

Effectiveness of sucrose analgesia in reducing pain responses in infants born to diabetic and non-diabetic mothers: A randomized controlled trial

Submission date 15/08/2005	Recruitment status No longer recruiting	☐ Prospectively registered
Registration date 15/08/2005	Overall study status Completed	☐ Protocol
Last Edited 28/01/2019	Condition category Signs and Symptoms	☐ Statistical analysis plan
		☒ Results
		☐ Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

ClinicalTrials.gov (NCT)
NCT00213213

Protocol serial number
MCT-63143

Study information

Scientific Title

Effectiveness of sucrose analgesia in reducing pain responses in infants born to diabetic and non-diabetic mothers: A randomized controlled trial

Study objectives

1. Administration of sucrose analgesia for every painful cutaneous procedure performed after delivery will result in less pain during the newborn infant screening test performed by venipuncture prior to hospital discharge
2. Sucrose analgesia for every painful cutaneous procedure will decrease pain responses in infants undergoing repeated heel lancing
3. Administration of sucrose for every painful procedure will not be associated with adverse effects
4. Administration of sucrose for every painful procedure will decrease anticipatory pain responses during venipuncture for the newborn screening test
5. There is a relationship between previous painful procedures and infant response during routine care procedures

Ethics approval required

Old ethics approval format

Ethics approval(s)

Mount Sinai Hospital Research Ethics Board 17/06/2003

Study design

Randomised controlled trial

Primary study design

Interventional

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Pain responses in infants born to diabetic mothers

Interventions

Group 1: 2 ml of 24% sucrose (weight/vol) 2 minutes prior to all noxious tissue-damaging cutaneous procedures

Group 2: 2 ml of sterile water (placebo) 2 minutes prior to all noxious tissue-damaging cutaneous procedures

Intervention Type

Drug

Phase

Not Specified

Drug/device/biological/vaccine name(s)

Sucrose

Primary outcome(s)

Infant pain score during venipuncture for the newborn screening test, as assessed by the Premature Infant Pain Profile (PIPP), or individual parameters of PIPP if there is divergence in response between parameters.

Key secondary outcome(s)

Secondary outcomes (effectiveness):

1. Effectiveness of sucrose for repeated heel lances
2. Effectiveness of sucrose in decreasing anticipatory pain responses during venipuncture
3. Determination of relationship between painful procedures and infant response during routine care procedures

Secondary outcomes (safety):

1. Incidence of vomiting during drug administration
2. Oxygen saturation during drug administration
3. Serum Glucose concentrations in infants of diabetic mothers

Completion date

31/07/2006

Eligibility

Key inclusion criteria

Include healthy newborn infants ≥ 36 weeks gestation (either sex). There are 2 study strata: infants born to mothers with diabetes (type 1, type 2, or gestational diabetes that is diet-controlled or insulin-dependent), and infants born to non-diabetes mothers with uneventful pregnancies.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Neonate

Sex

All

Key exclusion criteria

1. Admission to the neonatal intensive care unit (NICU)
2. Plan to undergo circumcision during the study period
3. Major congenital or neurological anomalies
4. Clinical diagnosis of birth asphyxia or seizures
5. Receiving analgesics or sedatives

Date of first enrolment

01/07/2003

Date of final enrolment

31/07/2006

Locations

Countries of recruitment

Canada

Study participating centre

Department of Pharmacy

Toronto, Ontario

Canada

M5G 1X8

Sponsor information

Organisation

Hospital for Sick Children, Toronto (Canada)

ROR

<https://ror.org/057q4rt57>

Funder(s)

Funder type

Research organisation

Funder Name

Canadian Institutes of Health Research (CIHR) (Canada) - <http://www.cihr-irsc.gc.ca> (ref: MCT-63143)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/07/2008	28/01/2019	Yes	No