Anorexia Evaluation Table 2023: Thalidomide

General Evidence

Citation	Design/Method Sample/Setting	Variables and Intervention	Outcome Measures	Results/Analysis	Limitations	Quality and Nursing Implications
Zhang, L., Qu, X., Teng, Y., Shi, J., Yu, P., Sun, T., . . . Liu, Y. (2017). Efficacy of thalidomide in preventing delayed nausea and vomiting induced by highly emetogenic chemotherapy: A randomized, multicenter, double-blind, placebo-controlled phase III Trial (CLOG1302 study). *Journal of Clinical Oncology, 35*(31), 3558–3565. https://doi.org/10.1200/JCO.2017.72.2538	**Design**: Randomized controlled trial **Method:** Use of thalidomide versus placebo on days 1–5 after highly emetogenic chemotherapy measuring nausea and vomiting, anorexia, quality of life (QOL) and adverse event (AE) outcomes. **Sample**: 636 chemotherapy naive adult patients living in China receiving highly emetogenic chemotherapy. Sample primarily consisted of patients with breast (56.1%) and lung cancers (35.6%) (all other malignancies were 8.3%). The study sample was 30.6% male and 69.4% female. **Setting**: 11 study sites in China	**Independent Variable(s):** Thalidomide **Dependent Variable(s):** Nausea and vomiting, anorexia, QOL **Intervention:** Thalidomide 100 mg twice daily on days 1–5 in intervention group. Control group and intervention group received standard antiemetic support (palonosetron, dexamethasone).	Nausea and anorexia were measured on a Likert-type scale with answers ranging from 0 (no symptoms) to 3 (severe symptoms). Use of rescue medications Short term AEs (days 1–5) Serious AE's (days 1–21) European Organisation for Research and Treatment of Cancer Quality-of-Life Questionnaire–Core 30 (EORTC QLQ-C30), version 3.0	Complete response to vomiting was higher in the thalidomide group compared with placebo in delayed period (76.9% versus 61.7%, relative risk [RR] = 1.247, 95% CI [1.122, 1.386], p = < 0.001) and overall period (66.1% versus 53.3%, RR = 1.242, 95% CI [1.091, 1.413], p = 0.001). There was no significant difference in vomiting in the acute phase (77.3% versus 72.9%, RR = 1.06, 95% CI [0.969, 1.159], p = 0.2). Subgroup analysis revealed greatest benefit in patients receiving cisplatin regimens. Nausea totals were higher in delayed and overall monitoring for the thalidomide group compared to control (47.3% versus 33.3%, RR = 1.42, p ≤ 0.001). Mean anorexia scores were lower in the thalidomide group (mean = 0.44, SD = 0.717) compared to control (mean = 0.64, SD = 0.844) (p = 0.003). Patients receiving thalidomide had greater incidence of sedation, dizziness, constipation, or dry mouth. Grade 3 AEs were similar in the placebo and thalidomide groups. In the 21-day follow-up, 4.1% of patients in the thalidomide group versus 7.5% of those in placebo group required hospitalization for serious AEs of bone marrow suppression.	Measurement validity and reliability was questionable for the Likert-type scale measurement of anorexia.	Methodology was sound. Modest benefit of thalidomide compared with standard antiemetic therapy alone must be balanced with potential increases in sedation, dizziness, constipation, and dry mouth. Delayed-period reduction in vomiting, nausea, and anorexia, and increase in QOL, are important components of oncology nursing symptom management. Thalidomide may be an option to consider adding to antiemetic protocols for patients on highly emetogenic chemotherapy regimens balanced with risk of patients having increased sedation, dizziness, constipation, or dry mouth.

General Evidence: Review of Multiple Interventions

Citation	Design/Method	Sample/Setting	Significant Findings	Limitations	Quality of Evidence/ Worth to Practice	Nursing Implications
Zhang, F., Shen, A., Jin, Y., & Qiang, W. (2018). The management strategies of cancer-associated anorexia: A critical appraisal of systematic reviews. *BMC Complementary and Alternative Medicine, 18*(1), 236. https://doi.org/10.1186/s12906-018-2304-8	Critical appraisal of systematic reviews for cancer-related anorexia. Search of PubMed®, Embase®, Cochrane, CINAHL®, JBI®, and China National Knowledge Infrastructure through 2017 was conducted for studies on adult patients with cancer experiencing anorexia symptoms with pharmacologic and nonpharmacologic interventions that included at least 2 studies with systematic review and meta-analysis. R-AMSTAR checklist was used for quality scoring.	8 systematic reviews and meta-analyses were retained and deemed high quality, representing 108 studies. Participants were receiving active anticancer treatment.	All the interventions highlighted—acupuncture; Chinese herbal medicine; eicosapentaenoic acid; oral nutritional interventions including vitamins, minerals, proteins, and other supplements; anamorelin; megestrol acetate; and thalidomide—showed weak results in the systematic reviews appraised. Additional research needs to be conducted to determine the utility of these interventions in treating cancer-related anorexia.	Study limitations: A small number of systematic reviews were included; unable to determine sample size, but of the few reported, most sample sizes were less than 200. Significant findings: All interventions evaluated in the study require additional research to determine their utility in addressing cancer-related anorexia.	The method to critically appraise the systematic reviews included seems sound; however, the results for each intervention are not consistently reported and lack details such as sample size, effect size, and statistical significance.	More research needs to be conducted to evaluate the utility of the following interventions for treating cancer-related anorexia: • acupuncture • Chinese herbal medicine • eicosapentaenoic acid • oral nutritional interventions, including vitamins, minerals, proteins, and other supplements • anamorelin • megestrol acetate • thalidomide

Clinical Practice Guidelines

Guideline Citation	Purpose	Sample / Setting	Significant Recommendations	Limitations	Quality and Nursing Implications
Roeland, E.J., Bohlke, K., Baracos, V.E., Bruera, E., Del Fabbro, E., Dixon, S., . . . Loprinzi, C.L. (2020). Management of cancer cachexia: ASCO Guideline. *Journal of Clinical Oncology, 38*(21), 2438–2453. https://doi.org/10.1200/JCO.20.00611	Provide an evidence-based clinical guideline for the management of cancer cachexia in adult patients with advanced cancer.	Sample: Adult patients with advanced cancer and one or more of the following: loss of body weight, lean body mass, and/or appetite	1. Guidelines are moderately in favor of nutritional support and counseling with a registered dietitian. 2. Considerations for pharmacologic interventions for cancer cachexia include: • Moderately in favor of recommending short trials of progesterone analogs or corticosteroids, weighing risk and benefit for patient. Megestrol improves appetite and body weight (adipose not skeletal mass) but has risk of thromboembolic events, adrenal suppression, and edema. • No recommendation was made for anamorelin, which was FDA-reviewed but not approved. It is not commercially available in the U.S. • Cannabinoids and derivatives did not show improvement in appetite, weight change, or QOL alone or in combination with megestrol. Guideline panel ranks strength as weak against use of this intervention. • Olanzapine data is lacking to make a recommendation on use in cachexia. • No recommendation on use of thalidomide because of low strength of evidence and low benefit with side effects of somnolence and constipation. • Exercise was not included in any eligible trials related to cachexia in patients with advanced cancer.	Small sample sizes High rates of patient dropout reported in several studies. The majority of the RCTs had risk of bias assessed as intermediate or high.	The methodology was valid and rigorous. A panel of experts reviewed the literature, developed the draft guideline, and allowed public comment prior to finalizing the guideline. A thorough process was followed for the finalization, publication, and implementation of the guideline. The recommendations ranked "moderately in favor" are feasible, relevant, and can be applied to the patient population of interest. Nurses work collaboratively with interprofessional colleagues to manage patient symptoms; awareness of the interventions, the harm versus benefit grading, and the strength of the recommendation will enable the nurse to actively participate in discussions regarding the management of cachexia. The guideline also provides key information regarding how to reduce patient and caregiver frustration related to changes in eating habits, nutritional intake, and physical manifestations associated with cachexia. Nurses will be able to use this information in addition to information related to out-of-pocket costs and health disparities when caring for patients with cancer-related cachexia.