

Food safety recommendations for adult kidney transplant recipients

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GUIDELINES

No recommendations possible based on Level I or II evidence.

SUGGESTIONS FOR CLINICAL CARE

(Suggestions are based on Level III and IV evidence)

There is currently no Level III or Level IV evidence relevant to food safety recommendations for adult kidney transplant recipients. The suggestions for clinical care are based on the available data regarding the incidence and prevalence of food-borne illness in this group of patients.

- **Though there is no evidence to support the use of restrictive low bacteria diets, it is prudent to provide general food safety advice to kidney transplant recipients.**
- **A consultation with a dietician is important to:**
 - identify the most important food safety issues and dietary modifications relevant to each individual patient, and
 - ensure dietary requirements are met while food safety precautions are followed.
- **The patient should understand that during the early post-transplant period and in periods of acute illness, the likelihood of food-borne infection is high due to significant suppression of the immune system.**

BACKGROUND

Food-borne illness, such as listeria, is recognized as a particular risk for a person whose immune system is compromised, including the kidney transplant recipient.^{1,2} Organ transplant recipients are considered to be more susceptible to listeriosis than other at risk subpopulations.³

However, there are few data on the incidence of listeria infection in the kidney transplant recipient population. MacGowan *et al.* reported a listeria carriage rate of 5.6%, without the development of listeria infection, among a sample of 177 kidney transplant recipients in England.⁴ Stamm *et al.* reviewed 102 cases of listeria infection in kidney transplant recipients reporting the outcomes (central nervous system involvement, bacteraemia, pneumonia and a mortality rate of 26%). The incidence rate was not reported, nor the source of the infections identified.⁵

This review aimed to collate the evidence on the safety and efficacy of particular diets or dietary measures in preventing food-borne infection in kidney transplant

recipients, based on the best evidence up to and including September 2006.

SEARCH STRATEGY

Relevant reviews and studies were obtained from the sources below and reference lists of nephrology textbooks, review articles and relevant trials were also used to locate studies. Searches were limited to studies on humans; adult kidney transplant recipients; single organ transplants and to studies published in English. Unpublished studies were not reviewed.

Databases searched: MeSH terms and text words for kidney transplantation were combined with MeSH terms and text words for both food-borne infections and dietary interventions. MEDLINE – 1966 to week 1, September 2006; EMBASE – 1980 to week 1, September 2006; the Cochrane Renal Group Specialised Register of Randomised Controlled Trials.

Date of searches: 22 September 2006.

WHAT IS THE EVIDENCE?

There are no published studies on the efficacy of particular dietary measures, including a low bacteria diet, to prevent food-borne infections, such as listeriosis, in kidney transplant recipients.

The suggestions for clinical care above are based on the available data regarding the incidence and prevalence of food-borne illness in this group of patients and are consistent with the latest recommendations of the Food Standards Australia New Zealand⁶ and of the New Zealand Food Safety Authority.⁷

WHAT DO THE OTHER GUIDELINES SAY?

Kidney Disease Outcomes Quality Initiative: No recommendation.

UK Renal Association: No recommendation.

Canadian Society of Nephrology: No recommendation.

European Best Practice Guidelines: No recommendation.

International Guidelines: No recommendation.

IMPLEMENTATION AND AUDIT

No recommendations.

SUGGESTIONS FOR FUTURE RESEARCH

Long-term, prospective and retrospective studies on food safety practices and incidence of food-borne infections among kidney transplant recipients may help determine the most appropriate methods of prevention of such infections.

CONFLICT OF INTEREST

Maria Chan, Karen Fry, Aditi Patwardhan, Catherine Ryan and Fidy Westgarth have no relevant financial affiliations that would cause a conflict of interest according to the conflict of interest statement set down by CARI.

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