# Working together to reduce medication-related harm in older people

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Background

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- Medication related harm (MRH) is common in older patients following hospital discharge.
- In a prospective cohort study including 1280 patients, our team developed a risk-prediction tool (RPT) that identifies older people at the highest risk of MRH and targets interventions to optimise their medicine safety (PRIME-1 study) (1).
- This RPT is now used in a current multicentre study: Implementation of a medicine management plan (MMP) to reduce MRH in older people post-hospital discharge: a randomised controlled trial (RCT) (PRIME-3 study) (2).
- Patient information material, consent forms and explanation of the RPT for PRIME-3 study was co-developed with a group of older adults and their caregivers in a qualitative research study (PRIME-2 study).

#### Aims

 We wanted to address health priorities of older people in relation to medicine management through a meaningful engagement leading to research with benefit and impact.

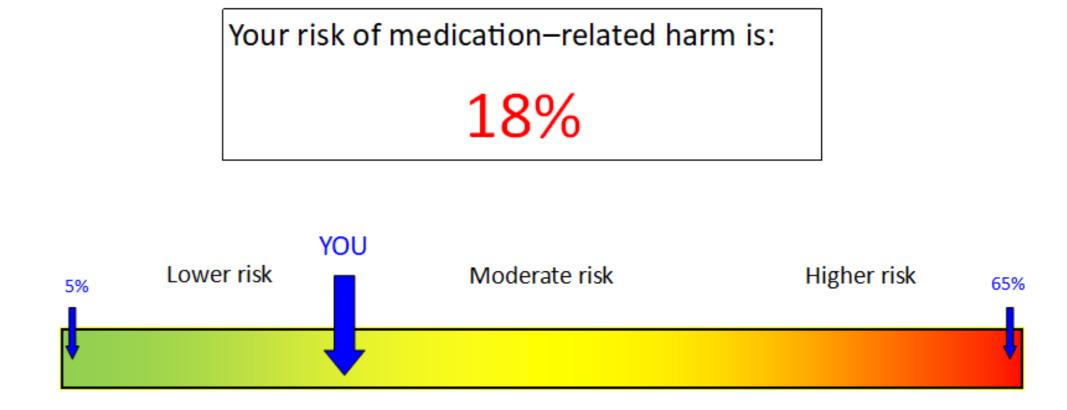
#### Methods

- The PRIME-2 study was funded by the British Geriatric Society (BGS).
- It included 2 virtual meetings with patients and their carers to explore challenges around medicine management, optimising safety and reducing risk.
- In a previous complimentary study, we undertook qualitative research using semi-structured interviews with communitydwelling older people with their carers in Brighton and Hove (3).

## **Table 1: Themes relating to Medication-related Harm (MRH)** from PRIME-2 study

Communication between healthcare professionals "So you could have a plan of one thing and then medication saying someone else while a complete nightmare."  Communication with patients and carers "We haven't really got the time to wonder they understand that or not, which is a shame."  Relationships Perception of self "I don't want to be a nuisance, but a little of reassurance sometimes and seeing the doctor a little bit more often."  Perception of HCPs "Suddenly they change the medication yethink, okay, they're the experts And you on that. Nobody really stands there and to you why you're doing that."  Relationships between HCPs "I just think there could be more trust between the two services, you know, for its sake of the patient."  hallenges to medication management Patient-related factors "[It] wasn't clearly legible for somebody we my eyesight problems. I was taking the work dosage for a while."  Medication-related factors "I think there is significant under-recognit of where medicines may have been implication in harm events."
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System-related factors "There's so many people on sick leave, w have such issues trying to find colleagues fill gaps."
Support at transitions of care Support mechanisms "There's issues around what the care agent will and won't do."
Possible interventions "I think we can all make capacity for high- patients even if we can't do it for everyon

## Figure 1: Visual analogue for communicating risk of MRH to patients as part of MMP used in PRIME-3 study



For comparison a person without risk factors would have a 5% chance/probability of medication-related harm in the 8-weeks period after hospital discharge, while a person with multiple risk factors (such as having a previous adverse drug reaction) would have a 65% chance/probability of medication-related harm.

### Results

- Consultation with PRIME-2 study participants included 7 patients, 4 carers, and 10 healthcare professionals (HCPs). Following data analysis, several themes appeared as relevant in medicine management.
- The RPT of PRIME-1 has been used with the themes from the PRIME-2 qualitative study into a comprehensive medicine management plan (MMP) and individualised risk-discussion of with study participants in the current PRIME-3 study.
- A visual analogue scale was approved by PRIME-2 study participants to communicate risk of MRH in a way that is easily understood by patients and their carers (figure 1). This scale is now used in PRIME-3 study which is planned to include 682 participants.

## **Discussion**

- PRIME-1 study received national recognition at the Patient Safety Awards 2020 as 'an excellent example of multidisciplinary working'.
- PRIME-2 study showed that engaging with patients and their carers in designing an RCT intervention is feasible.
- PRIME-3 study material aimed at older patients and their carers could improve health literacy around MRH for research participants.
- We still exclude older people from BAME groups in ageing research as all PRIME studies excluded people who do not speak English.

#### References

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## **Conclusions**

Research that is co-developed with the target population has the potential to result in patient and carer benefits.

**Ethics Codes** 

PRIME 1: 13/EE/0075 PRIME 2: 289431 PRIME 3: 22/NW/0075

**Funding** 

PRIME1: NIHR, Research for patients benefit scheme PRIME 2: BGS PRIME 3: Applied research collaboration Kent Surrey and Sussex







