

Evaluation of a new perioperative fluid strategy during paediatric anaesthesia. Effect on glucose levels.

Published: 27-05-2008

Last updated: 11-05-2024

To measure and analyze changes in blood glucose during surgery or the procedure under anaesthesia.

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| Ethical review | Approved WMO |
| Status | Recruitment stopped |
| Health condition type | Therapeutic procedures and supportive care NEC |
| Study type | Observational invasive |

Summary

ID

NL-OMON33724

Source

ToetsingOnline

Brief title

New perioperative fluid therapy in paediatric anaesthesia

Condition

- Therapeutic procedures and supportive care NEC

Synonym

NVT

Research involving

Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Utrecht

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: anaesthesia, Fluid therapy, Glucose concentrations, paediatric

Outcome measures

Primary outcome

Changes in blood glucose concentration perioperatively

Secondary outcome

N/A

Study description

Background summary

The department of anaesthesia at WKZ has recently reviewed the perioperative fluid policy during surgery and introduced a new protocol (see appendix 1). There has been historically a tendency to provide patients during the perioperative period with glucose based isotonic fluids (eventually hypotonic as the glucose is metabolized). While the use of non glucose containing isotonic fluids is not standard (only 36 % of paediatric anaesthetists use it according to a recent survey), the number of institutions using this type of fluids is ever increasing.

One of the aims with any fluid therapy is to avoid hypo or hyperglycaemia. The number of studies evaluating the effect of different types of perioperative fluids in the glucose levels around the operation are scarce and were conducted a number of years ago when the nil by mouth policy was totally different.

Study objective

To measure and analyze changes in blood glucose during surgery or the procedure under anaesthesia.

Study design

Following consent;

Data from patients admitted for surgery requiring perioperative fluid replacement will be collected from the patient*s notes.

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The following data will be collected:

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Patient details: age, sex, weight, ASA (American Society of Anesthesiologists) status

Operation details: type of operation, surgeon, anaesthetist, surgery and anaesthesia time.

Fasting time and time from last clear fluid intake.

Total amount of intravenous fluid infused.

Total blood loss.

Total urine output when measured.

Use of regional anaesthesia or peripheral nerve block.

Laboratory measurement: Blood glucose through finger pin prick after induction of anaesthesia and before emergence of anaesthesia.

Study burden and risks

No risks.

Contacts

Public

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Scientific

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Children (2-11 years)

Inclusion criteria

Infants and children of less than two years scheduled to undergo surgery or a procedure under anaesthesia requiring fluid replacement during the perioperative period.

Exclusion criteria

Ex-premature patients, patients coming from the NICU, children receiving total parenteral nutrition (TPN), and children with diabetes and/or metabolic diseases.

Study design

Design

Study type: Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 30-11-2008

Enrollment: 40

Type: Actual

Ethics review

Approved WMO

Date: 27-05-2008

Application type: First submission

Review commission: METC Universitair Medisch Centrum Utrecht (Utrecht)

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|--------------------|---|
| Approved WMO | |
| Date: | 20-01-2009 |
| Application type: | Amendment |
| Review commission: | METC Universitair Medisch Centrum Utrecht (Utrecht) |
| Approved WMO | |
| Date: | 09-06-2009 |
| Application type: | Amendment |
| Review commission: | METC Universitair Medisch Centrum Utrecht (Utrecht) |

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 |
|----------|----------------|
| CCMO | NL20880.041.08 |