Clinical efficacy of Remote continuous Monitoring supplementary to intermittent monitoring compared to intermittent monitoring on a surgical ward in a large Teaching hospital in the Netherlands

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Remote continuous vital signs monitoring, supplementary to the RRS, contributes to timely recognition and treatment of the deterioration patient on a surgical ward resulting in a reduced total hospital length of stay.

Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON26077

Bron
Nationaal Trial Register

Verkorte titel
ReMoTe trial

Aandoening

surgical, gastroenterology and gynaecological oncology surgical admissions on a general ward

Ondersteuning

Primaire sponsor: Albert Schweitzer Hospital, Dordrecht, NL
Overige ondersteuning: Albert Schweitzer Hospital, Dordrecht

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

total length of hospital stay

Toelichting onderzoek

Achtergrond van het onderzoek

In the last decades 10% of all clinically admitted patients in hospitals experienced harm, of which at least 33% of the most severe incidents was due to failure to recognize and treat the deteriorating patient timely on the general wards. Therefore, to improve early recognition and adequate treatment for deteriorating patients, Rapid Response Teams (RRT) have been introduced worldwide since 1995 During a first Consensus meeting' it was stated that hospitals should implement an rapid response system (RRS), which consists of at least three elements: (1) an afferent, "crisis detection" and "response triggering" mechanism; (2) an efferent, predetermined rapid response team; and (3) a mechanism to evaluate crisis antecedents and promote hospital process improvement to prevent future events, thus implementing a system rather than a team. But even in hospitals with an established mature RRS, failure to rescue events occur, mostly related to the 'afferent limb' of the system, e.g. failure to identify patients at risk. One of the key underlying mechanisms is that the present RRS is based on intermittent monitoring ("spot checks") every 6-12 hours which may lead to failure to detect a deteriorating patient timely. For example, a recent study showed that 47% of postoperative patients develop hypotensive periods with a mean arterial pressure < 65 mmHg for at least 15 minutes', while another study showed that more than one third of surgical
patients experience an oxygen saturation level of <90% for an hour or more. Earlier trials showed that continuous monitoring on the general ward ("low care" environments) was associated with a reduced need for patient rescue events or unplanned ICU admissions. Therefore, our aim is to investigate whether supplementary wireless continuous vital signs monitoring contributes to timely recognition and treatment of the deterioration patient on a surgical ward resulting in a reduced total length of hospital stay.

Doel van het onderzoek

Remote continuous vital signs monitoring, supplementary to the RRS, contributes to timely recognition and treatment of the deterioration patient on a surgical ward resulting in a reduced total hospital length of stay.

Onderzoeksopzet

6 month trial: total length of hospital stay, mortality, unplanned ICU admissions, 30-day readmissions data is extracted from our EMR; experience patients & care professionals is measured through a single questionnaire; alarmfatigue is measured indirectly through our continuous monitor/ patch system

Onderzoeksproduct en/of interventie

supplementory remote continuous monitoring provided by a wireless patch, worn on the patient's chest, with data transmitted wirelessly every 2 minutes to a mobile device carried by the patient's nurse e.g.
respiratory rate, heartrate and temperature; thus, the continuous monitor functions as an organization's "safety net" for deteriorating inpatients in between the intermittent monitoring of vital signs
in the afferent limb of the RRS.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Inclusion criteria: at least 18 years old; surgical, gastroenterology and gynaecological oncology surgical admissions; expected length of stay > 24 h; informed consent

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Exclusion criteria: An allergy to skin adhesives, wound or skin lesion near the application site, patients with a pacemaker or implantable cardioverter defibrillator, patients in a palliative trajectory, patients waiting for placement in a nursery home.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	22-06-2021
Aantal proefpersonen:	285
Type:	Verwachte startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Positief advies

Datum:	25-05-2021
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 51127
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL9503
CCMO	NL77132.041.21
OMON	NL-OMON51127

Resultaten