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Evaluation of a computer system that alerts heathcare professionals to changes in foetal monitoring signals acquired during labour

Submission date 02/12/2008	**Recruitment status** No longer recruiting	[X] Prospectively registered [X] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 26/01/2009	**Overall study status** Completed	
Last Edited 08/12/2016	**Condition category** Pregnancy and Childbirth	

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title

A randomised clinical trial of intrapartum foetal monitoring with computer analysis and alerts versus previously available monitoring

Acronym
EFM-ALERT

Study objectives
Use of a system for computer analysis of intrapartum foetal monitoring signals, with real-time alerts for healthcare professionals, will reduce the number of foetuses born with metabolic acidosis, when compared with conventional monitoring.

Ethics approval required
Old ethics approval format

Ethics approval(s)
To be submitted as of 02/12/2008.

Study design
Randomised controlled open multi-centre trial

Primary study design
Interventional

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Intrapartum foetal hypoxia

Interventions
Continuous foetal monitoring during labour with computer analysis by the Omniview-SisPorto 3.5 system vs continuous intrapartum monitoring as previously performed.

Intervention Type
Other

Phase
Not Specified

Primary outcome(s)
Incidence of foetal metabolic acidosis, defined as newborn umbilical artery pH <7.05 and BDecf >12 mmol/L.

Key secondary outcome(s))
1. Overall rates of caesarean section and caesarean section for non-reassuring foetal state
2. Overall rates of instrumental vaginal delivery and instrumental vaginal delivery for non-reassuring foetal state
3. Foetal blood sampling rates
4. Incidence of 5-minute Apgar score <7
5. Need for neonatal intensive care unit admission

6. Incidence of moderate and severe neonatal encephalopathy with a hypoxic marker
7. Perinatal death
8. Rate of delayed interventions (interval between red alerts [intervention arm]/offline analysis [control arm] and delivery in metabolic acidosis cases)
8. Tracing quality and signal loss

Completion date
01/04/2011

Eligibility

Key inclusion criteria
1. Pregnant women, aged more than 16 years
2. Able to provide written informed consent
3. Singleton pregnancy
4. Gestation of 36 or more completed weeks
5. Cephalic presentation
6. No known major foetal malformations
7. In active labour but not in active second stage
8. No known contraindication to vaginal delivery
9. Clinical decision made to perform continuous cardiotocography (CTG) monitoring

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
Female

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
01/04/2009

Date of final enrolment
01/04/2011

Locations

Countries of recruitment
United Kingdom

Portugal

Study participating centre
Departamento de Ginecologia e Obstetrícia
Porto
Portugal
4200-319

Sponsor information

Organisation
University of Porto (Universidade do Porto) (Portugal)

ROR
https://ror.org/043pwc612

Funder(s)

Funder type
Research organisation

Funder Name
Institute of Biomedical Engineering (Instituto de Engenharia Biomédica) (INEB) (Portugal)

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	01/01/2017		Yes	No
Protocol article	protocol	28/10/2010		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes