In addition to Public Health England advice healthcare professionals looking after SCI persons with respiratory infection and fever should consider the following:

Respiratory
Tetraplegia and high-level paraplegia results in compromised breathing due to paralysed muscles of respiration and abdominal muscles in addition to weakened cough reflex. Support may therefore be required to maintain respiration and clear the airway of secretions. * When sat up lowering of the diaphragm can occur due to paralysis of the supporting abdominal muscles. Thus, increasing required respiratory effort. Consider application of an abdominal binder and supine positioning 45 degrees or lower to prevent respiratory fatigue. * Prophylactic sputum clearance management is required if chest secretions increase. *Regular position change to encourage postural drainage. * An assisted cough will be required to assist with sputum clearance. Use of a mechanical insufflation/exsufflation device may be required. *Consider oxygen therapy. * Referral to physiotherapist is essential * Continuous monitoring of Sao2, arterial blood gases and vital capacity is essential for early recognition of respiratory failure. * Consider if non-invasive ventilation appropriate to prevent respiratory fatigue. * Be aware that constipation can splint the diaphragm and increase respiratory effort. * Use of Protective face mask.

Thermoregulation
Spinal cord injury compromises the ability of the autonomic nervous system to regulate body temperature in the paralysed parts of the body. Those with fever are therefore at high risk of heat exhaustion if cooling methods are not commenced. *If possible, reduce environmental temperature. * Remove clothing and use modesty sheet only * Use oscillating fan * Encourage cold drinks

* Apply a cold dampened cloth around back of neck and in armpits.

* If appropriate use paracetamol to reduce fever.

* Monitor temperature closely and cease cooling interventions as soon as temperature returns to normal limits (typically 36.5–37.5 °C or 97.7–99.5 °F) to prevent hypothermia.

Autonomic Dysreflexia

*A life-threatening condition resulting in a surge in blood pressure which can lead to seizures, stroke or death. Requires immediate clinical attention. Usual causes are a distended bladder, impacted bowel, compromised skin integrity or any noxious stimulus in the paralysed part of the body.

*Ensuring bladder can drain effectively.

* If indwelling catheter in situ secure to prevent pulling or kinking.

*Raise persons head

*Find cause and remove i.e. change catheter

*If cause not immediately resolved, consider administration of nifedipine sublingually or GTN spray.

*Continue to find cause and remove.

Preventing Skin damage

* Due to neurogenic skin there is a very high risk of skin breakdown.

* If left on an ambulance trolley pressure damage will occur. Transfer onto an alternating pressure mattress ASAP.

* Assist to undertake 2 hourly position change.

* Place pillows under legs to ensure heels and ankles remain completely pressure free.

Neurogenic Bladder

* Due to lack of bladder sensation close monitoring of urinary output is required to prevent bladder distension which could lead to autonomic dysreflexia or other complications

* If indwelling catheter required ensure adequately secured to prevent pulling or kinking.

* Indwelling catheter requires routine change every four weeks.

Neurogenic Bowel

*Prevention of constipation which can splint diaphragm and impair respiration and incontinence which can lead to compromised skin integrity and loss of dignity is essential.

*Adherence to amount and timing of usual oral laxatives and rectal interventions is essential.

* Digital rectal stimulation - insertion of finger into rectum and rotation of finger whilst maintaining contact with rectal wall to elicit involuntary anal/ rectal contractions and reflex bowel emptying after which I may require assistance with hygiene.

* Chemical rectal stimulant i.e. suppositories/enema to elicit reflex bowel emptying.

*Digital removal of faeces to ensure complete emptying of rectum. (see NHS Patient Safety Alert 2018, RCN guidelines lower bowel dysfunction 2018)

* Assistance to transfer onto toilet or position on side and use incontinent sheets in bed.

* Assistance with personal hygiene to prevent moisture lesions.

*Avoid Nappy type containment pads as these will avoid detection of any incontinent episodes and can lead to skin excoriation from faecal matter. Incontinence sheets are more appropriate.

Persons with SCI and their care team are usually experts in the essential spinal cord injury care requirements. Healthcare staff should acknowledge this and seek advice and guidance on how these can be continued to be supported in addition to any acute care needs that may arise.

Useful resources

1.RCN Guidelines for Lower Bowel Dysfunction

2. Guidelines for Neurogenic Bowel Dysfunction. MASCIP 2012

3. MASCIP Statement on Autonomic Dysreflexia

4. National Patient Safety Alert 2018

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