

East Midland Spinal Network

Quality Service Improvement Group

Bowel Care Pathway

Section 1 Digital Rectal Examination
Section 2 Digital Removal of Faeces (Areflex Bowel)
Section 3 Digital Rectal Stimulation (Reflex Bowel)
Section 4 Autonomic Dysreflexia



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Classification: General

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Document Purpose	Guidance
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Author	EMSN Quality Service Improvement Group Editors: Emma Bramley and Dr Michele Platt (Editor)
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Description	Standardised bowel care guidance for use across the EMSN member organisations This pathway is circulated as guidance for Spinal Care Services only.
Point of Contact	Michele Platt Michele.platt@emas.nhs.uk
Contact Details	East Midlands Spinal Network East Midlands Ambulance Service NHS Trust Beechdale Road Bilborough Nottingham NG8 3LL
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For internal UHL purposes: UHL lead and approval details	<i>UHL Lead: Rowena Alonzo</i> <i>UHL Executive Director leads: Chief Nurse, Medical Director</i> <i>UHL formal internal approval date: 21 May 2021 Policy and Guideline Committee</i>

Background

The Network

The East Midlands Spinal Network (EMSN, the Network) aims to improve outcomes and experience for all spinal patients within the East Midlands region and has innovation, development, audit and research as its core business. The Network is a collaboration between provider and commissioner organisations which facilitates patient access to the provision of high quality spinal care across the region, underpinned by best evidence and high-quality education to optimise clinical outcomes. The Network endeavours to provide a safe environment where members of the multi-disciplinary team can openly work together within a collaborative, cooperative culture to share best practice and promote high quality care to continually improve spinal services.

Members of the Network Quality Service Improvement Group (QSIG) have collaborated to develop a series of clinical guidelines, ratified by the Network Board, to support the safe and equitable care of the spinal patient needing support with bowel management. These aim to standardize care across the Network region, but it is acknowledged that there will be minor differences where local Trust standards apply (as indicated in Sections 1-4 below).

Introduction

This document provides guidance to spinal teams in member organisations across the Network region regarding care of the patient requiring digital rectal examination (DRE), digital removal of faeces (DRF), Digital Rectal Stimulation (DRS) and management of autonomic dysreflexia (AD) where constipation is the likely cause.

Definitions:

Autonomic Dysreflexia is a clinical emergency in individuals with spinal cord injury. It is an uninhibited sympathetic nervous system response to a variety of noxious stimuli occurring in people with spinal cord injury at the thoracic six (T6) level and above (Royal National Orthopaedic Hospital NHS Trust).¹

It signifies the paralysed body's response to a problem that the individual, because of their paralysis, cannot perceive or identify directly, and is triggered by acute pain or some other noxious or non-noxious stimulus experienced below the level of the spinal cord injury (Multidisciplinary Associations of Spinal Cord Injured Professionals, MASCIIP, 2017).

Patients with neurogenic bowel dysfunction (i.e. due to loss of the normal sensory and /or motor nerve supply to the bowel resulting in constipation, faecal incontinence and disordered defaecation) may require DRE, DRF and/or DRS and are at risk of autonomic dysreflexia (AD).

Bowel dysfunction can be

- **Reflex:** where there is damage to the brain or spinal cord above an undamaged conus medullaris where the outcome is constipation with faecal retention, but reflex, uncontrolled evacuation of the rectum can occur
- **Areflex:** where the outcome is high risk of faecal incontinence through the lax sphincter as well as constipation

¹ www.rnoh.nhs.uk

1. EMSN PROCEDURAL PATHWAY FOR DIGITAL RECTAL EXAMINATION (DRE) IN INPATIENTS WITH NEW AND ESTABLISHED SPINAL CORD LESIONS (SCL)

Materials required for standard procedure:

- Latex-free examination gloves
- Disposable incontinence sheets
- Lubricating gel
- Chaperone
- Disposable cleaning wipes
- Skin cleansing materials
- Clinical waste disposal bag
- Watch / clock
- Neurotip

	Action	Rationale
1	Confirm that you are capable and confident in your ability to undertake this procedure safely. Confirm continued appropriateness of procedure for patient in accordance with patient's notes and current nursing care plan.	To satisfy clinical governance requirements for maintaining patient safety prior to an invasive procedure.
2	Check for contra-indications (e.g. neutropoenia or thrombocytopenia, rectal surgery, rectal trauma, severe pain)	To protect patient from unnecessary harm.
3	Evaluate patient's capacity, awareness and understanding of procedure. Provide further information (How, What, Why and Risks) as appropriate before obtaining verbal consent to proceed. Document verbal consent in case notes. Refer any refusals to parent consultant.	To satisfy local Trust requirements for obtaining informed verbal consent and to provide patient with opportunities for questions. To guarantee that appropriate permission to undertake the procedure is documented if the patient cannot personally give consent at this time.
4	Ensure a chaperone is available as appropriate	To satisfy local Trust requirements for a chaperone.
5	Monitor and record the patient's blood pressure and/or resting pulse at the beginning of the procedure. Monitor the patient's condition throughout the procedure as appropriate	Some patients with sensory incomplete Spinal Cord Lesions (SCL) may experience vaso-vagal symptoms as a parasympathetic response to ano-rectal distension manifesting itself as a significant bradycardia. Patients with SCL at T6 and above are at risk of developing autonomic dysreflexia (AD) during DRE, manifesting itself as a significant hypertension (see Section 3 below).

	Offer the patient an opportunity to empty their bladder	To reduce any discomfort during the procedure and risk of AD
6	<p>Wash and dry hands thoroughly. Apply a disposable apron and a pair of latex-free examination gloves.</p> <p>Do not use vinyl disposable gloves either as a first or second layer.</p> <p>If intending to proceed with an invasive bowel management procedure after completing DRE, apply two pairs of latex-free examination gloves at this time.</p>	<p>The practitioner is expected to observe universal infection control precautions in relation to use of aprons and gloves throughout the procedure and during the disposal of faeces and soiled items.</p> <p>Vinyl examination gloves provide insufficient protection against bodily fluids and their raised seams can damage the rectal mucosa. The materials used in the manufacture of modern examination gloves and the lack of powder can make repeated re-gloving within a procedure quite difficult. The frequency of DRE, involving repeated contact with the rectal mucosa places the SCL patient at high-risk of developing a latex allergy</p>
7	<p>Maintaining privacy and dignity always, place patient in lateral position as appropriate to their comfort, ability or preference.</p> <p>Position sufficient incontinence pads to protect bedsheets and arrange sheets and curtains to maintain privacy and protect patient dignity.</p>	The left side lying position makes the rectum more accessible for DRE for right-handed nurses but is not mandatory. Assume a right side lying position if more convenient or if the patient's skin or comfort is compromised.
8	<p>Examine the perineal, perianal and anal skin for evidence of any irregularities such as suspicious swellings, tenderness, indurations, rectal prolapse, significant lesions, abscesses, bleeding or haemorrhoids not previously noted.</p> <p>Palpate the perianal area starting at 12 o'clock, clockwise to 6 o'clock and then from 12 anti-clockwise to 6.</p>	The appearance of new and significant ano-rectal lesions or bleeding must be documented and evaluated by a doctor or specialist nurse before continuing.

9	<p>Check for the presence of ano-rectal sensation as appropriate.</p> <p>On admission and weekly for the first 6 weeks of acute SCI assess perianal sensation with light touch and pin-prick using a neurotip.</p> <p>If necessary, insert 11ml of 2% lidocaine (lignocaine) gel (as prescribed) via syringe before proceeding further. Wait at least 5 minutes for local anaesthetic to take effect before proceeding further.</p> <p>In patients with an established SCL, discuss the procedure with the patient (and check previous care records) in advance, to ascertain preference regarding the use of local anaesthetic gel</p>	<p>To assess extent of injury and zone of partial preservation (ZPP). Light touch assesses Posterior Column sensory pathway. Pin Prick assesses Spinothalamic Tract sensory pathway (patient should report if pin-prick feels sharp or dull).</p> <p>To reduce patient discomfort during the procedure and reduce the risk of AD. The long-term use of lidocaine gel can result in serious health problems. Most patients with a SCL can tolerate an occasional DRE without recourse to lidocaine. Over time the ano-rectal area becomes de-sensitised to this procedure sufficient that a patient with a long-established neurological bowel disorder can comfortably tolerate the procedure routinely using only standard water-based lubricating gel.</p>
10	<p>Inserting one gloved and lubricated finger through the anal sphincter, note any resistance or reflex contraction of anal sphincter.</p> <p>Continue to monitor the patient</p>	<p>Bowel dysfunction can be</p> <ul style="list-style-type: none"> a) Reflex (anal tone present): damage to the brain or spinal cord above an undamaged conus medullaris where the outcome is constipation with faecal retention, but reflex, uncontrolled evacuation of the rectum can occur b) Areflex (anal tone absent): where the outcome is high risk of faecal incontinence through the lax sphincter as well as constipation <p>See Appendix 1 and 2 for flow charts.</p> <p>A positive ano-rectal response to DRE in a patient with a SCL indicates a potential for reflex bowel emptying exists at this time. (refer to Reflex Bowel Management - section 3)</p>

		<p>An absent ano-rectal reflex indicates the need for the digital removal of any faeces present at this time. (refer to Areflex (Flaccid) Bowel Management - section 2)</p> <p>Patients with a new SCI can demonstrate areflex bowel but this may change when spinal shock is resolved. As per flowcharts in Appendix 1 & 2 DRE should be carried out weekly in the first 6 weeks of SCI to review anal tone and to ascertain if reflex has returned.</p>
11	<p>Rotate index finger gently within the rectum. Note any faeces present or if the rectum is distended with gas.</p> <p>If gas is present (you cannot feel bowel wall surrounding your finger) move finger gently to one side within rectum to allow gas to pass.</p> <p>Keep the finger pad in touch with the bowel wall throughout the procedure.</p> <p>Sweep clockwise then anticlockwise, palpating for irregularities (suspicious swellings rectal prolapse, lesions, bleeding, haemorrhoids, irregularities, swelling, indurations, tenderness or abscess in the area) internally.</p>	<p>No injury to patients with SCL using this procedure as described has ever been reported.</p> <p>Gentle insertion and movement of the finger utilizing appropriate and sufficient lubrication will reduce the potential occurrence of AD.</p>
12	<p>Assess patient's voluntary anal squeeze by asking the patient to use their anal muscles to squeeze your finger – described / documented as <i>present or absent only</i></p>	<p>Assists in determining the patient's ability to control their bowels. Describe as present or absent only - 'weak' or 'strong' are subjective measures.</p> <p>If the practitioner assesses <i>weak</i> tone in new spinal cord injury, there may be scope for improvement.</p>
13	<p>Unless intending to undertake a further invasive bowel management procedure following DRE, i.e. digital removal of faeces (DRF), remove and dispose of gloves into a clinical waste bag. Dispose of all soiled materials into clinical waste bag.</p>	<p>In accordance with local Trust waste management policy.</p>

14	At the end of the procedure, wash and dry all soiled skin thoroughly and assist patient as required to achieve a comfortable position.	To maintain patient dignity, comfort and skin integrity.
15	Remove and dispose of apron into clinical waste disposal bag. Wash and dry hands thoroughly.	To prevent cross-infection.
16	<p>Document result in case notes with reference to Bristol Stool Chart as appropriate if reporting the presence of stool.</p> <p>Report any exceptions to the guidelines which occurred during the procedure. Include date and time of procedure; consent, irregularities around anus and perianal area; findings from palpation; presence of any blood; name, job title and signature</p> <p>In the newly diagnosed SCI, DRE should be performed daily to assess for faeces in the rectum.</p> <p>Sensation (pin prick and light touch), voluntary squeeze and anal tone should be assessed weekly for the first 6 weeks (unless anal tone returns prior to this time).</p> <p>In established SCI patient DRE should be performed daily or as per patient preference and routine unless advised otherwise by Spinal Cord Injury Centre or Spinal Link Nurse. If in doubt, default to daily routine.</p> <p>Assess and document plan in nursing notes.</p>	<p>To enable consistent reporting and interpretation of results and to monitor the effects of any legitimate interventions or changes to previously established bowel management programme.</p> <p>To reduce risk of Autonomic Dysreflexia and constipation</p> <p>To assess if Spinal Shock has resolved and patient now has a reflex bowel</p> <p>Daily DRE may not be required once a bowel regime is established.</p>

2. EMSN PROCEDURAL PATHWAY FOR THE DIGITAL REMOVAL OF FAECES (DRF) IN INPATIENTS WITH NEW AND ESTABLISHED SPINAL CORD LESIONS (SCL)

AREFLEX (FLACCID) BOWEL MANAGEMENT

Materials required for standard procedure:

- Latex-free examination gloves
- Disposable incontinence sheets
- Lubricating gel
- Chaperone
- Disposable cleaning wipes
- Skin cleansing materials
- Clinical waste disposal bag

	Action	Rationale
1	Confirm that you are assessed as competent in your ability to undertake this procedure safely. Confirm continued appropriateness of procedure for patient in accordance with patient's notes and current nursing care plan.	To satisfy clinical governance requirements for maintaining patient safety prior to an invasive procedure.
2	Check for contra-indications (e.g. neutropoenia or thrombocytopenia, rectal surgery, rectal trauma and severe pain).	To protect from unnecessary harm.
3	Evaluate patient's awareness and understanding of procedure (How, What, Why and Risks). Provide further information as appropriate before obtaining verbal consent to proceed. Document consent in case notes. Refer any refusals to parent consultant.	To satisfy Trust requirements for obtaining verbal consent and to provide patient with opportunities for questions. To guarantee that appropriate permission to undertake the procedure is documented if the patient cannot personally give consent at this time
4	Ensure a chaperone is available as appropriate.	To satisfy local Trust requirements for a chaperone.
5	Measure and record patient's blood pressure and resting pulse at the beginning of the procedure. If these are not at the patient's baseline, request a medical review.	Some patients, with sensory incomplete SCL may experience vaso-vagal symptoms as a parasympathetic response to ano-rectal distension manifesting itself as a significant bradycardia.

	<p>Monitor patient's condition, observing the patient throughout the procedure as appropriate e.g. flushing</p> <p>Offer the patient an opportunity to empty their bladder</p>	<p>Patients with SCL above T6 are at risk of developing autonomic dysreflexia during DRF, manifesting itself as a significant hypertension (see Section 3 below).</p> <p>To reduce any discomfort during the procedure and risk of AD</p>
6	<p>Wash and dry hands thoroughly. Apply personal protective equipment as appropriate, to include, as a minimum, disposable apron and two pairs of latex-free examination gloves.</p> <p>Do not use disposable vinyl examination gloves either as a first or second layer.</p>	<p>The practitioner is expected to observe universal infection control precautions in relation to use of aprons and gloves throughout the procedure and during the disposal of faeces and soiled items. Eye protection should be included where appropriate and in accordance with local Trust policy.</p> <p>The frequency of DRF, involving repeated contact with the rectal mucosa places the SCL patient at high-risk of developing a latex allergy.</p> <p>Vinyl examination gloves provide insufficient protection against bodily fluids and their raised seams can damage the rectal mucosa.</p>
7	<p>Maintaining privacy and dignity always, place patient in side lying position as appropriate to their comfort, ability or preference.</p> <p>Position sufficient incontinence pads to protect bedsheets and arrange sheets and curtains to maintain privacy and protect patient dignity.</p>	<p>The left side lying position makes the rectum more accessible for DRF for right-handed nurses but is not mandatory. Assume a right side lying position if more convenient or if patient's skin or comfort is compromised.</p> <p>It is <u>not</u> appropriate for a practitioner to undertake a complete DRF procedure for a patient who is sitting on a toilet / commode due to the risk of postural injury.</p>
8	<p>Using a water-based lubricant, undertake digital rectal examination (see DRE procedure in Section 1 above) to ensure that no new contra-indicative lesions, bleeding or haemorrhoids exist.</p> <p>Palpate the perianal area starting at 12 o'clock, clockwise to 6 o'clock and then from 12 anti-clockwise to 6.</p>	<p>The appearance of new and significant ano-rectal lesions or bleeding must be documented and evaluated by a doctor or specialist nurse before continuing.</p> <p>To check for abnormalities including suspicious swellings rectal prolapse, lesions, bleeding, haemorrhoids, irregularities, swelling, indurations, tenderness or abscess in the area</p>
9	<p>Check for the presence of ano-rectal sensation as appropriate - Check sensation with light touch.</p> <p>If necessary, insert via syringe 11ml of 2% lidocaine (lignocaine) gel (as prescribed) before proceeding</p>	<p>To reduce patient discomfort during the procedure and reduce the risk of AD.</p> <p>The long-term use of lidocaine gel can result in serious health problems. Most SCL patients can tolerate an occasional DRE without</p>

	<p>further. Wait at least 5 minutes for local anaesthetic to take effect before proceeding further.</p> <p>In patients with an established SCL, discuss the procedure with the patient (and check previous care records) in advance, to ascertain preference regarding the use of local anaesthetic gel</p>	<p>recourse to lidocaine. Over time the ano-rectal area becomes desensitised to this procedure sufficient that a patient with a long-established neurological bowel disorder can comfortably tolerate the procedure routinely using only standard water-based lubricating gel</p>
10	<p>Ensure that anal sphincter is still in a non-contractile (areflexic/flaccid) state before beginning DRF procedure by gently inserting one gloved and lubricated finger through the sphincter. Note any resistance or reflex contraction of anal sphincter.</p> <p>If contraction of anal sphincter - use Reflex Bowel Management Guideline - section 3.</p>	<p>A positive ano-rectal response to DRE is indicative that patient may now have a Reflex Bowel (Reflex bowel may return once spinal shock has resolved - usually within the first 6 weeks of spinal cord injury) - refer to Reflex Bowel Management Guideline.</p>
11	<p>Advise the patient that you are about to begin the procedure.</p>	
12	<p>Remove any faeces present by inserting and gently rotating a single gloved and lubricated finger with finger pad in contact with bowel wall within the rectum. The finger should be crooked slightly away from the bowel wall sufficient to withdraw some of the faeces away in a 'beckoning' action as the finger is drawn backwards and out through the anal sphincter. Lumps of more solid stool should be removed one at a time.</p>	<p>No injury to SCL patients using this procedure as described has ever been reported.</p> <p>Gentle insertion and removal of the finger utilizing appropriate and sufficient lubrication will reduce the potential occurrence of AD.</p> <p>Care must be taken not to damage the rectal mucosa or anus by trying to remove too much stool at a time.</p>
13	<p>Use pads only. Explain to patient reason why</p>	<p>Do not use bedpan, patient needs to be on their side throughout the procedure and can sustain spinal injury from being on a bedpan</p>
14	<p>Where stool is hard, impacted and difficult to remove other approaches should be employed in combination with digital removal –</p> <p>See Item No. 23 below regarding laxative use.</p>	<p>To maintain patient safety and comfort.</p>

15	Carry out abdominal massage – clockwise motion (See Appendix 3) to support the evacuation if required	To initiate Somata Visceral Contraction – similar to peristalsis.
16	Observe patient throughout and stop if the patient asks you to do so, if there is anal bleeding, pain persists, the patient complains of headache.	To observe for any changes, direct any remedial action and maintain safety. Autonomic Dysreflexia is a medical emergency, the treatment for which is described in Section 4 below.
17	Dispose of faeces into a Clinical Waste bag. Wipe finger of glove clean with a moist disposable wipe between insertions or change top glove as required. Dispose of all soiled materials into Clinical Waste bag. Repeat insertion of 2% Lidocaine (Lignocaine) gel only as necessary	The materials used in the manufacture of modern examination gloves and the lack of powder can make repeated re-gloving within a procedure quite difficult. Choose the most appropriate procedure. To minimise the amount of lidocaine used during the procedure.
18	Repeat actions above until the rectum is empty, monitoring patient's condition throughout for signs of apparent discomfort, bleeding, pain, distress, autonomic dysreflexia (hypertension) or parasympathetic over-activity (bradycardia).	Do not attempt to 'hook and drag' faeces as this can damage the bowel wall. If faeces are hard and dry, utilise appropriate suppository or enema as prescribed 30 minutes before commencing procedure. If faeces are too soft to remove effectively, consider leaving patient for another 24 hours to enable further re-absorption of water content. If problem persists, exclude possible infection and review fibre content of diet or feed or prescribe an appropriate bulking agent.
19	Check the rectum after 5 minutes Repeat DRF if more stool present	To ensure emptying is complete.
20	At the end of the procedure, wash and dry all soiled skin thoroughly and assist patient as required to achieve a comfortable position.	To maintain patient dignity, comfort and skin integrity.
21	Check vital signs and patient for any headache or flushing.	Ongoing risk of AD.
22	Remove and dispose of apron into clinical waste disposal bag. Wash and dry hands thoroughly	To prevent cross-infection.

23	<p>Additional use of laxatives may be considered where above interventions do not result in daily type 3 or 4 stool:</p> <p>1st line Microlax Enema. Oral– Movicol and Senna The below can be added or titrated as necessary</p> <ul style="list-style-type: none"> • Suppositories – Bisocodyl or Glycerine • Sodium Docusate Enema • Senna 15mg once or twice daily • Macrogol (Movicol), initially one sachet twice a day and titrate as required up to a maximum of 10 sachets per 24 hours • Sodium docusate 200mg twice daily • 1-2 Microlax enemas • AVOID large volume enemas, phosphate, sodium picosulphate and neostigmine unless senior medical input – use micro enemas • Ensure all medications prescribed are reviewed in relation to constipation. 	<p>Local Trust variations may apply. All must be prescribed.</p> <p>For Reflex Bowel Management it is advisable to aim for soft formed stool that can easily be passed by reflex bowel (Bristol Stool type 4)</p> <p>For Areflex (Flaccid) Bowel Management it is advisable to aim for a slightly firmer stool that can easily be removed by manual evacuation (Bristol Stool type 3)</p>
24	<p>Document result in case notes with reference to Bristol Stool Chart as appropriate. Report any exceptions to the guidelines which occurred during the procedure.</p> <p>Document date and time of procedure; consent, irregularities around anus and perianal area; findings from palpation; presence of any blood; name, job title and signature</p> <p>DRE should be performed a minimum of daily as a default to assess for faeces in the rectum and repeat DRF if indicated.</p>	<p>To enable consistent reporting and interpretation of results and to monitor the effects of any legitimate interventions or changes to previously established bowel management programme.</p> <p>To reduce the risk of autonomic dysreflexia associated with constipation.</p>

3. EMSN PROCEDURAL PATHWAY FOR THE DIGITAL RECTAL STIMULATION (DRS) IN INPATIENTS WITH NEW AND ESTABLISHED SPINAL CORD LESIONS (SCL)

REFLEX BOWEL MANAGEMENT

Materials required for standard procedure:

- Latex-free examination gloves
- Disposable incontinence sheets
- Lubricating gel
- Chaperone
- Disposable cleaning wipes
- Skin cleansing materials
- Clinical waste disposal bag

	Action	Rationale
1	Confirm that you are assessed as competent in your ability to undertake this procedure safely. Confirm continued appropriateness of procedure for patient in accordance with patient's notes and current nursing care plan.	To satisfy clinical governance requirements for maintaining patient safety prior to an invasive procedure.
2	Check for contra-indications (e.g. neutropoenia or thrombocytopenia, rectal surgery, rectal trauma and severe pain).	To protect from unnecessary harm.
3	Evaluate patient's awareness and understanding of procedure (How, What, Why and Risks). Provide further information as appropriate before obtaining verbal consent to proceed. Document consent in case notes. Refer any refusals to parent consultant.	To satisfy Trust requirements for obtaining verbal consent and to provide patient with opportunities for questions. To guarantee that appropriate permission to undertake the procedure is documented if the patient cannot personally give consent at this time
4	Ensure a chaperone is available as appropriate.	To satisfy local Trust requirements for a chaperone.
5	Measure and record patient's blood pressure and resting pulse at the beginning of the procedure. If these are not at the patient's baseline, request a medical review.	Some patients, with sensory incomplete SCL may experience vaso-vagal symptoms as a parasympathetic response to ano-rectal distension manifesting itself as a significant bradycardia.

	<p>Monitor patient's condition, observing the patient throughout the procedure as appropriate e.g. flushing</p> <p>Offer the patient an opportunity to empty their bladder</p>	<p>Patients with SCL above T6 are at risk of developing autonomic dysreflexia (AD) during DRS, manifesting itself as a significant hypertension (see Section 4 below).</p> <p>To reduce any discomfort during the procedure and risk of AD</p>
6	<p>Wash and dry hands thoroughly. Apply personal protective equipment as appropriate, to include, as a minimum, disposable apron and two pairs of latex-free examination gloves.</p> <p>Do not use disposable vinyl examination gloves either as a first or second layer.</p>	<p>The practitioner is expected to observe universal infection control precautions in relation to use of aprons and gloves throughout the procedure and during the disposal of faeces and soiled items. Eye protection should be included where appropriate and in accordance with local Trust policy.</p> <p>The frequency of DRS, involving repeated contact with the rectal mucosa places the SCL patient at high-risk of developing a latex allergy.</p> <p>Vinyl examination gloves provide insufficient protection against bodily fluids and their raised seams can damage the rectal mucosa.</p>
7	<p>Maintaining privacy and dignity always, place patient in side lying position as appropriate to their comfort, ability or preference.</p> <p>Position sufficient incontinence pads to protect bedsheets and arrange sheets and curtains to maintain privacy and protect patient dignity.</p>	<p>The left side lying position makes the rectum more accessible for DRF for right-handed nurses but is not mandatory. Assume a right side lying position if more convenient or if patient's skin or comfort is compromised.</p> <p>It is <u>not</u> appropriate for a practitioner to undertake a complete DRF procedure for a patient who is sitting on a toilet / commode due to the risk of postural injury.</p>
8	<p>Using a water-based lubricant, undertake digital rectal examination (see DRE procedure in Section 1 above) to ensure that no new contra-indicative lesions, bleeding or haemorrhoids exist. Palpate the perianal area starting at 12 o'clock, clockwise to 6 o'clock and then from 12 anti-clockwise to 6.</p> <p>Review if any stool is present. If stool is found remove using DRF procedure as described in Section 2.</p>	<p>The appearance of new and significant ano-rectal lesions or bleeding must be documented and evaluated by a doctor or specialist nurse before continuing.</p> <p>To check for abnormalities including suspicious swellings rectal prolapse, lesions, bleeding, haemorrhoids, irregularities, swelling, indurations, tenderness or abscess in the area</p> <p>You cannot insert Rectal Stimulant or carry out effective DRS if stool in rectum.</p>

9	<p>Insert Rectal Stimulant (Enema or Suppositories as Prescribed) (See prescribing guidelines - see 10)</p> <p>In patients with an established SCL, discuss the procedure with the patient (and check previous care records) in advance, to ascertain preference of Enema or Suppositories.</p>	To stimulate peristalsis and movement of stool into rectum.
10	<p>Additional use of laxatives may be considered where above interventions do not result in daily type 4 stool:</p> <p>1st line Microlax Enema. Oral– Movicol and Senna The below can be added or titrated as necessary</p> <ul style="list-style-type: none"> • Suppositories – Bisocodyl or Glycerine • Sodium Docusate Enema • Senna 15mg once or twice daily • Macrogol (Movicol), initially one sachet twice a day and titrate as required up to a maximum of 10 sachets per 24 hours • Sodium docusate 200mg twice daily • 1-2 Microlax enemas • AVOID large volume enemas, phosphate, sodium picosulphate and neostigmine unless senior medical input – use micro enemas • Ensure all medications prescribed are reviewed in relation to constipation. 	<p>Local Trust variations may apply. All must be prescribed.</p> <p>Microlax enemas are used as a rectal stimulant to aid peristalsis and stool movement.</p> <p>For Reflex Bowel Management it is advisable to aim for soft formed stool that can easily be passed by reflex bowel (Bristol Stool type 4)</p>
11	<p>Wait for result of enema.</p> <p>Repeat DRE - if faeces is now present in the rectum perform Digital Rectal Stimulation. (see 12)</p> <p>If faeces is not present - bowel care regime is complete.</p>	

12	<p>Insert gloved, lubricated finger into the rectum and turn the finger so that the pad of the finger is in contact with the bowel wall.</p> <p>Rotate the finger for at least 10 seconds and up to 5 minutes, maintaining contact with the bowel wall throughout.</p> <p>Withdraw the finger and await reflex bowel opening (This may take 5-10 minutes).</p> <p>Perform DRE - if faeces present repeat DRS</p> <p>If no faeces present, then bowel care regime is complete</p> <p>This can be repeated up to three times a day if bowels do not open.</p>	<p>This stimulates peristalsis and the movement of stool from the bowel to the rectum.</p> <p>To check if stool has been moved into rectum.</p>
20	At the end of the procedure, wash and dry all soiled skin thoroughly and assist patient as required to achieve a comfortable position.	To maintain patient dignity, comfort and skin integrity.
21	Check vital signs and patient for any headache or flushing.	Ongoing risk of AD.
22	Remove and dispose of apron into clinical waste disposal bag. Wash and dry hands thoroughly.	To prevent cross-infection.
24	<p>Document result in case notes with reference to Bristol Stool Chart as appropriate. Report any exceptions to the guidelines which occurred during the procedure.</p> <p>Document date and time of procedure; consent, irregularities around anus and perianal area; findings from palpation; presence of any blood; name, job title and signature</p>	To enable consistent reporting and interpretation of results and to monitor the effects of any legitimate interventions or changes to previously established bowel management programme.

4. EMSN AUTONOMIC DYSREFLEXIA (AD) PATHWAY

	Action	Rationale
1	Follow EMSN DRE Pathway (as above in Section 1)	To reduce the risk of AD in patients with a SCL.
2	Follow EMSN DRF Pathway (as above in Section 2) for patients with Areflex (Flaccid) Bowel. Follow EMSN DRS Pathway (as above in Section 3) for patients with Reflex Bowel.	
3	Observe the patient throughout the DRE/DRF/DRS procedure for any of the following indications of AD <ul style="list-style-type: none"> • Respiratory distress and/or bronchospasm, shortness of breath with anxiety • Diaphoresis and profuse sweating • Pounding headache • Raised Blood Pressure [BP] (20-40mmHg above baseline) • Bradycardia (or tachycardia) and arrhythmias • Nasal congestion • Metallic taste in the mouth • Blotched skin or redness above the level of the lesion • Pallor or goose-bumps below the level of the lesion • Signs of stroke or seizure (i.e. affected speech, facial expression, tremors, twitching) • Altered level of consciousness or behavioural changes 	To identify early signs of AD and take urgent remedial action. See Appendix 4 for Flow Chart.
4	Treat the patient with any of the symptoms of AD <ul style="list-style-type: none"> • Call for help • Sit patient up and lower legs (if safe to do so and spinal condition allows), loosen tight clothing • Check manual BP. • Ensure appropriate antihypertensive rescue medication is available in the clinical area and prescribed on admission as a PRN. • Check for cause of AD. (see 6) 	AD is a medical emergency and needs to be addressed immediately. Manual BP check with a sphygmomanometer is required in medical emergencies where patient is brady or tachycardic as automated BP monitors may not be accurate with very fast or irregular heart rates. Rescue medication should be prescribed.

5	Take urgent steps to reduce hypertension <ul style="list-style-type: none"> If Systolic Blood Pressure (SBP) >150mmHg, (or patient feels symptoms of AD and requests treatment) treat immediately with appropriate anti-hypertensives as prescribed <ul style="list-style-type: none"> Glyceryl Trinitrate [GTN] (2 sprays sublingual) GTN patches or 25mg Captopril sublingual Give analgesia as prescribed Monitor BP every 15 minutes for at least 2 hours until patient returns to being normotensive. 	<p>Actions are aimed at reducing blood pressure and reduce the risk of complications of high blood pressure (e.g. intracranial bleed).</p> <p>Rescue medication may vary according to local availability and clinician preference. GTN patches may provide an alternative route of administration.</p> <p>To monitor effects of treatment administered.</p>
6	Rapid survey for underlying causes of AD <ul style="list-style-type: none"> Urinary - distended bladder or kinked/blocked catheter, UTI, renal calculi Bowels / GI tract - impacted bowels, constipation, distended abdomen, haemorrhoids <ul style="list-style-type: none"> Check rectum for faecal mass (as per DRE in Section 1 above) Integument - burns / scalds to skin, pressure sores, in-growing toenails, tight clothing, sunburn, frostbite, bed creases or foreign object bed. MSK – fracture, heterotopic ossification, dislocation Haematological - DVT/PE CNS – syringomyelia Reproductive (female) - labour / delivery, menstruation, vaginitis Reproductive (male) - erection, ejaculation, epididymitis, scrotal compression, testicular torsion Medications- nasal decongestants, misoprostol, sympathomimetics, stimulants 	<p>Identify and treat / eliminate the cause of AD urgently.</p>
7	Eliminate/ treat the underlying cause <ul style="list-style-type: none"> A-E assessment Urgent escalation to medic and/or CCOT/DART team. 	<p>To remove noxious stimulus and resolve AD</p> <p>Blocked catheter is most common reason for AD. Rule out first. Do not flush catheter due to risk of neurogenic</p>

	<ul style="list-style-type: none"> • Check catheter is patent. Do not flush catheter • Re-catheterise / catheterise using lidocaine as a lubricant – empty catheter bag and remove any potential blockages – ideally large lumen catheter (16Fr or above) • DRE +/- DRF as per EMSN pathway • Head to toe assessment to look for other causes • Inform specialist nurse and parent consultant • Document in nursing notes 	<p>bladder and risk of perforation and infection.</p> <p>Constipation is second most common cause of AD.</p>
8	<p>Prevention of future episodes of AD</p> <ul style="list-style-type: none"> • Ensure structured education plan for patient and carers has been initiated • Appropriate bladder and bowel care regimen 	<p>Reduce the risk of recurrence and educate patient accordingly to maintain ongoing safety</p>

References

Bycroft J, Shergill IS, Choong EAL, Arya N, Shah PJR (2005) Autonomic dysreflexia: a medical emergency *BMJ* 81 (954). Found at www.pmj.bmj.com Last accessed 7/8/19

Consortium for Spinal Cord Medicine (2001) *Acute Management of Autonomic Dysreflexia*. Found at www.ncbi.nlm.nih.gov/pubmed/12051242 Last accessed 7/8/19

Multidisciplinary Association of Spinal Cord Injured Professionals (MASCIP, 2012) *Guidelines for the Management of Neurogenic Bowel Dysfunction in Individuals with Central Neurological Conditions*. Found at www.mascip.co.uk Last accessed 7/8/19

MASCIP (2017) *Statement on Autonomic Dysreflexia*. Found at www.spinal.co.uk Last accessed 7/8/19

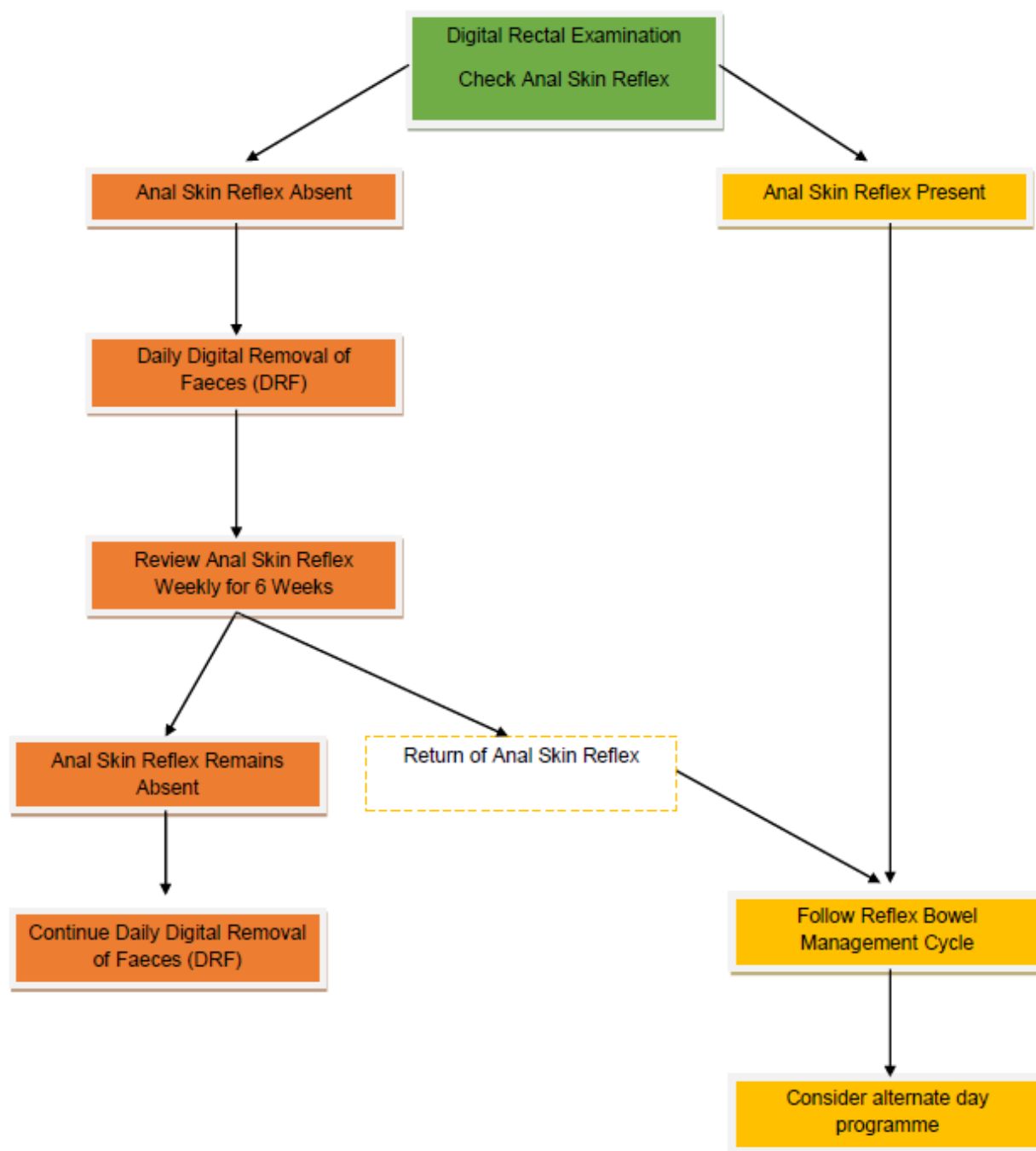
New South Wales Agency for Clinical Innovation (2013) *Treatment of Autonomic Dysreflexia for Adults and Adolescents with Spinal Cord Injuries*. Found at www.aci.health.nsw.gov.au Last accessed 7/8/19

NHS Improvement (2018) *Resources to support safer bowel care for patients at risk of autonomic dysreflexia*. Alert reference number: NHS/PSA/RE/2018/005. Found at www.improvement.nhs.uk Last accessed 7/8/19

Vasquez, N., Gall, A., Ellaway, P. et al. Light touch and pin prick disparity in the International Standard for Neurological Classification of Spinal Cord Injury (ISNCSCI). *Spinal Cord* **51**, 375-378 (2013). Found at: <https://www.nature.com/articles/sc2012175> Last accessed 04/02/2020

Appendix 1.

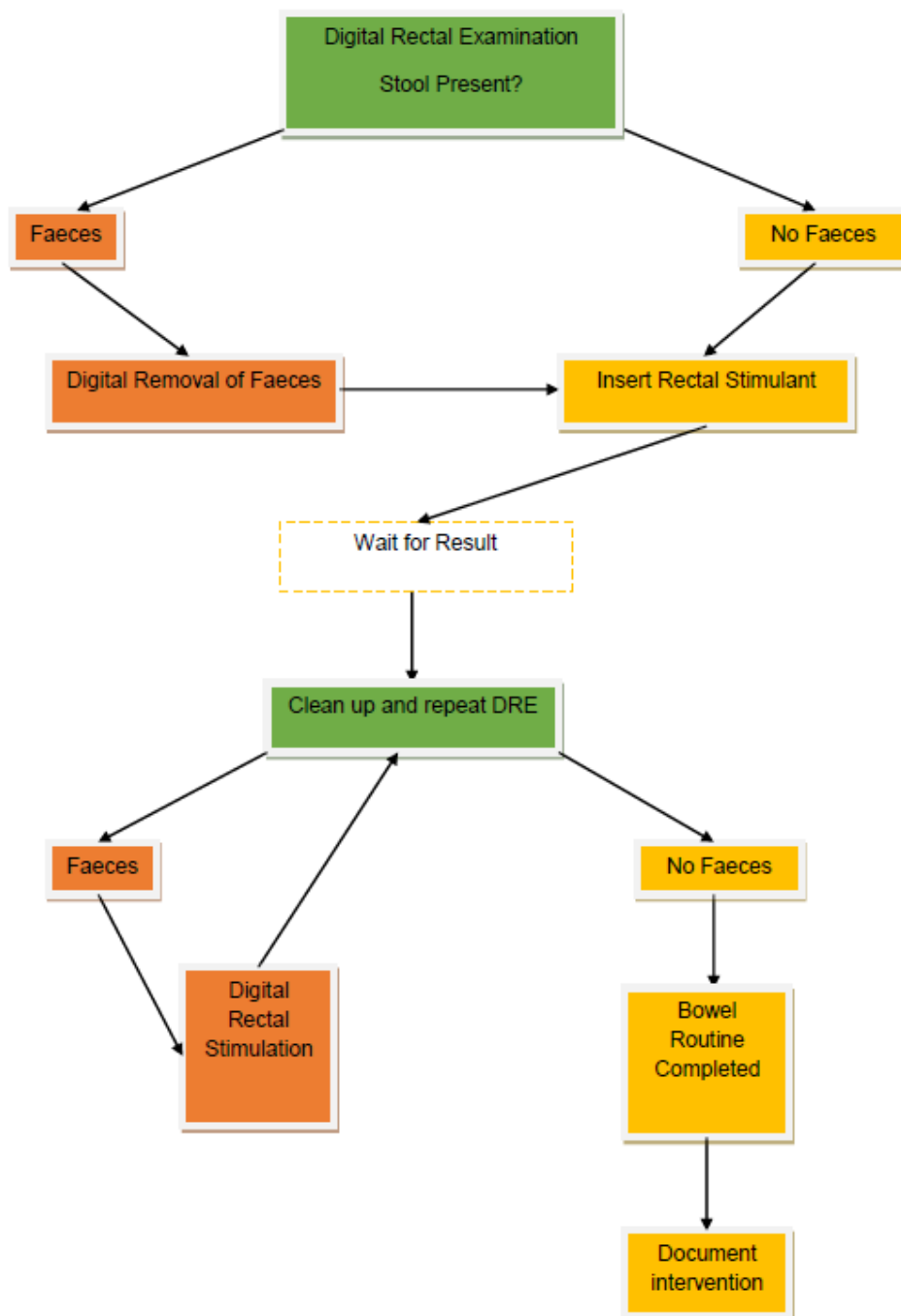
Acute Spinal Cord Injury: Bowel Management Decision-Making



Appendix 2.

The Reflex Bowel Management Cycle

Utilise laxatives and diet to aim for Bristol Stool Type 4



Appendix 3. Abdominal Massage

Abdominal massage:

Pressure is applied intermittently to the abdomen following the usual lie of the colon in a clockwise direction; using the back or heel of the hand or a tennis ball or similar, pressure is applied and released firmly but gently in a continuous progression around the abdomen. Lighter stroking movements may also be used, which may trigger somato-visceral reflexes. Massage may be used before and after digital rectal stimulation, insertion of stimulants or digital removal of faeces to aid evacuation (Coggrave 2005).

Source: Coggrave MJ, Ingram RM, Gardner BP, Norton CS. (2012): The impact of stoma for bowel management after spinal cord injury. Spinal Cord. 2012 Nov 50(11) 848-52 Epub 2012 June 19

Appendix 4. Autonomic Dysreflexia Flow Chart ⁴

RECOGNISE SIGNS AND SYMPTOMS OF AUTONOMIC DYSREFLEXIA

Does the patient have one or more of the following symptoms?			
LISTEN Pounding headache Nasal congestion Respiratory distress or bronchospasm Altered speech	LOOK Blotched skin or redness above the lesion Pallor or goosebumps below the lesion Symptoms of stroke or seizure activity (affected speech, facial expression, tremors, twitching)	TOUCH Profuse sweating	CHECK Systolic BP 20-40mmHg higher than baseline Brady or tachycardia or arrhythmias Metallic taste in the mouth
ANY OF THESE SYMPTOMS – THINK AUTONOMIC DYSREFLEXIA			

