Shropshire Community Health NHS Trust

Standard Operating Procedure (SOP) for assessing and treating autonomic dysreflexia (adult patients)

Document Details		
Title		Standard Operating Procedure (SOP) for assessing and treating autonomic dysreflexia (adult patients)
Trust Ref No		2287-86023
Author		Nicola Head, Continence Nurse Specialist
Related Trust policy		Urinary Catheter Care Policy for Adult Patients
Approval process		
Who has been consulted in the development of this SOP?		Midland Centre for Spinal Injuries Continence Advisory Service
Approved by (Committee/Director)		Clinical Policies Group
Approval Date		13/11/2023
Review date		13/11/2026
Amendments History		
No	Date	Amendment
1	Oct 2023	New Standard Operating Procedure

Standard Operating Procedure for assessing and treating autonomic dysreflexia (adult patients)

Autonomic dysreflexia is a life threatening, medical emergency

Autonomic dysreflexia (AD) is one of the most serious life-threatening conditions that can affect people with a spinal cord injury (SCI), at the 6th thoracic vertebrae and above

The syndrome develops secondary to a noxious stimulus below the level of injury. As the spinal cord is damaged, signals cannot pass normally to the brain, therefore, the body produces exaggerated, abnormal nerve signals which cause problems above and below the level of the spinal injury. Below the injury, blood vessels go into spasm causing blood pressure to rise. Above the level of injury, the body senses the high blood pressure and tries to relax the blood vessels (it can only influence the blood vessels above the level of injury), which causes flushing and blotchiness of skin and pounding headache

If patient has a SCI at T6 or above, add an alert to Rio stating:
patient is at risk of autonomic dysreflexia

SYMPTOMS
Symptoms may be mild or severe, and patients may present with one or more of the following:
Sudden and rapidly rising hypertension (20-30mmHg above resting level) Patients with a spinal cord injury at T6 and above, typically have low BP (eg 90-100/60mmHg) Hypertension may be severe enough to lead to seizures, stroke or ultimately death
Bilateral pounding headache (which gets worse as blood pressure rises)
Bradycardia
Flushing and or blotching above the level of cord damage
Profuse sweating above level of injury
Pallor below the level of injury
Goosebumps below the level of injury
Palpitations
Visual changes or disturbances
Nasal congestion
Feeling of impending doom / death
Respiratory distress or bronchospasms
Metallic taste in mouth
Irritability or aggression (in people with impaired cognitive and communication skills)

CAUSES / TRIGGERS

Patients at risk of autonomic dysreflexia should know about autonomic dysreflexia, what their common triggers are, how they manage their autonomic episodes, and they will be prescribed medication to treat it
Any noxious stimuli below the level of injury may result in autonomic dysreflexia
Bladder and bowel problems are the most common cause of autonomic dysreflexia
The following are examples:

Bladder irritation	**Bowel irritation**	**Skin irritation**
-distended bladder -urological procedure -urine infection -bladder or kidney stones -inserting a catheter -removing a catheter	-faecal impaction -constipation -rectal procedure such digital -rectal examination -administration of enemas -administration of suppositories	-pressure sore -ingrown toenail -burns -blisters -sunburn -constrictive clothing

TREATMENT

Request assistance / call 999 if you are on your own and need help

Check blood pressure (BP)

- If systolic BP >150mmHg administer medication as prescribed. Midlands Centre for Spinal Injuries (MCSI) recommend GTN spray x2 sprays sublingual, repeat every 20-30 minutes if required
- Reduce blood pressure by sitting patient up and lower legs
  -If bladder or catheter problems are suspected, only sit patient to 45 degrees (sitting at 90 degrees may cause increased pressure on the full bladder and exacerbate AD)
- Monitor BP every 2-5 minutes while symptoms persist
- **Identify the source of the noxious stimulus**
- **Removing the stimulus will cause the symptoms to settle – see below:**

Bladder	**Bowel**	**Skin**
For patients with catheter: -Empty leg bag -Check tubing not blocked / kinked -If catheter is blocked remove catheter immediately and recatheterise using Lidocaine 2% gel, and leave it on free drainage MCSI advise to use Lidocaine gel for recatheterisation, but DO NOT wait 3-5 minutes for the Lidocaine to take effect -DO NOT attempt to instill a catheter maintenance solution (this will only distend the bladder further)	-For faecal mass in rectum, gently undertake digital removal of faeces -If autonomic dysreflexia worsens with digital removal of faeces, STOP immediately, and recheck the rectum for the presence of stool after approximately 20 minutes	-Loosen any tight clothing -Loosen catheter leg straps -Remove compression hosiery -Alter patient position to relieve pressure
For patients without catheter: -If bladder distended, insert urethral catheter using Lidocaine 2% gel, and leave on free drainage MCSI advise to use Lidocaine 2% gel for catheterisation, but DO NOT wait 3-5 minutes for the Lidocaine to take effect		
If UTI is suspected: -Follow Trust CAUTI Assessment form		

If any medication is used, administer as prescribed
Know where the medication is stored in patient's home, and check regularly to ensure medication is within expiry dates

If symptoms do not resolve quickly, patient should be admitted to hospital as a medical emergency, for further assessment and management
Contact Centre for Spinal Injuries for further advice

Follow up

- Inform GP of autonomic episode and outcomes
- Blood pressure should be monitored every 15 minutes for 2-4 hours after an episode to ensure no rebound hypotension, and no autonomic dysreflexia recurrence
- Document symptoms, cause, treatment, recordings of BP, and outcomes in patient notes

This SOP has been written in collaboration with MCSI