

Safety and effectiveness of low calorie diet for dialysis patients: a pilot interventional study

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Background

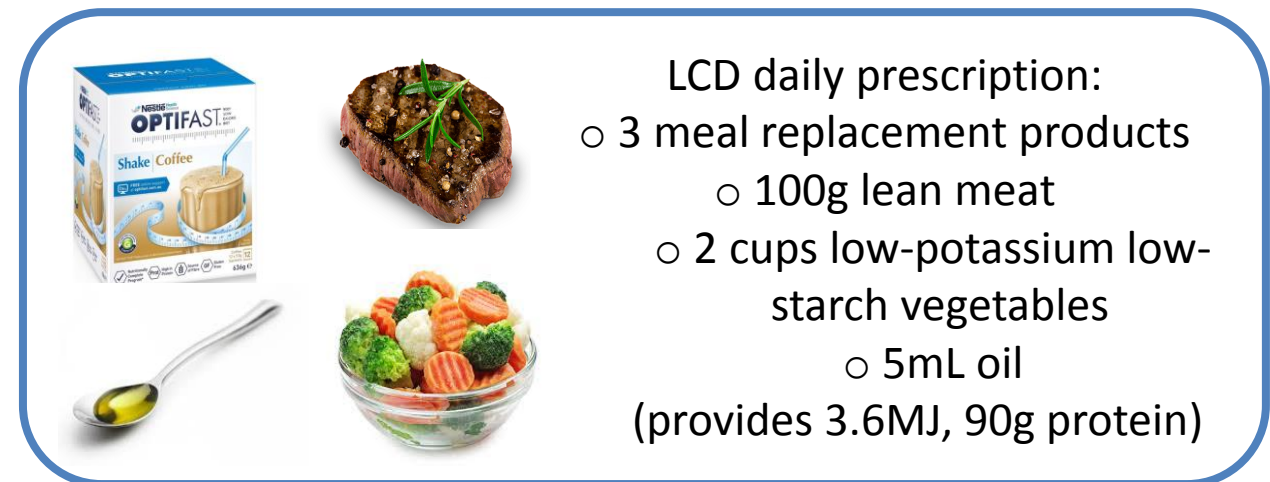
- Over a third (36%) of patients on dialysis at Northern Health (NH) are obese and are often advised to achieve a weight of <100kg or BMI ≤ 30 kg/m² before being waitlisted for kidney transplantation
- Low calorie diets (LCDs) including meal replacement products achieve significant weight loss results, however there is limited evidence examining safety with dialysis patients or effect on body composition

Aim

To observe the safety of a 12 week LCD and its effectiveness in achieving weight loss and body composition change in dialysis patients requiring weight loss for kidney transplant eligibility

Method

- Prospective, pilot, open-label study of 5 participants
- Participants were prescribed a 12 week LCD
- Measures of safety (blood pressure, dialysis parameters, biochemistry, and medications) and effectiveness (dry weight after adjustment for over-hydration, fat mass and lean tissue mass with Fresenius Medical Care Body Composition Monitor) were monitored



LCD daily prescription:

- 3 meal replacement products
 - 100g lean meat
 - 2 cups low-potassium low-starch vegetables
 - 5mL oil

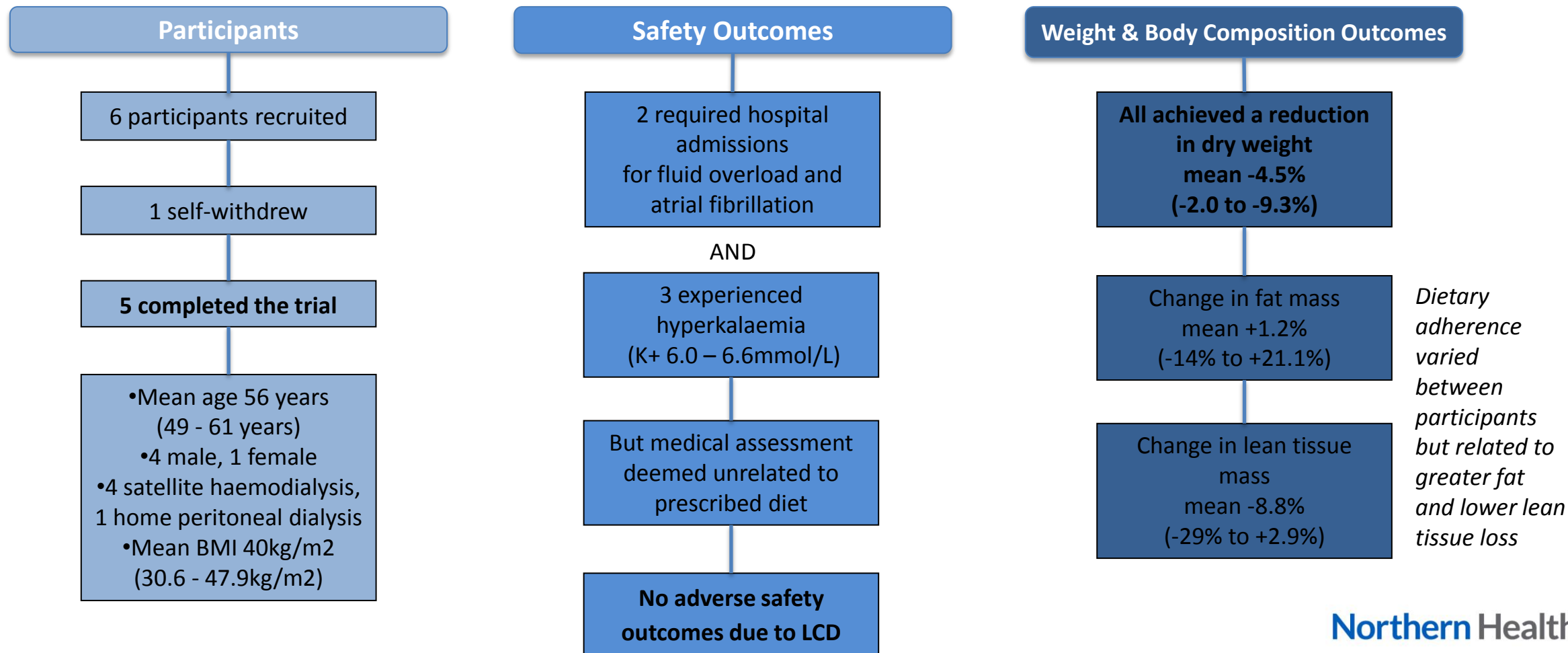
(provides 3.6MJ, 90g protein)

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Results



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Conclusion

- Despite variable adherence, LCD appeared safe in dialysis patients and all achieved dry weight loss
- Further research is required to optimise LCD models, adherence and body composition outcomes

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