# Peripheral Intravenous Catheterisation in Obstetric Patients: comparing dorsum of the hand vein with lower forearm vein

Submission date	Recruitment status	<ul><li>Prospectively registered</li></ul>
22/04/2013	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
07/05/2013	Completed	Results
Last Edited	Condition category	Individual participant data
07/05/2013	Pregnancy and Childbirth	<ul><li>Record updated in last year</li></ul>

#### Plain English summary of protocol

Background and study aims

Peripheral intravenous catheter insertion (putting in a drip) is a near universal procedure for pregnant women admitted to the delivery suite. The catheter is inserted for a variety of reasons including for blood tests, fluids or medicines to be given intravenously or as a precautionary measure in the event of a major haemorrhage. Doctors usually put the drip on the back of the hand or in the lower forearm. We do know which place is better for the drip to be placed in pregnant women at term. We think that inserting a cannula at the back of the hand is easier but it can be more painful to insert and prone to failure.

#### Who can participate?

Women at term with a singleton viable pregnancy admitted to the delivery suite who have suitable veins at the back of the hand and the lower forearm for cannula insertion and who need to have a drip inserted according to usual clinical practice will be invited to participate

#### What does the study involve?

If you agree to take part, you will need to sign a consent form. The doctor will then insert the catheter in the back of your hand or in a lower forearm vein (usually at the wrist) according to random allocation (an envelope containing the allocation will be opened to reveal the site). The catheter will be inserted and secured using standard techniques. Blood is usually taken from the catheter for any blood test you need. An infusion may be started if you need this immediately. If not, 5 ml of normal saline is used to flush the catheter to make sure it is correctly placed and is patent. If the allocated insertion is unsuccessful, your doctor is free to make a second attempt anywhere according to his best judgment.

What are the possible benefits and risks of participating?

No specific risk is anticipated. Both sites are commonly used for the insertion of an intravenous drip.

Where is the study run from?

The study is conducted in the Delivery Suite of the University of Malaya Medical Centre, a tertiary referral hospital with full-fledged operating theatres and neonatal intensive care unit.

When is the study starting and how long is it expected to run for? The trial is scheduled to start 1 May 2013 and is expected to be completed within 12 months.

Who is funding the study?
Internally by the University of Malaya (Malaysia)
Who is the main contact?
Professor PC Tan
pctan@um.edu.my

#### Contact information

#### Type(s)

Scientific

#### Contact name

Prof Peng Chiong Tan

#### Contact details

Department of Obstetrics & Gynaecology Faculty of Medicine University of Malaya Kuala Lumpur Malaysia 50603

# Additional identifiers

**EudraCT/CTIS** number

**IRAS** number

ClinicalTrials.gov number

Secondary identifying numbers

975.12

# Study information

#### Scientific Title

Peripheral Intravenous Catheterisation in Obstetric Patients: comparing dorsum of the hand vein with lower forearm vein: a randomised controlled trial

#### Acronym

**PICOP** 

#### **Study objectives**

Peripheral intravenous catheterisation in women at term admitted to the delivery suite is more likely to be successfully accomplished but is more uncomfortable when attempted through a vein at dorsum of the hand compared to a vein at the lower forearm.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Ethics approval from the University of Malaya Medical Centre Medical Ethics Committee. Approval number 975.12 dated 12 March 2013.

#### Study design

Randomised controlled trial

#### Primary study design

Interventional

#### Secondary study design

Randomised controlled trial

#### Study setting(s)

Hospital

#### Study type(s)

Treatment

#### Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

#### Health condition(s) or problem(s) studied

Common medical procedure: Peripheral Intravenous Catheterisation

#### **Interventions**

Attempted catherisation with a 18G peripheral intravenous cannula using standard insertion technique without any local anaesthesia into a

- 1. Vein at the dorsum of the hand or
- 2. Vein at the lower forearm

#### Intervention Type

Other

#### Phase

Not Applicable

#### Primary outcome measure

- 1. Successful insertion (defined as full placement of the catheter into a vein at the allocated site after a single skin prick confirmed with a straightforward 5 ml saline flush)
- 2. Insertion pain score using a visual numerical scale from 1 to 10 (1 no pain to 10 worst pain

#### imaginable)

3. Catheter malfunction (defined as the need for further catheterisation prior to discharge due to deemed unsatisfactory performance of the per protocol indwelling catheter)

#### Secondary outcome measures

- 1. Causes of catheter malfunction (if any)
- 2. Providers insertion difficulty grading
- 3. Patient satisfaction score with site of catheter placement
- 4) Patients preference catheter placement site (post catheter removal)
- 5) Insertion site complications (at hospital discharge)
- a. Swelling
- b. Bruising
- c. Tenderness
- d. Thrombosed vein
- 6) Patient perception of pain at insertion site after removal of catheter scored using a visual numerical scale from 1 to 10 (1 no pain to 10 worst pain imaginable)

#### Overall study start date

01/05/2013

#### Completion date

30/04/2014

# **Eligibility**

#### Key inclusion criteria

- 1. Admission to the delivery suite
- 2. Established need for a peripheral intravenous catheter based on usual practice/indication
- 3. Aged ≥ 18years
- 4. erm Pregnancy (≥ 37 wks)
- 5. Singleton, viable fetus
- 6. Suitable veins at BOTH proposed sites as assessed by the provider who will attempt the insertion

#### Participant type(s)

**Patient** 

#### Age group

Adult

#### Lower age limit

18 Years

#### Sex

**Female** 

#### Target number of participants

At least 304 women

#### Key exclusion criteria

- 1. Women who are seriously ill, requiring more than one venous access
- 2. Women who are scheduled to undergo a Caesarean delivery

#### Date of first enrolment

01/05/2013

#### Date of final enrolment

30/04/2014

#### Locations

#### Countries of recruitment

Malaysia

# Study participating centre Department of Obstetrics & Gynaecology

Kuala Lumpur Malaysia 50603

# Sponsor information

#### Organisation

University of Malaya (Malaysia)

#### Sponsor details

Lembah Pantai Kuala Lumpur Malaysia 50603

#### Sponsor type

University/education

#### Website

http://www.um.edu.my/

#### **ROR**

https://ror.org/00rzspn62

# Funder(s)

#### Funder type

#### University/education

#### **Funder Name**

University of Malaya (H-20001-00-E000066) (Malaysia)

#### Alternative Name(s)

University of Malaya, University Malaya, Malayan University, UM

#### **Funding Body Type**

Government organisation

#### **Funding Body Subtype**

Universities (academic only)

#### Location

Malaysia

### **Results and Publications**

#### Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

#### IPD sharing plan summary

Not provided at time of registration