Promoting Recovery Post-Pancreatic Resection through an Integrated Model of Exercise and Diet - The PRIME Feasibility Trial Protocol

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Background and Rationale

Despite improvements in postoperative mortality and length of hospital stay, complication rates following pancreatic resection remain as high as 50%, potentially delaying postoperative recovery[1]

Impairments in muscle strength, cardiorespiratory fitness and physical function following pancreatic resection provide a rationale for exercise-based rehabilitation[2]

Pancreatic exocrine insufficiency, gastrointestinal symptoms and postoperative weight loss can compromise nutritional status, highlighting the importance of specialist dietetic support[3]

The feasibility and acceptability of integrated exercise and dietary rehabilitation following pancreatic resection remain unclear.

Study Aim

To examine the feasibility and acceptability of a 12-week exercise and dietary rehabilitation programme for patients following pancreatic resection

Study Design

Participants (n=54)

1:1

PRIME Intervention (n=27)

Usual Care (n=27)

Inclusion Criteria

- 8 weeks – 1 year post pancreatic resection
- Medically fit for exercise
- Ability to consent

Exclusion Criteria

- Metastatic disease
- Significant complications
- Poor glycaemic control
- Significant comorbidities

PRIME Intervention

Exercise

- Unsupervised aerobic exercise 2-3 days/week
- Online resistance training two days/week

Dietetic Counselling

- Weekly online dietetic support
- Individualised nutrition care plan

Outcome Measures

Primary Outcome - Feasibility

FEASIBILITY

- Recruitment Rate
- Retention Rate
- Programme Engagement
- Acceptability

Progression Criteria

Criterion	Green - Go	Amber - Amend	Red - Stop
Recruitment	≥30%	20-29%	<20%
Retention	≥70%	50-69%	<50%
Engagement	≥80%	70-79%	<70%
Acceptability	Strongly acceptable	Acceptable	Unacceptable

Conclusion

PRIME will assess the feasibility and acceptability of integrated exercise and dietary rehabilitation following pancreatic resection, informing the design of a future definitive effectiveness trial

Funding: Health Research Board Investigator-Led Clinical Trials (ILCT) Programme 2025

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