# Pharmacy-led implementation of evidence based medicine in primary care: Evaluating Diuretics in Usual Care study (EVIDENCE)

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## Background

The randomisation of prescribing policies has the potential to answer important clinical questions in the absence of head-to-head comparative effectiveness data

2011 NICE hypertension guidelines in the UK recommended

Indapamide or chlortalidone (thiazide-like diuretics) should be used preference bendroflumethiazide (a thiazide diuretic) for the management of hypertension

This recommendation has been criticised for lacking evidence and has not been fully implemented

Bendroflumethiazide remains the most widely used thiazide or thiazide-like diuretic across Scotland

#### The EVIDENCE study

Evaluating Diuretics in Normal Care

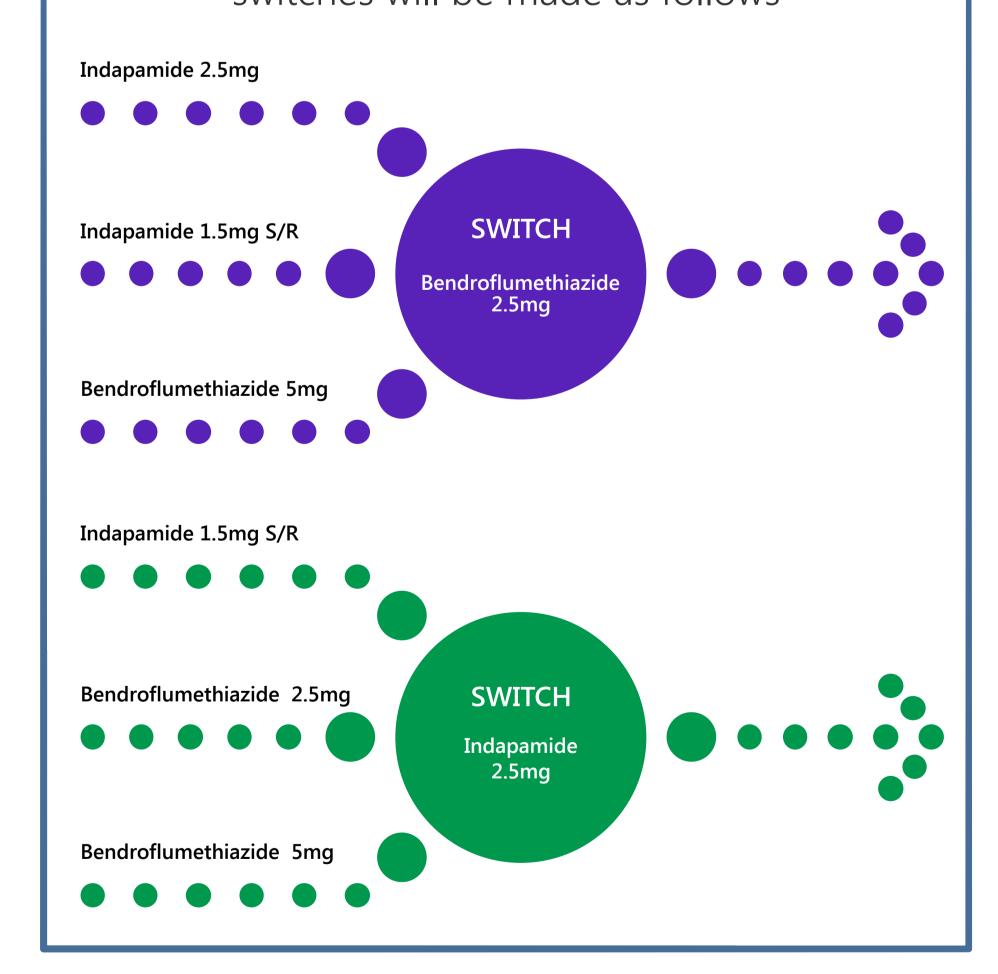
Will demonstrate whether cluster randomising prescribing policies can be used to assess the comparative effectiveness of prescribed medicines

Compares bendroflumethiazide & indapamide and is embedded in the routine practice of NHS Scotland

be analysed using anonymised, routinely collected data

Therapeutic switching is carried out using standard practice by existing pharmacy staff utilising enhanced IT support and streamlined processes developed by MEMO Research

Where patient is not prescribed thiazide/thiazide-like medication recommended switches will be made as follows







#### www.memoreseach.com/evidence

#### Results

- Approved by a Research Ethics Committee and implemented throughout Scotland
- This study has effectively utilised existing NHS pharmacy staff to provide evidence based medicine research
- The feasibility of a GP-practice level drug switch is confirmed
- The numbers of patients prescribed study medications before and after the policy implementation along with measures of adherence to applied switching and reasons for non-adherence will be analysed
- It is likely that cardiovascular events in this pilot phase will be few, but results will demonstrate the utility of routinely collected data

#### To date - August 2019

29 practices have had their formularies randomised 14 indapamide and 15 bendroflumethiazide

3437 patients "randomised" to bendroflumethiazide 2548 patients "randomised" to indapamide

5985 patients



### Conclusions

EVIDENCE has demonstrated a novel methodology for conducting comparative effectiveness research efficiently within the NHS in Scotland

It is anticipated that this methodology will be applicable to the assessment of many diverse medications and interventions in current routine use where there is insufficient evidence to guide clinical practice



# Study Design

**Practices** Recruited

**Practices** Randomised

Bendroflumethiazide

Indapamide

Routine prescriptions for patients switched as necessary

> Follow-up by record linkage to **practice**

Analysis at (de-identified) individual patient level

EVIDENCE uses a cluster randomised, parallel group design to evaluate the NICE recommendation

Where necessary routine prescriptions are switched to comply with the policy

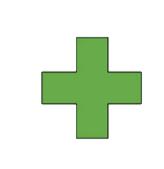
The effectiveness and impact of the intervention will be assessed using routinely collected data

Record linkage of prescribing and outcomes data (hospitalisation & mortality)

**ROUTINE POLICY CHANGE IN GP** PRACTICES

**FOLLOW-UP USING ROUTINELY** COLLECTED DATA







#### Conflict of Interest Statement

**Author Disclosure Information** The authors have no relevant conflicts of interest to declare

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