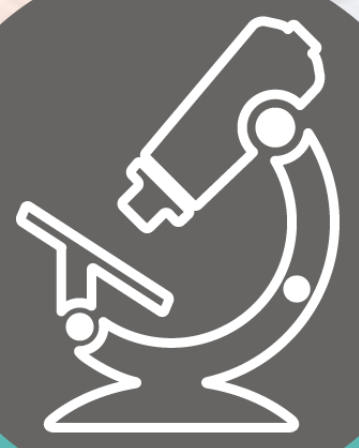


Providing Evidence-Based Diet Recommendations for Immunocompromised Oncology Patients

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Background

- Neutropenia is associated with oncologic therapies; patients at higher risk for developing infections due to immunosuppressive therapies including chemotherapy, radiation therapy, and hematopoietic cell transplantation (HCT)
- Infection is a major source of morbidity and mortality in the cancer population
- Historically, oncology patients maintained on neutropenic diets to reduce infection rates

Purpose

- Neutropenic diets for oncology patients established >50 years ago
- Early studies showed lower incidence of infections associated with oncologic therapies in patients maintained on neutropenic diets
- In more recent years, efficacy of the neutropenic diet has become controversial

Goal:

To review the current literature regarding the efficacy of the neutropenic diet.



Assessment

Review of neutropenic diet studies:

General oncology

1. Meta-analysis of >900 patients showed no superiority with respect to mortality or infection in patients who followed a neutropenic diet (1)
2. Lack of effectiveness of neutropenic diet in >300 children with AML with respect to incidence of fever of unknown origin, bacteremia, pneumonia, and gastroenteritis (2)
3. The neutropenic diet offered no benefit over FDA food safety guidelines in the prevention of infection in pediatric oncology patients (3)

HCT

1. Retrospective review of 726 transplant patients: higher rate of infection in those who followed a neutropenic diet (4)
2. Prospective, randomized clinical trial of 46 patients found no difference in infection rates of transplant patients (5)

Other considerations:

Strict neutropenic diet eliminates foods, such as fresh fruits and vegetables, which often results in compromised diet quality and patient dissatisfaction.

Summary:

No scientific evidence that infection rates are reduced when patients follow a neutropenic diet.



Findings

- In place of a neutropenic diet, oncology patients should be educated on avoiding high risk foods and practice safe food handling
- A class format food safety education program, for patients and caregivers, is a novel approach to share evidence-based diet guidelines
- Key educational concepts covered in a weekly class developed by board-certified registered dietitians includes four steps to food safety: (clean, separate, cook, chill) and avoiding high risk foods
- SCCA immunosuppressed diet: <https://www.seattlecca.org/PDF/diet-guidelines-immunosuppressed>; well-washed fresh fruits and vegetables are acceptable

Conclusion

- The evidence and protective benefits in support of a neutropenic diet for oncology patients have not been established
- Less restrictive dietary modifications for the oncology population has resulted in improved patient satisfaction without compromised infection risk during cancer therapy

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