

Evidence Discussion (ONC 30.2)

Unexplained weight loss

Gradual weight loss is a common occurrence in the elderly. Unintentional weight loss that is associated with an increased risk of morbidity and mortality is generally defined as a weight loss of percentage5 body weight over a period of 6-12 months (Gaddey 2014, Alibhai 2005). Among patients with unintentional weight loss, a minority are diagnosed with malignancy (Bosch 2017, Nicholson 2018). There is no unified published consensus or guideline to guide the workup for weight loss, but most publications recommend that the primary workup should be symptom-focused and include laboratory studies and age-appropriate cancer screening. Workup for particular symptoms or lab findings should be guided by condition-specific eviCore guidelines. Based on symptoms and lab findings, thyroid ultrasound, abdominal/renal ultrasounds, and/or echocardiogram are supported by eviCore guidelines. All patients with CNS symptoms or abnormal pituitary hormones warrant an MRI. A chest Xray is reasonable in all patients (Gaddey 2014, Alibhai 2005, Metalidis 2007).

A negative baseline evaluation is reassuring; with at least one prospective study showing that no patients with a negative baseline clinical and laboratory evaluation were found to have malignancy on subsequent studies (Metalidis 2007, Gaddey 2014). However, other prospective studies do illustrate that underlying malignancy may be detected on advanced imaging, with the highest predictive value for lung, pancreatic, lymphomas, prostate and colorectal cancers (Bosch 2017, Nicholson 2018). Based on this, eviCore guidelines support contrasted CT chest as part of initial workup for all smokers with clinically significant weight loss. Evicore guidelines also support CT or MRI abdomen (Or CT abdomen and pelvis) as part of initial workup for patients age 60+ with clinical significant weight loss and additional signs and symptoms significantly associated with pancreatic cancer (NICE 2015). For all other patients, if the patient has clinically significant unintentional weight loss as defined in paragraph 1, and the initial baseline evaluations above are negative, CT with contrast of the chest, abdomen and pelvis are appropriate and supported by eviCore guidelines (Gaddey 2014, Nicholson 2018, Alibhai 2005).

No published algorithm routinely supports PET/CT in the evaluation of unexplained weight loss, and there are no prospective studies illustrating the sensitivity or specificity of PET in this scenario. There may be patients who meet evidence- based criteria for PET/CT based on their specific signs, symptoms and findings, particularly in the lymphomas (refer to eviCore guidelines ONC-27 and 28 and ONC 1.4).

References

1. Gaddey HL, Holder K. Unintentional weight loss in older adults. *Am Fam Physician*. 2014 May 1;89(9):718-22. PMID: 24784334.
2. Nicholson BD, Hamilton W, O'Sullivan J, Aveyard P, Hobbs FR. Weight loss as a predictor of cancer in primary care: a systematic review and meta-analysis. *Br J Gen Pract*. 2018 May;68(670):e311-e322. doi: 10.3399/bjgp18X695801. Epub 2018 Apr 9. PMID: 29632004; PMCID: PMC5916078.
3. Bosch X, Monclús E, Escoda O, Guerra-García M, Moreno P, Guasch N, López-Soto A. Unintentional weight loss: Clinical characteristics and outcomes in a prospective cohort of 2677 patients. *PLoS One*. 2017 Apr 7;12(4):e0175125. doi: 10.1371/journal.pone.0175125. PMID: 28388637; PMCID: PMC5384681.
4. Alibhai SM, Greenwood C, Payette H. An approach to the management of unintentional weight loss in elderly people. *CMAJ*. 2005 Mar 15;172(6):773-80. doi: 10.1503/cmaj.1031527. PMID: 15767612; PMCID: PMC552892.
5. Metalidis C, Knockaert DC, Bobbaers H, Vanderschueren S. Involuntary weight loss. Does a negative baseline evaluation provide adequate reassurance? *Eur J Intern Med*. 2008 Jul;19(5):345-9. doi: 10.1016/j.ejim.2007.09.019. Epub 2007 Nov 26. PMID: 18549937.
6. National Institute for Health and Care Excellence (NICE). Upper gastrointestinal tract cancers. In: Suspected cancer: recognition and referral. 2015. <https://www.nice.org.uk/guidance/ng12/chapter/Recommendations-organised-by-site-of-cancer#uppergastrointestinal-tract-ca>