ISRCTN28735454 https://doi.org/10.1186/ISRCTN28735454

A national survey of Swedish hospital guidelines for early blood pressure treatment (norepinephrine) via peripheral veins in patients with sepsis

Submission date
05/11/2026

Recruitment status
Not yet recruiting

Registration date
06/11/2026

Overall study status
Ongoing

Last Edited
06/11/2026

Condition category
Haematological Disorders

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol
Background and study aims
Sepsis is a severe and life-threatening condition where the body's response to an infection damages its own tissues and organs, often causing dangerously low blood pressure. To treat this, doctors use strong medications (called vasopressors, like norepinephrine) to raise the blood pressure. Traditionally, these medications are given through a large, deep vein in the neck or groin (a central line), which takes time and special skills to insert. Giving the medication through a regular, smaller IV line in the arm (peripheral administration) might be faster and help patients sooner, but different hospitals have different rules about this. The aim of this study is to map the current local guidelines at Swedish hospitals regarding early peripheral administration of norepinephrine. We also want to understand what barriers doctors face and see if hospitals are willing to participate in a future, large-scale clinical trial to test this method further.

Who can participate?
This is a survey of hospital practices, so no individual patients will be involved. The participants are the medical directors or appointed lead clinicians at all emergency departments (EDs) and intensive care units (ICUs) in Sweden that treat adult patients.

What does the study involve?
Participants will be asked to complete a short, secure online questionnaire. The questions will focus on whether their specific department has an active clinical guideline for giving blood pressure medications through a regular IV, what those guidelines entail, what they perceive as the main barriers to this practice, and their attitude toward participating in future research on the topic.

What are the possible benefits and risks of participating?
There are no direct risks or benefits to the participants, as this is a survey about organizational guidelines and involves no patient data or clinical interventions. The broader benefit is that the results will provide a clear picture of current Swedish healthcare practices, which is an essential

first step for designing future clinical trials that could ultimately improve the speed and safety of sepsis treatment.

Where is the study run from?
The study is coordinated and run from the Department of Anaesthesia and Intensive Care at Danderyd Hospital and Karolinska Institutet in Stockholm, Sweden.

When is the study starting and how long is it expected to run for?
The study starts in November 2026 and is expected to run for six week until December 2026 (when the final survey reminders have been processed).

Who is funding the study?
The study is funded by the ALF agreement (a regional agreement on medical training and clinical research) between Region Stockholm and Karolinska Institutet.

Who is the main contact?
Dr. Mikael Hallengren, Specialist Physician in Anaesthesia and Intensive Care.

Contact information

Type(s)
Principal investigator

Contact name
Dr Maria Cronhjort

Contact details
Anestesi- och intensivvårdskliniken
Entrévägen 2
Stockholm
Sweden
18288
+46 812355000
maria.cronhjort@ki.se

Type(s)
Public, Scientific

Contact name
Dr Mikael Hallengren

ORCID ID
https://orcid.org/0000-0002-1481-8511

Contact details
Anestesi- och intensivvårdskliniken
Entrévägen 2
Stockholm
Sweden

18288
+46 812355000
mikael.hallengren@ki.se

Additional identifiers

Study information

Scientific Title
A National Cross-Sectional Survey of Organizational Routines and Clinical Guidelines for Norepinephrine Administration in Sepsis

Acronym
NORA-survey

Study objectives
To map and describe the current local clinical guidelines and organizational practices regarding early peripheral administration of norepinephrine in adult patients with sepsis across all emergency departments (EDs) and intensive care units (ICUs) in Sweden.

Ethics approval required
Ethics approval not required

Ethics approval(s)

Primary study design
Observational

Secondary study design
Cross sectional study

Study type(s)

Health condition(s) or problem(s) studied
Sepsis and septic shock

Interventions
A national cross-sectional web-based survey. The survey will be distributed to the medical directors or appointed lead clinicians at all Swedish EDs and ICUs. It consists of questions regarding the existence, content, and clinical restrictions of local guidelines for peripheral administration of vasopressors. Data will be collected and managed using the secure web application REDCap.

Intervention Type
Other

Primary outcome(s)

1. Current clinical practices and the prevalence and content of local guidelines regarding the initiation of norepinephrine therapy in patients with sepsis and hypotension measured using descriptive analysis of survey responses at the time of survey completion

Key secondary outcome(s)
1. Perceived barriers regarding the initiation of early peripheral norepinephrine therapy measured using descriptive analysis of survey responses at the time of survey completion

2. Feasibility of, and national willingness to participate in, a future multicenter randomized controlled trial evaluating early norepinephrine administration measured using descriptive analysis of survey responses at the time of survey completion

Completion date
21/12/2026

Eligibility

Key inclusion criteria
All medical lead physicians in all emergency departments (EDs) and intensive care units (ICUs) in Sweden

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
85 Years

Sex
All

Total final enrolment
0

Key exclusion criteria
Departments that do not treat adult patients with sepsis (e.g., specialized pediatric ICUs, psychiatric emergency departments, or strictly orthopedic emergency units)

Date of first enrolment
16/11/2026

Date of final enrolment
21/12/2026

Locations

Countries of recruitment
Sweden

Sponsor information

Organisation
Karolinska Institutet

ROR
https://ror.org/056d84691

Organisation
Region Stockholm

ROR
https://ror.org/02zrae794

Funder(s)

Funder type

Funder Name
Regional agreement on medical training and clinical research (ALF) between Region Stockholm and Karolinska Institutet (RS 2024-0781)

Results and Publications

Individual participant data (IPD) sharing plan
De-identified survey responses will be available upon reasonable request to the corresponding author after publication.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file			05/11/2026	No	No