Can a novel perfusion monitor help us defining optimal flow for patients on cardiopulmonary bypass.

Gepubliceerd: 23-04-2014 Laatst bijgewerkt: 18-08-2022

Evaluation of the golden standard in perfusion by using a perfusion monitor to evaluate adequate oxygen delivery.

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

Samenvatting

ID

NL-OMON28731

Bron
Nationaal Trial Register

Verkorte titel
N/A

Aandoening

Cardiopulmonary bypass, perfusion monitor, cardiovascular patients, adequate oxygen delivery, hypo-perfusion, hyper perfusion, postoperative complications, individual circulatory treatment.

Ondersteuning

Primaire sponsor: Universitair Ziekenhuis Brussel
Laarbeeklaan 101
1090 Jette
Overige ondersteuning: Universitair Ziekenhuis Brussel
Laarbeeklaan 101
1090 Jette

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Which oxygen flow gives hyperlactatemia?

Toelichting onderzoek

Achtergrond van het onderzoek

Adequate oxygen delivery (D02) to the organs and tissues of the cardiovascular patient is the primary principle of putting patients on cardiopulmonary bypass (CPB). The golden standard for calculation of flow is 2,4 L/min/m2 body surface area (BSA). Blood flow during CPB is standardized worldwide; i.e. 2,2-2,5 LPM/m2. There is an increasing tendency towards a more individual circulatory treatment. In fact, individualized goal-directed therapy has been shown to reduce postoperative complications and mortality in high-risk surgery.
Hypo-perfusion (defined as the inadequate delivery of oxygen) and the resulting Hyperlactatemia are well described and quantified, as well as their postoperative consequences. The effects of hyper-perfusion are far less investigated.

A new perfusion monitor is developed to continuously monitor, in real-time and online, the different determinants of oxygen delivery and oxygen consumption of the patient.

Doel van het onderzoek

Evaluation of the golden standard in perfusion by using a perfusion monitor to evaluate adequate oxygen delivery.

Onderzoeksopzet

1) Blood gas before cardiopulmonary bypass(CPB), after 10', 30', 60', 90', 120' and post CPB.

2) Postoperative we will also look at the highest lactate level during hospital stay.

Onderzoeksproduct en/of interventie

Arterial and venous connector for inline measurement. Regular blood gas analysis. Blood flow sensor measurement.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

-Patients scheduled for cardiac surgery.

-Normothermic cases and maximum duration less than 2 hours.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

-Complicated cases

-CPB duration over 2 hours

-renal insufficiency

-emergency

-reanimation

-salvage and existing inflammatory conditions.

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blindering:	Enkelblind
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	17-02-2014
Aantal proefpersonen:	150
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	23-04-2014
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	NL4399
NTR-old	NTR4596
Ander register	MEC UZ Brussel : 2014/017

Resultaten

Samenvatting resultaten
N/A