**11. Appendix A. Description of disease and medication-related variables**

|  |  |
| --- | --- |
| Variable | Description |
| Disease-related variable |
| Comorbidity count | Total numerical count of all comorbid conditions. Intermittent conditions such as infections were excluded unless documented as severe, requiring regular pharmacological management |
| Medication-related variables |
| *Number-related variable* |
| Total number of medicines | Total numerical count of all medicines |
| *Medication-combination variables* |
| Drug-drug interaction | Drug-drug interactions were identified using the Australian Medicines Handbook [22] |
| Drug-disease interaction | Drug-disease interactions were identified using the list of drug-disease or drug-syndrome interactions from Beers Criteria 2015 [24] and a list of treatment conflicts shortlisted after reviewing Australian clinical guidelines on diabetes, heart failure and COPD [22-24]  |
| Inappropriate drug class duplication | Inappropriate drug class duplication was identified as described in the Australian Medicines Handbook [22]. |
| *Drug classes individually or grouped* |
| High-risk medicines | The number of high-risk medicines were identified using the APINCHEN list [20]. |
| Sedative or anticholinergic  | Sedatives were identified using the ‘Narcotics and other sedatives’ list from the APINCHEN [20] and anticholinergics were identified using the ‘Drugs with anticholinergic effects’ table from the Australian Medicines Handbook [22].  |
| Anticholinergic  | Number in each drug class was included. Drugs were classified into each class as per the categorisation in the Australian Medicines Handbook [22]. |
| Benzodiazepine |
| Opioid  |
| Antipsychotic  |
| Antidepressant  |
| Antiepileptic  |
| Antiparkinson  |
| NSAID |
| Anticoagulant  |
| Antiplatelet |
| Antiarrhythmic |
| Diuretic |
| Antihypertensive |
| Systemic corticosteroid |
| Oral hypoglycaemic |
| Insulin |
| Digoxin |
| Paracetamol (negative control) |
| Vitamin D (negative control) |
| Multivitamin (negative control) |