APPENDIX 1

PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section topic	Item	Checklist item		
		ADMINISTRATIVE INFORMATION	Present in review Y/N	Page and line
Title:				
Identification	1a	Identify the report as a protocol of a systematic review	Yes	Page 1 Line 2
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	No	-
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	Yes	Page 3 Line 32-33
Authors:				
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	Yes	Page 1 Lines 4-6
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	Yes	Page 6 Lines 28-32
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	No	-
Support:				
Sources	5a	Indicate sources of financial or other support for the review	Yes	Page 6 Lines 22-24
Sponsor	5b	Provide name for the review funder and/or sponsor	Yes	Page 6 Lines 22-24
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	Yes	Page 6 Lines 22-24
		INTRODUCTION		
Rationale	6	Describe the rationale for the review in the context of what is already known	Yes	Page 3 Lines 2-26

Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	Yes	Page 3 Lines 28-29
		METHODS		
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	Yes	Page 4 Lines 21-41 Page 5 Lines 2-15
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	Yes	Page 4 Lines 2-7
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Yes	Appendices Page 4 Lines 1-32
Study records:				
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	Yes	Page 4 Lines 17-19
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	Yes	Page 4 Lines 9-13
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	Yes	Page 5 Lines 17-25
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	Yes	Page 5 Lines 19-23
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	Yes	Page 4 Line 32-36
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	Yes	Page 5 Lines 27-33
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	Yes	Page 5 Lines 35-42
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of	Yes	Page 5 Lines 35-42

		combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)		
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	No	
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	Yes	Page 5 Lines 35-42
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	No	-
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	Yes	Page 5 Lines 35-42

APPENDIX 2

Draft search strategy for Medline

1	ATRIAL FIBRILLATION/
2	ATRIAL FLUTTER/
3	SUPRAVENTRICULAR TACHYCARDIA/
4	"atrial fibrillation* ".ab,ti.
5	"atrial flutter* ".ab,ti.
6	"supraventricular tachycardia* ".ab,ti.
7	1 or 2 or 3 or 4 or 5 or 6
8	CRITICAL CARE/
9	INTENSIVE CARE UNIT/
10	"intensive care".ab,ia,in,ti.
11	"critical care".ab,ia,in,ti.
12	"acute physiology".ab,ti.
13	"critical* ill* ".ab,ia,in,ti.
14	(ITU or ICU or AICU).ab,ia,in,ti.
15	8 or 9 or 10 or 11 or 12 or 13 or 14
16	RISK FACTORS/
17	"risk factor* ".ab,ti.
18	EPIDEMIOLOGY/
19	"epidemiolog*".ab,ti.
20	"*etiolog*".ab,ti.
21	"determinant*".ab,ti.
22	"precursor*".ab,ti.
23	"predict*".ab,ti.
24	"trigger*".ab,ti.
25	"marker*".ab,ti.
26	"antecedent*".ab,ti.
27	BIOMARKERS/
28	"new onset".ab,ti.
29	16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28
30	7 and 15 and 29

APPENDIX 3

NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability

Selection

1. Representativeness of the study population
    a. Truly representative of the general adult ICU population ★
    b. Somewhat representative of the general adult ICU population ★
    c. Poorly representative of the general adult ICU population
    d. No description of the derivation of the cohort
2. Demonstration that outcome of interest was not present at start of study
    a. Exclusion of AF (current and historic) described ★
    b. AF (current and historic) excluded but no description
3. Ascertainment of presence of risk factor
    a. Medical record or investigation result ★
    b. Structured interview ★
    c. Written self-report
    d. No description or none of the above
4. Study size
    a. ≥100 participants in each group ★
    b. <100 participants in each group

Comparability

1. Comparability of cohorts on the basis of the design or analysis
    a. Study design controls for confounding factors ★
    b. Study controls for confounding factors in data analysis ★

Outcome

1. Study design
    a. Prospective ★
    b. Retrospective
2. Assessment of outcome
    a. Independent assessment of heart rhythm from primary source (e.g. monitor / ECG) ★
    b. Non-independent assessment or heart rhythm identified from secondary source (e.g. patient records)
    c. Other identification of heart rhythm
    d. No description
3. Adequacy of follow up of cohorts
    a. complete follow up - all subjects accounted for ★
    b. subjects lost to follow up unlikely to introduce bias - small number lost - ≥90% follow up, or description provided of those lost) ★
    c. follow up rate < 90% and no description of those lost
    d. no statement