

POST OPERATIVE URINARY RETENTION

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- Post-operative urinary retention is an inability to fully or partially empty the bladder following surgery
- Urinary retention is a recognised complication of surgery
- Affecting 7-84% of patients undergoing THR & TKR
- There is a large variation in the amount retained urine, that defines retention.
- (Baldini, Bagry, Aprikian, Carli 2009)

CAUSES

There are two main causes

- Mechanical obstruction
(prostate enlargement, calculi)
- Altered neural control
(spinal anaesthetic, opiates)

(Niazi Taha 2014)

CONTRIBUTING FACTORS

- Male
- Age over 70yrs
- Spinal anaesthetic (especially combination opiate with local)
- Systemic opiate analgesia
- History of urinary retention
- Patient position hampering micturition

(Hollman et al 2015)

COMPLICATIONS OF URINARY RETENTION

- Increased risk of UTI
- Sustained bladder complication & in extreme cases renal impairment
- Pain
- Incontinence, overflow
- Distress, embarrassment

(Prieto, Barrow 2016)

COMPLICATIONS OF CATHETERISATION

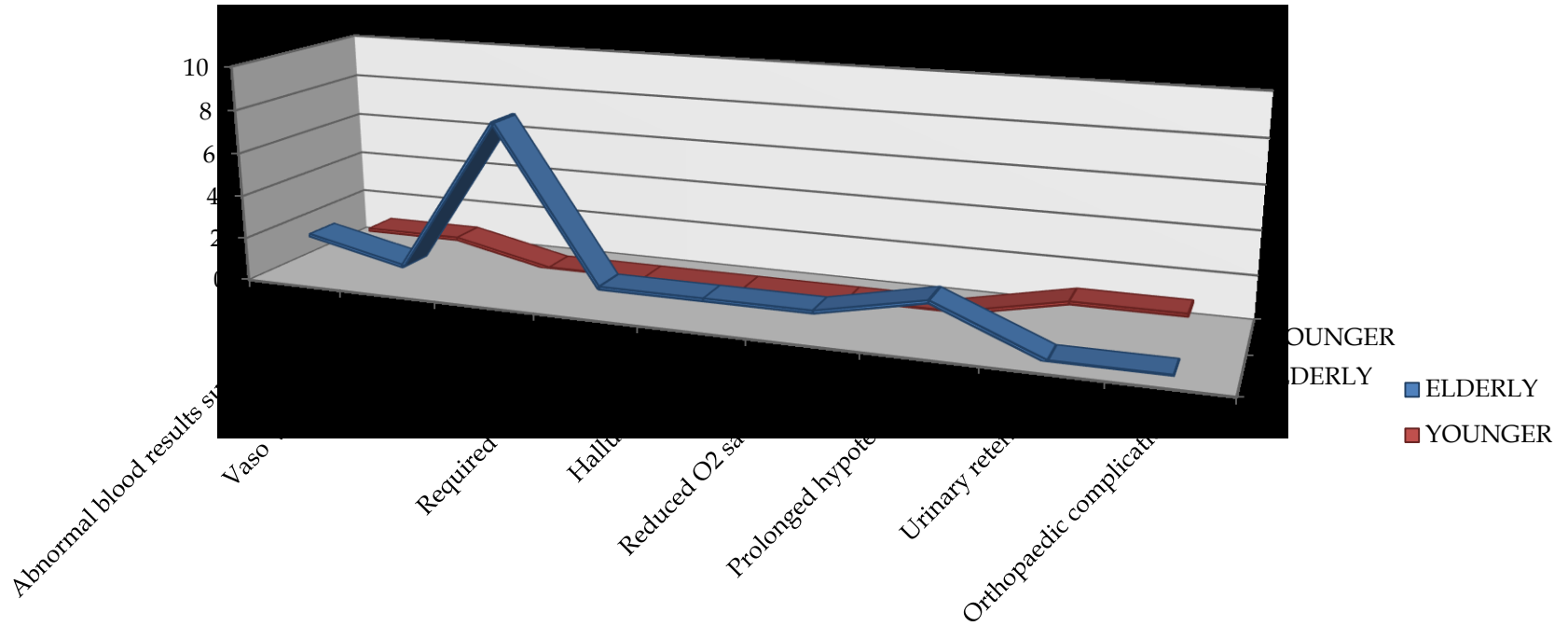
Catheterisation is an invasive procedure with the potential to cause:-

- UTI (possible haematogenous spread to prosthesis)
- Urethral trauma
- Prostatitis
- Patients discomfort and embarrassment

(Baldini et al 2009)

EXTENDING ADMISSION

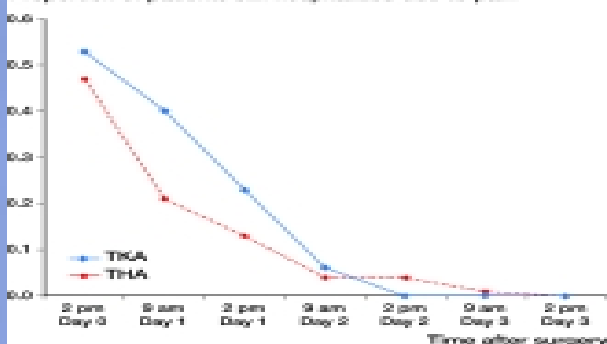
COMPLICATIONS



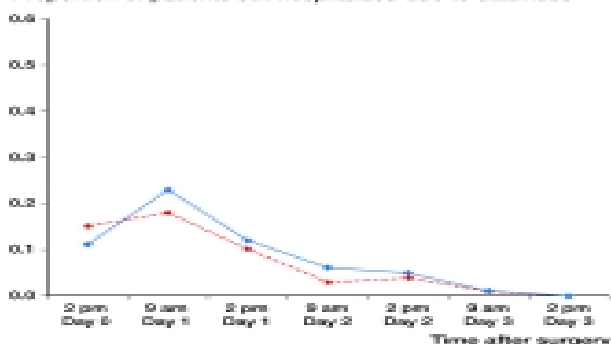
EXTENDING ADMISSION

(Husted, Kehlet et al 2011)

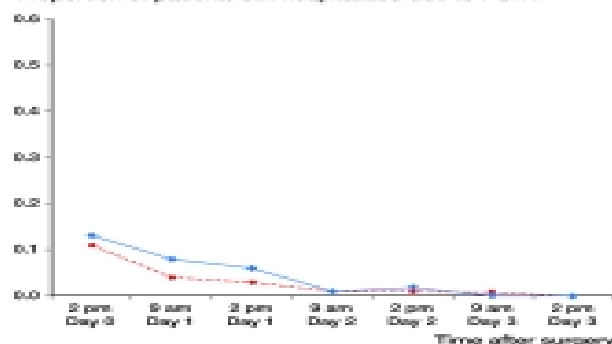
Proportion of patients still hospitalized due to pain



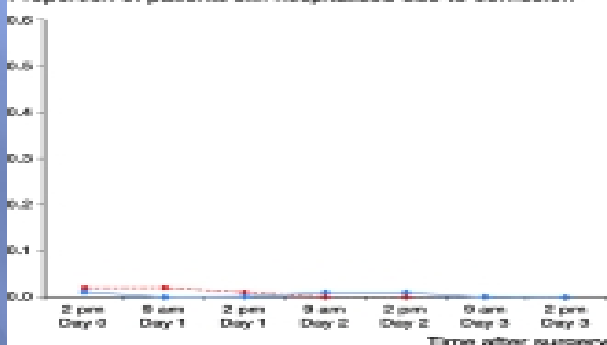
Proportion of patients still hospitalized due to dizziness



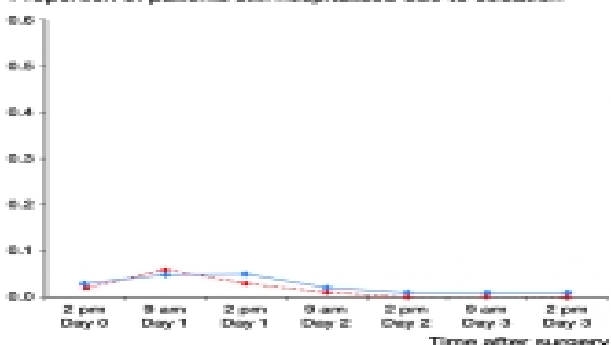
Proportion of patients still hospitalized due to PONV



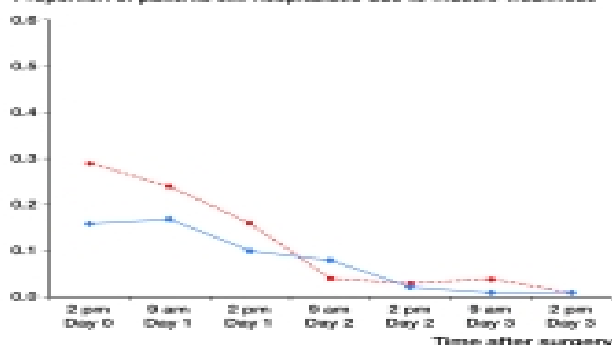
Proportion of patients still hospitalized due to confusion



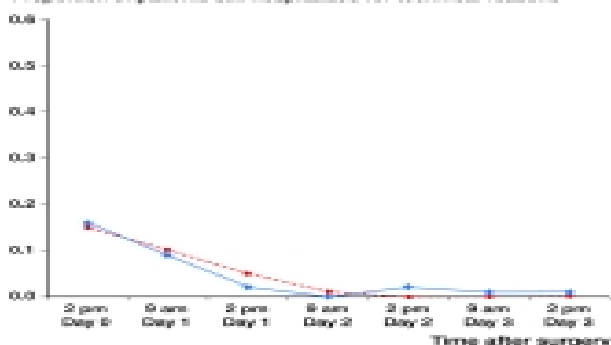
Proportion of patients still hospitalized due to sedation



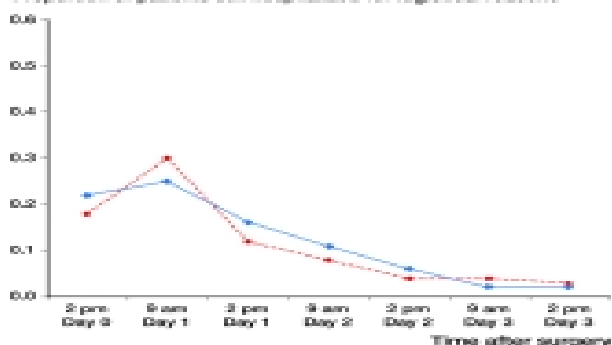
Proportion of patients still hospitalized due to muscle weakness



Proportion of patients still hospitalized for technical reasons



Proportion of patients still hospitalized for logistical reasons



PREVENTION

- Identifying those most at risk of post-operative retention
- Effective protocols for early identification of retention
- Regular bladder scanning
- Judicial use of agents known to increase the risk of retention
- Careful use of IVT
- Micturition immediately prior to surgery
- Early mobilisation to reduce the positional barriers to micturition

(Preito et al 2016)

WHEN TO CATHETERISE

- In normal bladder function voiding receptors are activated at 300mls, but we can postpone this if inconvenient
- Most studies identify 400-600mls as a safe bladder volume level
- Studies have stated that a transient volume of 500ml-1litre can be safe for up to 2hrs (Baldini 2009)
- Recent study of joint replacement patients found allowing the bladder to fill to 800ml before intervention was preferable to 500ml
- (Bjerregaard, Kehlet et al 2016)

CATHETERISATION PROTOCOL

- Bladder scan 2 hours post return to ward if patient has not passed urine
- If scan less than 800ml observe – hourly scans
- Once over 800ml intermittent catheter passed (repeat once more if required)
- Foley catheter passed if 2 attempts at intermittent is unsuccessful
- Mobilising as soon as possible to help micturition

THANK YOU

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