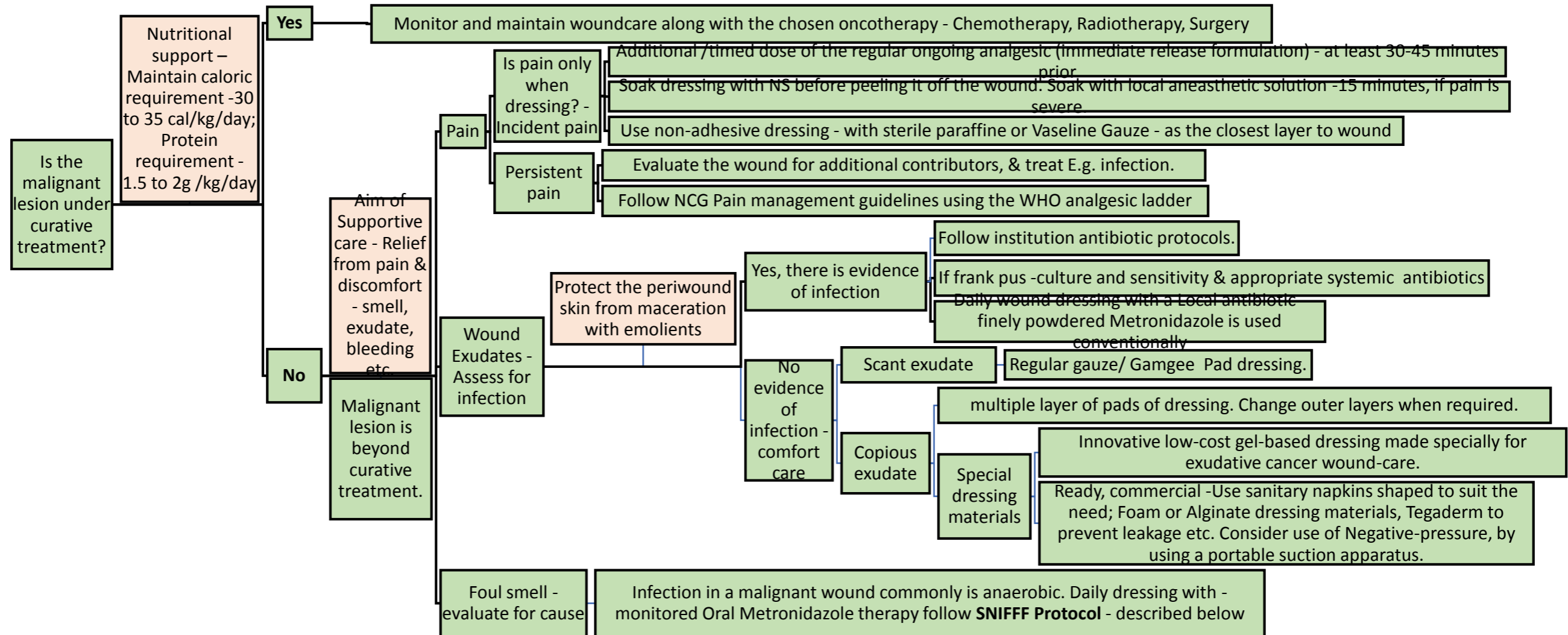
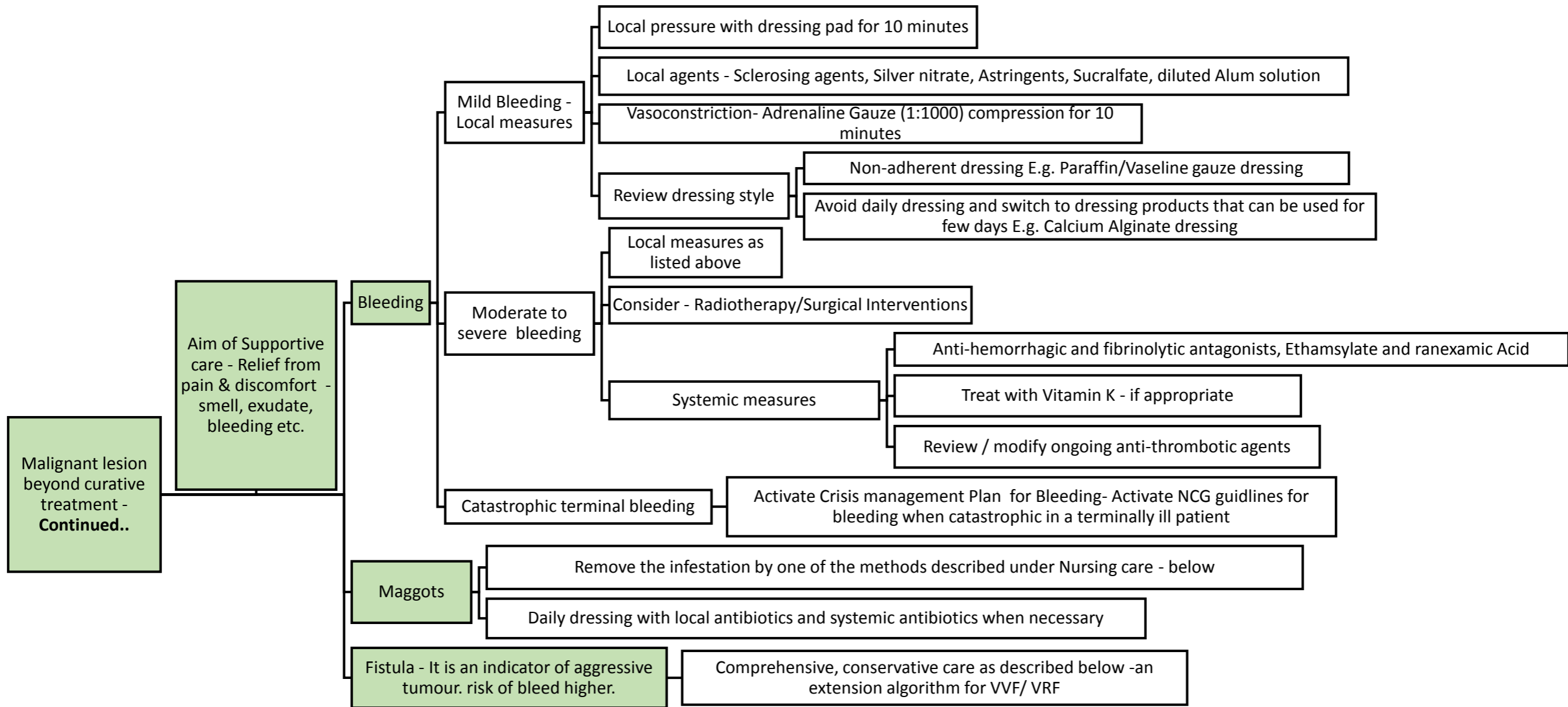


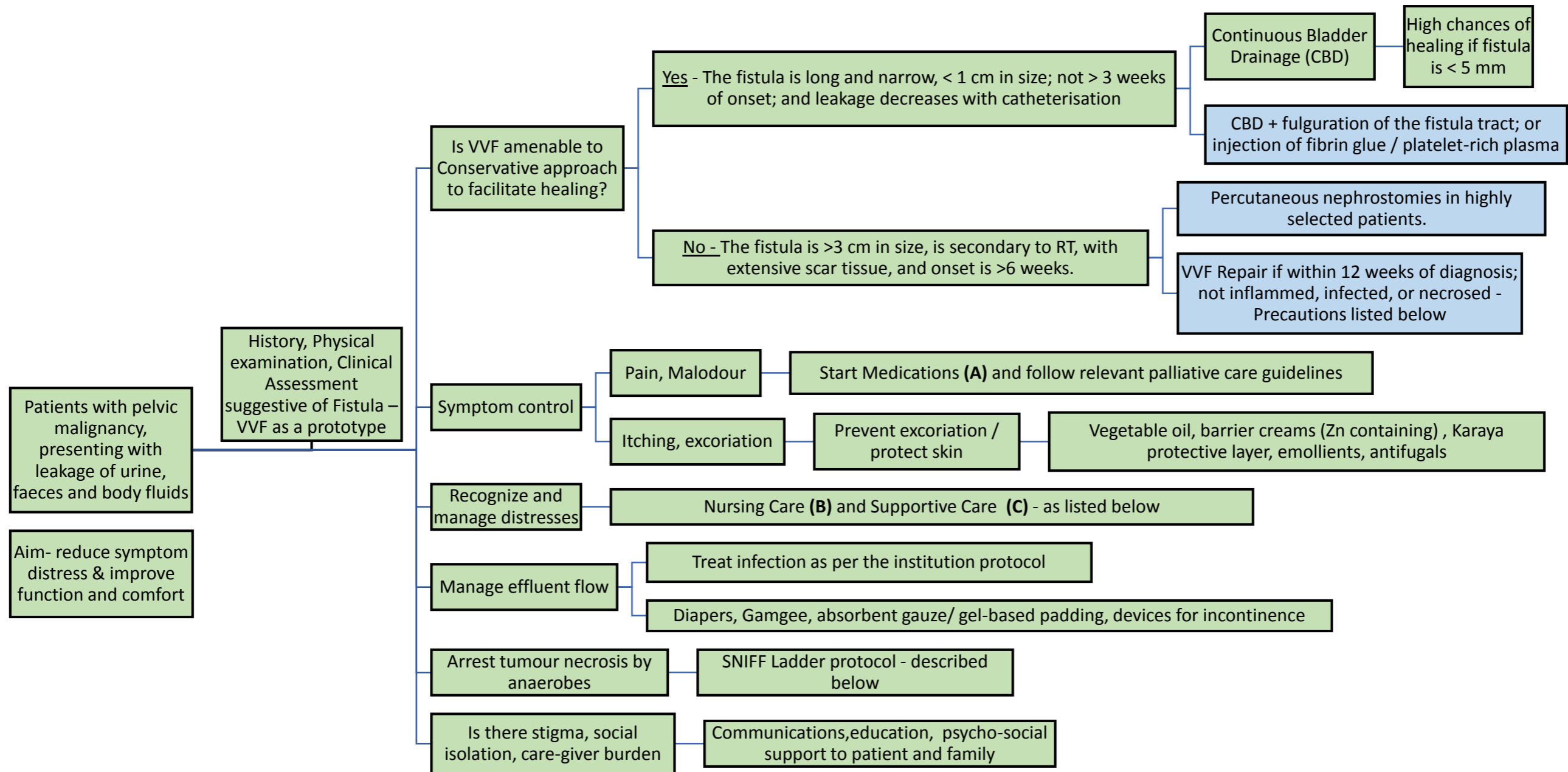
Approach to managing non-healing malignant wounds – overview of care



Approach to managing non-healing malignant wounds – Specific Concerns – Bleeding, Maggots and Fistulae



Approach to managing non-healing malignant wounds - Vesico-vaginal / Recto-vagina; / Entero-cutaneous Fistula



A. Medicines for managing non-healing malignant Wound¹

Malodour - Utilise SNIFFF Ladder Protocol² for Oral Metronidazole therapy

- Used in patients at high-risk of recurrent malodour/ inadequate wound care/ risk of developing fistula
- Start with a course of oral metronidazole 400 mg thrice daily for 7 days. Simultaneously, teach low-cost, home-based wound care and hygiene awareness.
- On follow-up, rate the severity of smell to titrate metronidazole dosage – Nil, Faint, Foul or Forbidding
 - Smell is - Nil or faint smell
 - Continue metronidazole 200 mg OD as maintenance
 - Smell is - Foul (definite unpleasant smell)
 - Add 400 mg thrice daily metronidazole for 7 days. Then continue 200 mg once daily
 - Smell is - Forbidding (unbearable smell/smell makes it difficult to provide care)
 - Add 400 mg P.O. thrice daily for 2 weeks and maintain on 200 mg P.O twice daily.
- Review and place the patient on the SNIFFF ladder
- Consider maintaining on 200 mg P/O once daily - when patient is at high-risk, incidences of recurrent malodour, and/or when inadequacies in wound care is expected.

1. Managing incident Pain when dressing:

- Time the analgesics appropriately - Incident pain can be managed by administering the rescue dose of ongoing analgesic ½ hour before dressing or by timing the dressing ½ hour after analgesic dose.
- Off-label use of Ketamine (injectable formulation) given as drops sublingually- 0.25-0.5mg/kg, 15 minutes before dressing.
- Wet the dressing fully before removing it from the wound. Removing a dry dressing causes additional injury, bleeding and pain. Non-adherent dressing like paraffin gauze can be less painful on removal. But they cannot be used in the presence of active infection.
- Anaesthetising the wound bed with gauze soaked in diluted Bupivacaine reduces pain. Wait for 15 minutes & then dress the wound
- Metronidazole powder may be made as a paste with lignocaine jelly for application over the wound - to minimise the surface pain.

2. Tips for Home management of malignant wound:

¹ References

1. Ferrell BR, Paice JA, eds. Oxford Textbook of Palliative Nursing. 5 edn ed. Oxford, UK: Oxford University Press; 2019. <https://oxfordmedicine.com/view/10.1093/med/9780190862374.001.0001/med-9780190862374>. Accessed February 4, 2021.
2. Kumar PP. Limited Access Dressing and Maggots. Wounds. 2009;21(6):150–2.
3. Sowani A, Joglekar D, Kulkarni P. Maggots: a neglected problem in palliative care. Indian J Palliat Care. 2004;10(1):27–9.

² Smell-Nil, Faint, Foul, or Forbidding (SNIFFF) ladder to clinically titrate prophylactic oral metronidazole according to the severity of smell - George R, Prasoon TS, Kandasamy R, Cherian R, Celine T, Jeba J, et al. Improving malodour management in advanced cancer: a 10-year retrospective study of topical, oral and maintenance metronidazole. BMJ Support Palliat Care. 2017 Feb 6;bmjspcare-2016-001166.

Aim for clean (not sterile) technique – for non-healing malignant wounds

- Preparing Saline at home: can be prepared at home by adding one pinch of salt in one glass of water or two teaspoon of salt in one litre of water and boiling it in steel vessel, covered and stored for the day. The saline prepared is for use for that day only. Coled and used as and when needed.
- Preparing dressing material at home - Cut soft cotton clothing (cleaned saree / dhoti) into required size pieces. Steam them in steamer/ pressure cooker. Sun dry them, by spreading over clean news-paper. Pack in clean steel vessel with lid, and use directly during dressing.
- Excessive exudates can be managed by adding multiple layers of pads, non-sterile pads and sanitary napkins can used in the outer layers to facilitate absorption.
- Metronidazole tablets (non-sugar coated) can be powdered finely and given to the family, so they are able to powder and use. This is a useful local antibiotic

B. Nursing Care for maggot -infested malignant wounds

- Irrigation – irrigate with saline and removal of maggots with forceps
- Cover/uncover - Maggots are photophobic. Cover the wound with gauze for 5 minutes then open and remove the maggots
- Suffocation - Cover the wound with paraffin gauze to block air for 24 hours. Dead maggots can be removed manually or destroyed by macrophages
- Irritation: Turpentine - Soak a gauze with 2mL of turpentine and place it on the wound. The fumes irritate the maggots, which can be removed as they exit

C. Supportive care for managing Fistula

- All personal hygiene measures are to be continued – bathing, oral, skin and perineal care. Vaginal douching is to be avoided.
- Elicit and address hydration, feeds issues (sight, smell of wound, taste changes due to oral wounds – causing nausea / vomiting)
- Elicit and address psychosexual and social support – address the social isolation and discrimination.
- Educate on managing the wound at home – demonstrate and check understanding through supervised practice – before discharge

a. Oro-cutaneous fistula:

- Diligent, regular oral hygiene.
- Wound dressing that absorbs or collects effluent – multilayered wound dressing covered with water-proof dressing or the use of stoma devices if the flow is copious.
- Protect the skin opening with a barrier cream, such as zinc oxide.
- Educate the patient on feeding by involving a swallow therapist and dietician. Where aspiration or nasal regurgitation is present, a feeding tube can be helpful. This is as an informed, shared decision.
- When there are no features of aspiration, using a straw/feeding tube for placing liquid food into the oral cavity beyond the fistula avoids insertion of a permanent feeding tube.
- Fistula leakage increases with salivation. Soft diet that requires less chewing are tolerated better by these patients.

b. Enterocutaneous fistula:

- Skin care: Chemical irritation caused by the leaking bowel contents is the most common cause of skin irritation.
 - Zinc oxide paint, Karaya Powder made as a paste with egg-white.
 - Pouching systems can protect the skin from chemical irritants. Teach the patients on how to safely remove and apply the pouching system to prevent mechanical injuries.
- Dressing
 - A simple gauze and padded dressing is adequate in low-output fistula (output less than 150-200mL/day).
 - As the volume increases more frequent dressing change will be required.
 - To prevent further injury during frequent dressing change it is safer to switch over to pouching systems when the volume of the effluent increases.
- Pouching systems: For medium output and high output (> 200 mL/day) fistulae.
 - Ostomy bags are appropriate
 - When the output is thin, watery and high in volume, urinary drainage bag may be attached to the pouches.

c. Vesicovaginal and rectovaginal fistulas:

- Counseling – acknowledging and addressing the pain and deep distress
- Shared decisions around palliative surgical procedures based on sound clinical judgment.
 - Offered with great restraint and with a maximum of effort to explain the limitations to patients.
 - Percutaneous nephrostomies in very carefully selected patients with highly distressful symptoms. The non-disease-modifying nature and the permanent nature of the PCNs should be comprehended by the patient/family with willingness to accept nephrostomy tubes in situ. Smaller fistulas may heal with PCNs.
 - VVF / VRF repair with Diversion (Ileal conduits, diversion colostomy, rectal stents etc.)
 - Indication to operate - to improve the multi-factorial distresses.
 - Highly complex procedure – feasible at tertiary care center where expertise and advanced resources are available
 - Decision to operate is based on performance & nutritional status of the patient, presence of infection and foreign bodies. Contra-indication - immunocompromised status. Acute spasmodic pain from the bladder is an important post-op concern

Nursing Care for VVF/ VRF

- Regular baths – as feasible
- Manage the infection, foul smell and pain with analgesics (as described above))
- Gentle perineal irrigation –with due diligence -educate a personal care
 - Diluted Inj Metronidazole solution in normal saline
 - Warmed and cooled water 500 ml with dissolved tablespoonful of cooking soda.
- Effluent collection

- Minimal - clean strips of cloth or bundles of cotton in her panties, to absorb it & if moderate - Sanitary pads
- Cloths or pads should be changed as often as needed to keep the area dry and free of smells
- If the skin is very sensitive, petroleum jelly or zinc oxide cream may be applied.
- Covering the bed with a plastic sheet or clean newspaper can help to protect the linens
- Urinary incontinence
 - Partially managed by continuous bladder drainage in vesicovaginal fistula.
- Fecal incontinence
 - Stool softner
 - Permanent diversion colostomy- as a palliative measure (activate surgical package)
- d. Reducing problems associated with fistula**
 - Acidification of urine to diminish the risk of cystitis, mucous production and formation of bladder calculi (Vitamin C)
 - Antibiotics for infection
 - Anti-spasmodics
 - Sitz bath
 - Barrier ointment (Zinc oxide) to prevent dermatitis