Comparison of SIRS criteria and qSOFA score for identifying sepsis in the Emergency Department

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There is no difference between the diagnostic accuracy of SIRS criteria and qSOFA score in identifying sepsis in undifferentiated patients at the ED.

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON23850

Bron
NTR

Verkorte titel
TBA

Aandoening

sepsis

Ondersteuning

Primaire sponsor: none
Overige ondersteuning: none

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The aim of our study is to compare the diagnostic accuracy of SIRS criteria and qSOFA score

in identifying sepsis in undifferentiated patients at the ED. to investigate the predictive value regarding patient outcomes like in-hospital mortality and ICU admission.

Toelichting onderzoek

Achtergrond van het onderzoek

OBJECTIVE: Sepsis is a major cause of death amongst critically ill patients worldwide. Currently, both SIRS criteria and/or qSOFA score are used for identifying sepsis without a uniform standard. The aim of this study is to compare the accuracy of SIRS criteria and qSOFA score by identifying sepsis in undifferentiated patients in the Emergency Department (ED).
DESIGN: A cross-sectional multicenter study.
SETTING: EDs at two European clinical teaching hospitals in the Netherlands.
PARTICIPANTS: In total, 750 adult patients with suspected infection who meet SIRS criteria or have a qualifying qSOFA score who were treated at two EDs in the Netherlands from 1st January 2018 until 1st March 2018 were included.
METHODS: SIRS criteria and qSOFA score were calculated for each patient. The first hospital treated patients who met SIRS criteria following their standardised hospital protocol for sepsis. At the second hospital, only patients who met the qualifying qSOFA score received this treatment. Because of this, patients could be divided into five groups (1: SIRS+, qSOFA-, not treated according protocol (reference group); 2: SIRS+, qSOFA-, treated according protocol; 3: SIRS+, qSOFA+, treated according protocol; 4: SIRS-, qSOFA+, not treated according protocol; 5: SIRS-, qSOFA+, treated according protocol). Patients could be treated outside the protocol when the treating physician considered it necessary.
PRIMARY AND SECONDARY OUTCOME MEASURES: To prove infection was present, positive cultures were used as the primary outcome. Secondary outcomes were in-hospital mortality and ICU admission.

Doel van het onderzoek

There is no difference between the diagnostic accuracy of SIRS criteria and qSOFA score in identifying sepsis in undifferentiated patients at the ED.

Onderzoeksopzet

2019-01 data extraction by student
2020-01 analyse
2020-06 writing paper

Onderzoeksproduct en/of interventie

none

Contactpersonen

Publiek

Maxima Medisch Centrum
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040-8888800

Wetenschappelijk

Maxima Medisch Centrum
Lisette Mignot-Evers

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

* patients aged 18 years and older visiting the ED in Amphia Hospital, Breda or the ED in Maxima Medical Hospital, Veldhoven between 2018-01-01 and 2018-03-03
* ≥2 of the SIRS criteria or ≥2 of the qSOFA score who visited the ED with a suspected infection or sepsis
* were triaged at level U1, U2 or U3 by the NTS
* visited the ED for internal, pulmonary, gastrointestinal or urology medicine

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

* patients aged under 18 years old

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	Niet-gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestopt
(Verwachte) startdatum:	01-01-2020
Aantal proefpersonen:	750
Type:	Werkelijke startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Ja

Toelichting
The inclusion of patients was conducted by one medical student at Máxima MC and three residents and one medical student at Amphia Hospital. Data collection started at Máxima MC and was supplemented at Amphia Hospital until 750 patients were achieved and the patient-input from both hospitals came balanced. Data collection at Amphia Hospital stopped halfway through February 2018 due to staff occupation, but this did not affect the power of this study. Data were obtained manually from the electronic hospital records using structured electronic data collection forms. All data were de-identified and stored in a secure data management system.

Ethische beoordeling

Positief advies

Datum:	16-01-2020
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL8315
Ander register	METC Maxima MC : N17.180

Resultaten