



BC Centre for
Palliative Care

B.C. INTER-PROFESSIONAL PALLIATIVE SYMPTOM MANAGEMENT GUIDELINES

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ANOREXIA

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DEFINITION

Anorexia is the loss or absence of appetite^{1, 2} leading to reduced caloric intake,^{3, 4} resulting in loss of weight and fat tissue.^{5, 6} **Cachexia** is the involuntary loss of more than 10% of pre-morbid weight,^{1, 7} resulting in loss of muscle, with or without loss of fat.^{4, 6, 8-11} It is a chronic hypercatabolic, inflammatory state and cannot be entirely attributed to poor caloric intake.^{2, 12} Cachexia is not reversible and may not correlate with anorexia.^{1, 8, 13} Anorexia and cachexia are different clinical syndromes and do not always co-exist; however, they often occur together in advanced cancer and serious chronic illness.⁶ **Anorexia-cachexia syndrome (ACS)** is a complex, multi-factorial metabolic syndrome¹¹ characterised by anorexia, cachexia,¹⁴ asthenia, fatigue,¹⁵ functional decline and change in body image.⁷

PREVALENCE

Anorexia is common among patients with advanced cancer and other life-limiting chronic diseases.¹⁶⁻¹⁸ It occurs in 26% of palliative patients,¹⁹ 66% of cancer patients,²⁰ and is more common in the elderly. Cachexia occurs in more than 80% of patients with cancer before death¹⁵ and in 12-85% of patients with other conditions.²¹⁻²⁴ It is the main cause of death in more than 20% of patients.^{7, 25, 26} Anorexia-cachexia syndrome occurs in up to 86% of cancer patients²⁷ (particularly lung, pancreas and gastric) and in a variety of chronic diseases, including 10-60% in acquired immunodeficiency syndrome (AIDS), 16-36% in congestive heart failure (CHF), 30- 70% in chronic obstructive pulmonary disease (COPD),^{28, 29} and 30-60% in chronic kidney disease (CKD),³⁰ rheumatoid arthritis (RA), and dementia.^{4, 7, 17, 25, 31-38}

IMPACT

Anorexia can lead to poor caloric intake and protein-calorie malnutrition; it is reversible when causes are corrected.^{6, 39, 40} People assume that anorexia causes cachexia but, in many cases, it is the reverse.⁴¹ Anorexia-cachexia syndrome (ACS) leads to serious physical and functional deficits, increased dependency, and impaired quality of life (QOL).^{14, 42} ACS increases risk of hospitalization,^{43, 44} may prevent further interventions such as surgery or chemotherapy,¹ and is an indicator of poor prognosis.^{7, 18, 45}

The stigma of “wasting” and the symbolism of “feeding as caring” create significant emotional and social distress for both ACS patients and family.⁴⁶⁻⁴⁸ Patients suffer devastating loss of body image and self-esteem,¹⁵ anxiety and depression,⁴⁶ and can withdraw socially. Caregivers become anxious and distressed, feeling helpless and guilty as they perceive their loved one as “starving to death”.^{1, 49} Well-meaning pressure to eat creates tension and conflict with the person who is unable.^{15, 50-54} Forcing food when the body can’t handle it creates discomfort and can make other symptoms more difficult to manage.⁴¹

STANDARD OF CARE

Step 1 | Goals of care conversation

Determine goals of care in conversation with the patient, family and inter-disciplinary team. Refer to additional resources ([Additional resources for management of anorexia](#)) for tools to guide conversations and required documentation. Goals of care may change over time and need to be reconsidered at times of transition, e.g., disease progression or transfer to another care setting.

Step 2 | Assessment

Anorexia Assessment: Using Mnemonic O, P, Q, R, S, T, U and V¹

Mnemonic Letter	Assessment Questions <i>Whenever possible, ask the patient directly. Involve family as appropriate and desired by the patient.</i>
Onset	When did your appetite loss begin? How long does it last? How often does it happen? Have you lost weight?

Provoking /Palliating	Have you noticed anything that brings on a loss of appetite? What makes your appetite better? What makes it worse? How have you adjusted the types of food you eat?
Quality	How much weight have you lost? Do you have any fatigue, weakness or loss of abilities? Can you describe how you feel when you think about eating?
Region/Radiation	Not applicable
Severity	How severe is your appetite loss? What would you rate it on a scale of 0-10 (0 being none and 10 being the worst possible)? Right now? At worst? On average? How bothered are you by your appetite loss? How much weight have you lost over what period of time? Are there other symptoms that accompany your lack of appetite (e.g., nausea, dysphagia, or fatigue)?
Treatment	What medications and treatments are you currently using to improve your appetite? Are you using any non-prescription treatments, herbal remedies, or traditional healing practices? How effective are these? Do you have any side effects from the medications and treatments? What have you tried in the past? Do you have concerns about side effects or cost of treatments?
Understanding	What do you believe is causing your decreased appetite and/or weight loss? How does this impact your daily activities, ability to function, sleep, your sense of well-being? How is it affecting you and/or your family? What is most concerning to you?
Values	What overall goals do we need to keep in mind as we manage this symptom? What are your expectations? Given that it may not be possible to improve your appetite or reverse weight loss, what is most important to your quality of life? What is your acceptable level for this symptom (0-10)? Are there any beliefs, views or feelings about this symptom that are important to you and your family?

Symptom Assessment: Physical assessment as appropriate for symptom

Diagnostics: consider goals of care before ordering diagnostic testing

Identify risk factors that compromise nutrition access or intake.^{18, 71} Disease progression tends to continue with functional decline, increasing fatigue, anorexia, and cachexia.⁷⁰ Tests may reduce patient's quality of life.⁶ Not necessary to weight patients routinely in last stages of illness.

- Lab tests: CBC, electrolytes, glucose, TSH and serum albumin.^{4, 40, 72}

Step 3 | Determine possible causes and reverse as possible if in keeping with goals of care (For more details, see [Underlying causes of anorexia in palliative care](#))

Anorexia has numerous causes, many of which are reversible; anorexia doesn't cause cachexia. Cachexia causes anorexia, which then worsens cachexia.⁴¹

- Primary causes relate to changes (metabolic and neuroendocrine) directly associated with underlying disease and inflammatory state.
- Secondary contributing factors (fatigue, pain, dyspnea, infection, etc.) lead to weight loss.^{33-35, 38, 55-57, 73-76} ([See Underlying causes of anorexia in palliative care](#))

PRINCIPLES OF MANAGEMENT







When considering a management approach, always balance burden of a possible intervention against the likely benefit (e.g., does the intervention require transfer to another care setting?)

- Determine food intake, impact on patient performance, and potential for reversal.¹¹
- Identify, and where appropriate with goals of care, treat reversible causes of anorexia.^{14, 77} (**See Underlying causes of anorexia in palliative care**) Cachexia is not reversible.²
- Offer information and practical advice about nutrition, diet and managing anorexia.^{14, 77}
- In early stages, aim to restore or maintain nutritional and functional status.^{14, 78}
- In later stages, focus on patient comfort and reducing patient and family anxiety.⁷⁷
- Involve interdisciplinary team including dietician, physiotherapist, occupational therapist, pharmacist, speech and language pathologist, cultural and spiritual care.^{6, 77}
- Acknowledge distress about body image, fatigue and functional decline.^{14, 77}
- Establish realistic goals.⁴

Step 4 | Interventions

LEGEND FOR USE OF BULLETS

Bullets are used to identify the type or strength of recommendation that is being made, based on a review of available evidence, using a modified GRADE process.

	Use with confidence: recommendations are supported by moderate to high levels of empirical evidence.
	Use if benefits outweigh potential harm: recommendations are supported by clinical practice experience, anecdotal, observational or case study evidence providing low level empirical evidence.
	Use with caution: Evidence for recommendations is conflicting or insufficient, requiring further study
	not recommended: high level empirical evidence of no benefit or potential harm

Non-pharmacological interventions

Interventions available in the home and residential care facilities




Consultation with dietician (811 HealthLink) for education and recommended supplements⁶




Oral nutrition support may be helpful early in the disease process.⁶ Evidence of effect in COPD patients.⁷⁹ No benefit shown in cancer patients.^{15, 17, 25, 80, 81}
Consider the cost of nutritional supplements as a potential barrier.





Physical exercise may prevent or slow loss of lean body mass to help patients maintain independence longer.⁸² Evidence is insufficient to determine safety or effectiveness in the cancer population. Studies are in progress.⁸³

 **EPA fish oils** containing omega3 fatty acid. Some studies suggest role to stabilize weight loss and promote weight gain. Poor palatability.⁴²

Interventions requiring additional equipment or admission to acute care

 **Enteral (tube) feeding** may benefit a sub-set of patients when reduced intake is due to structural/functional causes if appetite is intact and if reasonable quality of life. Gastrostomy tubes are preferred to NG tubes; also helps drainage in complete bowel obstruction.^{6, 33, 34, 76, 84-89}

 **Enteral (tube) feeding** is NOT recommended to manage weight loss in advanced progressive illnesses such as cancer, heart failure, lung failure, cystic fibrosis, multiple sclerosis, motor neuron disease, Parkinson's disease, dementia and AIDS.⁹⁰ Evidence does not show improved quality of life, healing, reduced pressure ulcers, enhanced functional capacity, or increased survival⁸⁸ in this patient population.

 **Total parental nutrition** NOT recommended: small benefit, increased risk of infection, reduced survival.⁷

Pharmacological interventions

(Refer to [Medications for management of anorexia](#))

Review causative drugs, objectives



Assess if drugs could be a cause of anorexia, taste or smell alteration.



Stop unnecessary drugs; appropriately consider trial dose reduction/stoppage of suspected drug causes or a switch to drug option of lower anorexic propensity.



Before starting drugs for anorexia, align appetite stimulants with goals of care as they have minimal or no demonstrated influence on quality of life^{38, 40, 91-93} and often do not reverse cachexia.⁹⁴ Cachexia improvement, even if treated, has limited improvement impact on quality of life,⁹² no effect on lean body mass,^{38,40} modest effect on weight gain,^{93, 95} does not improve survival.^{4, 38, 91, 95}

Pharmacological management appropriate for secondary contributing symptoms



Medications can be useful to treat secondary causes of anorexia^{5, 6, 40, 96, 97} including: metoclopramide or domperidone for early satiety, nausea/vomiting, gastroparesis; mirtazapine or antidepressants for depression; antifungals for oral or esophageal candidiasis. Refer to **Medications for management of anorexia** for doses.



Anorexia may also be improved with drug treatment of other secondary symptomatic causes including pain. Refer to other guidelines for management.

Anorexia Treatment Management



Megestrol acetate - start with 160 mg PO daily; is as effective as higher doses for anorexia.^{40, 91, 98} Larger doses may benefit cachexia, up to 800 mg daily.



Appetite stimulation demonstrated in advanced cancer and AIDs patients; some effectiveness for COPD, ESRD, and other pathologies.^{11, 40, 94}



Usually well-tolerated, edema occasionally.^{11, 93} Thromboembolism, such as deep vein thrombosis, is infrequent but concerning as has resulted in death.^{93, 94, 96} This risk may be greater in elderly with impaired mobility.⁹⁹



Corticosteroids stimulate appetite in 60-80% of patients.^{97, 100} Studies show a similar effectiveness to megestrol.^{38, 91, 101} Effect can occur within a few days,⁹⁷ with a significant effect from 2 up to 8 weeks,^{102, 103} but may disappear after 3 to 4 weeks.^{102, 104}



Stop dexamethasone trial if up to 4 mg daily dose fails to improve appetite within 7 to 10 days.^{97, 104, 105} Use beyond 6 to 8 weeks is not recommended as adverse effects dramatically increase with duration of use.^{103, 106} Consider megestrol as an alternative.^{94, 107}

Other appetite stimulants



Cannabinoids have not shown consistent appetite improvement in studies.^{91, 94} Central nervous system side effects limit patient use acceptability.⁶



Marijuana stimulates appetite according to anecdotal reports.^{40, 91, 108} Review current use regulations as appropriate, such as for medicinal marijuana.¹⁰⁹



Mirtazapine, an antidepressant, may improve appetite and weight in cancer-associated anorexia and is well tolerated; results are limited and use awaits further study.^{40, 91, 110}



Not recommended: hydrazine sulfate,^{91, 94} Eicosapentaenoic acid (or fish oil supplementation),^{40, 42, 91, 111} thalidomide^{40, 91, 112, 113} combinations of drugs.^{11, 40, 91}

Patient and family education

Teach patients and families about the natural progression of disease^{4, 6, 14}:



Explain metabolic abnormalities are causing the anorexia.¹



Give early nutritional counselling.¹ Some patients may benefit from nutritional supplementation or appetite stimulation but this does not reverse the underlying process.



Gradual reduction in oral intake is a natural part of the illness; it is not starvation.^{14, 40}



Give patient permission to eat less and educate family to reduce focus on food.⁷⁷ Encourage alternate forms of caring (massage, oral care, reading, presence)



Focus on enjoyment of food within limits of patient ability; encourage social interaction.¹⁴ Include the patient in social gatherings even if they do not feel like eating.



Offer small frequent meals high in calories, attractively presented; favorite foods and rest before meals may be helpful.⁴⁰ Tasting can be enjoyable.



Previous dietary restrictions, except those for allergy, may be relaxed.¹⁴

ADDITIONAL RESOURCES FOR MANAGEMENT OF ANOREXIA

Resources specific to Anorexia

- BC Cancer Agency Symptom management guidelines: Anorexia and Cachexia
<http://www.bccancer.bc.ca/nursing-site/Documents/2.%20Anorexia%20and%20Cachexia.pdf>
- BC's Heart Failure Network: Clinical practice guidelines for heart failure symptom management: Anorexia and cachexia
<http://www.bcheartfailure.ca/wp-content/uploads/downloads/2015/01/Anorexia-and-Cachexia-Jan-20151.pdf>

General resources

- **Provincial Palliative Care Line** – for **physician** advice or support, call **1 877 711-5757** In ongoing partnership with the Doctors of BC, the toll-free Provincial Palliative Care Consultation Phone Line is staffed by Vancouver Home Hospice Palliative Care physicians 24 hours per day, 7 days per week to assist physicians in B.C. with advice about symptom management, psychosocial issues, or difficult end-of-life decision making.
- BC Centre for Palliative Care: Serious Illness Conversation Guide
<https://www.bc-cpc.ca/cpc/serious-illness-conversations/>
- BC Guidelines: Palliative Care for the Patient with Incurable Cancer or Advanced Disease
<http://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/palliative-care>
- BC Palliative Care Benefits: Information for prescribers
<https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/pharmacare/prescribers/plan-p-bc-palliative-care-benefits-program>

- National Centre for Complementary and Alternative Medicine (NCCAM) for additional information on the use of non-pharmacological interventions
<https://nccih.nih.gov/>
- Canadian Association of Psychosocial Oncology: Algorithms for Cancer-related Distress, Depression and Global Anxiety
<https://www.capo.ca/resources/Documents/Guidelines/4.%20Algorithms%20for%20Cancer-related%20Distress,%20Depression%20and%20Global%20Anxiety.pdf>
- Fraser Health psychosocial care guideline
https://www.fraserhealth.ca/employees/clinical-resources/hospice-palliative-care#.W-by_pNKg2w

Resources specific to health organization/region

- Fraser Health
<https://www.fraserhealth.ca/employees/clinical-resources/hospice-palliative-care#.XDU8UFVKjb1>
- First Nations Health Authority
<http://www.fnha.ca/>
- Interior Health
<https://www.interiorhealth.ca/YourCare/PalliativeCare/Pages/default.aspx>
- Island Health
<https://www.islandhealth.ca/our-services/end-of-life-hospice-palliative-services/hospice-palliative-end-of-life-care>
- Northern Health
<https://www.northernhealth.ca/for-health-professionals/palliative-care-end-of-life-care>
- Providence Health
<http://hpc.providencehealthcare.org/>
- Vancouver Coastal Health
<http://www.vch.ca/your-care/home-community-care/care-options/hospice-palliative-care>

Resources specific to patient population

- ALS Society of Canada: A Guide to ALS patient care for primary care physicians
<https://als.ca/wp-content/uploads/2017/02/A-Guide-to-ALS-Patient-Care-For-Primary-Care-Physicians-English.pdf>
- ALS Society of British Columbia 1-800-708-3228
www.alsbc.ca
- BC Cancer Agency: Symptom management guidelines
<http://www.bccancer.bc.ca/health-professionals/clinical-resources/nursing/symptom-management>
- BC Renal Agency: Conservative care pathway and symptom management
<http://www.bcrenalagency.ca/health-professionals/clinical-resources/palliative-care>
- BC's Heart Failure Network: Clinical practice guidelines for heart failure symptom management
<http://www.bcheartfailure.ca/for-bc-healthcare-providers/end-of-life-tools/>
- Canuck Place Children's Hospice
<https://www.canuckplace.org/resources/for-health-professionals/>
 - 24 hr line – 1.877.882.2288
 - Page a Pediatric Palliative care physician – 1-604-875-2161 (request palliative physician on call)
- Together for short lives: Basic symptom control in pediatric palliative care
<http://www.togetherforshortlives.org.uk/professionals/resources/2434-basic-symptom-control-in-paediatric-palliative-care-free-download>

UNDERLYING CAUSES OF ANOREXIA IN PALLIATIVE CARE^{4, 11, 77, 90, 114}

1. Primary	
<i>Metabolic disturbances</i>	
• Dehydration	• Uremia
• Hyperglycemia	• Hypothyroidism
• Hypokalemia hypercalcemia	• Cancer by-products (cytokines, tnf, interleukin 1, leptin)
<i>Inflammatory processes</i>	
• Hypercatabolism	• Cachexia
• Infection	
<i>Neuro-hormonal effects</i>	
• Gastric stasis	• Early satiety, anorexia, nausea, vomiting, constipation
• Malabsorption	
<i>Co-morbid conditions</i>	
• CHF	• Chronic renal failure
• COPD	• HIV/AIDS
<i>Concurrent disease</i>	
• Diabetes	• Anal fissure
• Hernia	• Anterior mucosal prolapse
• Diverticular disease	• Hemorrhoids
• Colitis	• Spinal cord injury
• Rectocele	• Multiple Sclerosis, ALS
<i>Neurological disorders</i>	
• Cerebral tumors	• Sacral nerve infiltration
• Autonomic failure	• Spinal cord involvement/compression
<i>Structural /Functional abnormalities</i>	
• GI obstruction	• Radiation fibrosis
• Dental problems	• Dysphagia (stroke, tumour, dementia)

UNDERLYING CAUSES OF ANOREXIA IN PALLIATIVE CONTINUED

2. Secondary	
<i>Uncontrolled symptoms</i>	
• Pain	• Dyspnea
• Nausea/vomiting	• Altered taste/ xerostomia
• Constipation	• Treatment toxicities (mucositis)
<i>General</i>	
• Advanced age	• Decreased intake
• Inactivity	• Low fiber diet
• Need for assistance	• Delirium/dementia/memory problems
• Depression	• Poor fluid intake
• Sedation	• Physical or social impediments
• Pelvic tumor mass	• Painful anorectal conditions (anal fissure, hemorrhoids, perianal abscess)
3. iatrogenic	
Drugs - drug classes	Specific causative examples*
• Antibiotics	Cefazolin, Dactinomycin, Doxycycline, Erythromycin, Metronidazole (1%), Nitrofurantoin, Rifampin, Sulfamethoxazole/Trimethoprim
• Anticonvulsants	Clobazam (up to 7%), Clonazepam, Divalproex Sodium (4 to 12%), Levetiracetam (3- 8%), Topiramate (10- 24%), Valproic acid (4- 12%)
• Antidepressants	Citalopram (4%), Bupropion (3 to 5%), Doxepin, Fluvoxamine (6%), Fluoxetine (3.8-17%), Nortriptyline, Paroxetine (2-9%), Sertraline (3-11%), Venlafaxine (8-22%)
• Antiretrovirals	Abacavir/Lamivudine/Zidovudine, Indinavir (0.5-5.4%), Nelfinavir (<2%), Tenofovir (3-4%)
• Antihypertensives	Amlodipine (0.1-1%), Clonidine, Hydralazine, Nadolol (<1%), Sotalol (1.6-2%)
• Antiparkinsonian agents	Bromocriptine, (4-5% in Acromegaly, type 2 diabetes), Levodopa/carbidopa (1.2%), Selegiline
• Antipsychotics	Haloperidol
• Antivirals	Acyclovir (<1%), Ganciclovir (15-19 %)

Underlying causes of anorexia in palliative care continued on [next page](#)

UNDERLYING CAUSES OF ANOREXIA IN PALLIATIVE CONTINUED

<ul style="list-style-type: none"> • Chemotherapy 	Anastrozole (5-7%), Bevacizumab (34 to 43%), Busulfan(IV:85%), Capecitabine (9-26%), Cyclophosphamide, Cytarabine, Dacarbazine, Erlotinib (52%), Etoposide (10-13%), Fludarabine (0 up to 34%), Hydroxyurea, Letrozole (3-5%), Mitomycin (14%), Paclitaxel, Sorafenib (16-29%), Temozolomide (up to 40%), Vincristine
<ul style="list-style-type: none"> • Diuretics 	Amiloride (3-8%), Ethacrynic acid, Furosemide, Hydrochlorothiazide (reported at doses of 25 mg or greater)
<ul style="list-style-type: none"> • Gastrointestinal agents 	Aprepitant (5%-pediatric), Nabilone (8%)
<ul style="list-style-type: none"> • Hormonal agents 	Flutamide (4%)
<ul style="list-style-type: none"> • Opioids 	Fentanyl (Transdermal 3-10%, sublingual 1%), Hydro-morphone (1-6%), Morphine (5-10%), Tramadol (0.7-5.9 %)
<ul style="list-style-type: none"> • Other 	Allopurinol, Amantadine (1-5%), Amiodarone (4-9%), Amphetamine (33%), Colestipol, Cyclobenzaprine (<1%), Cyclosporine (2% or less), Dextroamphetamine, Donepezil (2-8%), Ethambutol, Famotidine, Flecanide (1-3%), Ketamine, Lithium, Memantine, Metformin, Methylphenidate (5%), Modafinil (4%), Pamidronate (1-12% in malignant hypercalcemia), Pancrelipase (6%), Polystyrene Sulfonate, Rivastigmine (1-6%), Sulfasalazine (33%), Trazodone (up to 3.5%), Zoledronic acid (hypercalcemia of malignancy, 9%; bone metastasis, 22%).
<ul style="list-style-type: none"> • Supplements 	Folic acid, Iron (6%)

If no specific percentage incidence shown for each drug, the known occurrence rate not reported.¹¹⁴ There are many medications that are reported to cause anorexia.¹¹⁴ This table above provides some examples. Consult pharmacist if additional assistance is required.

MEDICATIONS FOR MANAGEMENT OF ANOREXIA

Drug, Action (classification)	Dose, Therapeutic range	Onset, Adverse Effects, Precautions and Dosing Concerns
<p>Dexamethasone[†] (corticosteroid)</p>	<p><u>Starting dose:</u> 2 to 4 mg PO or IV/SC daily in AM</p> <p><u>Maximum dose:</u> 4 to 8 mg PO or IV/SC daily in AM^{77, 101}</p>	<p>Onset of appetite stimulation within a few days.¹¹⁵</p> <p>Adverse effects: candidiasis, fluid retention, gastritis, hypokalemia, hyperglycemia, myopathy, insomnia, impaired wound healing, psychosis.^{14, 70, 105} After six weeks of use greater risk of steroid-induced diabetes, proximal myopathy, lipodystrophy (moon face, buffalo hump); after 3 months, of osteoporosis, glaucoma.¹⁰⁵ For symptomatic gastroprotection while on corticosteroids, when if medical history suggests need, use a proton pump inhibitor such as pantoprazole or rabeprazole.</p> <p>Contraindicated when systemic infection, unless considered to be life-saving and specific anti-infective therapy is employed.¹⁰⁵</p> <p>Precautions: use in patients with psychotic illness (lower dose below 6 mg daily), seizure disorders, hypertension, diabetes.⁷⁰</p> <p>Dosing: most expert guidelines suggest up to a daily dose of 4 mg for anorexia with 8 mg daily dose typically only for anorexia with cachexia.^{77, 101, 116} Assess for potential drug interactions, particularly anticoagulants, anticonvulsants and anticoagulants. Avoid NSAIDs, as increases peptic ulceration risk 15-fold together.¹⁰⁵ Reduce dose to the minimum effective dose to avoid side effects.¹¹⁵</p>

Medications for management of anorexia continued on [next page](#)

MEDICATIONS FOR MANAGEMENT OF ANOREXIA

CONTINUED

Drug, Action (classification)	Dose, Therapeutic range	Onset, Adverse Effects, Precautions and Dosing Concerns
<p>Megestrol Acetate[†] (progesterone)</p>	<p><u>Starting dose:</u> 160 mg PO daily</p> <p><u>Maximum daily dose:</u> 800 mg daily^{40, 117}</p>	<p>Onset of appetite stimulation may be up to 2 weeks.¹¹⁵</p> <p>Adverse effects: Edema, nausea, thromboembolic events, hypertension, breakthrough uterine bleeding, skin photosensitivity, insomnia, hypogonadism.^{11, 115, 116} After 3 months of use, cushingoid changes and muscle catabolism.⁹⁸ Megestrol may cause symptomatic suppression of the hypothalamic pituitary adrenal axis; in the presence of serious infection, surgery, or trauma, this complication may be life-threatening if not anticipated and treated.⁹¹</p> <p>Avoid during the first four months of pregnancy and while nursing infants.^{118, 119}</p> <p>Precautions: use with caution if a history of thrombophlebitis in patients over 65 years of age who may have impaired renal function (as megestrol is substantially excreted via kidney).^{118, 119} Monitor for possible adrenal cortical suppression if used continuously for prolonged periods.^{118, 119}</p> <p>Dosing: 160 mg daily for anorexia. For <u>anorexia-cachexia in cancer patients</u>, optimal dose is 400 to 800 mg.¹¹ Higher doses have no additional benefit.¹¹⁶ Reduce dose gradually if used for more than 3 weeks to minimize risk of adrenal suppression.^{14, 100} Liquid is indicated at 400 to 800 mg daily for the treatment of anorexia, cachexia, or an unexplained significant weight loss in patients with AIDS.¹¹⁸</p>

Medications for management of anorexia continued on [next page](#)

MEDICATIONS FOR MANAGEMENT OF ANOREXIA

CONTINUED

Drug, Action (classification)	Dose, Therapeutic range	Onset, Adverse Effects, Precautions and Dosing Concerns
Metoclopramide (prokinetic)	5 to 10 mg PO TID to QID or IV/SC ¹⁴	Can help early satiety, delayed gastric emptying, gastroparesis or nausea. Give 30 minutes prior to meals. ¹⁴ Adjust appropriately for reduced renal function, drug clearance. Metoclopramide itself has no appetite stimulating properties. ^{101, 111} Not shown to improve caloric intake. ⁹¹
Domperidone (prokinetic)	10 mg PO TID to QID	Can help early satiety, delayed gastric emptying, gastroparesis or nausea. Give 30 minutes prior to meals. ¹⁴ Adjust appropriately for reduced renal function, drug clearance. Prokinetics not shown to directly stimulating appetite.
Mirtazapine (antidepressant)	7.5 to 30 mg PO daily at bedtime ^{5, 120}	Adjust appropriately for reduced renal function, drug clearance. Well tolerated, ^{120, 121} causes sedation (give dose at bedtime) Use for anorexia is an off-label indication. When studied for anorexia, dose increased after 3 to 7 days, patients responded in the first few weeks. ¹²¹
Nystatin (antifungal)	5 mL PO QID x 14 days	For treatment of oral candidiasis. Swish and swallow. Avoid food and water for a while after dose is given to improve contact effectiveness.

†Off-label. PO = by mouth IV = Intravenous, SC = Subcutaneous, TID = three times daily, QID = four times daily, ODT = oral dissolving tablet, CSCI = continuous subcutaneous infusion.

Additional resources for management of anorexia continued on [next page](#)

MEDICATIONS FOR MANAGEMENT OF ANOREXIA

CONTINUED

Prices for prescription drugs may be obtained from BC PharmaCare. The British Columbia Palliative Care Benefits Plan (<http://www2.gov.bc.ca/assets/gov/health/health-drug-coverage/pharmacare/palliative-formulary.pdf>) provides province wide drug coverage for many of the recommended medications– check website to confirm coverage. **Consider price when choosing similarly beneficial medications, especially when the patient / family is covering the cost.**

ANOREXIA MANAGEMENT ALGORITHM

No management algorithm included in this document.

ANOREXIA EXTRA RESOURCES OR ASSESSMENT TOOLS

No extra resources or assessment tools Included in this document.

ANOREXIA REFERENCES

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