Autonomic Dysreflexia

MEDICAL EMERGENCY CARD

A hypertensive crisis in people with spinal cord injury generally at or above the 6th thoracic level.

NAME:

DOB: Usual BP:

This person is susceptible to autonomic dysreflexia; a condition of reflex sympathetic overactivity which can cause extremely high blood pressure.

THIS DEMANDS IMMEDIATE ACTION

ACI NSW Agency for Clinical Innovation

What is:
Autonomic Dysreflexia?

This is a condition of sudden high blood pressure, which may continue to rise and may cause a brain haemorrhage or fits.

The normal BP for this group of people is commonly 90/60 – 100/60 mm Hg lying and lower when sitting.

A BP of 130/90 mm Hg is therefore high for them.

If untreated the BP can rapidly rise to extreme levels, e.g. 220/140 mm Hg.

Symptoms & Signs:

The person may present with all or some of the following:

- Pounding headache, which gets worse as the blood pressure rises
- Blurred vision
- Flushing and blotching of the skin above the level of the spinal cord injury
- Profuse sweating
- Goose bumps
- Chills without fever
- Bradycardia (slow pulse rate)
- Sudden hypertension (high blood pressure)

Common Causes:

- Bladder irritation (e.g. distended bladder, urological procedure, urine infection.)
- Bowel irritation (e.g. constipation, anorectal distension or irritation.)
- Skin irritation, (e.g. pressure sore, ingrown toenail, burns.)
- Other (e.g. contracting uterus, fractured bones acute intra-abdominal disease.)

Patients and carers know about this condition and often can suggest the cause.

Notes:

NSW State Spinal Cord Injury Service

FOR FURTHER INFORMATION CONTACT:

Individual therapeutic decisions must be made by combining these recommendations with clinical judgement.

Autonomic Dysreflexia

ENDORSED BY:
THE AUSTRALIAN & NEW ZEALAND SPINAL CORD SOCIETY
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Treatment:

Ask if the patient has just taken a drug to control the autonomic dysreflexia.

Two people are required to control the situation.

1.

Sit upright and elevate the head of the bed.

Loosen clothes and remove compression stockings and abdominal binder.

2.

If the person has an IDC or SPC:

a. Empty leg bag and estimate volume of urine. To determine whether or not the bladder is empty, ask if the volume is reasonable considering fluid intake and output earlier that day.

b. Check that the catheter or tubing are not kinked or flow is not impaired by a blocked inlet to the leg bag or perished valve in the leg bag. The leg bag may need to be disconnected from the catheter to check this.

If the blood pressure ≥ 170mm Hg systolic, start drug therapy (see 5).

c. If the catheter is blocked, irrigate GENTLY with no more than 10–15 mls of sterile water in a syringe. Drain the bladder slowly – 500 ml initially and 250 ml each 15 minutes afterwards to avoid a sudden drop in blood pressure.

If this is unsuccessful, recatheterise, using a generous amount of lubricant containing a focal anaesthetic, e.g.2% lignocaine jelly.

d. If the blood pressure falls after the bladder is emptied, the person still requires close observation as the bladder can go into severe contractions causing hypertension to recur. Consider giving an oral anticholinergic medication, e.g. oxybutynin HCl.

e. Monitor the blood pressure for the next 4 hours.

3.

If the person does not have a permanent catheter:

If the bladder is distended, lubricate the urethra with a generous amount of local anaesthetic jelly, wait two minutes, then pass a catheter to empty the bladder. Drain the bladder slowly (see 2c).

4.

If constipation is suspected, check the rectum for faecal loading:

If the rectum is full, check the blood pressure before attempting manual evacuation **– if it is more than 150 mm Hg systolic, start drug treatment** (see 5).

Gently insert a generous amount of lignocaine jelly into the rectum, wait 5 minutes, and then gently insert finger to remove the faecal mass.

Note: if symptoms are aggravated, cease digital stimulation and recommence after treatment with suitable medication (refer to Step 5)

5.

Glyceryl trinitate

NB: DO NOT use glyceryl trinitrate if sildenafil (Viagra), or vardenafil (Levitra) has been taken in the previous 24 hours or tadalafil (Cialis) in the previous 4 days.

Give one spray of glyceryl trinitrate (GTN) (400 mcg Nitrolingual Pump Spray) under the tongue. During administration the canister should be held upright and the spray should not be inhaled. Adolescents aged 12 – 16 years do not use GTN spray.

OR:
Place half GTN tablet (300 mcg Anginine) under the tongue.
In Adolescents 12 – 16 years of age use 1/4 GTN tablet.

OR:
Apply one 5mg/24hrs transdermal GTN patch to chest and upper arm according to the manufacturer's instructions. Remove patch once BP settles or if the BP drops too low.

The hypotensive response should begin within 2 to 3 minutes and may last up to 30 minutes. A second spray/tablet may be given in 5 – 10 minutes if the reduction in the blood pressure is inadequate or if the blood pressure rises again.

NOTE:

If glyceryl trinitrate is not available or is contraindicated (e.g. within 24 hours of taking medication for erectile problems), use an alternative medication such as 25 mg Captopril under the tongue.

Avoid sildenafil (Viagra), vardenafil (Levitra) and tadalafil (Cialis) for at least 24 hours after a severe episode of autonomic dysreflexia.

If medication does not lower the blood pressure sufficiently

or

the cause of the autonomic dysreflexia has not been identified, – please contact:

for further advice regarding management

or

arrange transport to the nearest emergency department.

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