APPENDIX I – Data collection form based on SQUIRE 2.0

Revised Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0)		
Data collection form		**Yes/No/Unclear**
TITLE AND ABSTRACT		
1. Title	Indicate that the manuscript concerns an initiative to improve healthcare (broadly defined to include the quality, safety, effectiveness, patient-centeredness, timeliness, cost, efficiency and equity of healthcare).	
2. Abstract	a. Provide adequate information to aid in searching and indexing. b. Summarise all key information from various sections of the text using the abstract format of the intended publication or a structured summary as background, local problem, methods, interventions, results, conclusions.	
INTRODUCTION	*WHY DID YOU START?*	
3. Problem description	Nature and significance of the local problem.	
4. Available knowledge	Summary of what is currently known about the problem, including relevant previous studies.	
5. Rationale	Informal or formal frameworks, models, concepts and/or theories used to explain the problem, any reasons or assumptions that were used to develop the intervention(s) and reasons why the intervention(s) was expected to work.	
6. Specific aims	Purpose of the project and of this report.	
METHODS	*WHAT DID YOU DO?*	
7. Context	Contextual elements considered important at the outset of introducing the intervention(s)	
8. Intervention(s)	a. Description of the intervention(s) in sufficient detail that other(s) could reproduce it. b. Specifics of the team involved in the work.	
9. Study of the intervention(s)	a. Approach chosen for assessing the impact of the intervention(s). b. Approach used to establish whether the observed outcomes were due to the intervention(s).	
10. Measures	a. Measures chosen for studying processes and outcomes of the intervention(s), including rationale for choosing them, their operational definitions and their validity and reliability b. Description of the approach to the ongoing assessment of contextual elements that contributed to the success, failure, efficiency and cost. c. Methods employed for assessing completeness and accuracy of data.	

11. Analysis	a. Qualitative and quantitative methods used to draw inferences from the data. b. Methods for understanding variation within the data, including the effects of time as a variable.
12. Ethical considerations	Ethical aspects of implementing and studying the intervention(s) and how they were addressed, including but not limited to formal ethics review and potential conflicts of interest.
RESULTS	*WHAT DID YOU FIND?*
13. Results	a. Initial steps of the intervention(s) and their evolution over time (e.g., time-line diagram, flow chart or table), including modifications made to the intervention during the project. b. Details of the process measures and outcomes. c. Contextual elements that interacted with the intervention(s). d. Observed associations between outcomes, interventions and relevant contextual elements. e. Unintended consequences such as unexpected benefits, problems, failures or costs associated with the intervention(s). f. Details about missing data.
DISCUSSION	*WHAT DOES IT MEAN?*
14. Summary	a. Key findings, including relevance to the rationale and specific aims. b. Particular strengths of the project.
15. Interpretation	a. Nature of the association between the intervention(s) and the outcomes. b. Comparison of results with findings from other publications. c. Impact of the project on people and systems. d. Reasons for any differences between observed and anticipated outcomes, including the influence of context. e. Costs and strategic trade-offs, including opportunity costs.
16. Limitations	a. Limits to the generalisability of the work. b. Factors that might have limited internal validity such as confounding, bias or imprecision in the design, methods, measurement or analysis. c. Efforts made to minimise and adjust for limitations.
17. Conclusions	a. Usefulness of the work.

	b. Sustainability. c. Potential for spread to other contexts. d. Implications for practice and for further study in the field. e. Suggested next steps.
OTHER INFORMATION	
18. Funding	Sources of funding that supported this work. Role, if any, of the funding organisation in the design, implementation, interpretation and reporting.

APPENDIX II – PRISMA-P checklist

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

Section and topic	Item No	Checklist item	Information reported		Page number(s)
			Yes	No	
ADMINISTRATIVE INFORMATION					
Title:					
Identification	1a	Identify the report as a protocol of a systematic review	√		01
Update	1b	If the protocol is for an update of a previous systematic review, identify as such			N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	√		03
Authors:					
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	√		01
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	√		14
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			N/A
Support:					
Sources	5a	Indicate sources of financial or other support for the review	√		14
Sponsor	5b	Provide name for the review funder and/or sponsor	√		14
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	√		14
INTRODUCTION					
Rationale	6	Describe the rationale for the review in the context of what is already known	√		04-05
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	√		05
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	√		05-09
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	√		08
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	√		Appendix III

Study records: Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	√		08
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)	√		08-09
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	√		09
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	√		09-11
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	√		09-10
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	√		10
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	√		10-11
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	√		11
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	√		11
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned			N/A
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)			N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)			N/A

APPENDIX III - Search Strategy

Database: Ovid MEDLINE: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE® Daily and Ovid MEDLINE® <1946-Present>

Search Strategy:

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1 trauma$.mp.
2 exp "Wounds and Injuries"/
3 injur$.tw.
4 or/1-3
5 Practice Guidelines as Topic/ [Guidelines]
6 Guidelines as Topic/
7 Guideline Adherence/
8 Critical Pathways/
9 Clinical Protocols/
10 Algorithms/
11 (practice adj guideline?).tw.
12 (clinical adj guideline?).tw.
13 (treatment adj guideline?).tw.
14 (diagnos$ adj guideline?).tw.
15 (management adj guideline?).tw.
16 (clinical adj algorithm?).tw.
17 (treatment adj algorithm?).tw.
18 (diagnos$ adj algorithm?).tw.
19 (management adj algorithm?).tw.
20 (clinical adj protocol?).tw.
21 (treatment adj protocol?).tw.
22 (diagnos$ adj protocol?).tw.
23 (management adj protocol?).tw.
24 (critical adj pathway?).tw.
25 (clinical adj pathway?).tw.
26 (treatment adj pathway?).tw.
27 (diagnos$ adj pathway?).tw.
28 (management adj pathway?).tw.
29 or/5-28
30 ((study adj12 protocol?) or (trial adj12 protocol?)).ti.
31 29 not 30
32 exp Hospitals/
33 Emergency Service, Hospital/
34 Trauma Centers/
35 Academic Medical Centers/
36 Intensive Care Units/
37 hospital$.tw.
38 (emergenc$ adj care).tw.
39 (emergenc$ adj department?).tw.

40 (emergenc$ adj unit?).tw.
41 (emergenc$ adj room?).tw.
42 (emergenc$ adj service?).tw.
43 "accident and emergency".tw.
44 "accident & emergency".tw.
45 (trauma adj center?).tw.
46 (trauma adj centre?).tw.
47 (trauma adj unit?).tw.
48 (trauma adj department?).tw.
49 "academic medical centre?".tw.
50 "academic medical center?".tw.
51 ICU?.tw.
52 (intensive adj care).tw.
53 or/32-52
54 randomized controlled trial.pt. [RCT fitler - validated]
55 randomized.mp.
56 placebo.mp.
57 Controlled Clinical Trial/ [quasi-expt-observ study filter]
58 Observational Study/
59 (descriptive adj3 stud$).tw.
60 (descriptive adj3 design).tw.
61 (descriptive adj3 analys?s).tw.
62 nonrandom$.tw.
63 non-random$.tw.
64 non-experiment$.tw.
65 nonexperiment$.tw.
66 (natural adj experiment?).tw.
67 (observational$ adj3 stud$).tw.
68 (observational$ adj3 design).tw.
69 (observational$ adj3 analys?s).tw.
70 quasirandom$.tw.
71 quasi-random$.tw.
72 quasiexperimental.tw.
73 quasi-experimental.tw.
74 exp Cohort Studies/
75 Registries/
76 Epidemiologic Methods/
77 limit 76 to yr=1971-1988
78 cohort$.tw.
79 (follow-up adj stud$).tw.
80 (followup adj stud$).tw.
81 (follow-up adj design).tw.
82 (followup adj design).tw.
83 (follow-up adj analys?s).tw.
84 (followup adj analys?s).tw.
85 (follow-up and base-line).tw.

86 (followup and baseline).tw.
87 longitudinal.tw.
88 ("long term" adj stud$).tw.
89 (longterm adj stud$).tw.
90 ("long term" adj design).tw.
91 (longterm adj design).tw.
92 ("long term" adj analys?s).tw.
93 (longterm adj analys?s).tw.
94 (population adj stud$).tw.
95 (population adj analys?s).tw.
96 prospective.tw.
97 retrospective.tw.
98 registry.tw.
99 registries.tw.
100 Cross-Sectional Studies/
101 (cross adj sectional).tw.
102 (incidence adj stud$).tw.
103 (prevalence adj stud$).tw.
104 (transversal adj stud$).tw.
105 exp Case-Control Studies/
106 Control Groups/
107 Matched-Pair Analysis/
108 (case$ adj3 control$).tw.
109 (case adj3 comparison$).tw.
110 (case$ and series).tw.
111 case-referent.tw.
112 (control$ adj3 stud$).tw.
113 (control adj group$).tw.
114 before-after.tw.
115 "before and after".tw.
116 (before adj after).tw.
117 (time adj series).tw.
118 Evaluation Studies/
119 Comparative Study/
120 Multicenter Study/
121 Pilot Projects/
122 Program Evaluation/
123 Validation Studies/
124 (comparative adj stud$).tw.
125 (comparison adj stud$).tw.
126 (evaluation adj stud$).tw.
127 effectiveness.tw.
128 intervention.tw.
129 (multicenter adj stud$).tw.
130 (multi-center adj stud$).tw.
131 (multicenter adj stud$).tw.

132 (multi-center adj stud$).tw.
133 (multidimensional adj stud$).tw.
134 (multi-dimensional adj stud$).tw.
135 (pre- adj5 post-).tw.
136 (pretest adj5 posttest).tw.
137 (program$ adj6 evaluat$).tw.
138 or/54-75,77-137
139 4 and 31 and 53 and 138
140 exp Animals/ not (exp Animals/ and Humans/)
141 139 not 140
142 limit 141 to yr="2010 -Current"
143 limit 142 to english language