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Immediate versus delayed removal of urinary catheters after uncomplicated total abdominal hysterectomy in a tertiary care hospital

Submission date
11/08/2026

Recruitment status
No longer recruiting

Registration date
14/08/2026

Overall study status
Completed

Last Edited
11/08/2026

Condition category
Surgery

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Women undergoing a total abdominal hysterectomy (surgical removal of the womb) often have a flexible tube, called a urinary catheter, placed into their bladder to drain urine during the operation. After the surgery, doctors must decide when is the best time to remove this tube. Some prefer to remove it immediately, while others prefer to leave it in for several hours. Leaving it in can increase the risk of an infection, but taking it out too early might mean the patient struggles to pee on their own and needs the tube put back in. This study aims to find out if removing the catheter immediately after surgery is better for patient recovery than waiting 6 hours.

Who can participate?
Women aged 35 to 75 years old who are scheduled to have an uncomplicated abdominal hysterectomy for benign (non-cancerous).

What does the study involve?
Participants are randomly divided into two equal groups after their surgery. For the first group, the urinary catheter is removed immediately as soon as the surgery is finished. For the second group, the catheter is left in place and removed 6 hours after the surgery. Doctors and nurses then closely monitor both groups during their hospital stay. They record if any patients are unable to pass urine on their own, if anyone develops a fever or urinary tract infection, and how many days each patient needs to stay in the hospital before going home.

What are the possible benefits and risks of participating?
The potential benefit of immediate removal is a faster return to normal movement, a lower chance of developing a urinary tract infection, and potentially going home sooner. The possible risk of early removal is that the patient might not be able to empty their bladder naturally, which would require a nurse to temporarily reinsert the catheter.

Where is the study run from?
Pakistan Institute of Medical Sciences, Pakistan.

When is the study starting and how long is it expected to run for?
October 2018 to August 2020.

Who is funding the study?
1. Pakistan Institute of Medical Sciences, Pakistan.
2. Shaheed Zulfiqar Ali Bhutto Medical University, Pakistan.

Who is the main contact?
Dr Ayesha Ahmed, ayesha.ahmed62@nhs.net

Contact information

Type(s)
Public, Scientific, Principal investigator

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Study information

Scientific Title
Immediate and late removal of urinary catheter after total abdominal hysterectomy in middle aged vs old women

Study objectives
To evaluate and compare the clinical outcomes of immediate versus delayed (six hours post-operative) removal of urinary catheters in women undergoing uncomplicated total abdominal hysterectomy for benign conditions, specifically focusing on urinary and febrile morbidities and length of hospital stay.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 15/08/2018, Ethics Review Board, Shaheed Zulfiqar Ali Bhutto Medical University (PIMS, G-8/3., Islamabad, 44000, Pakistan; +92 51 9107679; info@szabmu.edu.pk), ref: F. 1-1/2015 /ERB/SZABMU/282

Primary study design

Interventional

Allocation
Randomized controlled trial

Masking
Open (masking not used)

Control
Active

Assignment
Parallel

Purpose
Prevention, Treatment

Study type(s)

Health condition(s) or problem(s) studied
Post-operative urinary retention and urinary tract complications following uncomplicated total abdominal hysterectomy

Interventions
Patients are randomly assigned to one of two parallel care groups following their surgery:
Group A (Immediate Removal): The indwelling urinary catheter is removed immediately upon completion of the total abdominal hysterectomy.
Group B (Delayed Removal): The indwelling urinary catheter remains in place and is removed 6 hours post-operatively.

Intervention Type
Procedure/Surgery

Primary outcome(s)
1. Post-operative urinary retention (POUR) measured using a clinical assessment determining the patient's inability to void spontaneously, necessitating the reinsertion of a urinary catheter, at an assessment within 24 hours following the removal of the initial urinary catheter

Key secondary outcome(s)
1. Febrile morbidity / Urinary Tract Infection (UTI) measured using patient temperature monitoring (>38°C) combined with a positive post-operative urine culture or clinical symptoms of a UTI, at throughout the duration of the post-operative hospital stay

2. Length of hospital stay measured using the total number of days measured from the date of the surgery to the date of official hospital discharge, at hospital discharge

Completion date
31/08/2020

Eligibility

Key inclusion criteria
1. Female patients undergoing elective, uncomplicated total abdominal hysterectomy for benign gynecological conditions
2. Patients who provided written informed consent to participate in the study
3. Patients with no prior history of voiding dysfunction or urinary tract infections

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
35 Years

Upper age limit
75 Years

Sex
Female

Total final enrolment
140

Key exclusion criteria
1. Anticipated complicated surgical procedure
2. Malignant condition
3. Positive urine cultures or urinary symptoms prior to surgery
4. Comorbid illness requiring strict input and output monitoring

Date of first enrolment
01/10/2018

Date of final enrolment
31/08/2020

Locations

Countries of recruitment
Pakistan

Sponsor information

Organisation
Pakistan Institute of Medical Sciences

ROR
https://ror.org/0358b9334

Funder(s)

Funder type

Funder Name
Pakistan Institute of Medical Sciences

Funder Name
Shaheed Zulfiqar Ali Bhutto Medical University

Alternative Name(s)
Shaheed zulfiqar ali bhutto medical university (islamabad), Shaheed Zulfiqar Ali Bhutto Medical University - Islamabad, SZABMU

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Pakistan

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available