

Table S1 SPIRIT diagram for the trial

		Study Period								
	Allocation		Intervention 1							
		Intervention2		Follow-up						
Time point	Preoperative Clinic	Waiting for Surgery (1-3 weeks)	Preoperative Day 1	Day of Surgery	POD1	POD2	POD3	POD7 (or the day before hospital discharge)	POD30
Enrollment										
Screen for eligibility	O									
Informed consent	O									
Basic history taking (height, weight, PMH, comorbidities)	O									
Randomization and allocation	O									
Intervention										
Immunonutrition supplement	O	O	O							
Oral decontamination			O	O	O	O	O			
Assessment										
Fried phenotype scale	O		O						O	

NRS 2002	O								O	
MMSE	O								O	
Grip strength	O		O						O	
SPPB	O		O						O	
Daily METs	O									
Muscle ultrasound			O				O			
Oral health assessment										
ROAG	O									
Swallowing function (TOR-BSST)	O									
Respiratory assessment										
SpO2	O		O	O	O		O		O	
Pulmonary ultrasound			O		O		O			
Peripheral blood test	O		O				O		O	
Postoperative recovery assessment										
QoR15			O		O	O	O		O	
WHODAS-II	O									O
Functional recovery			O		O	O	O	O	O	

Ward visit for follow-up					○	○	○	○	○	
Telephone for follow-up										○