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# Can gentle pressing of the chest of newborns delivered by Caesarean section simulate the squeezing of fluid from the baby's lungs during vaginal delivery and improve the baby's breathing in the hours after birth?

**Submission date**
03/03/2019

**Recruitment status**
No longer recruiting

**Registration date**
25/04/2019

**Overall study status**
Completed

**Last Edited**
23/03/2023

**Condition category**
Pregnancy and Childbirth

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

## Plain English summary of protocol

Background and study aims
This is a new maneuver designed to improve the respiratory outcome of the newborns delivered by caesarian section. The idea is simple; the researcher suggests a maneuver through artificial compression of the chest of newborns delivered by caesarian section to simulate the squeezing effect of the normal vaginal delivery in order to evacuate the lung fluid as much as possible.

Who can participate?
Term and near term babies ( > 35 weeks gestational age)

What does the study involve?
This is a new maneuver designed to improve the respiratory outcome of the newborns delivered by caesarian section. It involves artificial compression of the chest of newborns delivered by caesarian section to simulate the squeezing effect of the normal vaginal delivery in order to evacuate the lung fluid as much as possible. The maneuver will be trialled on term and near term babies ( > 35 weeks gestational age) from the three participating centres throughout the study period.

What are the possible benefits and risks of participating?
The technique of this maneuver is important that it should be done with repetitive gentle compression of both sides of the chest; too little compression is of no benefit; whereas too much compression may cause fracture of the ribs and cardiac arrhythmias.

Where is the study run from?
1. Al-Batool Teaching Hospital, Mosul
2. Al-Khansa teaching hospital, Mosul
3. Nineveh private hospital, Mosul

When is the study starting and how long is it expected to run for?
February 2018 to December 2018

Who is funding the study?
Nenavah health office, Mosul, Iraq

Who is the main contact?
Dr Mohammed Hamid Al-sabawi
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# Contact information

### Type(s)
Public

### Contact name
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# Additional identifiers

### EudraCT/CTIS number
Nil known

### IRAS number

### ClinicalTrials.gov number
Nil known

### Secondary identifying numbers
Nil known

# Study information

### Scientific Title
A new maneuver for initial resuscitation of newborns after Caesarean delivery

### Study objectives

This study is designed to improve the respiratory outcome of the newborn delivered by caesarean section and to decrease the incidence and duration of transient tachypnea among these newborns due to wet lung syndrome.

### Ethics approval required
Old ethics approval format

### Ethics approval(s)
Not provided at time of registration

### Study design
interventional case-control study

### Primary study design
Interventional

### Secondary study design
Case-control study

### Study setting(s)
Hospital

### Study type(s)
Treatment

### Participant information sheet
No participant information sheet available.

### Health condition(s) or problem(s) studied
Transient tachypnea of newborns

### Interventions
The researcher suggests a maneuver through gentle artificial compression of the chest of newborns delivered by caesarian section to simulate the squeezing effect of the normal vaginal delivery in order to evacuate the lung fluid as much as possible. This "Mohammed's maneuver" is done by upside-down position of the baby then gentle compression on the lateral sides of the chest of newborn for several times either by one or both hands of the obstetrician while the assistant is carrying the newborn or by carrying of the newborn by one hand of the obstetrician and compression of the chest by the other hand. It is preferably accompanied by suction of fluid from nose and mouth of newborn. This maneuver is safe and should not takes >30 seconds. The pressure of compression should be neither be too little or too severe.

### Intervention Type
Procedure/Surgery

### Primary outcome measure
Respiratory outcome of the newborns delivered by caesarian section measured using APGAR score assessed at 1, 5, 10, 15, and 20 min after birth.

### Secondary outcome measures

The length of time the newborn displays transient tachypnea following birth.

**Overall study start date**
01/01/2010

**Completion date**
31/12/2018

# Eligibility

**Key inclusion criteria**
1. Term and near term babies ( > 35 weeks gestational age)

**Participant type(s)**
Patient

**Age group**
Neonate

**Sex**
Both

**Target number of participants**
500

**Key exclusion criteria**
1. Preterm (< 35 weeks gestation) neonates

**Date of first enrolment**
01/02/2010

**Date of final enrolment**
10/12/2018

# Locations

**Countries of recruitment**
Iraq

**Study participating centre**
**Al-Batool Teaching Hospital (Gynaecology And Obstetrics)**
Nenaveh
Mosul
Iraq
14004

**Study participating centre**
**Al-Khansa teaching hospital**
Nenaveh
Mosul
Iraq
14004

**Study participating centre**
**Nineveh private hospital**
Nenaveh
Mosul
Iraq
14004

# Sponsor information

**Organisation**
Nineveh Health Directorate Training Center & Human Development

**Sponsor details**
Nineveh
Mosul
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41001
+9647701736208
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**Sponsor type**
Hospital/treatment centre

# Funder(s)

**Funder type**
Hospital/treatment centre

**Funder Name**
Nenavah health office

# Results and Publications

## Publication and dissemination plan
Planned publication in a high-impact peer-reviewed neonatal journal.

## Intention to publish date
10/03/2019

## Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request and will be included in the subsequent results publication.

## IPD sharing plan summary
Available on request

## Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Basic results | | 12/12/2019 | 12/12/2019 | No | No |
| Results article | | 11/11/2020 | 23/03/2023 | Yes | No |