# Anorexia Evaluation Table 2023: Oral Nutritional Interventions

## General Evidence

| Citation | Design/Method Sample/Setting | Variables and Intervention | Outcome Measures | Results/Analysis | Limitations | Quality and Nursing Implications |
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| Abdollahi, R., Najafi, S., Razmpoosh, E., Shoormasti, R.S., Haghighat, S., Raji Lahiji, M., . . . Zarrati, M. (2019). The effect of dietary Intervention along with nutritional education on reducing the gastrointestinal side effects caused by chemotherapy among women with breast cancer. *Nutrition and Cancer, 71*(6), 922–930. https://doi.org/10.1080/01635581.2019.1590608 | **Design:** Randomized controlled prospective study<br><br>**Method:** 10-week face-to-face education sessions with dietitian provided to intervention group. Standard card provided to control group.<br><br>**Sample:** 150 women with breast cancer undergoing chemotherapy (mean age = 46.8 years)<br><br>**Setting:** Single center, University of Medical Sciences, Tehran, Iran | **Independent Variable(s):** Dietary education<br><br>**Dependent Variable(s):** Primary: Chemotherapy-induced nausea and vomiting (CINV), diarrhea<br>Secondary: Weight, constipation, reflux, dyspepsia, anorexia, gastritis, chest pain<br><br>**Intervention:** Standardized education and dietary recommendations provided for 10 weeks in 60 minute in-person sessions with dietitian prior to chemotherapy. Education consisted of eating and drinking strategies to reduce gastrointestinal distress, recommendations for diarrhea management and reflux prevention, and included an instructive pamphlet.<br><br>Control group had standard education and no written pamphlet, and participants were asked not to change usual diet. | Investigator designed a 12-question questionnaire based on the Rome III criteria. The questionnaire had Cronbach's alpha scores for reliability above 0.1 for all major symptoms measured in the tool. | The intervention had a significant decreased effect on affirmative responses for the side effects of reflux, dyspepsia, anorexia, nausea, constipation, and diarrhea when comparing the 2nd and 4th chemotherapy cycles, referred to as "time 1" and "time 3."<br><br>**Anorexia**<br>Intervention: time 1: 63%; time 3: 28.8%, p < 0.001<br><br>Control: time 1: 70.1%; time 3: 74.6%, p = 1.00<br><br>**Reflux**<br>Intervention: time 1: 35.6%; time 3: 24.7%, p = 0.05<br><br>Control: time 1: 71.6%; time 3: 71.6 %, p = 1.0<br><br>**Dyspepsia**<br>Intervention: time 1: 57.5%; time 3: 31.5%, p < 0.001<br><br>Control: time 1: 77.6% time 3: 80.6%, p = 0.77<br><br>**Nausea**<br>Intervention: time 1: 50.7%; time 3: 28.8%, p = 0.002<br><br>Control: time 1: 76.1%; time 3: 76.1%, p = 1.00<br><br>**Constipation**<br>Intervention: time 1: 58.9%; time 3: 30.1%, p < 0.001<br><br>Control: time 1: 76.1%; time 3: 80.6%, p = 0.58<br><br>**Diarrhea**<br>Intervention: time 1: 34.2%; time 3: 6.8%, p < 0.001<br>Control: Time 1: 38.8%; time 3: 34.8%, p = 0.64 | Findings are not generalizable beyond women with breast cancer.<br><br>Risk of bias for no blinding and no attentional control condition<br><br>Lacking measurement at extended time points | Methodology was sound. The results were reported without bias and with reliability.<br><br>The intervention is feasible, limited to women and to those with breast cancer for applicability.<br><br>Nurses are positioned to provide nutrition education when necessary or to support this intervention. This is an intervention that nurses could initiate if a dietitian is unavailable or that nurses could follow up on when they see patients for chemotherapy. |

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| Ziętarska, M., Krawczyk-Lipiec, J., Kraj, L., Zaucha, R., & Małgorzewicz, S. (2017). Chemotherapy-related toxicity, nutritional status, and quality of life in precachectic oncologic patients with, or without, high protein nutritional support. A prospective, randomized study. *Nutrients, 9*(10), 1108. https://doi.org/10.3390/nu9101108 | **Design:** Randomized study<br><br>**Method:** Participants took either oral high-protein nutritional support or placebo during 12-week period with outcome measures for precachexia and chemotherapy toxicity.<br><br>**Sample:** 95 adult patients with stage II–IV colorectal cancer (CRC) receiving FOLFOX or FOLFIRI chemotherapy regimens<br><br>**Setting:** Oncology department in Medical University of Gdansk in Poland | **Independent Variable(s):** High-protein nutritional support supplement<br><br>**Dependent Variable(s):** Precachexia and chemotherapy toxicity<br><br>**Intervention**: Treatment participants took 125 ml twice daily (a total of 250 ml/day) of a high-energy (300 kcal), high-protein (18 gm) oral liquid nutritional supplement for 12 weeks. Participants were evaluated a total of 4 times (every 4 weeks) prior to scheduled chemotherapy during the 12-week study. | Body mass index, weight loss (10% over previous 6 months), food intake<br><br>Subjective Global Assessment (SGA):<br>6–7 points = well nourished<br>3–5 points = moderately malnourished<br>1–2 points = severely malnourished<br><br>Visual analog scale (VAS) for appetite:<br>0 = no appetite<br>100 = very good appetite<br><br>Functional Assessment of Anorexia-Cachexia Therapy (FAACT)<br><br>Karnofsky Performance Status (KPS)<br><br>Tolerability and intake compliance assessment | 72 patients completed the study; 38 in the intervention group and 34 in the control group.<br><br>After 12 weeks, the nutritional support group had increased appetite on VAS ($p = 0.05$), increased SGA score ($p=0.015$) and increase in albumin and prealbumin levels, and the control group had stable nutritional status.<br><br>Improvement was noted in the intervention group over control group on the SGA (6.8 versus 5.1, $p = 0.004$), appetite increased in the intervention group at 8 weeks (9.3 compared to 5.7, $p = 0.001$) and 12 weeks (7.7 compared to 5.9 points, $p = 0.001$) compared to control.<br><br>FAACT scores were stable between groups at 1st and 4th visits. | Small sample size with unblinded treatment intervention<br><br>Attrition: 19% withdrew from intervention group because of taste and difficulty taking the dose, and 29% withdrew from control group.<br><br>Reliance on patient-reported consumption.<br><br>Baseline performance status of both groups was greater than 90%, which may not be reflective of the larger population. | Methodology could be more vigorous if study were blinded. The results of the study were reported with reliability.<br><br>The statistically significant increases in appetite, SGA scores, and albumin and prealbumin levels contribute to the worth of nutritional support to clinical practice.<br><br>For asymptomatic adult patients with precachexia who do not have contraindications or severe concomitant diseases and who want to be proactive, high-protein nutritional support is an option with fully informed pros and cons. The investigators declared that supplements were “tolerable,” but there was significant attrition among participants because of taste and difficulty taking the dose, which may affect uptake in clinical practice. This study used supplement packets, so questions of availability, cost, and insurance coverage need to be considered. |