

Supplementary file 2 – Datapoints extracted from included RCTs

1. Author
2. Year of publication
3. Countries of origin
4. Study start and end dates
5. Patient partners
 - a. As authors
 - i. Demographics
 - ii. Roles
 - b. As acknowledged collaborators
 - i. Demographics
 - ii. Roles
6. Prehabilitation definition
 - a. In introduction or background
 - b. In methods
7. Prehabilitation characteristics
 - a. Multimodal (y/n)
8. Prehabilitation Components (eg, exercise, nutrition, psychosocial, cognitive)
 - a. Type of exercise
 - i. Unimodal
 - ii. Multimodal
 - iii. Interval training
 - iv. Other
 - v. Components (eg, cardio, strength, stretching, respiratory exercise)
 - b. Type of nutrition
 - i. Counselling
 - ii. Supplementation
 - iii. Combined
 - iv. Other
 - c. Type of psychosocial
 - i. Motivational interviewing
 - ii. Anxiety management
 - iii. Stress management
 - iv. Other
 - d. Type of cognitive
 - e. Other co-interventions
9. Enhanced recovery after surgery (ERAS) (y/n)
10. Weight loss objective (y/n)
11. Duration of prehabilitation
 - a. Average
 - b. Program
 - i. Minimum participation
 - ii. Maximum participation
 - c. Per session
12. Frequency of prehabilitation
13. Intervention time-point
 - a. Preoperative only
 - b. Preoperative plus rehab after surgery
14. Location of prehabilitation

- a. Home
- b. Facility
- c. Combined
15. Supervision
 - a. Self-directed
 - b. Coach-led
 - c. Combined
16. Session format
 - a. Individual
 - b. Group
 - c. Combined
17. Personalization
 - a. Description of personalization
18. Motivation techniques
 - a. Description of motivation techniques
 - b.
19. Control (eg, standard care or active controls such as rehabilitation after surgery)
 - a. Standard care
 - i. Description of standard care
 - b. Static instructions
 - i. Description of static instructions
 - c. Other prehabilitation
 - i. Description of other prehabilitation
 - d. Rehabilitation
 - i. Description of rehabilitation
 - e. Other
 - i. Description of other
20. Surgical specialty
 - a. Orthopedic
 - b. Major non-oncology
 - c. Cardiac/vascular
 - d. Oncology
 - e. Mixed
 - f. Other
21. Surgical procedure(s)
22. Population characteristics
 - a. Total sample size
 - b. Sample size per arm
 - c. Age (average, range)
 - d. Sex (% females vs. males)
 - e. Gender (% women vs. men vs. non-binary/transgender/other)
 - f. Presence of specific risk factors
 - i. Multimorbidity (≥ 2 comorbidities)
 - ii. ASA score
 - iii. Frailty
 - iv. Malnutrition
 - v. Obesity
 - vi. Baseline functional status
 - vii. Disability
 - viii. Presence of cancer
 1. Use of neoadjuvant therapies

23. Outcomes (counts, summary statistics, effect estimates with 95%CI; per time window)
 - a. Health
 - i. Complications
 1. Any
 2. Cardiopulmonary
 3. Surgical
 4. Infectious
 - ii. Discharge disposition
 - iii. Physical functional recovery
 - iv. Disability
 - v. Quality of life
 - vi. Mortality
 - b. Experience
 - i. Pain
 - ii. Patient satisfaction
 - c. Resource use
 - i. Length of stay
 - ii. Costs
 - d. Intervention Safety
 - i. Any intervention-attributable adverse events
 - ii. Cardiopulmonary adverse events during intervention period
 - iii. Falls during intervention period
 - iv. Assessor-confirmed intervention-attributable adverse events
24. Adherence
 - a. Outcome type
 - i. Binary
 1. Threshold used
 - ii. Continuous
 - b. Adherence rate
 - c. Method of measurement
25. Feasibility measures
26. Barriers and facilitators to implementation