# Supporting Information

**Title:** Medication changes implemented during medication reviews and factors related to overprescribing: post-hoc analyses of a randomized clinical trial in geriatric outpatients with polypharmacy

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Supporting Information Table S1: Medicines prescribed at baseline. Medicines prescribed to less than 5 patients per group are not shown to preserve anonymity. The number of medicines can be greater than the number of patients as one patient may be prescribed more than one medicine from a single therapeutic subgroup, i.e. multiple different ATC 5th level substances within the same ATC 2nd level subgroup.

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| **ATC** | **ATC group** | **Medicines at baseline, No. medicines (No. patients)** | |
| **Medication review, N = 196** | **Usual care, N = 212** |
| N02 | Analgesics | 290 (181) | 284 (191) |
| A12 | Mineral supplements | 190 (136) | 200 (153) |
| A06 | Drugs for constipation | 160 (109) | 183 (116) |
| A02 | Drugs for acid related disorders | 153 (125) | 137 (121) |
| B01 | Antithrombotic agents | 151 (146) | 155 (143) |
| R03 | Drugs for obstructive airway diseases | 137 (70) | 153 (69) |
| N05 | Psycholeptics | 131 (98) | 137 (107) |
| C09 | Agents acting on the renin-angiotensin system | 103 (101) | 105 (105) |
| C03 | Diuretics | 102 (96) | 127 (107) |
| C10 | Lipid modifying agents | 93 (90) | 110 (109) |
| C07 | Beta blocking agents | 80 (79) | 94 (94) |
| C01 | Cardiac therapy | 74 (58) | 69 (54) |
| A10 | Drugs used in diabetes | 71 (43) | 85 (49) |
| B03 | Antianemic preparations | 71 (58) | 77 (67) |
| N06 | Psychoanaleptics | 71 (59) | 99 (82) |
| A11 | Vitamins | 65 (44) | 64 (42) |
| C08 | Calcium channel blockers | 61 (61) | 86 (86) |
| N03 | Antiepileptics | 51 (46) | 50 (45) |
| G03 | Sex hormones and modulators of the genital system | 39 (39) | 38 (37) |
| M05 | Drugs for treatment of bone diseases | 35 (35) | 38 (38) |
| H03 | Thyroid therapy | 31 (31) | 32 (32) |
| R06 | Antihistamines for systemic use | 30 (28) | 21 (20) |
| H02 | Corticosteroids for systemic use | 25 (25) | 10 (10) |
| G04 | Urologicals | 23 (22) | 38 (33) |
| M01 | Antiinflammatory and antirheumatic products | 22 (20) | 23 (22) |
| J01 | Antibacterials for systemic use | 19 (17) | 20 (17) |
| R05 | Cough and cold preparations | 18 (17) | 20 (19) |
| A03 | Drugs for functional gastrointestinal disorders | 17 (17) | 12 (12) |
| A07 | Antidiarrheals, intestinal antiinflammatory/antiinfective agents | 16 (15) | 15 (13) |
| M04 | Antigout preparations | 15 (13) | 13 (13) |
| N07 | Other nervous system drugs | 15 (14) | 13 (12) |
| P01 | Antiprotozoals | 13 (13) | 16 (16) |
| L04 | Immunosuppressants | 12 (11) | 3 (3) |
| M03 | Muscle relaxants | 8 (8) | 11 (11) |
| N04 | Anti-parkinson drugs | 8 (8) | 20 (14) |

*Supporting Information Table S2: The proportion of medicines prescribed at each timepoint relative to the number prescribed at baseline. Only pharmacological subgroups (third level ATC groups) with at least 40 medicines prescribed in both groups at baseline and at least 10 discontinuations in the medication review group during the first visit are listed. Abbreviations: GORD, gastro-oesophageal reflux disease.*

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **ATC** | **Pharmacological subgroup** | **First visit** | | **Followup 4 months** | | **Followup 13 months** | |
| **Usual care** | **Medication review** | **Usual care** | **Medication review** | **Usual care** | **Medication review** |
| A02B | Drugs for peptic ulcer and GORD | 99% | 82% | 101% | 87% | 95% | 85% |
| A06A | Drugs for constipation | 95% | 87% | 95% | 82% | 85% | 79% |
| N02A | Opioids | 90% | 69% | 96% | 74% | 92% | 79% |
| N02B | Other analgesics and antipyretics | 100% | 89% | 104% | 86% | 96% | 92% |
| B03B | Vitamin B12 and folic acid | 94% | 70% | 94% | 73% | 93% | 85% |
| A10B | Blood glucose lowering drugs, excl. insulins | 97% | 85% | 97% | 83% | 92% | 91% |
| B01A | Antithrombotic agents | 99% | 92% | 100% | 89% | 99% | 86% |
| C10A | Lipid modifying agents, plain | 95% | 83% | 97% | 84% | 85% | 86% |
| C03C | High-ceiling diuretics | 93% | 76% | 99% | 77% | 105% | 80% |
| A12B | Potassium | 90% | 64% | 97% | 67% | 98% | 65% |
| C08C | Selective calcium channel blockers with many vascular effects | 95% | 86% | 86% | 85% | 88% | 95% |
| A12A | Calcium | 108% | 110% | 106% | 109% | 106% | 105% |
| N05C | Hypnotics and sedatives | 92% | 78% | 78% | 85% | 77% | 79% |
| N06A | Antidepressants | 99% | 90% | 87% | 92% | 88% | 99% |
| N03A | Antiepileptics | 100% | 89% | 98% | 86% | 110% | 94% |
| R03A | Adrenergics, inhalants | 99% | 91% | 102% | 89% | 104% | 98% |