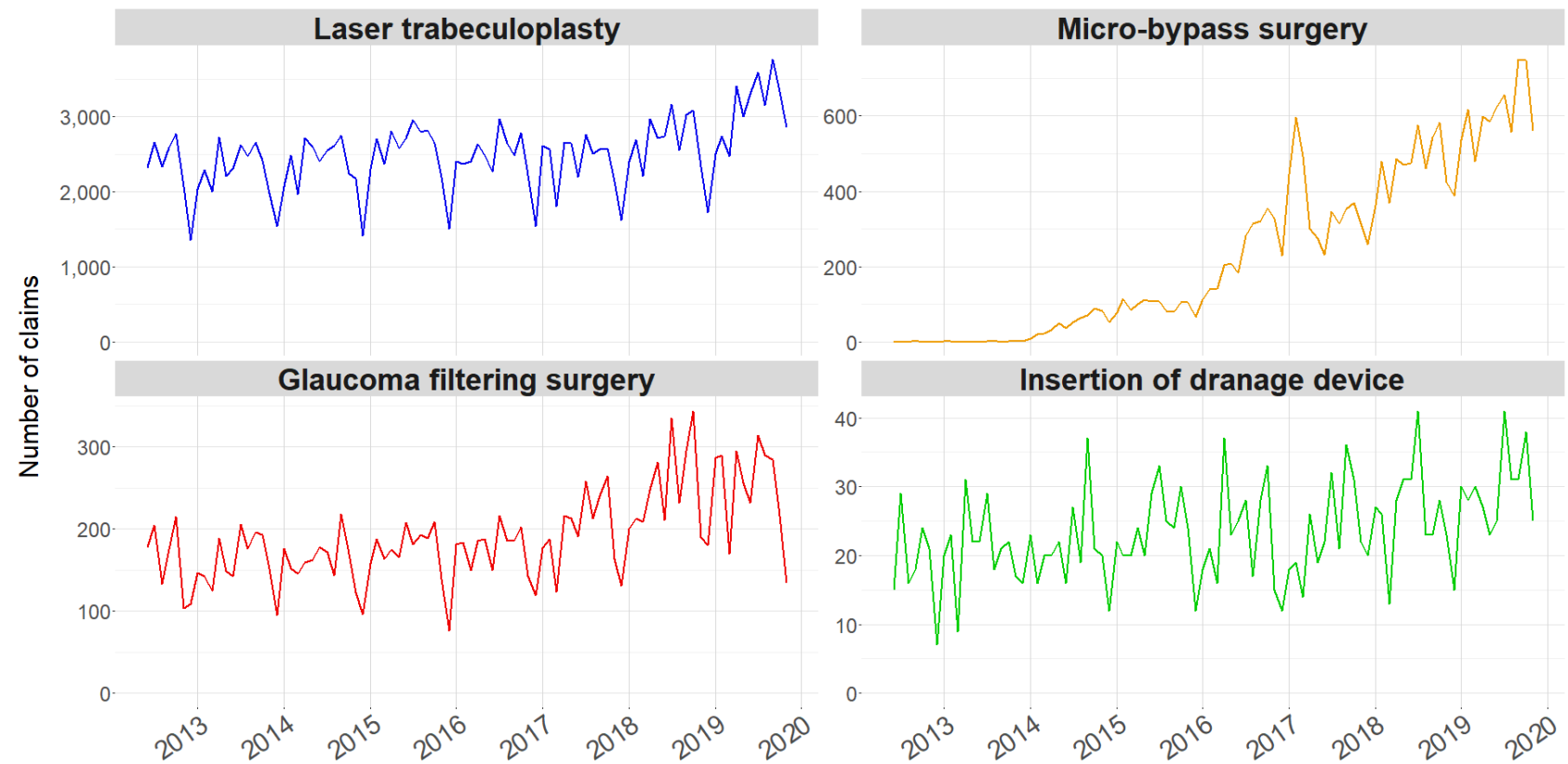
NR = 75th percentile not reached. FDC = Fixed-dose combination.



Proportion on treatment at:

	6 months	12 months	18 months	36 months	Median treatment duration (IQR)
0 repeats	7.9	5.7	4.6	3.2	1.0 (1.0-1.0)
1-3 repeats	18.8	13.7	10.8	7.0	1.0 (1.0-3.6)
4-6 repeats	55.3	45.3	39.2	29.8	8.5 (1.7-51.5)

Supplementary Figure A. Persistence to glaucoma medicine treatment by number of repeats prescribed at initiation (90 days used to define treatment break). IQR = interquartile range; NR = not reached.



Supplementary Figure B. Monthly counts of glaucoma procedures billed to the Medicare Benefits Schedule (source:

http://medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp). Laser trabeculoplasty = MBS item code 42782; micro-bypass surgery = MBS item codes 42705 and 42758; glaucoma filtering surgery = MBS item codes 42746 and 42749; insertion of drainage device = MBS item code 42752. Note different y-axes scales for each procedure.