Health Technology Assessment

Earlier stopping of NAC following paracetamol overdose

This opportunity is now closed

Overview

Opportunity status:	Closed
Type:	Programme
Opening date:	5 August 2024
Closing date:	27 November 2024 at 1:00 pm
Reference ID:	2470

The Health Technology Assessment (HTA) Programme is accepting Stage 1 applications to their commissioned workstream for this primary research topic.

Studies within a trial or review

This funding opportunity is eligible for a SWAT/SWAR (study within a trial or study within a review), which can help significantly improve methodology of future research as well as the host study. Find out about the benefits of SWATs/SWARs and how to include one in your application (https://www.nihr.ac.uk/methodological-sub-studies-studies-within-trial-or-project-swat-and-studies-within-review-swar).

Timeline

27 November, 1pm

Stage 1 deadline

January 2025

Applications considered by the HTA Funding Committee. Shortlisted Stage 1 applicants will be given 8 weeks to submit a Stage 2 application.

May 2025

Stage 2 applications considered by the HTA Funding Committee

This opportunity is now closed

You can review information about this funding opportunity in our application system

View details nyid%3D0%26opportunitytypeid%3D28701%26defaultstatusid%3D37504%26providertoken%3DWFdfJ3

Commissioning brief

Introduction

The aim of the Health Technology Assessment (HTA) Programme is to ensure that high quality research information on the clinical effectiveness, cost-effectiveness and broader impact of healthcare treatments and tests are produced in the most efficient way for those who plan, provide or receive care from NHS and social care services. The commissioned workstream invites applications in response to calls for research on specific questions which have been identified and prioritised for their importance to the NHS, patients and social care.

Research question

What is the clinical and cost effectiveness and safety of stopping N-Acetylcysteine (NAC) infusions even earlier in those with paracetamol overdose presenting to NHS hospitals?

1. Patient group: Adults and young people presenting to NHS hospitals with paracetamol overdose, who require treatment with N-acetylcysteine (NAC). (Applicants to justify exactly which patients would be eligible).
   Applications are encouraged which include recruitment from geographic populations with high disease burden which have been historically underserved by research activity in this field.
2. Intervention: Standard UK NAC treatment regimen but stopped earlier on results of a blood test after 6 hours of NAC if alanine transaminase (ALT) normal and paracetamol level are undetectable.
3. Control: Standard UK NAC 12-hour SNAP regimen.

4. Important outcomes: Time to discharge readiness; length of stay; hospitalisation; mental health outcomes; liver damage; acceptability (to patients and clinicians); readmission; impact on mental health assessment; cost-effectiveness.

   Existing Core Outcomes should be included amongst the list of outcomes unless a good rationale is provided to do otherwise. Applicants are encouraged to report recruitment and findings disaggregated by sex (and other demographic factors where relevant).
5. Setting: Emergency departments or acute medical units.
6. Study design: A randomised controlled trial with an internal pilot phase to test key trial processes such as recruitment and adherence. Clear stop/go criteria should be provided to inform progression from pilot to full trial.
7. Minimum duration of follow-up: Applicants to define and justify.

Rationale

Paracetamol (acetaminophen) is one of the most widely used medicines worldwide and is readily available without prescription in most countries. Paracetamol overdose is one of the most common reasons for emergency hospital attendance resulting in approximately 100,000 Emergency Department presentations, 50,000 acute hospital admissions, and is the direct cause of death of more than 250 people per year in the UK.

Intravenous infusion of N-acetylcysteine (acetylcysteine; NAC) is the mainstay of paracetamol overdose management. The risk of developing hepatotoxicity is substantially reduced when NAC is given within 8 hours of paracetamol ingestion.

Overdose has traditionally been managed using 300mg/kg NAC administered intravenously over 21 hours using 3 infusions, a practice relatively unchanged since the 1970s. Anaphylactoid and other adverse drug reactions are not uncommon with NAC treatment and unpleasant for patients, result in temporary cessation of therapy, require anti-histamine treatment, and extend the duration of treatment and hospitalisation.

To address some of these concerns the SNAP (Newcastle Anti-emetic Pre-treatment for Paracetamol Poisoning) NAC treatment regimen has been developed and is now routinely used across much of the NHS. This protocol provides the same dose of NAC over a 12-hour period using just two infusions and has demonstrated three main advantages: 1) It is simpler to use, 2) Is associated with fewer adverse drug reactions and 3) Results in shorter length of stay for most patients.

Further refinement of SNAP is now proposed with the introduction of an earlier blood test (e.g., at 6 hours), to determine levels of alanine transaminase (ALT) and paracetamol. If this blood test shows ALT is normal and paracetamol levels are undetectable patients can probably be safely discharged, substantially shortening the time of treatment and therefore also offering significant potential resource savings. This needs to be tested in a high-quality randomised trial.

Additional commissioning brief background information

A background document is available that provides further information to support applicants for this call. It is intended to summarise what prompted the call and the existing evidence base, including relevant work from the HTA and wider NIHR research portfolio. It was researched and written on the basis of information from a search of relevant sources and databases, and in consultation with a number of experts in the field. If you would like a copy please email htaresearchers@nihr.ac.uk (mailto:htaresearchers@nihr.ac.uk.).

Making an application

Your application must be submitted online no later than 1pm on 27 November 2024. Applications will be considered by the HTA Funding Committee at its meeting in January 2025.

Shortlisted Stage 1 applicants will be given 8 weeks to submit a Stage 2 application. The Stage 2 application will be considered at the Funding Committee in May 2025.

Applications received electronically after 1pm hours on the due date will not be considered.

For commissioned topics, the Programme strongly discourages the practice of the same co-applicant joining more than one competing team, other than in unusual circumstances (for example, a lead from a named charity or a unique national expert in a condition).

For such exceptions, each application needs to state the case as to why the same person is included. The shared co-applicant should not divulge application details between teams, and both teams should acknowledge in their application that they are aware of the situation, and that study details have not been shared.

Should you have any queries please email htacommissioning@nihr.ac.uk (mailto:htacommissioning@nihr.ac.uk).

Application support

In order to apply you will need to carefully review the:

- Stage 1 application supporting information (/documents/hta-programme-supporting-information-realms/27265)
- Stage 1 guidance notes (/documents/hta-programme-stage-1-guidance-notes-realms/27147)
- HTA tips for applicants (https://www.nihr.ac.uk/hta-tips-applicants)

Applications received by the advertised closing date will be considered at a first-stage funding committee meeting, and successful applicants will then be invited to submit a Stage 2 application. Applicants will have 8 weeks to complete and submit their Stage 2 application form, which will then be considered at the following HTA funding committee meeting. For more information, please read the commissioning brief.

All primary research projects are expected to establish a programme appointed Study Steering Committee and it is important that you read the Research Governance Guidance (/documents/research-governance-guidelines/12154) before completing your application. Costs incurred by this committee should be included in the budget as appropriate.

Word version of the Stage 1 application form

Download a template of the form below.

Please note that the Word version of the Stage 1 application form is to be used as a guide and to assist with completion of the online application form only, for example to see how many characters are accepted in each section and how the printed complete form is laid out. Please do not try to use this as an application form, you must apply using the online form available through the links available when calls are open. You should also refer to the application form guidance notes.

(/media/21716/download/)

Word-realms-version-stage-1-application-form.docx

DOCX

Last updated: 12 September 2024

Download document (124.92 KB)

Contact Details

- For help with your application contact htafunding@nihr.ac.uk (mailto:htafunding@nihr.ac.uk)
- For more information about the funding Programme, visit the HTA page (/node/62891)
- Got a research idea and not sure how to turn it into a funding application? The NIHR Research Support Service (RSS) supports researchers in England to apply for funding, and to develop and deliver clinical and applied health, social care and public health research post award. Find out how the RSS can help you (https://www.nihr.ac.uk/explore-nihr/support/research-support-service/) .