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Preliminary results from the qualitative analysis of clinician interviews have identified a number of factors as influential on the decision to offer thrombolysis to patients with acute ischaemic stroke (Figure 2):}

**Fig. 2 Influential factors in decision-making regarding thrombolysis for acute stroke**

- Clinical patient factors
  - Blood pressure
  - Blood glucose
  - INR level (if on Warfarin)
  - Age of patient
  - Medical history (e.g. recent operation, previous stroke)
  - Stroke severity (NIHSS)

- Non-medical patient factors
  - Patient pre-stroke cognitive/dependency status
  - Patient frailty
  - Patient/family preferences and values about treatment

- Clinician factors
  - Experience level
  - Attitude towards risk and uncertainty
  - Medical speciality
  - Perception of efficacy of thrombolysis
  - Adherence to licencing criteria/local guidelines

These factors will be combined with those identified in the secondary literature.

A structured ranking exercise with clinicians will be used to prioritise patient factors for inclusion in the patient vignettes in the DCE, which will include CT scans to enhance clinical realism and ensure the external validity of related decisions is maximised.

Next steps will include design and piloting of an online DCE.

**PRELIMINARY FINDINGS**

- Preliminary results from the qualitative analysis of clinician interviews have identified a number of factors as influential on the decision to offer thrombolysis to patients with acute ischaemic stroke (Figure 2):

**INTRODUCTION**

Intravenous thrombolysis is the most effective emergency treatment for acute ischaemic stroke. Despite considerable evidence for thrombolysis use in well-defined patient groups within 4.5 hours of symptom onset [1, 2], there is variation in treatment rates across the UK [3].

Availability of services (such as rapid access to CT scanning) initially accounted for much variation in thrombolytic treatment rates between centres; although with the wide implementation of 24/7 hyperacute stroke services, this is no longer the case. Continuing variation between centres may reflect variations in clinical decision-making on who should be offered thrombolysis.

**OBJECTIVES**

1. To determine which patient factors influence clinical decision making about the offer of thrombolysis;
2. To identify and quantify the trade-offs clinicians make regarding the decision to offer thrombolysis;
3. To determine which clinician factors influence clinical decision making about the offer of thrombolysis;
4. To influence clinicians’ behaviour by translating learning into CPD activity, national clinical guidelines, and informing clinical audit and evaluation programmes.

By understanding how different clinicians make often difficult trade-offs between risks and benefits in their decision-making for different patients, we can better understand how we can target optimal use of thrombolysis.

**METHODS**

- A discrete choice experiment (DCE) using patient vignettes will be conducted to understand which factors are important to the deliberations that clinicians make when considering offering thrombolysis to patients. The seven stages of the research are shown in Figure 1.

**Fig. 1 Stages of the Research**

1. Establishing the full range of factors influencing decision making
2. Experimental design and development of DCE survey questionnaire
3. Online DCE Survey Development
4. Pilot DCE
5. Sampling and Data Collection
6. Analysis
7. Dissemination of findings and translation into practice

- To identify the full range of factors that influence decision making about thrombolysis we: (i) extracted factors from secondary sources (systematic reviews/meta-analyses and previous qualitative work we conducted for the DASH programme exploring factors involved with decision making about thrombolysis); and (ii) conducted semi-structured interviews with clinicians (different levels of experience with thrombolysis) to elicit their beliefs and experiences regarding important and influential factors regarding the decision to offer thrombolysis.

**REFERENCES**

1. The Third International Stroke Trial (IST-3) collaborative group. The benefits and harms of intravenous thrombolysis with recombinant tissue plasminogen activator within 6 h of acute ischaemic stroke (the third international stroke trial (IST-3)): a randomised controlled trial. Lancet. 2012; 379: p. 2352-63.

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