

# PPhoCUs: Polypharmacy, Pharmacists and Clinical Uncertainty – Understanding how pharmacist decision making can be improved in the context of polypharmacy

<b>Submission date</b> 08/10/2024	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 15/10/2024	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 18/11/2025	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

This study looks at how pharmacists in GP practices make decisions when helping patients who take many different medications. People who take more than 10 medicines are more likely to have serious health issues and need hospital care. The study aims to understand how pharmacists handle these complex situations and make decisions when the best course of action is unclear.

### Who can participate?

Pharmacists working in GP practices and patients who have appointments with these pharmacists can participate in the study.

### What does the study involve?

The study involves recording patient appointments with GP pharmacists to see how decisions are made. Both pharmacists and patients will also be invited to individual interviews to share their experiences. Pharmacists will discuss how they make decisions, and patients will talk about their experiences during their appointments.

### What are the possible benefits and risks of participating?

Participants may benefit from contributing to research that could improve pharmacist training and patient care in the future. There are minimal risks, but participants might feel uncomfortable being recorded or interviewed.

### Where is the study run from?

University of Exeter (UK)

### When is the study starting and how long is it expected to run for?

June 2024 to September 2026

Who is funding the study?

The study is funded by the School for Primary Care Research within the National Institute for Health Research (UK)

Who is the main contact?

Tomazo Kallis, t.j.kallis@exeter.ac.uk

## Contact information

### Type(s)

Public, Scientific, Principal investigator

### Contact name

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## Additional identifiers

### Integrated Research Application System (IRAS)

336527

### Central Portfolio Management System (CPMS)

62607

### Protocol serial number

UoE Sponsor number: 2022-23-31

## Study information

### Scientific Title

PPhoCUs: Polypharmacy, Pharmacists and Clinical Uncertainty

### Acronym

PPhoCUs

### Study objectives

How can clinical pharmacist decision-making be improved when delivering medication reviews in the context of polypharmacy and clinical uncertainty?

1. How do practice-based pharmacists approach clinical uncertainty when conducting reviews with patients who have complex polypharmacy?
2. What influences clinical pharmacists' decision making when encountering clinical uncertainty in patients with complex polypharmacy?
3. In the context of clinical uncertainty, what is the patient's experience of care and person-centred decision making delivered by clinical pharmacists in general practice?
4. In what way do the current education pathways for pharmacists in primary care meet the perceived learning needs for pharmacists managing clinical uncertainty in practice?
5. How might the standards for ongoing clinical education for pharmacists in GP practice settings (considering both clinical supervision and formal education) be further improved to support better patient-centred decision making in the context of clinical uncertainty?

### **Ethics approval required**

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### **Ethics approval(s)**

approved 27/06/2024, Yorkshire & The Humber - Leeds West Research Ethics Committee (NHSBT Newcastle Blood Donor Centre, Holland Drive, Newcastle upon Tyne, NE2 4NQ, United Kingdom; +44 207 9722504; leedswest.rec@hra.nhs.uk), ref: 24/YH/0120

### **Study design**

Qualitative

### **Primary study design**

Observational

### **Study type(s)**

Other

### **Health condition(s) or problem(s) studied**

Polypharmacy (10 or more medicines)

### **Interventions**

Phase 1: Observational audio recordings of structured medication reviews between pharmacists and patients

Phase 2: Semi-structured interviews with pharmacists

Phase 3: Semi-Structured interviews with patients

Phase 4: Focus group sessions to develop new intervention targeting pharmacist management of clinical uncertainty when reviewing polypharmacy in primary care

### **Intervention Type**

Other

### **Primary outcome(s)**

Perceptions and experiences of clinical uncertainty using audio recordings of naturalistic encounters where pharmacists review polypharmacy with patients in GP practice settings

### **Key secondary outcome(s)**

1. Joint navigation of clinical uncertainty using audio recordings of naturalistic encounters where pharmacists review polypharmacy with patients in GP practice settings
2. Pharmacist perceptions of clinical uncertainty using qualitative interviews

3. Patient perceptions of pharmacist-delivered polypharmacy reviews, including shared decision making, using qualitative interviews

**Completion date**

30/09/2026

**Eligibility**

**Key inclusion criteria**

For Pharmacists (in Phases 1 and 2):

1. Registered as a Pharmacist with the General Pharmaceutical Council
2. Employed in the primary care sector, based in either a general practice or primary care network setting
3. Currently delivering or able to deliver structured medication reviews

For Patients (in Phases 1 and 3):

1. 18 years old or older
2. Prescribed 10 or more medications on repeat
3. Booked to have a structured medication review with a clinical pharmacist in primary care
4. Able to freely give informed consent

**Participant type(s)**

Health professional, Service user

**Healthy volunteers allowed**

No

**Age group**

Mixed

**Lower age limit**

18 years

**Upper age limit**

99 years

**Sex**

All

**Total final enrolment**

0

**Key exclusion criteria**

For Pharmacists:

1. Pharmacists working in secondary care or community pharmacy settings
2. Healthcare professionals who are not registered pharmacists
3. Pharmacists with no experience or ability to deliver SMRs

For Patients:

1. Under 18 years of age

2. Patients who are unable to freely give consent or lack capacity
3. End of Life Care patients
4. Care Home Residents
5. Patients identified by the host research site as being unsuitable for participation by virtue of being acutely or significantly unwell, difficulties in communicating, safety issues (e.g. noted on patient records or have overtly declined to be contacted by the practice) or welfare issues

**Date of first enrolment**

30/09/2024

**Date of final enrolment**

31/07/2025

## Locations

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

**University of Exeter**

Stocker Road

Exeter

England

EX4 4PY

## Sponsor information

**Organisation**

University of Exeter

**ROR**

<https://ror.org/03yghzc09>

## Funder(s)

**Funder type**

Government

**Funder Name**

NIHR School for Primary Care Research

## Alternative Name(s)

School for Primary Care Research, NIHR SPCR

## Funding Body Type

Private sector organisation

## Funding Body Subtype

Universities (academic only)

## Location

United Kingdom

# Results and Publications

## Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not expected to be made available

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Participant information sheet</a>	for Patients version 2	19/06/2024	15/10/2024	No	Yes
<a href="#">Participant information sheet</a>	for Pharmacists Phase 1 version 2	19/06/2024	15/10/2024	No	Yes
<a href="#">Participant information sheet</a>	for Pharmacists Phase 2 version 2	19/06/2024	15/10/2024	No	Yes
<a href="#">Protocol file</a>	version 1.1	19/06/2024	15/10/2024	No	No