

## Protocol for implementation of the "AusPROM" Recommendations for elective surgery patients: A mixed-methods cohort study.

SPIRIT 2013 Checklist: Recommended items to address in a clinical trial protocol and related documents\*

The <u>SPIRIT-PRO Elaboration and Extension</u> questions have been added to this version of the SPIRIT checklist

Section/item	Item No	Description	Reporting of the item
Administrative i	information		
Title	1	Descriptive title identifying the study design, population, interventions, and, if applicable, trial acronym	Reported in the manuscript
Trial registration	2a	Trial identifier and registry name. If not yet registered, name of intended registry	Reported in the manuscript
	2b	All items from the World Health Organization Trial Registration Data Set	
Protocol version	3	Date and version identifier	Version 1 of the protocol submitted January 2021
Funding	4	Sources and types of financial, material, and other support	Reported in the manuscript
Roles and responsibilities	5a	Names, affiliations, and roles of protocol contributors	Reported in the manuscript
	SPIRIT-5a- PRO Elaboration	Specify the individual(s) responsible for the PRO content of the trial protocol.	All authors are responsible for the PROM content of the protocol
	5b	Name and contact information for the trial sponsor	Trial sponsor is Healthscope
	5c	Role of study sponsor and funders, if any, in study design; collection, management, analysis, and interpretation of data; writing of the report; and the decision to submit the report for publication, including whether they will have ultimate authority over any of these activities	Reported in the manuscript
	5d	Composition, roles, and responsibilities of the coordinating centre, steering committee, endpoint adjudication committee, data management team, and other individuals or groups overseeing the trial, if applicable (see Item 21a for data monitoring committee)	N/A

Section/item	Item No	Description	Reporting of the item	
Introduction				
Background and rationale	6a	Description of research question and justification for undertaking the trial, including summary of relevant studies (published and unpublished) examining benefits and harms for each intervention	Reported in the manuscript	
	SPIRIT-6a- PRO Elaboration	Describe the PRO specific research question and rationale for PRO assessment, and summarize PRO findings in relevant studies.	Reported in the manuscript	
	6b	Explanation for choice of comparators	Reported in the manuscript	
Objectives	7	Specific objectives or hypotheses	Reported in the manuscript	
	SPIRIT-7- PRO Elaboration	State specific PRO objectives or hypotheses (including relevant PRO concepts/domains).	Reported in the manuscript	
Trial design	8	Description of trial design including type of trial (eg, parallel group, crossover, factorial, single group), allocation ratio, and framework (eg, superiority, equivalence, noninferiority, exploratory)	Reported in the manuscript	
Methods: Partic	ipants, interve	entions, and outcomes		
Study setting	9	Description of study settings (eg, community clinic, academic hospital) and list of countries where data will be collected. Reference to where list of study sites can be obtained	Reported in the manuscript	
Eligibility criteria	10	Inclusion and exclusion criteria for participants. If applicable, eligibility criteria for study centres and individuals who will perform the interventions (eg, surgeons, psychotherapists)	Reported in the manuscript	
	SPIRIT-10- PRO Extension	Specify any PRO-specific eligibility criteria (e.g. language/reading requirements or prerandomization completion of PRO). If PROs will not be collected in the entire study sample, provide a rationale and describe the method for obtaining the PRO subsample	Reported in the manuscript	
Interventions	<b>11a</b>	Interventions for each group with sufficient detail to allow replication, including how and when they will be administered	This is an observational study of usual care with a PROM introduced to capture the patient perception of usual care	
	11b	Criteria for discontinuing or modifying allocated interventions for a given trial participant (eg, drug dose change in response to harms, participant request, or improving/worsening disease)	N/A	

Section/item	Item No	Description	Reporting of the item
	11c	Strategies to improve adherence to intervention protocols, and any procedures for monitoring adherence (eg, drug tablet return, laboratory tests)	Reported in the manuscript
	11d	Relevant concomitant care and interventions that are permitted or prohibited during the trial	N/A
Outcomes	12	Primary, secondary, and other outcomes, including the specific measurement variable (eg, systolic blood pressure), analysis metric (eg, change from baseline, final value, time to event), method of aggregation (eg, median, proportion), and time point for each outcome. Explanation of the clinical relevance of chosen efficacy and harm outcomes is strongly recommended	Reported in the manuscript
	SPIRIT-12- PRO Extension	Specify the PRO concepts/domains used to evaluate the intervention (e.g. overall HRQOL, specific domain, specific symptom) and, for each one, the analysis metric (e.g. change from baseline, final value, time to event) and the principal time point or period of interest.	Reported in the manuscript
Participant timeline	13	Time schedule of enrolment, interventions (including any run-ins and washouts), assessments, and visits for participants. A schematic diagram is highly recommended (see Figure)	Reported in the manuscript
	SPIRIT-13- PRO Extension	Include a schedule of PRO assessments, providing a rationale for the time points, and justifying if the initial assessment is not pre randomization. Specify: time windows; whether PRO collection is prior to clinical assessments; and if using multiple questionnaires, whether order of administration will be standardized.	Reported in the manuscript
Sample size	14	Estimated number of participants needed to achieve study objectives and how it was determined, including clinical and statistical assumptions supporting any sample size calculations	Reported in the manuscript
Sample size	SPIRIT-14- PRO Elaboration	Where a PRO is the primary endpoint, state the required sample size (and how it was determined) and recruitment target (accounting for expected loss to follow-up). If sample size is not established based on PRO endpoint, then discuss the power of the principal PRO analyses.	Reported in the manuscript

Section/item	Item No	Description	Reporting of the item
Recruitment	15	Strategies for achieving adequate participant enrolment to reach target sample size	Reported in the manuscript
Methods: Assign	nment of inte	ventions (for controlled trials)	
Allocation:			
Sequence generation	16a	Method of generating the allocation sequence (eg, computer-generated random numbers), and list of any factors for stratification. To reduce predictability of a random sequence, details of any planned restriction (eg, blocking) should be provided in a separate document that is unavailable to those who enrol participants or assign interventions	N/A – observational survey design
Allocation concealmen t mechanism	16b	Mechanism of implementing the allocation sequence (eg, central telephone; sequentially numbered, opaque, sealed envelopes), describing any steps to conceal the sequence until interventions are assigned	N/A – observational survey design
Implementa tion	16c	Who will generate the allocation sequence, who will enrol participants, and who will assign participants to interventions	N/A – observational survey design
Blinding (masking)	17a	Who will be blinded after assignment to interventions (eg, trial participants, care providers, outcome assessors, data analysts), and how	N/A – observational survey design
	17b	If blinded, circumstances under which unblinding is permissible, and procedure for revealing a participant's allocated intervention during the trial	N/A – observational survey design
Methods: Data	collection, ma	nagement, and analysis	
Data collection methods	18a	Plans for assessment and collection of outcome, baseline, and other trial data, including any related processes to promote data quality (eg, duplicate measurements, training of assessors) and a description of study instruments (eg, questionnaires, laboratory tests) along with their reliability and validity, if known. Reference to where data collection forms can be found, if not in the protocol	Reported in the manuscript

Section/item	Item No	Description	Reporting of the item
	SPIRIT- 18a(i)- PRO Extension	Justify the PRO instrument to be used, and describe domains, number of items, recall period, instrument scaling/scoring (e.g. range and direction of scores indicating a good/poor outcome). Evidence of PRO instrument measurement properties, interpretation guidelines, and patient acceptability/burden should be provided or cited if available, ideally in the population of interest. State whether the measure will be used in accordance with any user manual and specify and justify deviations if planned.	Reported in the manuscript
	SPIRIT- 18a(ii)- PRO Extension	Include a data collection plan outlining the permitted mode(s) of administration (e.g. paper, telephone, electronic, other) and setting (e.g. clinic, home, other).	Reported in the manuscript
	SPIRIT- 18a(iii)- PRO Extension	Specify whether more than one language version will be used, and state whether translated versions have been developed using currently recommended methods.	Reported in the manuscript
	SPIRIT- 18a(iv)- PRO Extension	Where the trial context requires someone other than the trial participant to answer on their behalf (a proxy reported outcome), state and justify this. Provide/cite evidence of the validity of proxy assessment if available.	N/A
	18b	Plans to promote participant retention and complete follow-up, including list of any outcome data to be collected for participants who discontinue or deviate from intervention protocols	Reported in the manuscript
	SPIRIT- 18b(i)- PRO Extension	Specify PRO data collection and management strategies for minimising avoidable missing data.	Reported in the manuscript
	SPIRIT- 18b(ii)- PRO Elaboration	Describe the process of PRO assessment for participants who discontinue or deviate from their assigned intervention protocol	N/A
Data management	19	Plans for data entry, coding, security, and storage, including any related processes to promote data quality (eg, double data entry; range checks for data values).  Reference to where details of data management procedures can be found, if not in the protocol	Reported in the manuscript
Statistical methods	20a	Statistical methods for analysing primary and secondary outcomes. Reference to where other details of the statistical analysis plan can be found, if not in the protocol	Reported in the manuscript

Item No	Description	Reporting of the item
SPIRIT-20a- PRO Elaboration	State PRO analysis methods including any plans for addressing multiplicity/type 1 ( $\alpha$ ) error.	Reported in the manuscript
20b	Methods for any additional analyses (eg, subgroup and adjusted analyses)	Reported in the manuscript
20c	Definition of analysis population relating to protocol non-adherence (eg, as randomised analysis), and any statistical methods to handle missing data (eg, multiple imputation)	Reported in the manuscript
SPIRIT-20c- PRO Elaboration	State how missing data will be described and outline the methods for handling missing items or entire assessments (e.g. approach to imputation and sensitivity analyses).	Reported in the manuscript
itoring		
21a	Composition of data monitoring committee (DMC); summary of its role and reporting structure; statement of whether it is independent from the sponsor and competing interests; and reference to where further details about its charter can be found, if not in the protocol.  Alternatively, an explanation of why a DMC is not needed	A DMD is not required in this study as this is an observational study of usual care with a PROM introduced to capture the patient perception of usual care.
21b	Description of any interim analyses and stopping guidelines, including who will have access to these interim results and make the final decision to terminate the trial	N/A
22	Plans for collecting, assessing, reporting, and managing solicited and spontaneously reported adverse events and other unintended effects of trial interventions or trial conduct	N/A
SPIRIT-22- PRO Extension	State whether or not PRO data will be monitored during the study to inform the clinical care of individual trial participants and, if so, how this will be managed in a standardized way. Describe how this process will be explained to participants, e.g. in the participant information sheet and consent form.	PROM data will not be monitored during the study, only at the conclusion of the study.
23	Frequency and procedures for auditing trial conduct, if any, and whether the process will be independent from investigators and	The trial conduct will not be audited
	SPIRIT-20a- PRO Elaboration  20b  20c  SPIRIT-20c- PRO Elaboration  itoring  21a  21b  222  SPIRIT-22- PRO Extension	SPIRIT-20a- PRO Elaboration plans for addressing multiplicity/type 1 (α) error.  20b Methods for any additional analyses (eg, subgroup and adjusted analyses)  20c Definition of analysis population relating to protocol non-adherence (eg, as randomised analysis), and any statistical methods to handle missing data (eg, multiple imputation)  SPIRIT-20c- PRO Elaboration State how missing data will be described and outline the methods for handling missing items or entire assessments (e.g. approach to imputation and sensitivity analyses).  ittoring  21a Composition of data monitoring committee (DMC); summary of its role and reporting structure; statement of whether it is independent from the sponsor and competing interests; and reference to where further details about its charter can be found, if not in the protocol. Alternatively, an explanation of why a DMC is not needed  21b Description of any interim analyses and stopping guidelines, including who will have access to these interim results and make the final decision to terminate the trial  22 Plans for collecting, assessing, reporting, and managing solicited and spontaneously reported adverse events and other unintended effects of trial interventions or trial conduct  SPIRIT-22- PRO Extension State whether or not PRO data will be monitored during the study to inform the clinical care of individual trial participants and, if so, how this will be managed in a standardized way. Describe how this process will be explained to participants, e.g. in the participant information sheet and consent form.  23 Frequency and procedures for auditing trial conduct, if any, and whether the process

Section/item	Item No	Description	Reporting of the item
Research ethics approval	24	Plans for seeking research ethics committee/institutional review board (REC/IRB) approval	Ethics approval has been obtained from La Trobe University Human Research Ethics Committee (HEC20479)
Protocol amendments	25	Plans for communicating important protocol modifications (eg, changes to eligibility criteria, outcomes, analyses) to relevant parties (eg, investigators, REC/IRBs, trial participants, trial registries, journals, regulators)	Important protocol modifications will be communicated via the ANZCTR
Consent or assent	26a	Who will obtain informed consent or assent from potential trial participants or authorised surrogates, and how (see Item 32)	Reported in the manuscript
	26b	Additional consent provisions for collection and use of participant data and biological specimens in ancillary studies, if applicable	N/A
Confidentiality	27	How personal information about potential and enrolled participants will be collected, shared, and maintained in order to protect confidentiality before, during, and after the trial	Reported in the manuscript
Declaration of interests	28	Financial and other competing interests for principal investigators for the overall trial and each study site	Reported in the manuscript
Access to data	29	Statement of who will have access to the final trial dataset, and disclosure of contractual agreements that limit such access for investigators	Reported in the manuscript
Ancillary and post-trial care	30	Provisions, if any, for ancillary and post-trial care, and for compensation to those who suffer harm from trial participation	N/A
Dissemination policy	31a	Plans for investigators and sponsor to communicate trial results to participants, healthcare professionals, the public, and other relevant groups (eg, via publication, reporting in results databases, or other data sharing arrangements), including any publication restrictions	Reported in the manuscript
	31b	Authorship eligibility guidelines and any intended use of professional writers	Reported in the manuscript under Author Statement. There is no intent to use professional writers
	31c	Plans, if any, for granting public access to the full protocol, participant-level dataset, and statistical code	Plans to share participant-level dataset is reported in the manuscript. The full protocol is shared via the ANZCTR. Statistical code will not be shared.

Section/item	Item No	Description	Reporting of the item		
Appendices	Appendices				
Informed consent materials	32	Model consent form and other related documentation given to participants and authorised surrogates	Available upon reasonable request		
Biological specimens	33	Plans for collection, laboratory evaluation, and storage of biological specimens for genetic or molecular analysis in the current trial and for future use in ancillary studies, if applicable	N/A		
Questionnaires	PRO Elaboration		Available upon reasonable request		

<sup>\*</sup>It is strongly recommended that this checklist be read in conjunction with the SPIRIT 2013 Explanation & Elaboration for important clarification on the items. Amendments to the protocol should be tracked and dated. The SPIRIT checklist is copyrighted by the SPIRIT Group under the Creative Commons "Attribution-NonCommercial-NoDerivs 3.0 Unported" license.