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## Background

- Polypharmacy is increasing in the developed world as the population ages.
- The use of mapped data in observational health studies has many advantages.
- OMOP-CDM is a common data model for the transformation of data to the same structure and vocabularies.
- Clinical Practice Research Datalink (CPRD) GOLD, a UK primary care database, has been mapped to OMOP-CDM.
- Identifying polypharmacy in CPRD GOLD has many challenges, such as, unavailability of data linkages (e.g., hospital data) in OMOP-CDM CPRD GOLD and identifying drugs on the product level vs. the ingredient level.

## Objectives

1. Test the feasibility of identifying a polypharmacy cohort in elderly population using the OMOP-CDM mapped instance of CPRD GOLD data compared to the polypharmacy cohort identified using the source data.
2. Compare the cohort characterisation between the two cohorts.

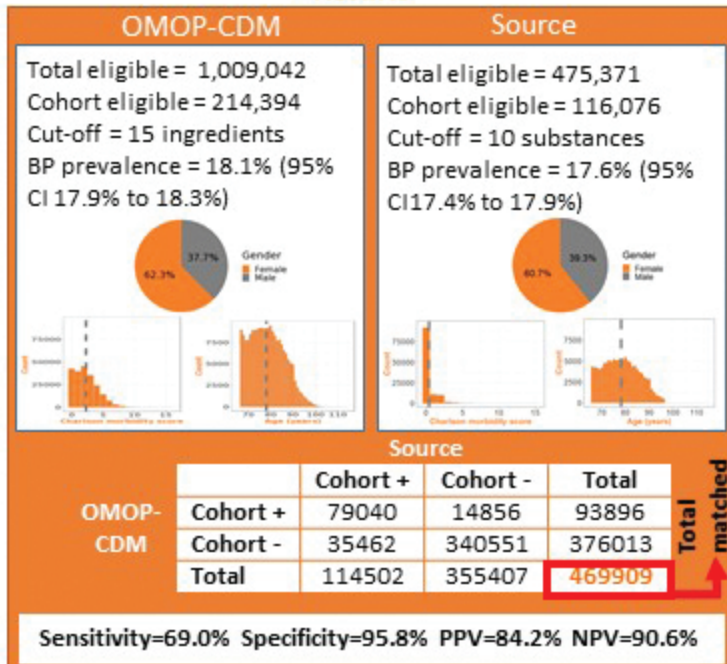
## Methods

	OMOP-CDM	Source
Population	Patients aged >65 on 01/01/2010, registered for >=1 year	
Inclusion criteria	Everyone	People with linkages to hospitalisation and mortality data
Cut-off (cohort definition)	Top quintile	Top quintile
Drug level	Ingredient	Substance
Doses	Different doses count the same	Different doses count the same
Example (paracetamol, aspirin, paracetamol + aspirin)	Two different ingredients	3 different substances

**Descriptive analysis:** Baseline characteristics and one-year point prevalence of oral bisphosphonates (BP)

**Cohort validity evaluation metrics:** Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV). (Source data is the true classification)

## Results



## Conclusion

- Similar demographic and BP use in both instances
- Due to higher cut-off in mapped data → High validity but low sensitivity
- Due to difference in polypharmacy calculation → Difference in cut-off
- Need more research → To test generalisability of 15 ingredients cut-off