

## **R040: Co-medication burden with polypharmacy and hyperpolypharmacy in people with dementia – QUB**

Receiving multiple medications, known as polypharmacy, increases the risk of developing dementia (Lai et al., 2012) or other functional decline in older people (Lau et al., 2011; Park et al., 2017). Polypharmacy is positively associated with potentially inappropriate prescriptions of medications, namely prescriptions of unnecessary or inappropriate medications that may have adverse effects (Lau et al., 2010), and with higher anticholinergic burden (Park et al., 2017). Research about inappropriate medication prescribing in people with dementia in Northern Ireland, such as the prescription of anticholinergic/antimuscarinic drugs, shows that, in 2013, polypharmacy (>5 drugs) was observed in 81.5% of people with dementia, with inappropriate prescribing reaching 64.4% of people with dementia in Northern Ireland (Barry et al., 2016).

This study will expand these local findings and will provide evidence about inappropriate prescribing for people with dementia from medication prescribed from 2010 to 2016. This study will also explore differences in polypharmacy and hyperpolypharmacy (>10 drugs) in people with dementia in Northern Ireland.

### Primary objectives:

- To assess the rates of polypharmacy and hyperpolypharmacy in people with dementia by the number of medications.
- To assess potentially inappropriate prescribing in people with dementia based on the Screening tool of older people's prescriptions (O'Mahony et al., 2015).
- To assess whether the number of medications increases the risk of dementia by comparing the medications of people with dementia with a group of people without dementia.

### Secondary objectives:

- To assess the most common medications in people with dementia as a proxy of common comorbidities, aiming to inform clinical practice about the needs of this population.
- To assess and compare the anticholinergic burden in polypharmacy and hyperpolypharmacy (>10 drugs), and expand findings from Barry et al. (2015) for the prevalence of anticholinergic burden in polypharmacy.
- To assess whether potentially inappropriate prescribing is associated with more hospital admissions.