IX. FAECAL INCONTINENCE IN NEUROLOGICAL PATIENTS

A. INITIAL MANAGEMENT

➢ Patients with known neurological disease may present with symptoms related to neurological bowel dysfunction, such as; difficulty in defaecation, constipation and faecal incontinence which disturb their activities of daily living and impair quality of life. Many have permanent impairments and functional limitations and disabilities, which are due to neurological deficits and complications

1. INITIAL ASSESSMENT

➢ The history should include:

- Neurological diagnosis and functional level
- Previous and present lower gastrointestinal (LGIT) function and disorders
- Severity of neurogenic bowel dysfunction
- Current bowel care and management including diet, fluid intake, medications affecting bowel functions
- Co-morbidity / complication e.g., urinary incontinence, autonomic dysreflexia, pressure ulcers, sexual dysfunction
- Patient's satisfaction, needs, restrictions and quality of life
- Environmental factors and barriers and facilitators to independent bowel management.

➢ Physical examination:

➢ Cognitive function; motor, sensory and sacral reflexes – voluntary anal sphincter contraction, deep perianal sensation, anal tone, anal and bulbo- cavernosus reflexes

➢ Spasticity of the lower limbs

➢ Abdominal palpation for faecal loading and rectal examination

➢ Functional assessment:

- Hand and arm use, fine hand use, mobility – maintaining body position, transfer and walking ability.

➢ Environmental factors assessment:

- toilet accessibility; devices for bowel care and mobility; caregiver support and attitude;

2. BASIC INVESTIGATIONS

Stool examination, plain abdominal X-Ray

3. INITIAL TREATMENTS

- Patient education and goals-setting to achieve complete defaecation on a regular basis and faecal continence based on right time, right place, right trigger and right consistency
- Adequate fibre diet and fluid intake; appropriate trigger according to preservation of sacral (anorectal) reflex – digital rectal stimulation (GoR C); suppository and enema (GoR B); if no anorectal reflex, manual evacuation (GoR B); abdominal massage (GoR C) can also be helpful
- Prescribe medications – stool softener, laxative, prokinetic agents, anti-diarrhoeal drugs as neccessary
- Assistive techniques may be necessary for
  - Defaecation – transanal irrigation (GoR A)
  - For incontinence – anal plug (GoR C)

The algorithm does not apply to management in acute neurological patients that need regular bowel emptying.

INITIAL MANAGEMENT OF NEUROGENIC FAECAL INCONTINENCE

HISTORY, LEVEL OF LESION

- Sacral cord/cauda equina lesion (e.g. lumbar disc prolapse). Peripheral nerve lesion (e.g. radical pelvic surgery)
- Suprasacral infrapontine and pontine lesion (e.g. trauma, multiple sclerosis)
- Suprapontine lesions (e.g. Parkinson's)

CLINICAL ASSESSMENT

- History taking including diagnosis, pre-morbid bowel function and sensation and their disorders, current bowel and bladder programme, co-morbid diseases/disorders, QOL and needs
- Physical & neurological examination including cognitive function, voluntary anal contraction, perianal sensation, sacral reflexes, digital rectal examination, abdominal palpation for faecal impaction
- Functional assessment including hand and arm use, fine hand use, balance, transfer and walking
- Environmental factors assessment including toilet accessibility, assistive device, caregivers' support and attitude
- Basic investigation: stool exam, plain film abdomen in selected patients (diarrhoea, impaction not felt on rectal examination)

This assessment will give basic information but does not permit a precise diagnosis of neurogenic bowel dysfunction

PRESUMED DIAGNOSIS

- Incontinence due to sphincter incompetence
- Incontinence due to lack of cognitive function, sensory awareness disorders, unable to control by voluntary anal contraction
- "false incontinence" due to faecal impaction

TREATMENT*

- Manual evacuation
- Assistive device – anal plug
- Mini-enema, transanal irrigation
- Suppository
- Biofeedback

- Digital rectal stimulation
- Chemical stimulant, suppository,mini-enema, stool softener, laxative, prokinetics, and
- Transanal irrigation could be given by patient/caregiver; biofeedback by patient

- Faecal disimpaction:
- Oral PEG plus enemas or transanal irrigation

NECESSARY IN ALL

Patient education, adequate fibre diet and fluid intake; regular bowel care, preferably ± 3 times a week

SPECIALISED MANAGEMENT PREFERABLE FOR MORE " TAILORED " TREATMENT

* Consider CONTINENCE PRODUCTS for temporary support during treatment

IX. FAECAL INCONTINENCE IN NEUROLOGICAL PATIENTS

B. SPECIALISED MANAGEMENT

1. ASSESSMENT

- Some patients with neurogenic faecal incontinence will need specialised assessment, especially if initial management is unsuccesful to look for comorbidity and certainly before performing invasive treatment
- Do not assume that all symptoms are due to neuropathy, e.g. women with neurological pathology might have had childbirth injury to the sphincter
- Special investigations: manometry, endoanal ultrasound, (dynamic) MRI, (needle) EMG. These specific bowel functional tests and electro-diagnostic tests must be considered optional, as their value in neurological pathology is not sufficiently demonstrated so far.

2. TREATMENTS

➢ Conservative treatment for neurological faecal incontinence is also the mainstay for specialised management, (GoR C).

➢ Management of neurological incontinence does not include very extensive treatment modalities and many conservative interventions are still empirical.

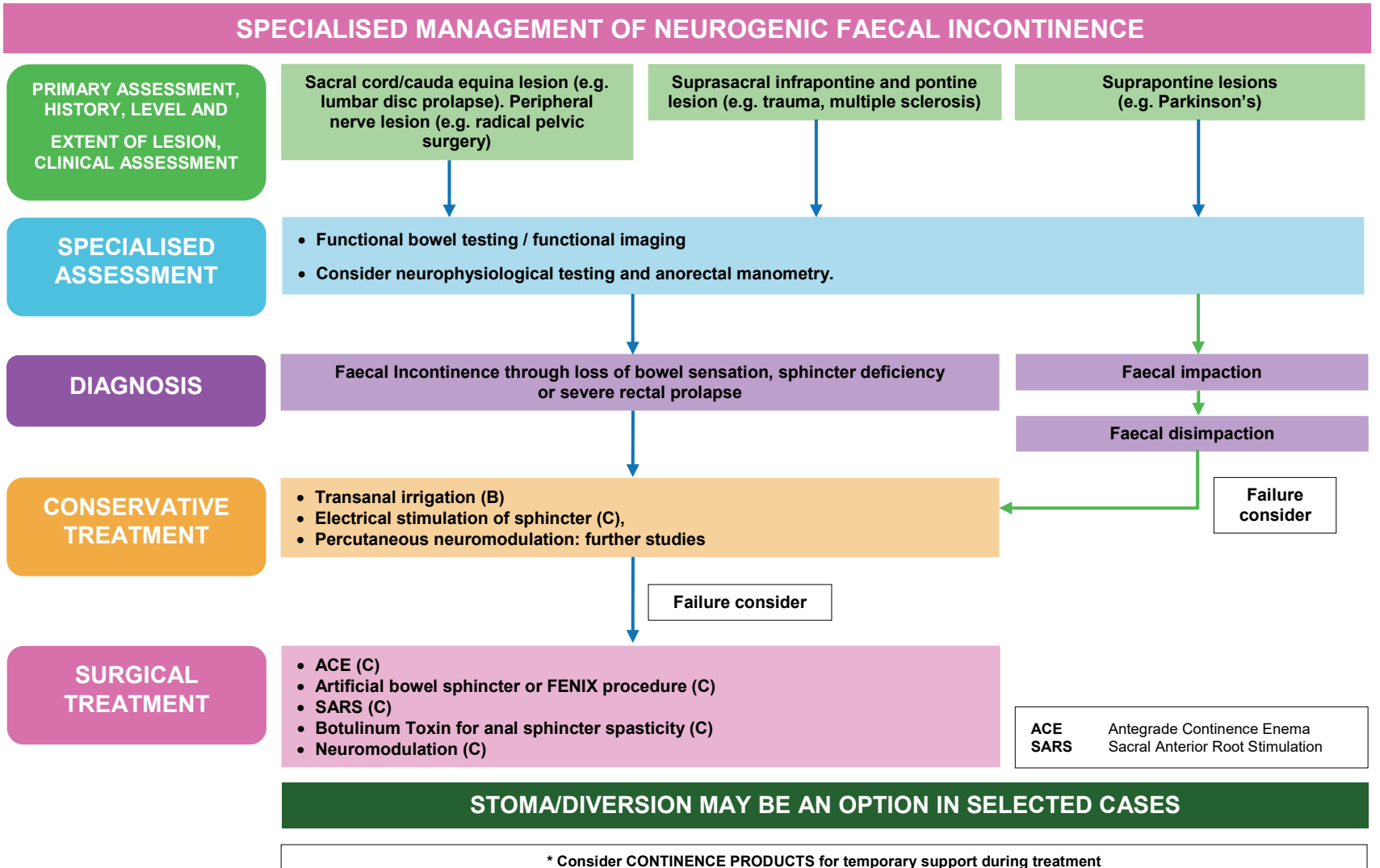
- Transanal irrigation (GoR B).
- Electrical stimulation sphincter, (GoR C).
- Percutaneous neuromodulation and sacral nerve stimulation : further research is required (GoR D).

➢ Surgical management of neurogenic faecal incontinence has different options which need a very strict patient selection

- Antegrade Continence Enema ACE (GoR C).
- Artificial bowel sphincter or FENIX procedure (GoR C).
- Sacral Anterior Root Stimulation SARS (GoR C).
- Botulinum Toxin (GoR C).
- Neuromodulation (GoR C).

➢ It is recommended that urinary and bowel function are assessed simultaneously if both systems are affected, as symptoms and treatment of one system can influence the other and vice versa (GoR A).

➢ As the therapeutic approach can differ in different neurological diseases, the most prevalent diseases are discussed separately in the chapter.


SPECIALISED MANAGEMENT OF NEUROGENIC FAECAL INCONTINENCE
PRIMARY ASSESSMENT, HISTORY, LEVEL AND EXTENT OF LESION, CLINICAL ASSESSMENT
Sacral cord/cauda equina lesion (e.g. lumbar disc prolapse). Peripheral nerve lesion (e.g. radical pelvic surgery)
Suprasacral infrapontine and pontine lesion (e.g. trauma, multiple sclerosis)
Suprapontine lesions (e.g. Parkinson's)
SPECIALISED ASSESSMENT
• Functional bowel testing / functional imaging
• Consider neurophysiological testing and anorectal manometry.
DIAGNOSIS
Faecal Incontinence through loss of bowel sensation, sphincter deficiency or severe rectal prolapse
Faecal impaction
Faecal disimpaction
CONSERVATIVE TREATMENT
• Transanal irrigation (B)
• Electrical stimulation of sphincter (C),
• Percutaneous neuromodulation: further studies
Failure consider
Failure consider
SURGICAL TREATMENT
• ACE (C)
• Artificial bowel sphincter or FENIX procedure (C)
• SARS (C)
• Botulinum Toxin for anal sphincter spasticity (C)
• Neuromodulation (C)
ACE Antegrade Continence Enema
SARS Sacral Anterior Root Stimulation
STOMA/DIVERSION MAY BE AN OPTION IN SELECTED CASES
* Consider CONTINENCE PRODUCTS for temporary support during treatment