ISRCTN90745002 https://doi.org/10.1186/ISRCTN90745002

Transfer of urethral catheterization (UC) skills from simulation training to performance on real clinical

Submission date
01/02/2012

Recruitment status
No longer recruiting

Registration date
20/02/2012

Overall study status
Completed

Last Edited
08/12/2015

Condition category
Surgery

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

Plain English summary of protocol

Background and study aims
Urethral catheterisation (UC) is a procedure where a flexible tube called a catheter is inserted into a patient's bladder to collect urine. Inexperienced interns are responsible for most complications after UC. Although it is common to train using simulators, little is known about the transfer of learned skills to real clinical practice. The aim of this study is to evaluate the short- and long-term effects of a UC simulated skills training course on performance on real patients and to examine whether watching a video of the procedure immediately before assessment enhances performance.

Who can participate?
Third year students at University of Copenhagen medical school.

What does the study involve?
Participants attend a simulated skills training course covering the essential knowledge and skills needed to perform a UC. An experienced student teacher teaches the students in groups of maximum six. After a theoretical introduction, the major part of the course consists of practical training of UC on a mannequin with feedback from the teacher. After the UC course the students are tested using a mannequin. Their performance is videotaped and assessed afterwards. One to six weeks later, participants are scheduled to perform a UC on a real patient from a urological department. The UC procedure is assessed by direct observation by an experienced urology nurse, who could interrupt if anything potential harmful for the patient was going to happen.

What are the possible benefits and risks of participating?
There were no additional risks for the participants in our study.

When is the study starting and how long is it expected to run for?
May 2010 to March 2011

Where is the study run from?
University of Copenhagen (Denmark)

Who is funding the study?
University of Copenhagen (Denmark)

Who is the main contact?
Prof Charlotte Ringsted
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
H-1-2010-075

Study information

Scientific Title
Transfer of urethral catheterization (UC) skills from simulation training to performance on real clinical: a randomized controlled trial of the additional effect of video instruction

Study objectives
The aims of the study were to investigate short- and long-term effects of simulated UC skills training on performance on real patients and the effect of watching an instructional video of the UC procedure immediately before the first clinical performance.

Ethics approval required
Old ethics approval format

Ethics approval(s)
The National Committee on Health Research Ethics, Copenhagen, Denmark, 13/08/2012, ref: H-1-2010-075

Primary study design
Interventional

Study design
Single-centre randomized controlled trial

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Medical education

Interventions
The participants were randomised to a video group or a control group when they arrived at the hospital for the transfer-test.

The video group watched a five minutes long video instruction of urethral catheterization while the control group did not get any preparation before the test. The video illustrated a physician performing urethral catheterization on a real patient and a voice over to explain the difficult steps.

Intervention Type
Procedure/Surgery

Phase
Not Applicable

Primary outcome(s)
Urethral catheterization performance on patients were assessed using a form with 15 items, each to be scored on a scale of 0-4, where 4 indicated best performance

Key secondary outcome(s)
An overall assessment in the form including five categories: poor, unacceptable, acceptable, good, and excellent performance

Completion date
01/03/2011

Eligibility

Key inclusion criteria
The participants were a volunteer sample of third year medical students at Copenhagen University. All students were invited by email to participate in the study and were included on a first come, first served principle

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
Students with previous clinical experience in performing UC

Date of first enrolment
01/05/2010

Date of final enrolment
01/03/2011

Locations

Countries of recruitment
Denmark

Study participating centre
Bomhoffs Have 8, 4. tv.
Copenhagen
Denmark
1872

Sponsor information

Organisation
University of Copenhagen (Denmark)

ROR
https://ror.org/035b05819

Funder(s)

Funder type
University/education

Funder Name
Københavns Universitet

Alternative Name(s)

University of Copenhagen, Copenhagen University, University of Copenhagen, Denmark, Københavns Uni, UCPH, KU

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Denmark

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	25/02/2013		Yes	No