

# PREVALENCE OF MEDICINES-RELATED RISK FACTORS IN FRAIL ELDERLY PATIENTS WITH FREQUENT HOSPITAL READMISSION

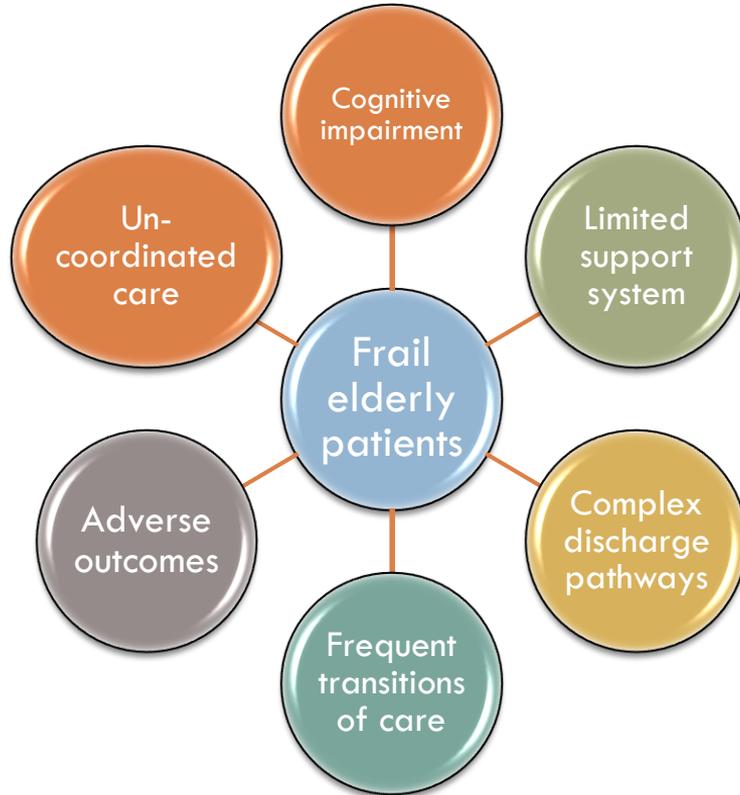
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# Introduction<sup>1, 2</sup>



# Medication-related unplanned readmissions<sup>3</sup>

- Unplanned readmission to hospital: major problem in the elderly (estimated 21% being medication-related)
- Evidence of intervention to reduce hospital readmissions in the elderly<sup>4</sup> BUT
  - Few focused on medication-related readmissions
  - Interventions often complex: labour & cost intensive
- Need for: intervention delivery to targeted recipients for maximum impact
- Little known about medicines-related risk factors and hospital readmission

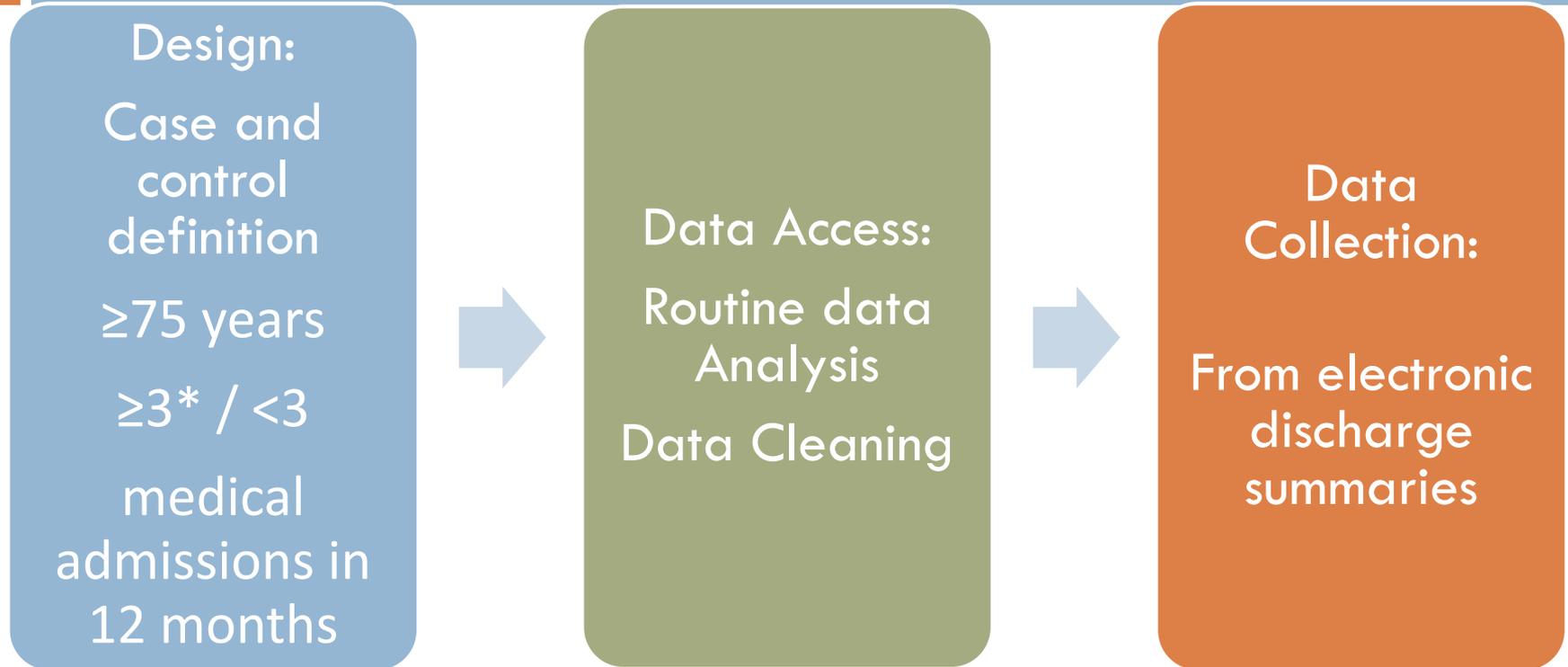
# Aim & Objectives

- Aim: to explore the prevalence of medicines-related risk factors in frail elderly patients with frequent hospital readmissions into a single NHS acute Trust.
- Objectives:
  - ▣ Determine the association between medicine-related risk factors with unplanned hospital readmission in the frail elderly patients.

# Methods consideration

- Difficult to prospectively follow-up patients
- Data needed is routinely collected in clinical practice
- Routine data analysis
  - ▣ Availability
  - ▣ Relevance
  - ▣ Accuracy
  - ▣ Sufficiency

# Methods



\*3 admissions in 12 months derived from Edmonton Frail Scale

# Independent Variables

## Polypharmacy

- $\geq 5$  medicines;  $\geq 10$  medicines

## Medication changes

- New medicine(s) added; Existing medicine(s) stopped; Dose changes

## High Risk Drug

- Beta-blockers, diuretics, anticoagulants, NSAIDs, anti-epileptics, anti-platelets, hypoglycaemics

## Potentially Inappropriate Medicines (PIMs)

- Beers Criteria (e.g. antipsychotics, alpha-blockers, hypnotics, TCAs, anti-muscarinics)

## Supported Discharge

- Care Home; Intermediate care; Carers

## Use of MCAs

# Results

## Prevalence of risk factors: Frequent vs non-frequent admitters

	Group A (frequent admission)	Group B (non-frequent admission)	Difference by odds ratio
N	100	100	
Mean age	86.3 years	83.9 years	
Gender (proportion female)	0.64	0.75	
Polypharmacy ( $\geq 10$ meds) (proportion)	0.73	0.51	2.47 (p<0.01)
Medication change (proportion)	0.78	0.78	1.0 (p=1)
High-risk medicines (proportion)	0.89	0.86	1.32 (p=0.52)
PIMs (proportion)	0.48	0.31	2.05 (p<0.05)
Supported discharge (proportion)	0.17	0.35	0.38 (p<0.05)
Multi-compartment compliance aid (proportion)	0.29	0.26	1.16 (p=0.63)

# Conclusion/ Future work

- There was a statistically significant difference by OR for:
  - polypharmacy
  - use of PIM(s)
  - supported discharge : with a higher prevalence in Group B.
- Logistic regression modelling is currently being carried out to identify risk factors model to predict readmission risk
- Next step: identify interventions to reduce risk – Delphi survey method

# References

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# Thank you for your attention

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