

# A Mixed Methods Approach to Assessing Multimorbidity in Primary and Secondary Care (MiMMS)

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## Aims

- To assess current barriers around managing patients with multimorbidity and to target our new tool towards those barriers most amenable to change.
- To understand how current tools and guidelines are implemented in a primary and secondary care setting.
- To assess the number of drug interactions in patients with prevalent UK chronic conditions.
- To form a new software based tool which helps clinicians manage patients with multimorbidity by automating detecting conflicts between single condition guidelines.

## Background

Patients with at least three chronic conditions will rise to 2.9 million by 2018 in the UK alone.

Currently, conditions are managed using over 250 sets of single condition guidance, which is generating potential conflicting advice around lifestyle choices and medications to be taken concurrently (polypharmacy).

## Analysis plan

### Qualitative Dual Framework Analysis

- Theoretical Domains Framework to analyse barriers and enablers within healthcare.
- Normalisation Process Theory to elicit how current guidance and tools are implemented in primary and secondary care.

### Quantitative Data Analysis

- Pairwise comparisons between conditions will be made.
- Data will be analysed using a fixed effects model with interaction terms.
- The interaction term will be whether a drug pair is appropriate or inappropriate as defined using the current gold standard method, with a variable of presence or absence of condition.

**We aim to combine these data so that we can build a useful, fully implementable tool which addresses the barriers most amenable to change within both primary and secondary care contexts.**

### Progress to date:

- HRA & Ethical approval
- Listed on UKCRN Portfolio
- Site recruitment open
- Data extraction pilot started
- Interviews started in
  - Primary care
  - Secondary care
  - Community pharmacy
- Transcript analysis ongoing

## MiMMS Research Gap

- How do healthcare professionals manage polypharmacy?
- To what extent is polypharmacy occurring in multimorbid patients in the West Midlands?
- How are patients with multimorbidity currently managed in primary and secondary care?
- How do current guidelines and tools become successfully implemented within the context?

## Methods

**Centres:** GP surgeries, community pharmacies, and hospitals within the West Midlands.

**Participants:** Healthcare professionals within selected hospital specialties, GP practices, and pharmacies.

**Data:** Prescription data for any patients aged 18 and over, with at least one of the chronic conditions listed below. 24 months of retrospective anonymised data will be collected. Patients will be excluded if they have been registered with the GP for less than 3 months.

**Chronic conditions:** Osteoarthritis, Hypertension, Depression, Type 2 Diabetes, Chronic Obstructive Pulmonary Disease (COPD) and Ischaemic Heart Disease (IHD).

