ACUTE SPINE BLADDER MANAGEMENT ALGORITHM

Vancouver Coastal Health

Rick Hansen Institute
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Langara.
THE COLLEGE OF HIGHER LEARNING.

Neurological Deficit?

Yes

AIS A | B | C | D
Conus | Cauda Equina

No

AIS E

Patient able to ambulate (and/or) transfer to commode?

Yes

Remove Urinary Catheter*

No

Reassess daily

Yes

Thoracolumbar incision?

No

Remove urinary catheter and offer bedpan*

Female

Male or Female?

Male

Remove urinary catheter and offer urinal*

No

Reassess daily

Urine output less than 2400 mL/24hr

Yes

No

Reassess daily and provide fluid balance education

Patient medically stable?

No

Reassess daily

Yes

C0-T1 (AIS A|B|C)
(*no or limited hand function)

Indwelling urinary catheter (Consider antimicrobial/ antiseptic impregnated catheter)

C0-T1(AIS D | Central Cord)
T2 and Below
Conus | Cauda Equina

Patient emotionally ready for intermittent catheterization?

No

Reassess daily

Yes

Remove urinary catheter*

INTERMITTENT CATHETERIZATION DECISION LOOP

Goal: Bladder volume less than 500ml at all times

Patient able to void in 4-6 hours?

Yes

PVR less than 100ml x3?

Yes

No further interventions

No

PVR less than 250ml?

Yes

Recheck PVR q1h

No

In/Out Catheter

In/Out catheter

If greater than or equal to 300ml

No

Bladder scan

If less than 300ml repeat scan q1h

◊Consider if patient is physically and emotionally ready to receive self-intermittent catheterization education

Patient on I/O Catheterization:

If incontinent of urine in between scheduled I/O catheter:

1. Rule out Urinary Tract Infection (UTI)
2. Refer to Spine Team and/or Physiatry

Unexplained Urinary Retention:

1. Rule out Urinary Tract Infection (UTI)
2. Refer to Spine Team and/or Physiatry

*Consider re-insertion of indwelling urinary catheter if patient's condition changes (ie. Hemodynamic instability)

Symbols:

- Decision Starting Point
- Decision
- Action Taken
- Clinical Presentation

Abbreviations:

- AIS — American Spinal Injury Association Impairment Scale
- PVR — Post Void Residual

This process map was developed in consultation with the Acute Spine Team and Ms. Leanna Ritchie, RN, CNCC(C) and was created by Joss Lind Suba and Michael Duong, Langara College Term 8 Nursing Students. Special acknowledgement goes to Dr. Rhonda Willms, MD FRCPC (Phys Med and Rehab), Medical Manager SCI Program Out-Patient Amputee Program GF Strong Rehab Center, Clinical Instructor, UBC Division of Physical Medicine and Rehabilitation, Department of Mecidine, and Dr. Andrea Townsen, MD, FRCPC, MScHPEd, Medical Site Lead at GF Strong Rehab Centre, Clinical Professor of UBC Division of Physical Medicine and Rehabilitation, and Associate Head Education of UBC Department of Medicine.
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