

## Appendix 4 Outcome Measures Analysis Table

Outcome	Type of variable	Potential outcomes measures	Data pooling	Data extraction	Timeframe points in time
<i>[Name &amp; Description]</i>	<i>Continuous or dichotomous</i>	<i>What unit/s is the outcome measured in?</i>	<i>How will you pull data?</i>	<i>What data needs to be extracted for analysis?</i>	
<b>Primary outcome</b>					
<b>Postoperative infectious complications (POIC)</b>	Continuous or Dichotomous	Continuous: Incidence (%) or Number of cases with POIC or incidence of infections (% of reduction)  Dichotomous: yes or no POIC	All infections pulled together (POIC)	Continuous The proportion of patients experiencing POIC mean differences, mean/median and SD with 95%CI + p value  Dichotomous RR or OR and 95% CIs/p value from total number of participants that got POIC	Within the first 2 weeks of surgery and/or during the whole stay in hospital
<b>Secondary outcomes</b>					
<b>Health-related costs/cost-effectiveness</b>	Continuous Or Dichotomous	:Continuous Cost of the intervention IEF in monetary units (i.e: \$AU) and/or percentage (%) or net savings per patient compared with SEF  <b>Or</b> Diagnosis-Related Group (DRG) reimbursement rate  Dichotomous Expected health gain measured in natural units such as number	Group by similar outcome	Continuous Percentage (%) of savings or mean cost per randomized patient + mean difference (MD) + P value (if available)  Economic analysis and cost-effectiveness summarized in a narrative form (relationship with Postop morbidity and LOS)	N/A (associated with Postoperative morbidity and LOS outcomes)

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		<p>of lives saved Or Cost-benefit relationship with IEF: yes or no?</p> <p>Or defined by authors</p> <p>NB: QALYs would be ideal to find in studies but it might not be calculated for many studies</p>			
<p><b>Healthcare use</b></p> <ul style="list-style-type: none"> <li>✓ Length of stay (LOS)</li> <li>✓ Readmissions to acute care, sub-acute care or ICU</li> <li>✓ Reoperations</li> </ul>	Continuous	<p><b>LOS</b> measured in number of days</p> <p><b>Readmissions and reoperations</b> measured in number of cases</p>	<p>Number of days/cases All LOS days together, all readmissions and reoperation cases together</p>	<p>Number of cases/days represented by their mean + SD/SEM/95%CI and p value</p>	<p>Within 18 months post-surgery</p>
<p><b>Survival or Mortality</b></p>	<p>Continuous</p> <p>Or</p> <p>Dichotomous</p>	<p><b>Mortality within 18 months</b> And <b>Postoperative mortality</b> Measured by number of cases Or YES/NO death</p>	<p>Group by similar cause/type of complication leading to death</p>	<p>Continuous: Number or proportion of cases represented by the SD/SEM/95%CI + p value</p> <p>Dichotomous: RR, Hazard ratios with 95% CI and p value for death adjusted for age; sex; comorbidity; and cancer stage, location, and histology</p>	<p>Mortality within 30-day and/or in-hospital post operatively</p> <p>And Within 18 months post-surgery</p>
<p><b>Quality of life (QoL)</b></p> <p>As assessed by any validated tool</p>	Any Validated tool continuous or categorical outcome or both.	Measured via a validated diagnostic tool/survey such as Health-	QoL domains: talking, pain, swallowing, eating	Mean difference and mean change Reporting on p value or 95% CIs for change	Within the first 3, 6 and 24 weeks postoperatively

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	Dichotomous if each domain outcome is reported as Yes or no for talking, pain, swallowing  NB: If collected (report derived scores if available)	Related Quality of Life Measures	difficulties, reflux, dysphagia, and trouble with coughing.	Categories prevalence, p value  Odds ratios (ORs) with 95% CIs	
<b>Nutritional status</b>	Dichotomous	Dichotomous: Malnourished (moderate and severe) Well-nourished Defined and measured by Via PG-SGA, MNA, MUST, SGA	Subgroups Well-nourished, malnourished	Dichotomous RR/OR of nutritional status from total number of participants	Within 2 weeks preoperatively to see the risk of complications associated with malnutrition
<b>Weight loss</b>	Dichotomous (yes or no)  or  Continuous (amount of FFM lost)	Weight loss > 5% of weight loss in past month (1/12) Or defined by authors (i.e. continuous amount of fat free mass lost)	Subgroup Patients with % > 5% wt loss Patients with <5% wt loss	Dichotomous RR or OR from total number of participants loss wt >5% + p value  Continuous mean of FFM loss (kg) + p value	Weight loss > 5% of weight loss in past month (1/12) and 1 week and/or 3 weeks after surgery
<b>Biochemical/ immunological changes</b>	Continuous	C-reactive protein (CRP), Immunoglobulins	Group by similar outcome units of each test	Mean, SD, mean difference (MD), p value	Pre-surgery and within first 2 weeks post-surgery

NB: some of the data type & measures were observed/retrieved from (M. Braga & Gianotti, 2005; Marco Braga et al., 2005; Drover et al., 2011; Mudge, Isenring, & Jamieson, 2011; Sakurai et al., 2007; Senkal et al., 1999; Waitzberg et al., 2006; Wong & Aly, 2016; Djärv et al, 2009; Rouvelas et al, 2005)