

# Feasibility of implementation of the International Early Warning Score in the Emergency Department

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Objective 1: To assess knowledge, attitude health-care professional satisfaction and perceived barriers and facilitators of use and implementation by health care professional in the ED. Objective 2: To assess process of care and outcome indicators...

<b>Ethical review</b>	Not available
<b>Status</b>	Pending
<b>Health condition type</b>	Other condition
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON57500

### Source

Onderzoeksporaal

### Brief title

Feasibility of implementation of the International Early Warning Score in the Emergency Department

### Condition

- Other condition

### Synonym

All Emergency Department patients with the age of 18 or above

### Research involving

Data

### Sponsors and support

**Primary sponsor:** Leids Universitair Medisch Centrum

**Source(s) of monetary or material Support:** Eerste geldstroom (geld van Ministerie van

## Intervention

- Other intervention

## Explanation

N.a.

## Outcome measures

### Primary outcome

Primary outcomes. Knowledge, attitude, health-care professional satisfaction and perceived barriers and facilitators of use and implementation by health care professional in the ED.

### Secondary outcome

Process of care and outcome indicators. Initial and last IEWS during ED stay, number of patients receiving oxygen, fluid resuscitation and medication (antibiotics, antihypertensives, vasopressors), ED length of stay, number of hospital admissions to ward and Intensive Care Unit, in-hospital length of stay and mortality.

## Study description

### Background summary

Annually, ~2 million patients visit the emergency department (ED) of whom ~30% arrive by ambulance and 39% require hospitalization, resulting in considerable costs.

([www.stichtingneed.nl](http://www.stichtingneed.nl), [https://puc.overheid.nl/nza/doc/PUC\\_301126\\_22/1/](https://puc.overheid.nl/nza/doc/PUC_301126_22/1/)), [www.rivm.nl/acute-zorg/](http://www.rivm.nl/acute-zorg/)

ambulancezorg). Early warning scores (EWS) have been developed to facilitate recognition of vital threat. This is important because in time sensitive medical conditions like sepsis and trauma, early treatment is associated with better outcomes. The recently developed age and sex adjusted International EWS (IEWS) is superior to existing EWS and classifies patients better in low and high risk. However, it has not been investigated whether implementation of the IEWS is feasible and affects patient outcomes.

Early recognition of vital sign abnormalities is facilitated by the age-adjusted International Early Warning Score (IEWES), representing potentially reversible disease severity.<sup>1</sup> Use of this quick, simple and easy to automate score would help ED personnel to recognize physiological deterioration in frail older patients and initiate early treatment in those who

need it, preventing further deterioration of existing co-morbidities. However, health care providers should use it in order to be beneficial and implementation of new scores have been shown to be difficult because of all sorts of barriers.

## **Study objective**

Objective 1: To assess knowledge, attitude health-care professional satisfaction and perceived barriers and facilitators of use and implementation by health care professional in the ED.

Objective 2: To assess process of care and outcome indicators using the Netherlands Emergency department Evaluation Database (NEED, [www.stichting-need.nl](http://www.stichting-need.nl)).

## **Study design**

Prospective study

## **Intervention**

Intervention

Objective 1.

Questionnaires will be distributed in the ED on paper and sent electronically to all health care professionals working in the ED. Two reminder e-mails will be sent. During morning and afternoon hand-overs awareness of this study will be raised.

Objective 2.

Incorporation of the IEWS in all Philips MP52 monitors and the overview screens in the ED of the Leiden University Medical Centre.

## **Study burden and risks**

No additional risk

## **Contacts**

### **Scientific**

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### **Public**

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Not applicable

### Inclusion criteria

Objective 1. ED nurses, ED physicians and physician assistant and residents in the ED.  
Objective 2. All consecutive ED patients aged 18 years and older.

### Exclusion criteria

Objective 1. None.  
Objective 2. All ED visits younger than 18 years.

## Study design

### Design

Study phase:	N/A
Study type:	Observational non invasive
Intervention model:	Single
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	Uncontrolled

Primary purpose: Health services research

## Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 01-05-2025

Enrollment: 700

Type: Anticipated

## Medical products/devices used

Product type: N.a.

## IPD sharing statement

**Plan to share IPD:** No

**Plan description**

N.a.

## Ethics review

Not available

Date: 08-04-2025

Application type: First submission

Review commission: Validatie nWMO registratie door CCMO

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

**In other registers**

Register	ID
Research portal	NL-009802