

# Impact of Medication Reconciliation on Patient Management in the Emergency Department

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## Background and Context

Obtaining best possible medication histories (BPMH) in the emergency department (ED) is usually viewed to reduce unintentional changes upon admission and thus future potential adverse drug events (ADEs)

### Aims:

- Evaluate whether BMPH have additional value by evaluating whether these were also associated with a change in the medical management of patients presenting to the ED
- Characterize the change, and whether medication discordance led to identification of an ADE

## Methods

### Prospective cohort pilot study

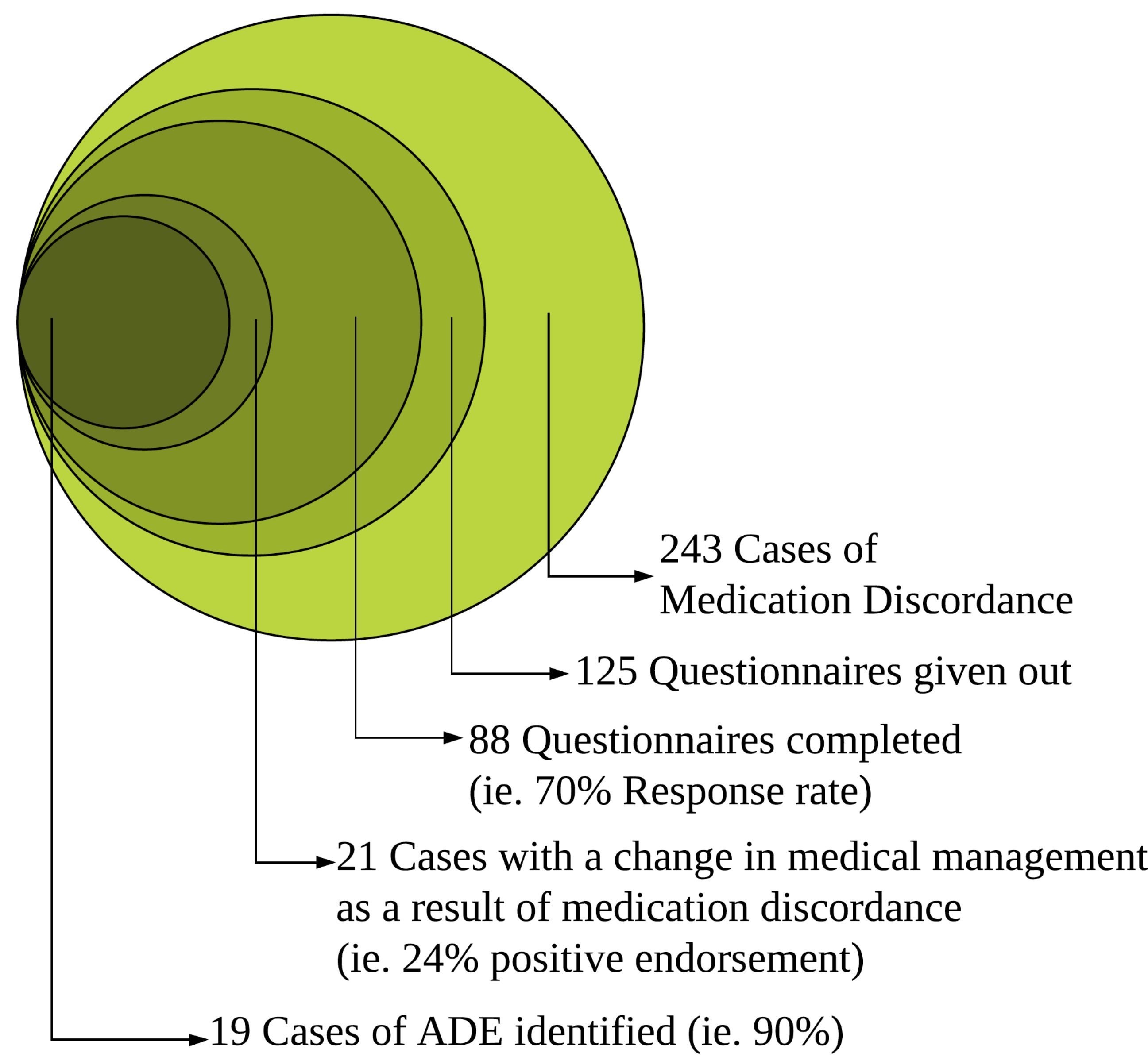
- ≥ 1 Discordant Medication
- BPMH taken by pharmacist technician, as per usual care
  - Discordant = PharmaNet record did not match with how patient takes medication as per BPMH
  - Convenience sample

- ED Physician completes questionnaire
1. Will there be a change in the medical management of the patient? Y/N
  2. Could the medication discordance explain the patient's presentation today? Unlikely, Possible, Probable, Certain
  3. If yes to #1: What was the change in management provided?

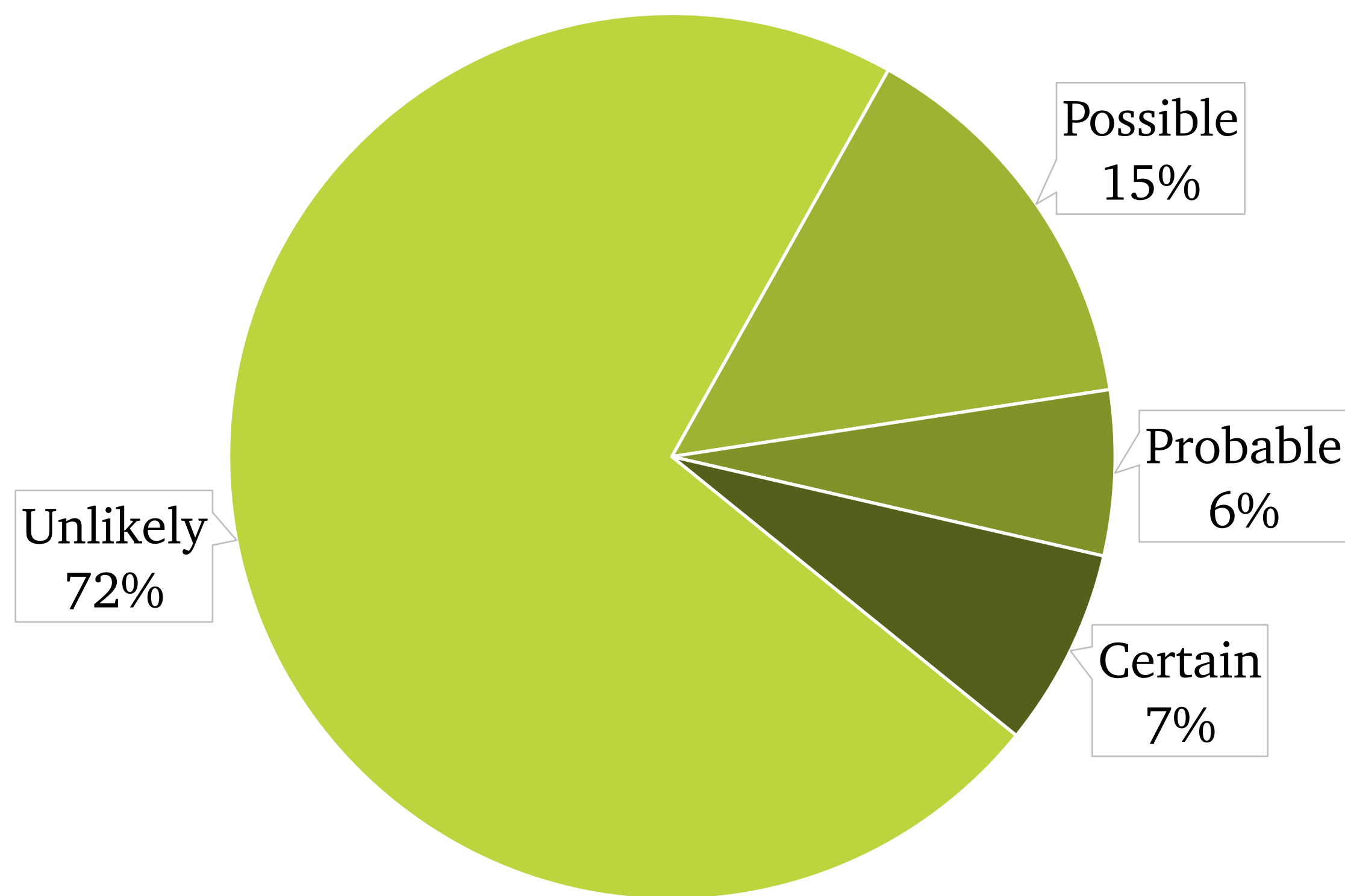
- Presence or Absence of ADE evaluated
- Only done for those cases where discordance had an effect on the medical management of the patient as reported in the ED physician questionnaire
  - Retrospective analysis by two pharmacists independently, with discussion for any cases if there was disagreement

## Results

**Figure 1:** Proportion of medication discordant cases with changes in medical management and ADEs



**Figure 2:** Questionnaire responses to question #2  
Could the medication discordance explain the patient's presentation today?



## Case Examples

### Case #1:

- 58-year-old female presented with weakness and syncope
- ED physician documented no home medications
- BPMH by pharmacy technician documented metoprolol 50mg & enalapril 10mg (purchased from foreign country)
- Medication discordance found by BPMH led to the correct diagnosis of syncope secondary to medication

### Case #2:

- 90-year-old male presented with general weakness and normal vitals
- PharmaNet stated hydrochlorothiazide (HCT) 12.5mg po prn
- BPMH documented HCT 12.5mg po od
- Medication discordance found by BPMH led to ED physician changing medication advise

## Conclusion

- Medical management was changed as a result of medication discordance found via BPMH in 24% of cases
- Changes included admission to hospital, consultation with speciality health services, and modification of medication orders
- Vast majority (90%) of positively endorsed cases had an ADE secondary to nonadherence
- Future research may choose a retrospective approach with an expert panel to review select medication discordance cases

## Acknowledgements

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