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Influence of inpatient dietary prescription on recovery from and reoccurrence of acute, uncomplicated diverticulitis



A 3-year prospective cohort study



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The background

Internationally, physicians and surgeons continue to prescribe restricted diets for inpatient management of acute, uncomplicated diverticulitis.

“Clear fluids for 24hrs then upgrade to full fluids for 24hrs, followed by a low-fibre diet until discharge”

Recent GRADE Clinical Recommendations^a concluded that a liberalized diet (i.e. no dietary restriction) appears safe for the inpatient management of acute, uncomplicated diverticulitis; but more research is needed.

Recent qualitative research^b suggests dietary restrictions can cause long-term psychological pain in diverticulitis patients.



The purpose

This study aims to assess the impact of restricted versus liberalized inpatient dietary prescription on recovery from and reoccurrence of acute, uncomplicated diverticulitis.

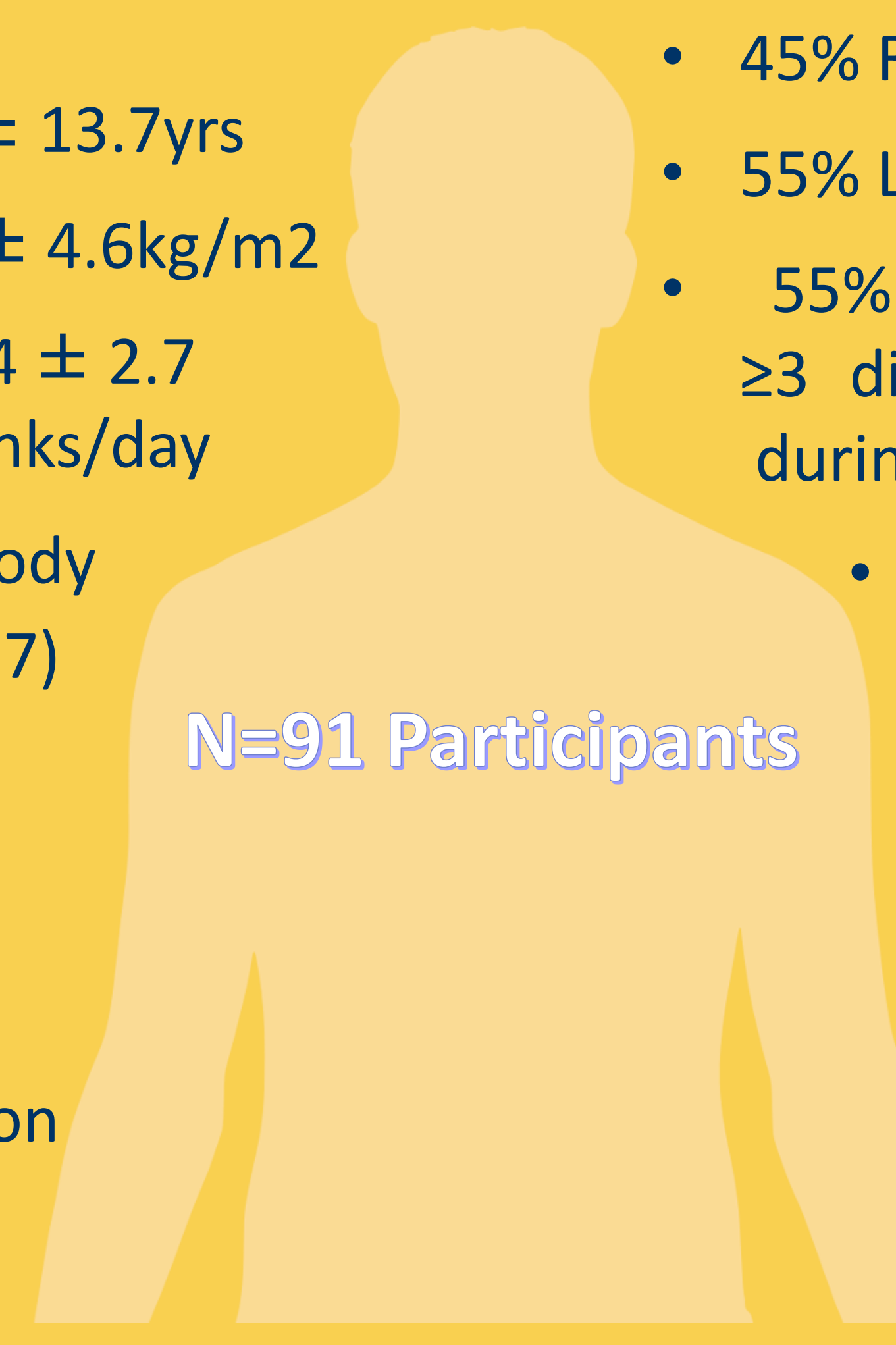
The methods

Prospective observational study of adult patients admitted to two metropolitan hospitals in Queensland, Australia, from 2016-2019. Hierarchical multiple linear regression was used to determine the impact of restricted versus liberalized diets on hospital length of stay (a proxy for recovery). Binomial logistic regression was used to determine the impact of restricted versus liberalized diets on 30-day and 6-month reoccurrence of diverticulitis.

The participants

- 57% female
- Age: $\mu 59.0 \pm 13.7$ yrs
- BMI: $\mu 27.8 \pm 4.6$ kg/m²
- Alcohol: $\mu 1.4 \pm 2.7$ standard drinks/day
- Admission body temp: $\mu 36.9 (0.7)$ Celsius
- 34% admitted with diarrhoea
- 31% admitted with constipation
- 0% treatment failure
- 45% Restricted Diet
- 55% Liberalised diet
- 55% were prescribed ≥ 3 different diet codes during admission
- 100% were discharged on a “low dietary fibre” diet
- $\mu 36 \pm 19$ (scale 0-105, higher worse) Gastrointestinal symptoms

N=91 Participants



Dietary prescription didn't affect diverticulitis reoccurrence!

Neither liberalized nor restricted diets were predictors of risk of diverticulitis reoccurrence at 30-days or 6-months post-discharge ($p > 0.05$).

Prescribing a liberalized diet was associated with decreased hospital length of stay (indicator of recovery) by 28 hours! ($p < 0.001$)

In a model adjusted for patient characteristics, clinical presentation, and gastrointestinal symptoms, prescribing a liberalized diet decreased hospital length of stay (recovery) by 17 hours! ($p < 0.001$)



The key message

This study confirms and strengthens existing evidence^a: Adult patients admitted to hospital with acute, uncomplicated diverticulitis (i.e. no perforation, non-localized abscess, drains placed or surgery required) should be placed on a liberalized diet (i.e., allowing consumption of solid food) and not placed on a restricted diet (i.e., bowel rest/nil by mouth, clear or full fluids).

a. Dahl, et al. Dietary fibre modification in the recovery and prevention of reoccurrence of acute, uncomplicated diverticulitis: a systematic review and meta-analysis. *Nutrients*, 10(2), 137.
 b. Eberhardt, unpublished data, 2019.