

Supplementary Material

Medicines use and polypharmacy in retirement village residents in Aotearoa New Zealand: a point prevalence observational study

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Supplementary Material Table S1. Therapeutic category, class and ATC codes for medicines

Therapeutic category	Medicine class	ATC parent codes
Antihypertensive (any)	Nitrate	C01DA
	Antihypertensive, other	C02AB01, C02Ac01
	Alpha-blocker	C02CA, G04CA02, G04BD03
	Thiazide diuretic*	C03BA
	Beta-blocker	C07AA, C07AB, C07AG
	Calcium channel blocker	C08CA, C08DA, C08DB
	ACE-Inhibitor	C09AA
	ACE-Inhibitor plus Thiazide diuretic**	C09BA
	Angiotensin receptor blocker	C09CA
	Angiotensin receptor blocker plus thiazide diuretic**	C09DA
Lipid-lowering	Statin	C10AA
	Fibrate	C10AB
	Lipid-modifying, other	C10AX
Antacid	H2 antagonist	A02BA02
	Proton-pump inhibitor	A02BC
	Antacid	A02B
Anti-platelet	Aspirin	B01AC06
	Antiplatelet, other	B01AC07, B01AC24
Vitamin or mineral	Vitamin	A11A-J
	Mineral	A12A-C, B03AA, B03AC, B03BA, B03BB
Diuretic	Loop diuretic	C03CA01
	Thiazide diuretic*	C03BA
	Potassium-sparing diuretic	C03DA, C03DB, C03EA, C03EB
Anti-depressant	Tricyclic	N06AA
	Serotonin selective reuptake inhibitor	N06AB
	Serotonin-noradrenaline reuptake inhibitor	N06AX16
	Antidepressant, other	N06AX11, N06AX12
Analgesic	Strong opioid	N02AA01, N02AA05, N02AB03, N02AE01, N07BC02
	Codeine	N02AA08
	Tramadol	N02AX02
	NSAID	M01AB, M01AC, M01AE
	COX-2 inhibitor	M01AH
	Paracetamol	N02BE01
	Paracetamol plus codeine	N02AE01
Anticoagulant	Warfarin	B01AA
	Direct Oral Anticoagulant	B01AE07, B01Af02
Hypoglycaemic	Insulin	A10A
	Oral hypoglycaemic	A10B
Hypnotic	Benzodiazepine	N03AE01, N05BA, N05CD

	Z-drugs	N05CF
Thyroid-related	Thyroxine	H03AA01
	Carbimazole	H03BB01
Laxative	Laxative, other	A06AA, A06AC, A06AD
	Stimulant laxative	A06AB
Gout prophylaxis	Gout prophylaxis	M04AA, M04AC
Glaucoma eyedrops	Glaucoma eye drops	S01E
Inhaled respiratory		
	Beta agonist	R03AC02, R03AC03, R03AL06
	Long-acting beta agonist	R03AC12, R03AC13
	Long-acting beta agonist and inhaled corticosteroid	R03AK06, R03AK07
	Antimuscarinic bronchodilator AND beta agonist	R03AL02
	Inhaled corticosteroid	R03BA01, R03BA02, R03BA05
	Antimuscarinic bronchodilator, long-acting	R03BB04
Anti-epileptic	Anti-epileptic	N03AB02, N03AG01, N03AX12, N03AX14, N03AX16
Bisphosphonates	Bisphosphonate	M05B
Urologicals	Drugs for urinary frequency and incontinence	G04BD
	Testosterone-5-alpha reductase inhibitors	G04CB
Anti-arrhythmic	Cardiac glycoside	C03CAA05
	Anti-arrhythmic	C01BC04, C01BD01
Oral steroids	Mineralocorticoid	H02AA
	Glucocorticoid	H02AB
Antihistamine	Antihistamine	R06A
Anti-Parkinsonian	Levodopa	N04BA02
	Dopamine agonist	N04BC04
	Parkinson's disease, other	N04BB01
Neuroleptics	Atypical antipsychotic	N05AH, N05AX
	Lithium	N05AN
Cognitive enhancers	Cholinesterase inhibitor	N06DA02
* Thiazide diuretics were included in the antihypertensive AND diuretic group for analysis		
** Combination medicines were included in both medicine classes for analysis		

Supplementary Material Table S2. Association of medicine use with age and gender

	No. of residents n (%)	No. of regular medicines mean (SD)	Polypharmacy (≥5) n (%)	Hyper-polypharmacy (≥10) n (%)
Total	578	4.8 (2.9)	296 (51.2)	33 (5.7)
Age at interRAI (years)				
60-64	6 (1.0)	5.7 (4.1)	4 (66.7)	1 (16.7)
65-74	100 (17.3)	4.1 (2.9)	43 (43.0)	4 (4.0)
75-84	282 (48.8)	4.8 (3.0)	142 (50.4)	20 (7.1)

85-94	179 (31.0)	5.0 (2.7)	101 (56.4)	8 (4.5)
≥95	11 (1.9)	4.7 (3.3)	6 (54.5)	0 (0.0)
P value		0.16	0.25	0.40
Gender				
Male	158 (27.3)	5.1 (2.9)	86 (54.4)	12 (5.0)
Female	420 (72.7)	4.6 (2.9)	210 (50.0)	21 (7.6)
P value		0.06	0.34	0.23

Supplementary Material Table S3. Medicine use, polypharmacy and association with cardiovascular disease (CVD)

Medicine class	History of CVD	
	Yes (n=237; 41.0%)	No (n=341; 59.0%)
Anticoagulants	21.1%	8.5%
Diuretics	30.0%	15.5%
Anti-arrhythmic	8.9%	1.2%
Antiplatelet	61.6%	21.4%
Lipid-lowering	67.5%	29.6%
Antihypertensive	88.2%	54.8%
Polypharmacy (≥5)	73.4%	35.8%
Hyperpolypharmacy (≥10)	10.5%	2.3%