

Palliative Care Algorithms

Thomas Palliative Care Services
VCU Massey Cancer Center
VCU Health System

Table of Contents

Agitation	3
Alternative Route for Opioid Administration	4
Anorexia	5
Anuria	6
Bladder Spasms Treatment	7
Bowel treatment – stepped care program	8
Candidiasis – Oral	9
Candidiasis – Perineal	10
Dyspnea	11
Fever	12
Hiccough	13
Mucositis	14
Pruritus	15
Secretions	16
Seizures – Acute Management	17
Sleep Disturbance	18
Wound Odor	19

Approved for use on palliative care patient where written order states: "May use palliative care orders..."

 Name Date
 Medical Director, Thomas Palliative Care Unit

 Name Date
 Director, Nursing

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Agitation

Excessive physical or mental restlessness. Increased activity that is generally not purposeful and associated with anxiety.

Depending on appropriateness, evaluate for reversible causes, including delirium and treat the underlying etiology if possible. Symptom control may begin concurrent with diagnostic work up.

Nonpharmacological interventions: reorientation, maintaining sleep wake schedule
Avoid restraints, minimize immobilizing treatments, maintain communication, med reconciliation

Haloperidol 0.5 mg PO/IV/SC every 4 hours as needed

relief

no relief

Continue same dose
Haloperidol every 12 hrs scheduled

Titrate up by 1 mg every 1 hour until desired effect achieved (1mg, 2 mg, 3 mg, etc); MDD 30 mg

Consult MD:
atypical antipsychotic meds starting doses for delirium
Olanzapine 2.5mg q12hrs
Risperidone 0.25mg q12hrs
Quetiapine 12.5mg q12hrs

Evaluate to continue, taper or dc

no relief after MDD Haldol

Lorazepam 0.5mg PO/IV/SL every 1 hour as needed (notify MD before initiating this step) MDD 12 mg

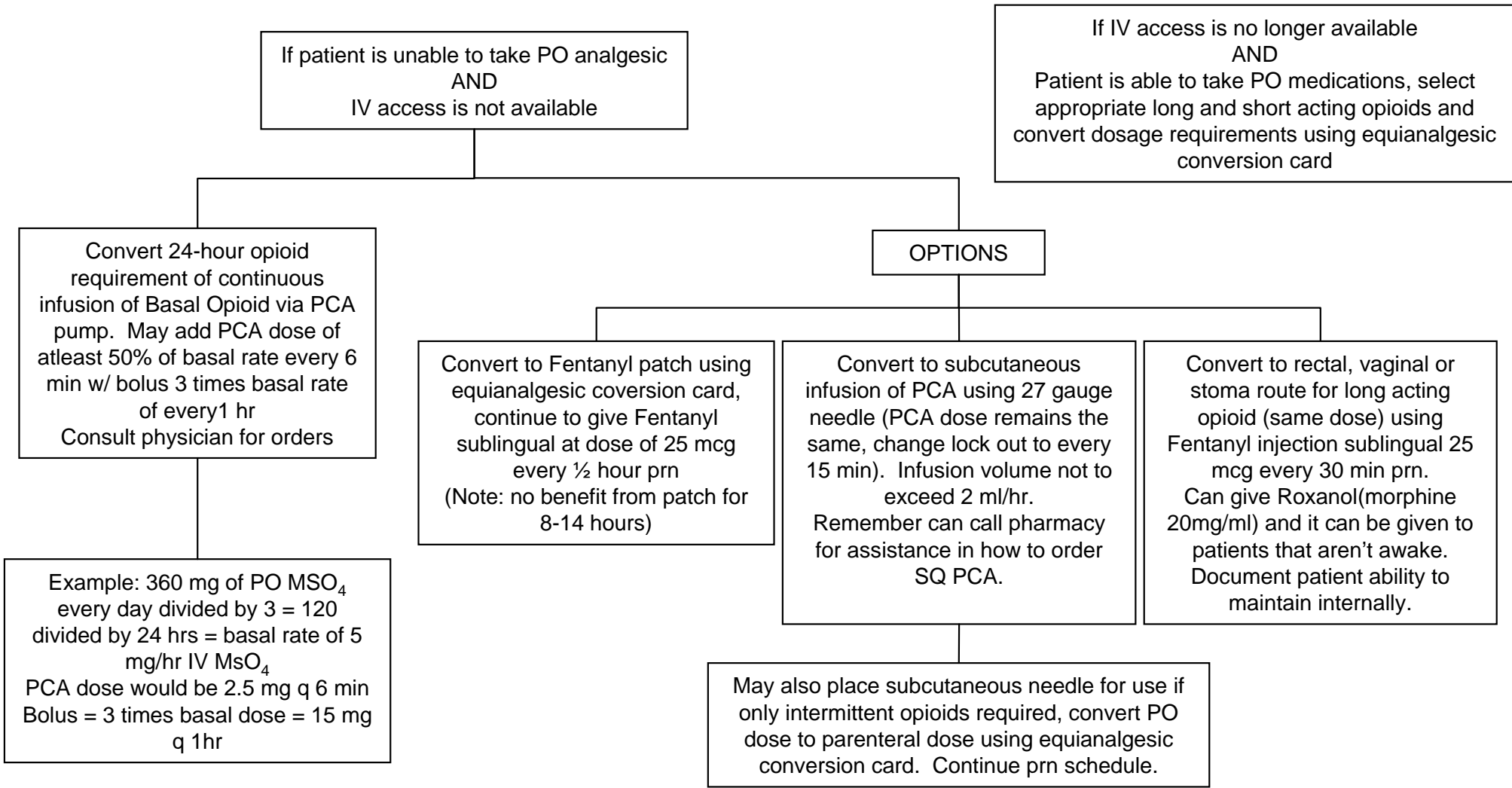
relief

no relief after 24 hours

Continue Lorazepam
Evaluate regularly to taper or discontinue

Physician/Nurse/Pharmacist consultation

Alternative Route for Opioid Administration

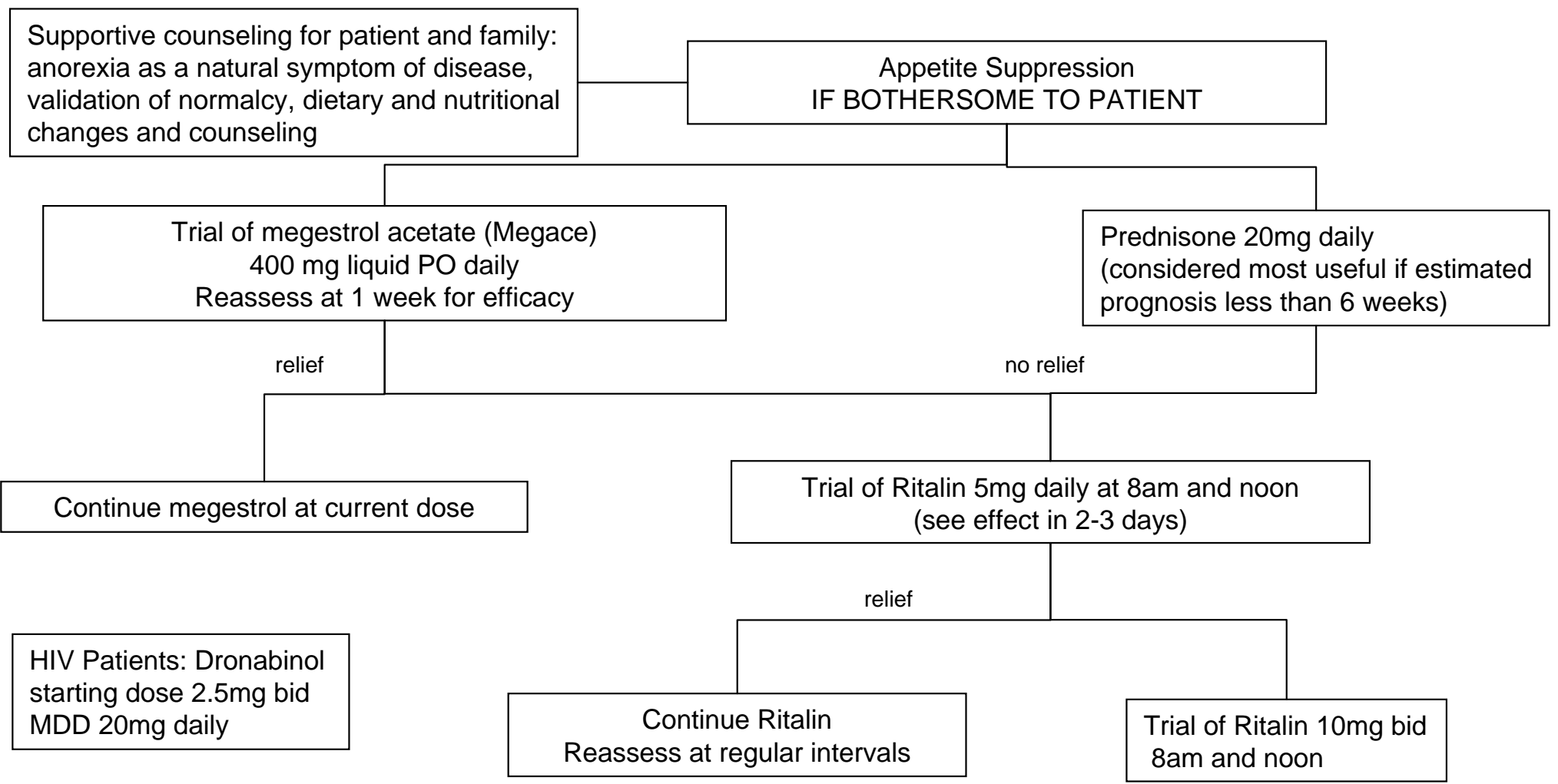


**** Physicians NOTE: Please consider incomplete cross tolerance in your conversions.**

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Anorexia

A loss of appetite with noted weight loss which is bothersome to the patient.

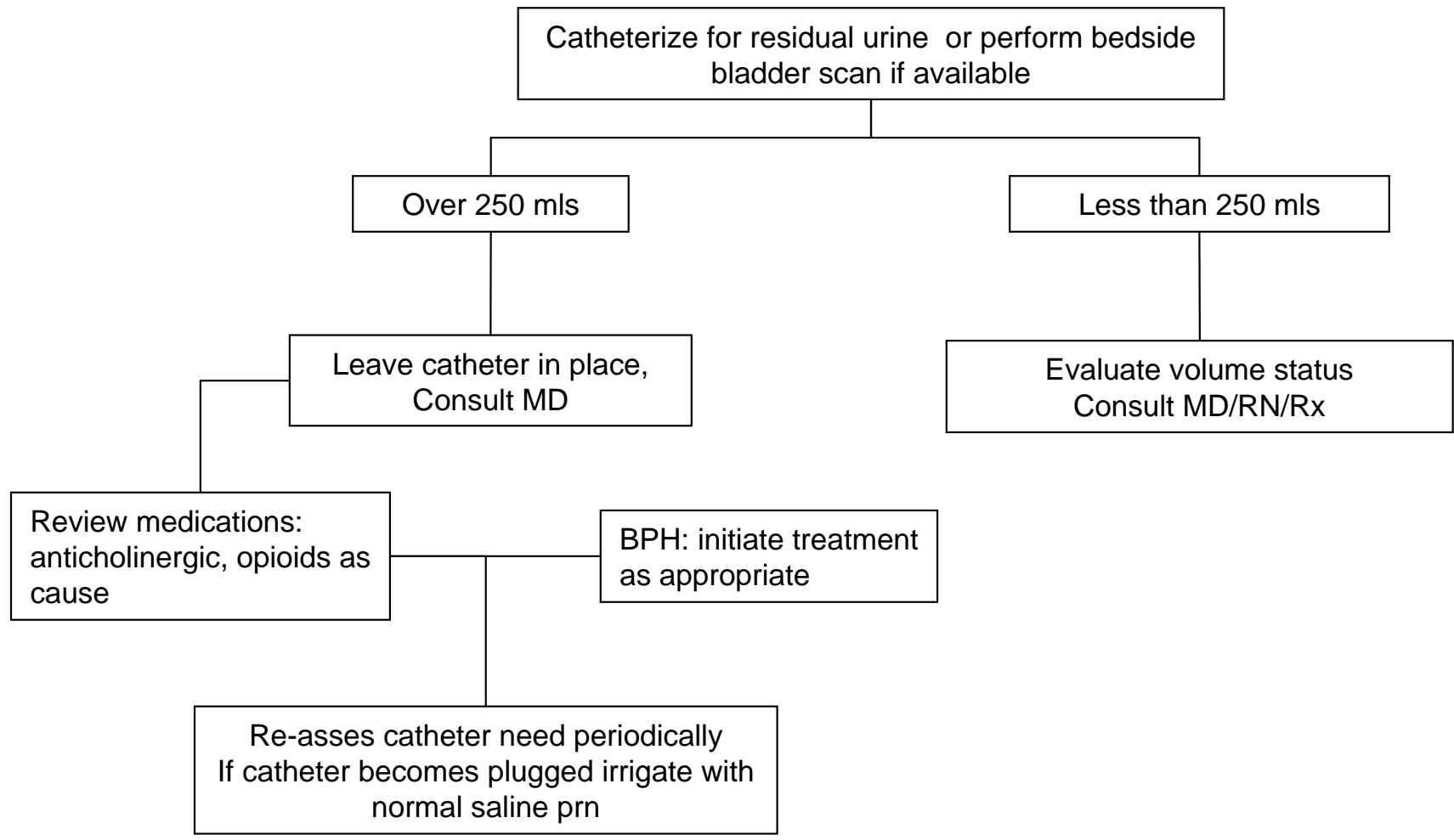


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Anuria

Minimal to no urine output.

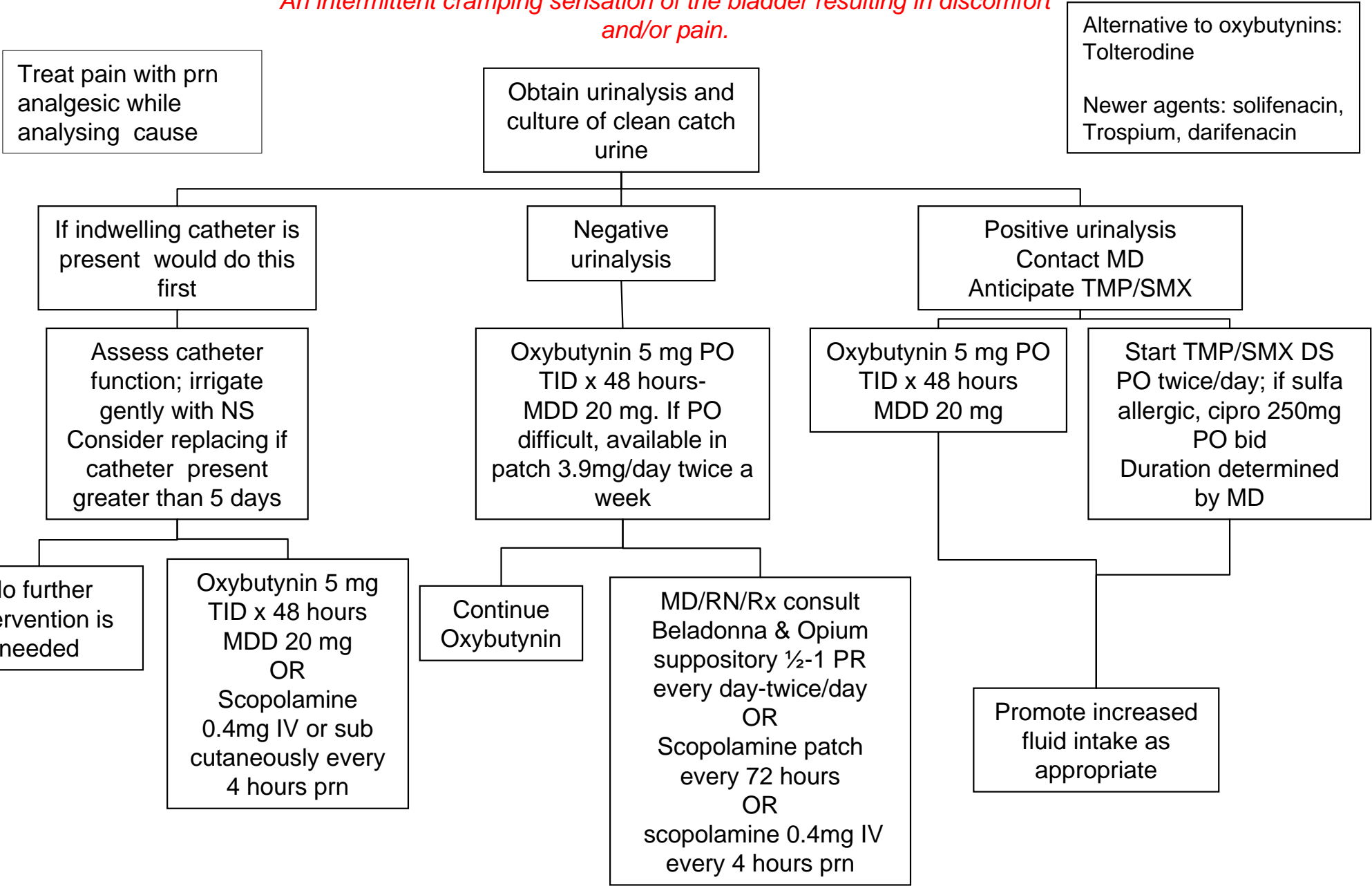
Anuria can be part of dying process, enact algorithm if unexpected or patient symptomatic, eg pain, agitation.



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Bladder Spasms Treatment

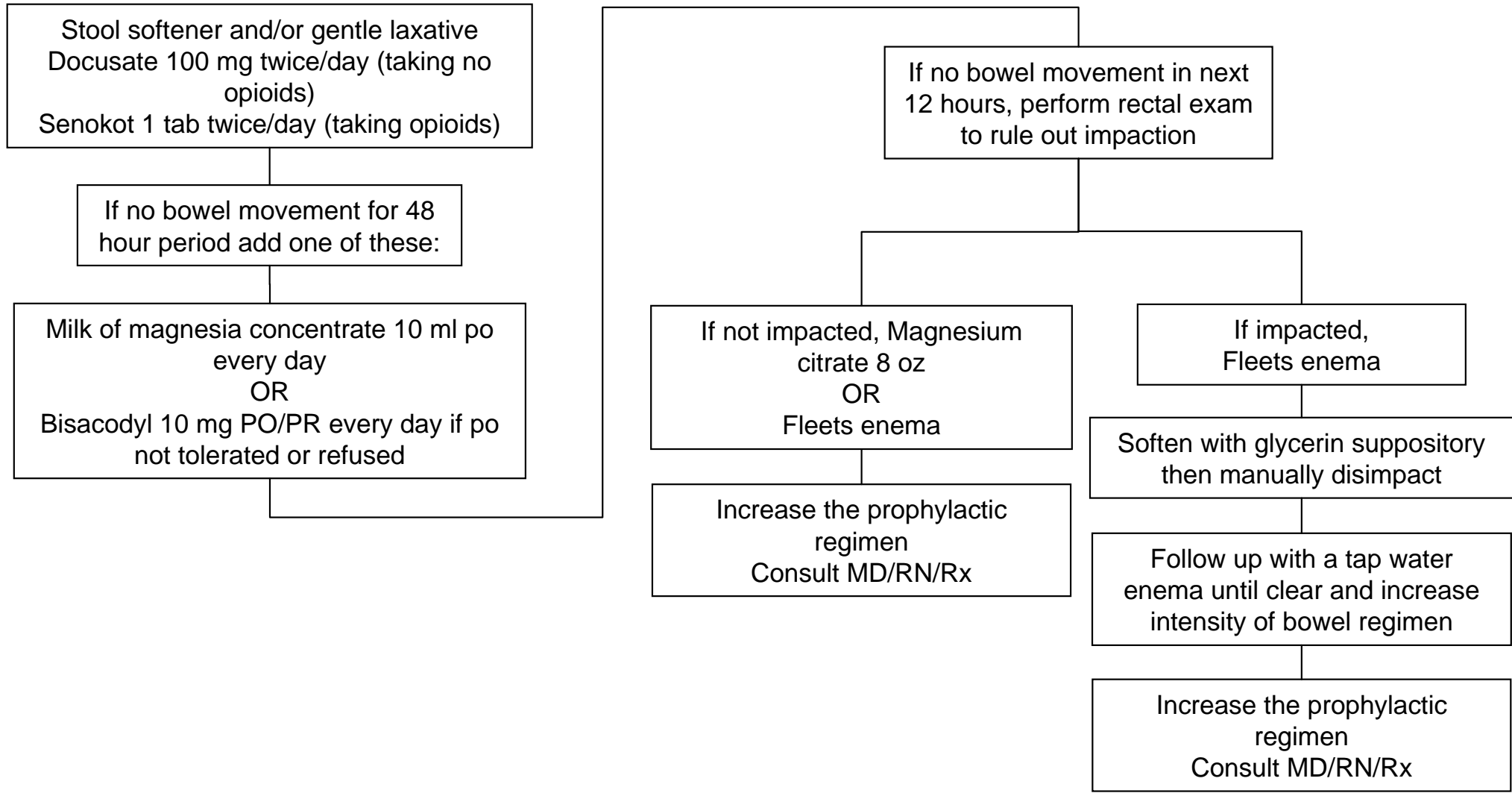
An intermittent cramping sensation of the bladder resulting in discomfort and/or pain.



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Bowel treatment – stepped care program

Treatment to alleviate hard stools and/or constipation associated with opioid administration.

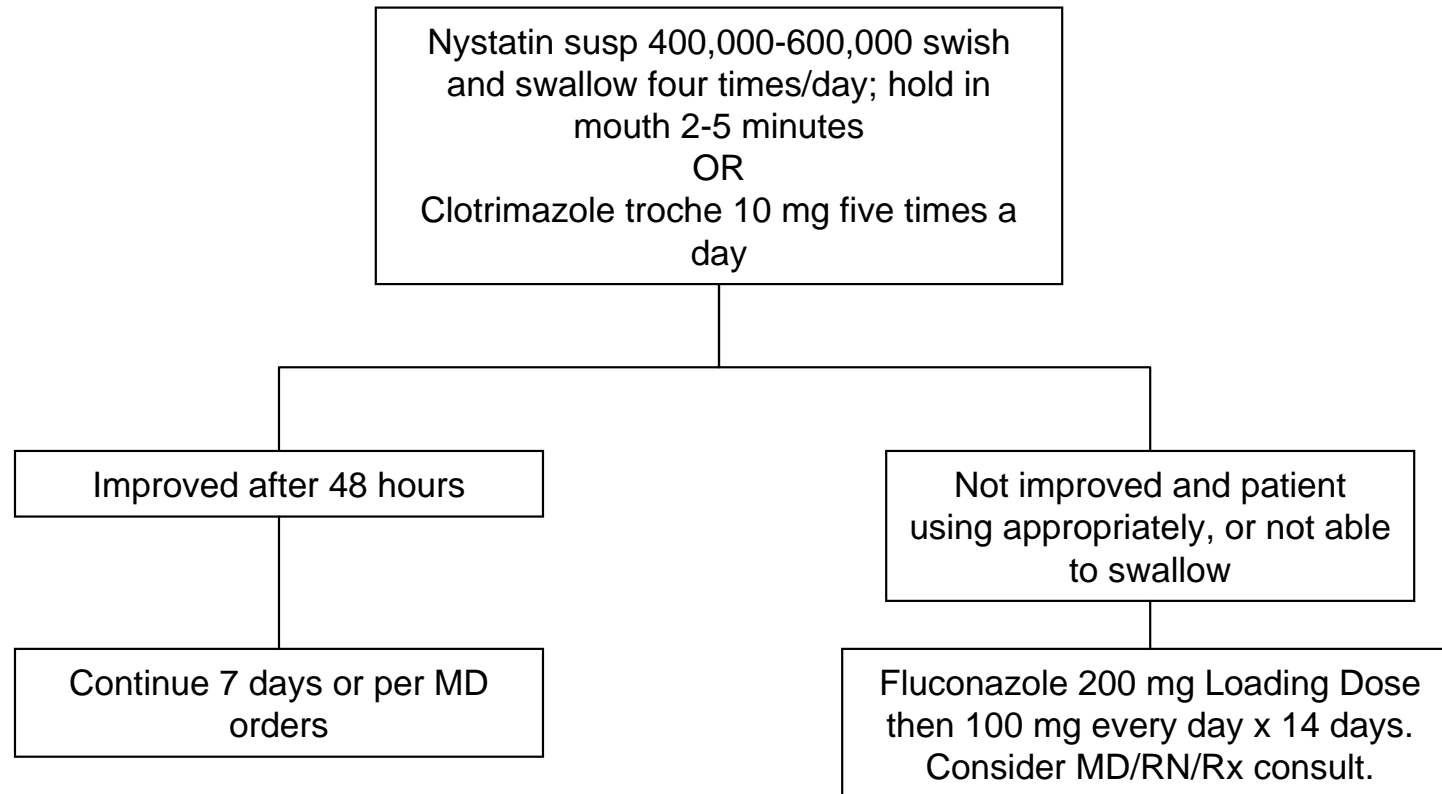


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Candidiasis – Oral

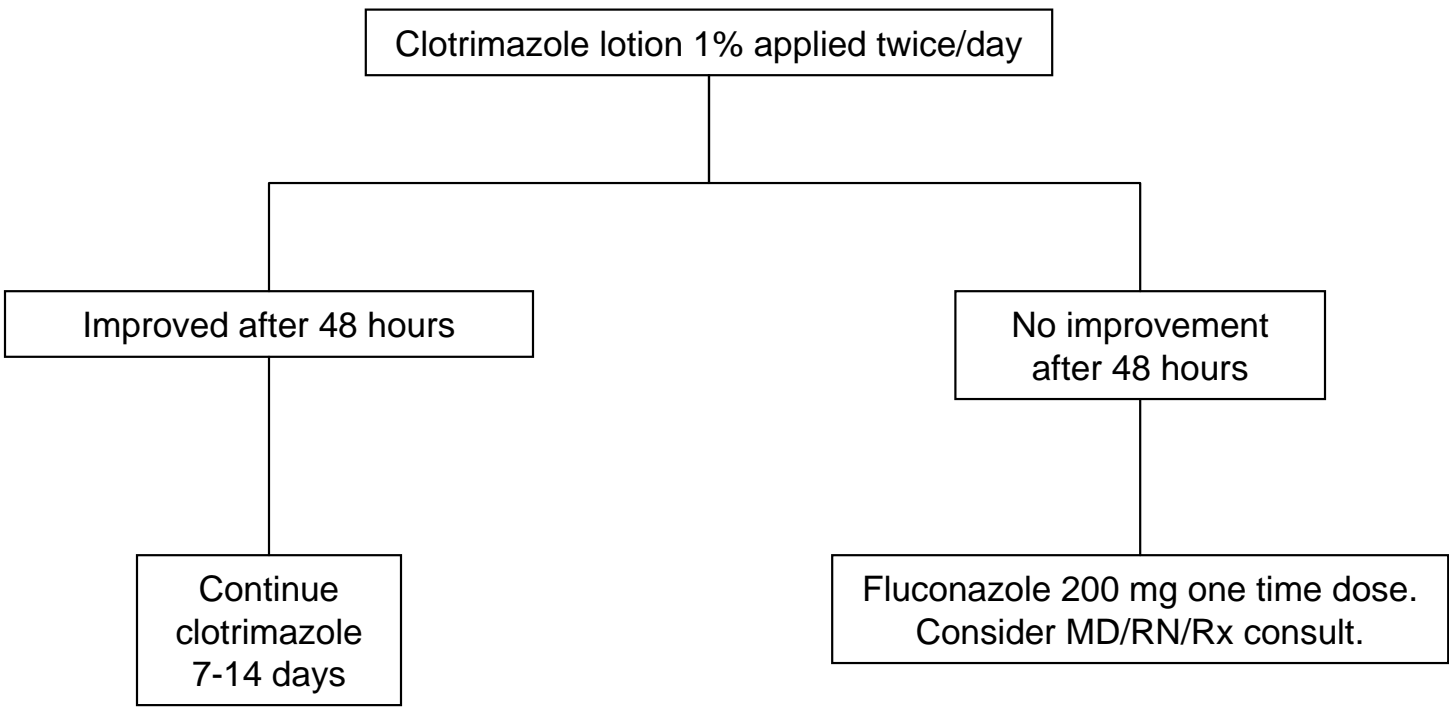
Whitish patches on the inner oral cavity, tongue or throat, which may or may not cause discomfort.

Remember someone who is immunocompromised may need to get fluconazole from the beginning.



Candidiasis – Perineal

Reddened areas between skin folds in the genital area, which may or may not cause discomfort.

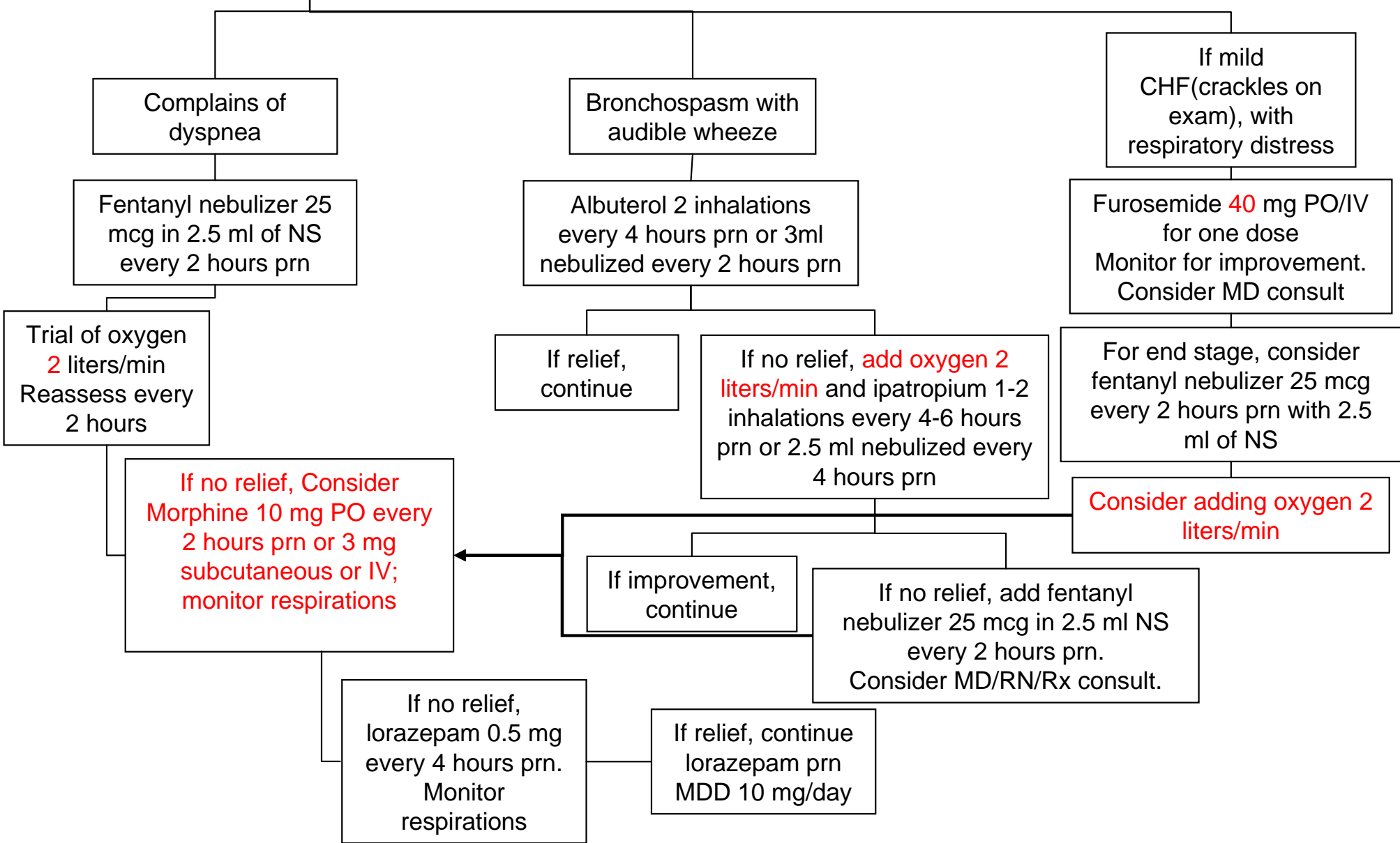


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Dyspnea

The sensation of air hunger. May be exhibited by gasping, accessory muscle involvement in breathing, tachypnea, discomfort.

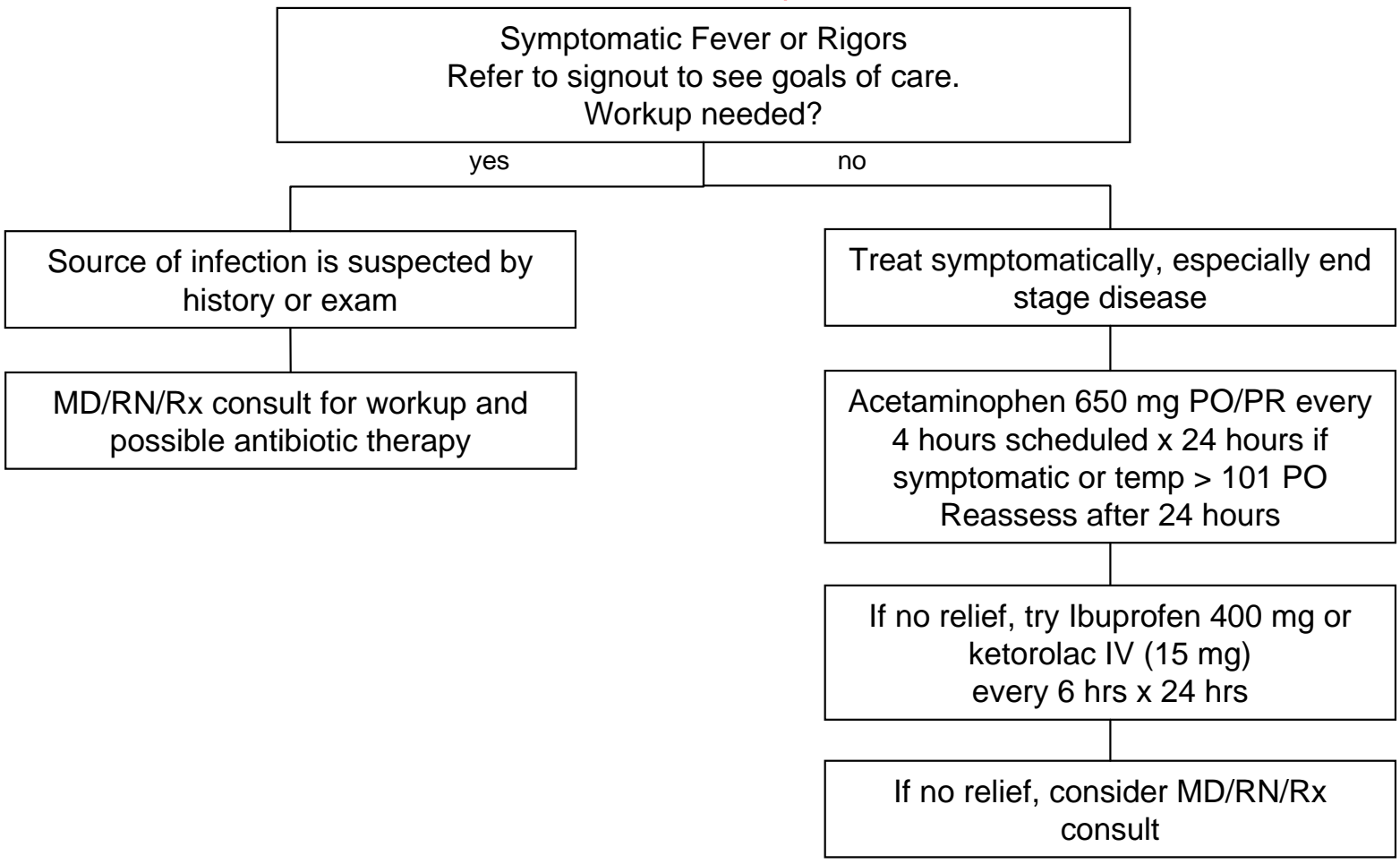
Complete respiratory assessment
If oxygen sats <90% give oxygen 2L/min.
Check hemoglobin and transfuse if consistent with care goals established on signout.



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Fever

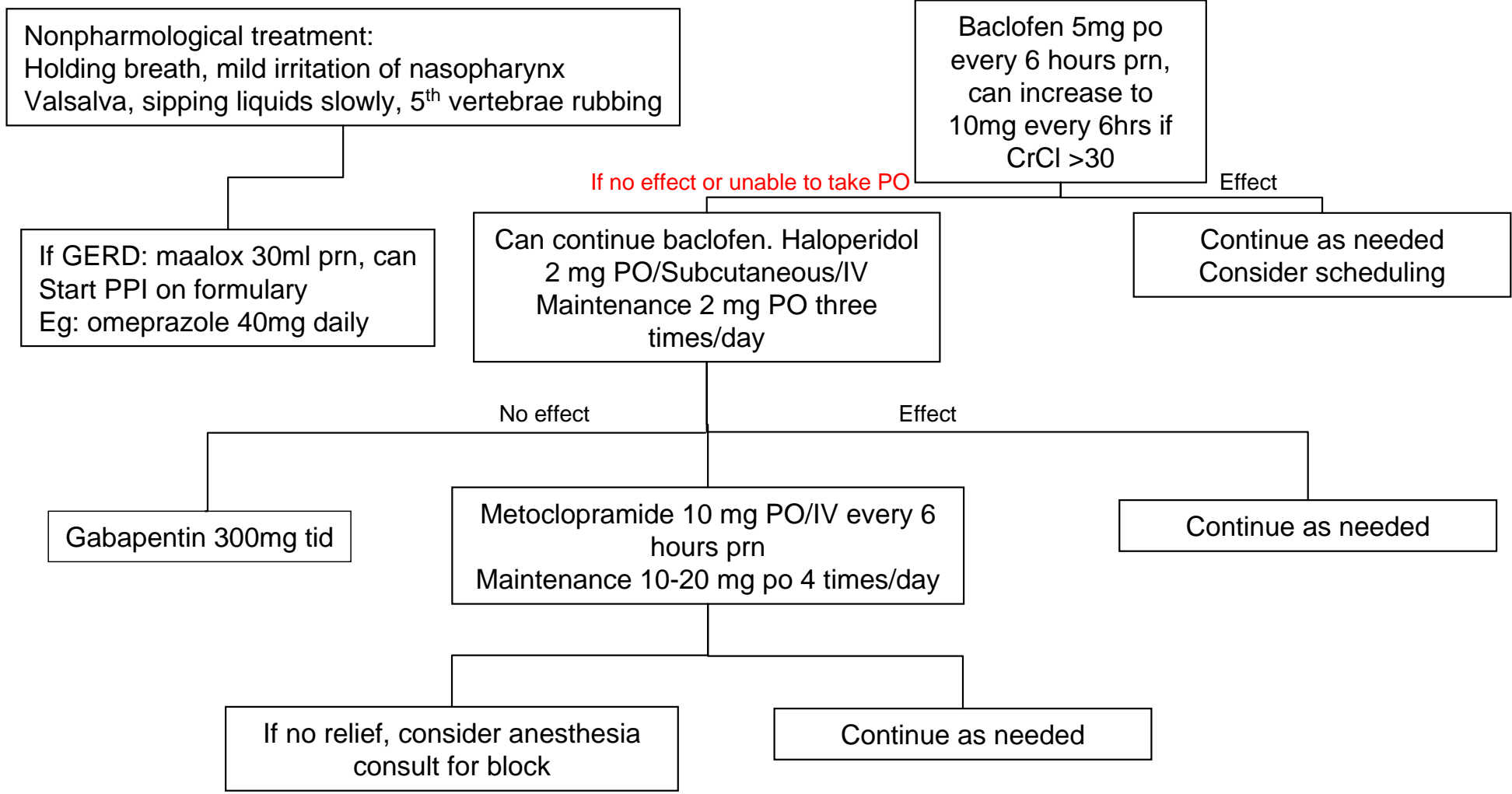
A temperature of over 101.4 (orally), 100.4 (axillary), or 100.4 (for patients with known neutropenia).



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Hiccough

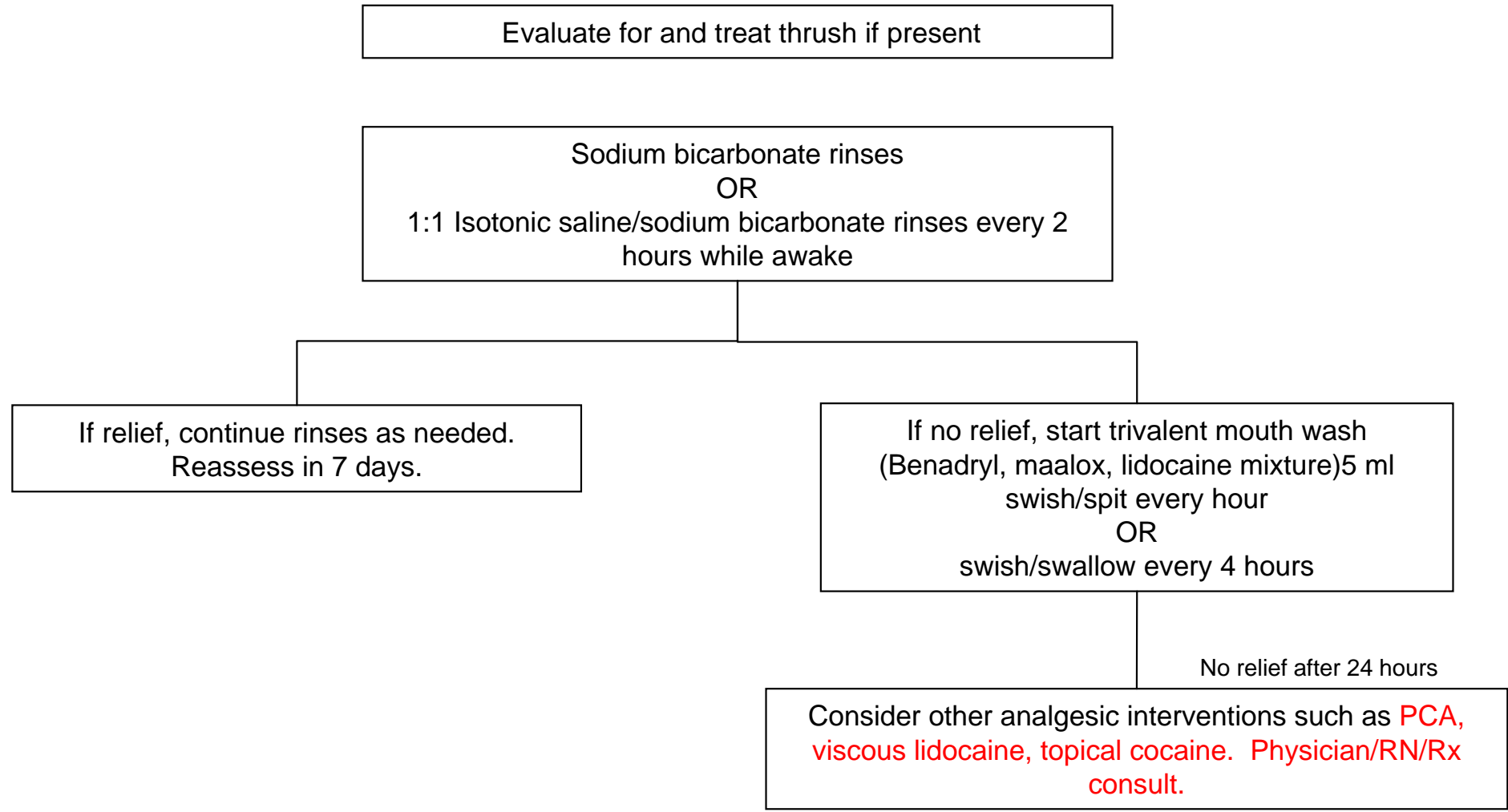
A spasmodic intermittent closure of the glottis following lowering of the diaphragm causing a short, sharp, inspiratory cough.



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Mucositis (without obvious infection)

Inflammation of the mucus membranes. Generally causes pain in the oral cavity and throat and exhibited by excessive drooling, spitting and mucus production.



Pruritus

Severe itching.

Establish probable cause:
Consider medications, high bilirubin,
skin irritants

Hydroxyzine 10 mg every 6 hours
PO prn

If opioid induced, contact
physician, consider narcan infusion

If obstructive jaundice-
cholestyramine 4gm PO every day.
Contact physician for order.

Hysricortisone/Pramoxine foam 4
times/day prn
OR
Diphenhydramine 25 mg PO/IV
every 6 hours

No improvement after 48 hours

Improved after 24 hours, continue prn

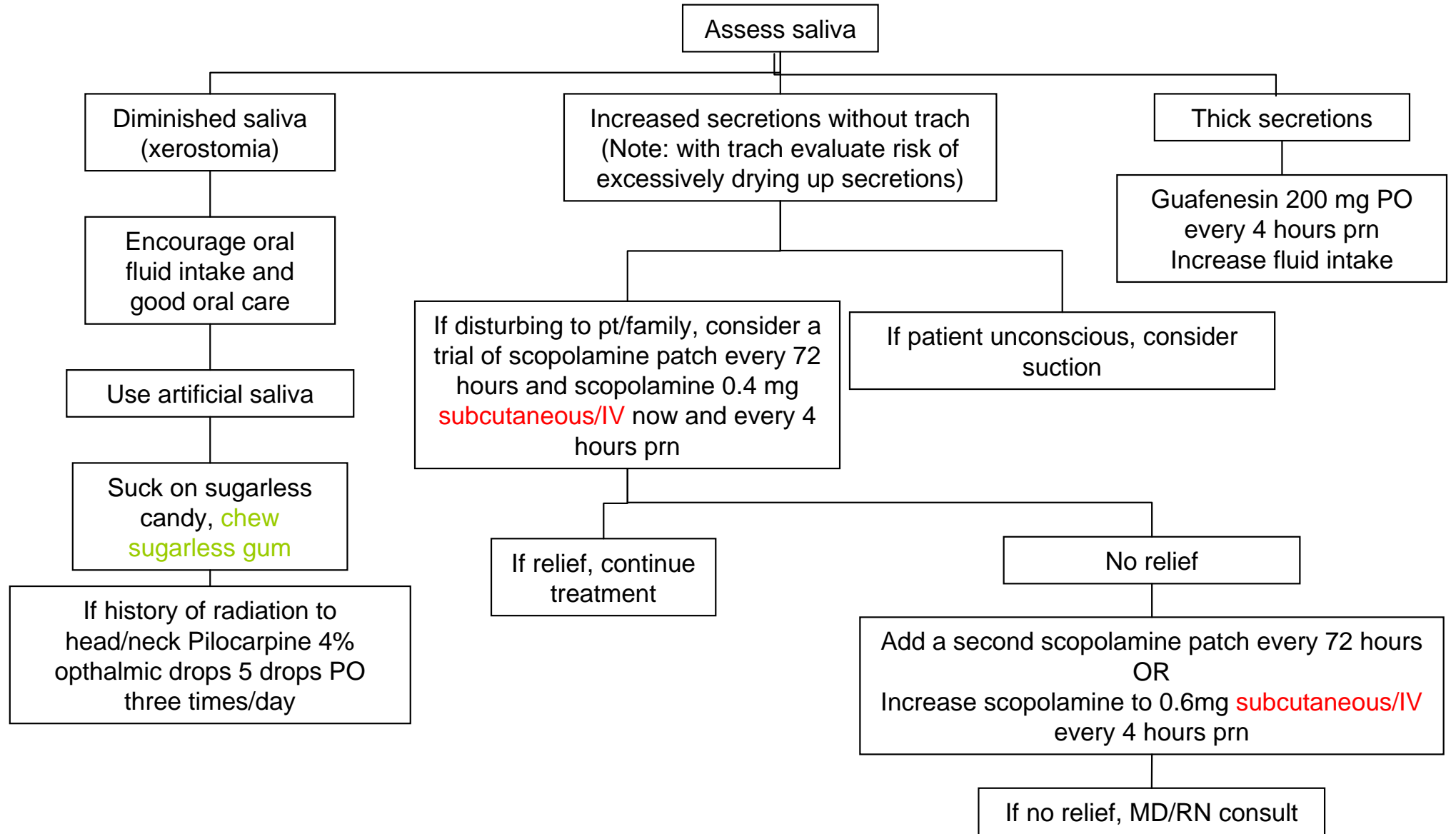
Increase cholestyramine to 4gm
PO twice/day

MD/RN/Rx consult

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Secretions

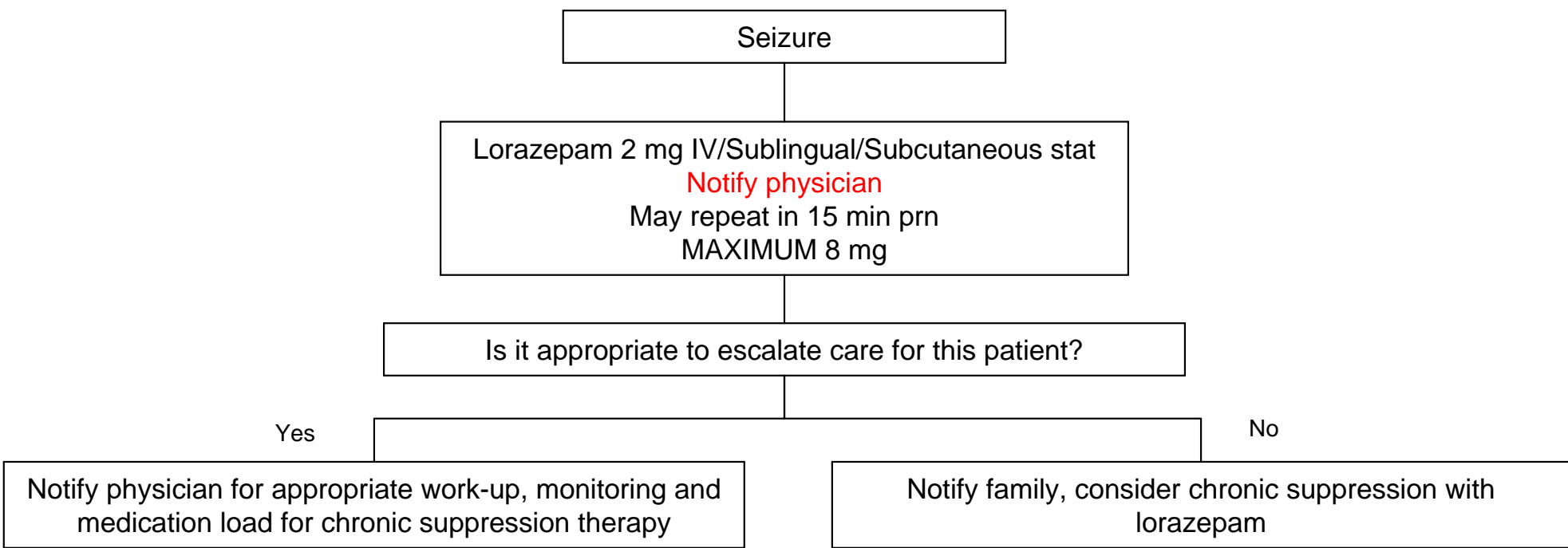
Oral or airway lubrication. May be noted by excessive, noisy respirations



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Seizures – Acute Management

Sudden, non-purposeful, rhythmic movement of any part of the body or facial muscles lasting from less to a minute to more that several minutes.

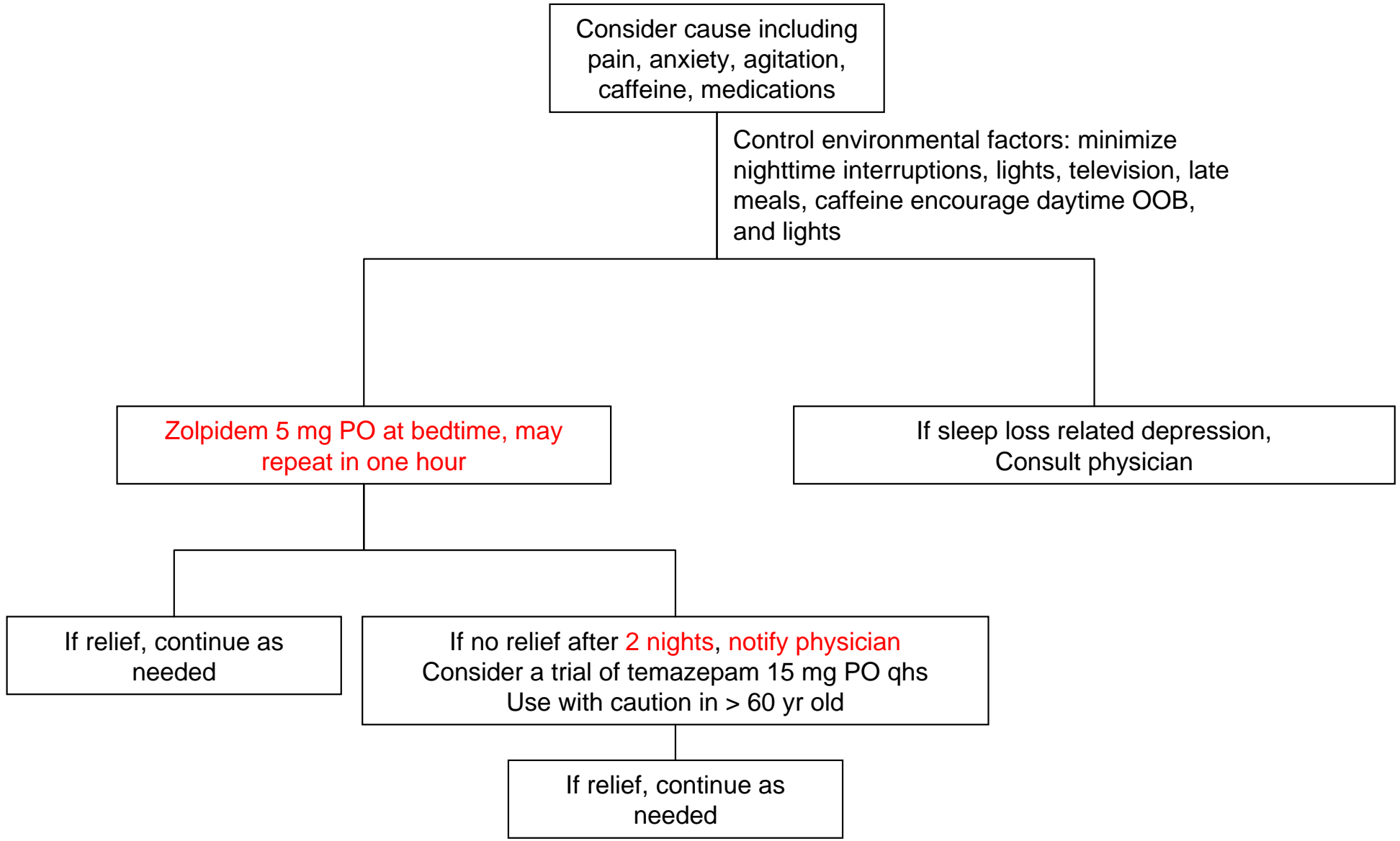


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Sleep Disturbance

(consider etiology, treat cause)

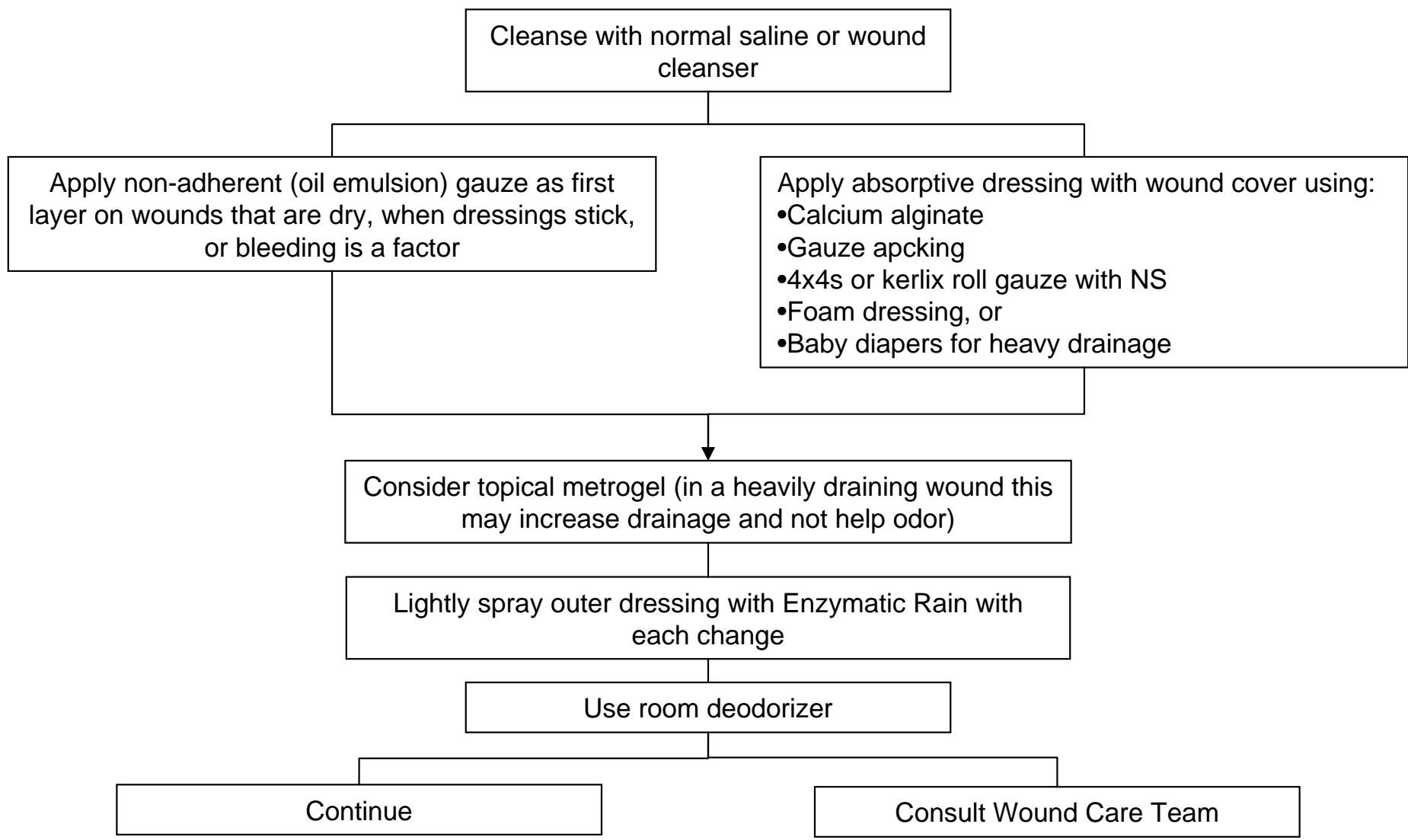
An inability to fall asleep and or stay asleep causing discomfort or fatigue.



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Wound Odor

A strong, noticeable, offensive smell emanating from a wound.



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- Agitation
 - Jackson, KC, Lipman, AG. Drug therapy for delirium in terminally ill patients. In: The Cochrane Library, Issue 2, Chichester, UK: John Wiley Sons, 2004.
 - Breitbart W, Marotta R, Platt MM, Weisman H, Derevenco M, Grau C, Corbera K, Raymond S, Lund S, Jacobson P. *A double-blind trial of haloperidol, chlorpromazine, and lorazepam in the treatment of delirium in hospitalized AIDS patients.* Am J.Psych1996 ;153:231-7.
 - Stahl, S. *Essential Psychopharmacology: Neuroscientific Basis and Practical Applications* 2nd ed. Cambridge University Press 2000.
 - Pasacreta, J., Minarik, P., & Nield-Anderson, L. (2006). Anxiety and depression. In B. R. Ferrell, & N. Coyle. (Eds.), *Textbook of palliative nursing* (2nd ed., pp. 375-400). New York, NY: Oxford University Press.
- Alternative Route for Opioid Administration
 - Bruera E, Brenneis C, Michaud M, et al. Use of the subcutaneous route for the administration of narcotics in patients with cancer pain. *Cancer* 1988; 62: 407-411.
 - Principles of analgesic use in the treatment of acute pain and cancer pain. American Pain Society, 5 th Edition, 2003 www.ampainsoc.org
 - Pereira J et al. Equianalgesic dose ratios for opioids: a critical review and proposals for long-term dosing. *J Pain Sym Manage* 2001;22:672-687.
 - Gourlay GK. Treatment of cancer pain with transdermal fentanyl. *The Lancet Oncology* 2001; 2:165-172.
- Anorexia
 - Jatoi A, Windschitl HE, et al. Dronabinol Versus Megestrol Acetate Versus Combination Therapy for Cancer-Associated Anorexia: A North Central Cancer Treatment Group Study. *Journal of Clinical Oncology*, Volume 20, Number 2, 2002; 567-573.
 - Inui, A., Cancer Anorexia-Cachexia Syndrome: Current issues in research and management, *CA Cancer J Clin* 2002; 52: 72-91.
 - Jatoi, A. On appetite and its loss, *Classic Papers*, Supplement to *JCO*, Vol 21, No 9 (May 1), 2003: pp 79s-81s.
 - Bistrrian, B. (1999). Clinical trials for the treatment of secondary wasting and cachexia. *Journal of Nutrition*, 129(1S Suppl), 290 S-294 S
 - Fainsinger, R. L., & Periera, J. (2004). Clinical assessment and decision-making in cachexia and anorexia. In D. Doyle, G.W.C. Hanks, N. Cherney, & K. Calman. *Oxford textbook of palliative medicine* (3rd ed., pp. 533-560). Oxford, UK: Oxford University Press
- Anuria
 - *Cravens (2000) Am Fam Physician 61(2): 369-76*
 - Walsh (1998) *Campbell's Urology*, Saunders, p. 159-62

- Bladder Spasms Treatment
 - Herbison, P, Hay-Smith, J, Ellis, G, Moore, K. Effectiveness of anticholinergic drugs compared with placebo in the treatment of overactive bladder: systematic review. *BMJ* 2003; 326:841.
 - Nicolle, LE, Bradley, S, Colgan, R, et al. Infectious Diseases Society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. *Clin Infect Dis* 2005; 40:643.
 - Howe, RA, Spencer, RC. Cotrimoxazole. Rationale for re-examining its indications for use. *Drug Saf* 1996; 14:213.
- Bowel Treatment – stepped care program
 - Klaschik E, Nauck F, Ostgathe C. Constipation--modern laxative therapy. *Support Care Cancer*. 2003;11(11):679-685. Epub 2003 Sep 2020.
 - Mancini I, Bruera E. Constipation in advanced cancer patients. *Support Care Cancer*. 1998; 6(4):356-364.
 - Locke, GR III, Pemberton, JH, Phillips, SF. AGA technical review on constipation. *Gastroenterology* 2000; 119:1766.
- Candidiasis – Oral
 - Pappas PG, Rex JH, Sobel JD, et al. Guidelines for treatment of candidiasis. *Clin Infect Dis* 2004; 38:161-89.
 - Sweeney MP, Bagg J. The mouth and palliative care. *Am J Hosp & Pall Care* 2000; 17(2):118-124.
- Candidiasis – Perineal
 - Sobel JD, Brooker D, Stein GE, Thomason JL, Wermeling DP, Bradley B, Weinstein L. Single oral dose fluconazole compared with conventional clotrimazole topical therapy of Candida vaginitis. Fluconazole Vaginitis Study Group. *Am J Obstet Gynecol*. 1995 Apr;172(4 Pt 1):1263-8.
 - National guideline for the management of vulvovaginal candidiasis. Clinical Effectiveness Group (Association of Genitourinary Medicine and the Medical Society for the Study of Venereal Diseases). *Sex Transm Infect* 1999; 75 Suppl 1:S19.
 - Rex, JH, Walsh, TJ, Sobel, JD, et al. Practice guidelines for treatment of candidiasis. *Clin Infect Dis* 2000; 30:662.
- Dyspnea
 - Bruera E, Sweeny C and Ripamonti C. Dyspnea in patients with advanced cancer. In: *Principles and Practice of Palliative Care and Supportive Oncology*. 2 nd Ed Berger A, Portenoy R and Weissman DE (eds). Lippincott-Raven, 2002.
 - Chan KS et al. Palliative Medicine in malignant respiratory diseases. In *Oxford Textbook of Palliative Medicine* 3 rd Ed. Doyle D, Hanks G, Cherney N and Calman N. Oxford, 2005
 - Fohr SA. The double effect of pain medication: separating myth from reality. *J Pall Med* 1998; 1:315-328.
 - Coyne, P. J., Lyne, M.E., & Watson, A. C. (2002). Symptom management in people with AIDS. *American Journal of Nursing*, 102(9), 48-56.
 - Coyne, P., J., Viswanathan, R., and Smith, T., "Nebulized Fentanyl Citrate Improves Patients Perception of Breathing, Respiratory Rate, and Oxygen Saturation in Dyspnea." *Journal of Pain and Symptom Management*. February, 23 (2), 2002, pp. 157-160.
- Fever
 - Zell JA, Chang JC. Neoplastic fever: a neglected paraneoplastic syndrome. *Support Care Cancer*. 2005 Nov;13(11):863-4.
 - Oh DY, Kim JH, Kim DW, Im SA, Kim TY, Heo DS, Bang YJ, Kim NK Antibiotic use during the last days of life in cancer patients. *Eur J Cancer Care (Engl)*. 2006 Mar;15(1):74-9.
 - Boulant JA: Thermoregulation. In: Machowiak PA, ed.: *Fever: Basic Mechanisms and Management*. New York, NY: Raven Press, 1991, pp 1-22
 - Oken, M.M., Creech, R.H., Tormey, D.C., Horton, J., Davis, T.E., McFadden, E.T., Carbone, P.P.: Toxicity And Response Criteria The Eastern Cooperative Oncology Group. *Am J Clin Oncol* 5:649-655, 1982.
 - Young LS: Fever and septicemia. In: Rubin RH, Young LS, eds.: *Clinical Approach to Infection in the Compromised Host*. 2nd ed. New York, NY: Plenum Medical, 1988, pp 75-114
 - Zhukovsky DS: Fever and sweats in the patient with advanced cancer. *Hematol Oncol Clin North Am* 16 (3): 579-88, viii, 2002.
- Hiccough
 - Kolodzik PW, Eilers, MA: *Hiccups (singultus): Review and approach to management*. *Ann Emerg Med* 1991; 20:565-573.
 - Rousseau, P. *Hiccups*. *Southern Med J* 1995; 2: 175-181.
 - Lewis J. *Hiccups: Causes and cures*. *J Clin Gastro* 1985; 7:539-552.

- Mucositis
 - Dodd MJ, et al. Radiation-induced mucositis: a randomized clinical trial of micronized sucralfate versus salt & soda mouthwashes. *Cancer Invest.* 2003;21(1):21-33.
 - Shih A, Miaskowski C, Dodd MJ, Stotts NA, MacPhail L. A research review of the current treatments for radiation-induced oral mucositis in patients with head and neck cancer. *Oncol Nurs Forum.* 2002 Aug;29(7):1063-80. [Links](#)
 - Berger AM and Kilroy TJ. Oral Complications. in DeVita V et al (eds) *Cancer: Principles and Practices of Oncology.* 6 th edition. Lippincott Williams & Wilkins. 2001.
 - Rubenstein, EB, Peterson, DE, Schubert, M, et al. Clinical practice guidelines for the prevention and treatment of cancer therapy-induced oral and gastrointestinal mucositis. *Cancer* 2004; 100: 2026.
 - Epstein, JB, Schubert, MM. Oropharyngeal mucositis in cancer therapy. Review of pathogenesis, diagnosis, and management. *Oncology (Huntingt)* 2003; 17:1767.
- Pruritus
 - Alan B. Fleisher, Jr and Jason R. Michaels. Pruritus. In: *Principles & Practice of supportive Oncology.* Eds: Ann Berger, Russell K. Portenoy, David E. Weissman. Lippincott-Raven Publishers Philadelphia 1998; 245-250.
 - Krajnik M and Zylicz. Understanding pruritis in systemic disease. *J Pain Symp Manage* 2001; 21:151-168.
- Secretions
 - Wilders H, Menten J. Death rattle: prevalence, prevention and treatment. *J Pain Symptom Manage* 2002; 23:310-317.
 - Cooke, C, Ahmedzai, S, Mayberry, J. Xerostomia--a review. *Palliat Med* 1996; 10:284.
 - Richardson, PS, Phipps, RJ. The anatomy, physiology, pharmacology and pathology of tracheobronchial mucus secretion and the use of expectorant drugs in human disease. *Pharmacol Ther [B]* 1978; 3:441.
- Seizures – Acute Management
 - DroneyJ, Hall E, Status Epilepticus in a Hospice Inpatient Setting. *Journal of Pain and Symptom Management* Vol36 No 1 July 2008
 - Cereghino, J. Rectal Diazepam for threayment of Acute Repetitive Seizures in Adults. *Archives of Neurology* Vol 159 Decemver 2002
 - Treiman, DM. Pharmacokinetics and clinical use of benzodiazepines in the management of status epilepticus. *Epilepsia* 1989; 30(suppl 2):s4.
 - Chapman, MG, Smith, M, Hirsch, NP. Status epilepticus. *Anaesthesia* 2001; 56:648.
- Sleep Disturbance
 - Carlos H. Schenck, Mark W. Mahowald, and Robert L. Sack. *Assessment and Management of Insomnia* JAMA 2003 289: 2475-2479.
- Wound Odor
 - Paul Walker. The pathophysiology and management of pressure ulcers. In: *Topics in Palliative Care, Volume 3.* Eds. Russell K. Portenoy and Eduardo Bruera. Oxford University Press 1998. Pp 253-270.
 - Grocott P. The palliative management of fungating malignant wounds. *J Wound Care.* 2000; 9 (1):4-9.
 - Newman V, Allwood M, Oakes RA. The use of metronidazole gel to control the smell of malodorous lesions. *Palliat Med.* 1989; 3: 303-305.
 - Bates-Jensen, B.M. (2006). Skin disorders: Pressure ulcers – assessment and management. In B.R. Ferrell, & N. Coyle (Eds.), *Textbook of palliative nursing* (2nd ed., pp. 301-328.). New York, NY: Oxford University Press.
 - Bates-Jensen B.M., Seaman, S. & Early, L. (2006). Skin disorders: Tumor necrosis, fistules, and stoma. In B.R. Ferrell, & N. Coyle (Eds.), *Textbook of palliative nursing* (2nd ed., pp. 329-344.). New York, NY: Oxford University Press
 - Grocott, P., & Dealey, C. (2004). Symptom management: Nursing aspects. In D. Doyle, G. Hanks, N. Cherney, & K. Calman (Eds.) *Oxford textbook of palliative medicine* (3rd ed., pp. 628-640). Oxford, UK: Oxford University Press.

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