

## **Appendix 4    Search terms per database**

### **Pubmed (July 22, 2013 / January 13, 2015 / October 6, 2015)**

#### *Search strategy*

(((((((((((((((Hospitals [Mesh]) OR Inpatients [Mesh]) OR Critical Care [Mesh]) OR Perioperative Care [Mesh]) OR Preoperative Care [Mesh]) OR hospital [tiab]) OR hospitals [tiab]) OR hospitalised [tiab]) OR hospitalized [tiab]) OR inpatient\*[tiab]) OR critical care [tiab]) OR intensive care [tiab]) OR perioperative [tiab]) OR preoperative [tiab]) OR postoperative [tiab]) OR peri-operative [tiab]) OR pre-operative [tiab]) OR post-operative [tiab]))) AND ((Attitude of Health Personnel[mesh]) OR (((((((((Patient Safety[mesh]) OR Patient Safety[tiab]) OR Risk Management [Mesh]) OR Risk Management [tiab]) OR Equipment Safety [Mesh]) OR Equipment Safety [tiab]) OR Harm Reduction [Mesh]) OR harm reduc\*[tiab]) OR Safety Management[mesh]) OR Safety Management[tiab]) OR (((prevention and control [Subheading]))) OR prevent\*[tiab]) OR safe\*[tiab])))) OR (((((((((((((((((Hand Hygiene [Mesh]) OR Hospital Rapid Response Team [Mesh]) OR Hand Hygiene [tiab]) OR Rapid Response Team [tiab]) OR Medication Reconciliation [Mesh]) OR Medication Reconciliation [tiab]) OR Antibiotic Prophylaxis [Mesh]) OR Prophylaxis [tiab]) OR Infection Control [Mesh]) OR Infection Control [tiab]) OR Checklist[mesh]) OR Checklist[tiab]) OR Automatic Data Processing[mesh]) OR Automatic Data Processing[tiab]) OR Pain management[mesh]) OR Pain management[tiab]) OR Leadership[mesh]) OR Leadership[tiab]) OR Patient handoff[mesh]) OR Patient handoff[tiab]) OR Personnel staffing[Mesh term]) OR staff\*[tiab]) OR Hospital nursing staff[mesh]) OR Hospital medical staff[mesh]) OR Nurse-Patient Ratio[tiab]) OR Education[mesh]) OR Education[tiab]) OR Patient simulation[mesh]) OR simulation[tiab]) OR Safety rounds[tiab]) OR fall prevent\*[tiab]) OR pressure ulcer prevent\*[tiab]) OR organizational culture[Mesh]) OR organizational culture[tiab]) OR safety culture[tiab]) OR Team training[tiab]) OR Case management [mesh]) OR Case management [tiab]) OR Continuity of Patient Care [mesh]) OR Quality indicators[mesh]) OR indicators[tiab]) OR Patient Participation[mesh]) OR Patient Participation[tiab]))) AND ((((((((((((mortality[mesh]) OR mortality[tiab]) OR adverse effects [Subheading]) OR adverse effect\*[tiab]) OR Medical Errors [Mesh]) OR adverse event\*[tiab]) OR harm\*[tiab]) OR incident\*[tiab]) OR Iatrogenic Disease[mesh]) OR complications [Subheading]) OR complication\*[tiab]) OR adverse drug event\*[tiab]) OR diagnostic err\*[tiab]) OR medical err\*[tiab]) OR medication err\*[tiab]) OR surgical err\*[tiab]))) AND (((((((systematic review [ti]) OR meta-analysis [pt]) OR meta-analysis [ti]) OR systematic literature review [ti]) OR ((review [pt]) AND systematic review [tiab]))) OR cochrane database syst rev[ta]) OR metaanal\*[tiab]) OR meta-anal\*[tiab]))

Hits: 3810 / 1146

### **CINAHL (July 22, 2013 / January 13, 2015/ October 6, 2015)**

#### *Search strategy*

S116 S20 AND S102 AND S114 AND S115

S115 S31 OR S71

S114 S103 OR S104 OR S105 OR S106 OR S107 OR S108 OR S109 OR S110 OR S111 OR S112  
OR S113

S113 AB systematic review\* AND PT review

S112 PT meta analysis  
S111 PT systematic review  
S110 AB systematic literature review  
S109 AB systematic review\*  
S108 AB Meta-anal\*  
S107 AB Meta Analysis  
S106 (MH "Cochrane Library")  
S105 (MH "Meta Analysis")  
S104 (MH "Literature Review+")  
S103 (MH "Systematic Review")  
S102 S73 OR S74 OR S75 OR S76 OR S77 OR S78 OR S79 OR S80 OR S81 OR S82 OR S83 OR S84 OR S85 OR S86 OR S87 OR S88 OR S89 OR S90 OR S91 OR S92 OR S93 OR S94 OR S95 OR S96 OR S97 OR S98 OR S99 OR S100 OR S101  
S101 (MH "Postoperative Complications+")  
S100 (MH "Intraoperative Complications+")  
S99 (MH "Catheter-Related Complications+")  
S98 (MH "Blood Transfusion Reaction+")  
S97 AB surgical error\*  
S96 (MH "Wrong Site Surgery")  
S95 (MH "Fatal Outcome")  
S94 (MH "Treatment Failure")  
S93 (MH "Treatment Delay")  
S92 AB Medication Error\*  
S91 (MH "Medication Errors+")  
S90 AB Treatment Error\*  
S89 (MH "Treatment Errors+")  
S88 AB Diagnostic Error\*  
S87 (MH "Diagnostic Errors+")  
S86 (MH "Inappropriate Prescribing")  
S85 (MH "Sentinel Event")  
S84 (MH "Health Care Errors+")  
S83 (MH "Iatrogenic Disease")

S82 AB complication\*

S81 AB Incident\*

S80 AB medical error\*

S79 AB adverse event\*

S78 AB Adverse Health Care Event\*

S77 (MH "Adverse Health Care Event+")

S76 AB Adverse Drug Event\*

S75 (MH "Adverse Drug Event+")

S74 AB Mortality

S73 (MH "Mortality+")

S72 S31 OR S71

S71 S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62 OR S63 OR S64 OR S65 OR S66 OR S67 OR S68 OR S69 OR S70

S70 (MH "Employee attitudes")

S69 AB patient participation

S68 (MH "Surgical Site Verification")

S67 (MH "Computerized Patient Record")

S66 (MH "Consumer Participation")

S65 AB quality indicator\*

S64 (MH "Clinical Indicators")

S63 AB Case Management

S62 (MH "Case Management")

S61 AB team training

S60 (MH "Multidisciplinary Care Team+")

S59 (MH "Communication Skills Training")

S58 AB safety culture

S57 AB Organi\* Culture

S56 (MH "Organizational Culture+")

S55 AB Safety round\*

S54 AB Simulation\*

- S53 (MH "Simulations+")
- S52 AB Education
- S51 (MH "Education+")
- S50 AB staffing
- S49 (MH "Nurse-Patient Ratio")
- S48 (MH "Personnel Staffing and Scheduling+")
- S47 AB Handover
- S46 (MH "Continuity of Patient Care+")
- S45 (MH "SBAR Technique")
- S44 (MH "Hand Off (Patient Safety)+")
- S43 AB Leadership\*
- S42 (MH "Leadership")
- S41 AB Checklist\*
- S40 (MH "Checklists")
- S39 AB Prophylaxis
- S38 (MH "Antibiotic Prophylaxis")
- S37 AB Medication Reconciliation\*
- S36 (MH "Medication Reconciliation")
- S35 AB Rapid Response Team\*
- S34 AB Hand washing
- S33 AB infection control\*
- S32 (MH "Infection Control+")
- S31 S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30
- S30 AB safe\*
- S29 AB Prevent\*
- S28 AB Safety Management
- S27 AB harm reduc\*
- S26 (MH "Harm Reduction")
- S25 (MH "Equipment Safety")
- S24 AB Risk Management
- S23 (MH "Risk Management+")

S22 AB Patient Safety  
S21 (MH "Patient Safety+")  
S20 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19  
S19 AB postoperative care  
S18 AB preoperative care  
S17 AB perioperative care  
S16 AB intensive care  
S15 AB critical care  
S14 (MH "Postoperative Period")  
S13 (MH "Preoperative Period+")  
S12 (MH "Preoperative Care+")  
S11 (MH "Postoperative Care+")  
S10 (MH "Intraoperative Care+")  
S9 (MH "Perioperative Care+")  
S8 (MH "Intensive Care, Neonatal+")  
S7 (MH "Critical Care+")  
S6 AB Inpatients\*  
S5 (MH "Inpatients")  
S4 AB hospital\*  
S3 (MH "Intensive Care Units+")  
S2 (MH "Hospital Units+")  
S1 (MH "Hospitals+")

Hits: 1074 / 222

#### **Embase (July 22, 2013 / January 13, 2015/ October 6, 2015)**

##### *Search strategy*

#92 #18 and #63 and #81 and #91  
#91 #82 or #83 or #86 or #87 or #90  
#90 #88 and #89  
#89 #84 or #85  
#88 "systematic\*".ti,ab.  
#87 "meta-anal\*".ti,ab.

#86 "meta anal\*".ti,ab.  
#85 "review"/  
#84 exp literature/  
#83 meta analysis/  
#82 exp "systematic review"/  
#81 #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77  
or #78 or #79 or #80  
#80 "surgical err\*".ti,ab.  
#79 "medication error\*".ti,ab.  
#78 "medical err\*".ti,ab.  
#77 "diagnostic err\*".ti,ab.  
#76 "medical error\*".ti,ab.  
#75 "adverse drug event\*".ti,ab.  
#74 "root complication\*".ti,ab.  
#73 "root incident\*".ti,ab.  
#72 "harm\*".ti,ab.  
#71 "adverse event\*".ti,ab.  
#70 "adverse effect\*".ti,ab.  
#69 mortality.ti,ab.  
#68 exp complication/  
#67 exp iatrogenic disease/  
#66 exp medical error/  
#65 exp adverse drug reaction/  
#64 exp mortality/  
19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35  
#63 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or  
52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62  
#62 "staff\*".ti,ab.  
#61 organi?ational culture.ti,ab.  
#60 indicators.ti,ab.  
#59 patient participation.ti,ab.  
#58 case management.ti,ab.  
#57 team training.ti,ab.  
#56 safety culture.ti,ab.  
#55 "fall prevent\*".ti,ab.  
#54 safety rounds.ti,ab.  
#53 patient handoff.ti,ab.

#52 leadership.ti,ab.  
#51 pain management.ti,ab.  
#50 checklist.ti,ab.  
#49 infection control.ti,ab.  
#48 prophylaxis.ti,ab.  
#47 rapid response team.ti,ab.  
#46 hand hygiene.ti,ab.  
#45 exp patient participation/  
#44 exp case management/  
#43 exp teaching/  
#42 exp education/  
#41 exp nurse patient ratio/  
#40 exp medical staff/  
#39 exp nursing staff/  
#38 exp clinical handover/  
#37 exp leadership/  
#36 exp checklist/  
#35 exp infection control/  
#34 exp antibiotic prophylaxis/  
#33 exp medication therapy management/  
#32 exp rapid response team/  
#31 exp hand washing/  
#30 exp prevention/  
#29 "safe\*".ti,ab.  
#28 "prevent\*".ti,ab.  
#27 safety management.ti,ab.  
#26 "harm reduc\*".ti,ab.  
#25 equipment safety.ti,ab.  
#24 device safety.ti,ab.  
#23 risk management.ti,ab.  
#22 exp harm reduction/  
#21 exp device safety/  
#20 exp risk management/  
#19 exp patient safety/  
#18 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or  
#16 or #17

#17 post-operative.ti,ab.  
#16 pre-operative.ti,ab.  
#15 peri-operative.ti,ab.  
#14 postoperative.ti,ab.  
#13 preoperative.ti,ab.  
#12 perioperative.ti,ab.  
#11 intensive care.ti,ab.  
#10 critical care.ti,ab.  
#9 "inpatient\*".ti,ab.  
#8 hospitali?ed.ti,ab.  
#7 hospitals.ti,ab.  
#6 hospital.ti,ab.  
#5 exp preoperative care/  
#4 exp perioperative period/  
#3 exp intensive care/  
#2 exp hospital patient/  
#1 exp hospital/  
Hits: 5694 / 838

#### Cochrane library (July 22, 2013 / January 13, 2015/ October 6, 2015)

##### *Search strategy*

#1 MeSH descriptor: [Hospitals] explode all trees  
#2 MeSH descriptor: [Inpatients] explode all trees  
#3 MeSH descriptor: [Critical Care] explode all trees  
#4 MeSH descriptor: [Perioperative Care] explode all trees  
#5 MeSH descriptor: [Preoperative Care] explode all trees  
#6 hospital:ti,ab,kw (Word variations have been searched)  
#7 critical care:ti,ab,kw (Word variations have been searched)  
#8 inpatient:ti,ab,kw (Word variations have been searched)  
#9 Preoperative Care:ti,ab,kw (Word variations have been searched)  
#10 Perioperative Care:ti,ab,kw (Word variations have been searched)  
#11 Postoperative Care:ti,ab,kw (Word variations have been searched)  
#12 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11  
#13 MeSH descriptor: [Patient Safety] explode all trees  
#14 patient safety:ti,ab,kw (Word variations have been searched)  
#15 MeSH descriptor: [Risk Management] explode all trees  
#16 risk management:ti,ab,kw (Word variations have been searched)  
#17 MeSH descriptor: [Equipment Safety] explode all trees  
#18 equipment safety:ti,ab,kw (Word variations have been searched)  
#19 MeSH descriptor: [Harm Reduction] explode all trees  
#20 harm reduc\*:ti,ab,kw (Word variations have been searched)  
#21 MeSH descriptor: [Safety Management] explode all trees

#22 safety management:ti,ab,kw (Word variations have been searched)  
#23 prevent\*:ti,ab,kw (Word variations have been searched)  
#24 safe\*:ti,ab,kw (Word variations have been searched)  
#25 #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24  
#26 MeSH descriptor: [Infection Control] explode all trees  
#27 infection control:ti,ab,kw (Word variations have been searched)  
#28 MeSH descriptor: [Hand Hygiene] explode all trees  
#29 hand hygiene:ti,ab,kw (Word variations have been searched)  
#30 MeSH descriptor: [Hospital Rapid Response Team] explode all trees  
#31 Rapid Response Team:ti,ab,kw (Word variations have been searched)  
#32 MeSH descriptor: [Medication Reconciliation] explode all trees  
#33 Medication Reconciliation:ti,ab,kw (Word variations have been searched)  
#34 MeSH descriptor: [Antibiotic Prophylaxis] explode all trees  
#35 Prophylaxis:ti,ab,kw (Word variations have been searched)  
#36 MeSH descriptor: [Checklist] explode all trees  
#37 checklist\*:ti,ab,kw (Word variations have been searched)  
#38 MeSH descriptor: [Automatic Data Processing] explode all trees  
#39 MeSH descriptor: [Pain Management] explode all trees  
#40 Pain management:ti,ab,kw (Word variations have been searched)  
#41 MeSH descriptor: [Leadership] explode all trees  
#42 Leadership:ti,ab,kw (Word variations have been searched)  
#43 MeSH descriptor: [Patient Handoff] explode all trees  
#44 handoff:ti,ab,kw (Word variations have been searched)  
#45 handover:ti,ab,kw (Word variations have been searched)  
#46 MeSH descriptor: [Continuity of Patient Care] explode all trees  
#47 MeSH descriptor: [Personnel Staffing and Scheduling] explode all trees  
#48 staff\*:ti,ab,kw (Word variations have been searched)  
#49 MeSH descriptor: [Nursing Staff, Hospital] explode all trees  
#50 MeSH descriptor: [Medical Staff, Hospital] explode all trees  
#51 MeSH descriptor: [Education] explode all trees  
#52 education:ti,ab,kw (Word variations have been searched)  
#53 MeSH descriptor: [Patient Simulation] explode all trees  
#54 simulation:ti,ab,kw (Word variations have been searched)  
#55 Safety round\*:ti,ab,kw (Word variations have been searched)  
#56 fall prevention:ti,ab,kw (Word variations have been searched)  
#57 pressure ulcer prevention:ti,ab,kw (Word variations have been searched)  
#58 MeSH descriptor: [Organizational Culture] explode all trees  
#59 organizational culture:ti,ab,kw (Word variations have been searched)  
#60 safety culture:ti,ab,kw (Word variations have been searched)  
#61 Team training:ti,ab,kw (Word variations have been searched)  
#62 MeSH descriptor: [Case Management] explode all trees  
#63 Case management:ti,ab,kw (Word variations have been searched)  
#64 MeSH descriptor: [Quality Indicators, Health Care] explode all trees  
#65 indicator\*:ti,ab,kw (Word variations have been searched)  
#66 MeSH descriptor: [Patient Participation] explode all trees  
#67 Patient Participation:ti,ab,kw (Word variations have been searched)

#68 #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67  
#69 #25 or #68  
#70 MeSH descriptor: [Mortality] explode all trees  
#71 mortality:ti,ab,kw (Word variations have been searched)  
#72 adverse effect\*:ti,ab,kw (Word variations have been searched)  
#73 MeSH descriptor: [Medical Errors] explode all trees  
#74 medical error\*:ti,ab,kw (Word variations have been searched)  
#75 adverse event\*:ti,ab,kw (Word variations have been searched)  
#76 harm\*:ti,ab,kw (Word variations have been searched)  
#77 incident\*:ti,ab,kw (Word variations have been searched)  
#78 MeSH descriptor: [Iatrogenic Disease] explode all trees  
#79 complication\*:ti,ab,kw (Word variations have been searched)  
#80 adverse drug event\*:ti,ab,kw (Word variations have been searched)  
#81 #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80  
#82 systematic review:ti,ab,kw (Word variations have been searched)  
#83 systematic literature review:ti,ab,kw (Word variations have been searched)  
#84 meta-analysis:pt (Word variations have been searched)  
#85 review:pt (Word variations have been searched)  
#86 meta-anal\*:ti,ab,kw (Word variations have been searched)  
#87 #82 and #85  
#88 #82 or #83 or #84 or #86 or #87  
#89 #12 and #69 and #81 and #88: in Cochrane Reviews (Reviews and Protocols) and Other Reviews  
Hits: 359 / 134

### PsychINFO (July 22, 2013/ January 13, 2015/ October 6, 2015)

#### *Search strategy*

#81 #18 and #58 and #75 and #80  
#80 #76 or #77 or #78 or #79  
#79 "meta-anal\*".ab,ti.  
#78 "meta anal\*".ab,ti.  
#77 exp Meta Analysis/  
#76 "literature review"/  
#75 #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or  
#69 or #70 or #71 or #72 or #73 or #74  
#74 "surgical err\*".ab,ti.  
#73 "medical err\*".ab,ti.  
#72 "diagnostic err\*".ab,ti.  
#71 "'adverse drug event\*'".ab,ti.  
#70 "complication\*".ab,ti.  
#69 "incident\*".ab,ti.

#68 "harm\*".ab,ti.  
#67 adverse events.ab,ti.  
#66 adverse event.ab,ti.  
#65 "adverse effect\*".ab,ti.  
#64 mortality.ab,ti.  
#63 exp Postsurgical Complications/  
#62 exp "Complications (Disorders)"/  
#61 exp Errors/  
#60 exp "Side Effects (Drug)"/  
#59 exp "Death and Dying"/  
#19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or  
#29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or  
#58 #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or  
#49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57  
#57 " prevent\*".ab,ti.  
#56 "safe\*".ab,ti.  
#55 "pressure ulcer prevent\*".ab,ti.  
#54 'patient participation'.ab,ti.  
#53 indicators.ab,ti.  
#52 'case management'.ab,ti.  
#51 'team training'.ab,ti.  
#50 'safety culture'.ab,ti.  
#49 'organizational culture'.ab,ti.  
#48 'safety rounds'.ab,ti.  
#47 simulation.ab,ti.  
#46 education.ab,ti.  
#45 'nurse-patient ratio'.ab,ti.  
#44 "staff\*".ab,ti.  
#43 'patient handoff'.ab,ti.  
#42 leadership.ab,ti.  
#41 'pain management'.ab,ti.  
#40 checklist.ab,ti.  
#39 'infection control'.ab,ti.  
#38 prophylaxis.ab,ti.  
#37 'medication reconciliation'.ab,ti.  
#36 'rapid response team'.ab,ti.  
#35 'hand hygiene'.ab,ti.

#34 exp "Continuum of Care"/  
#33 exp Client Participation/  
#32 exp Employee Attitudes/  
#31 exp Organizational Climate/  
#30 exp Simulation/  
#29 exp Education/  
#28 exp Medical Personnel/  
#27 exp Leadership/  
#26 exp Pain Management/  
#25 exp Drug Therapy/  
#24 exp Emergency Services/  
#23 exp Hygiene/  
#22 exp Harm Reduction/  
#21 exp Safety Devices/  
#20 exp Risk Management/  
#19 exp Safety/  
#18 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12  
or #13 or #14 or #15 or #16 or #17  
#17 post-operative.ab,ti.  
#16 pre-operative.ab,ti.  
#15 peri-operative.ab,ti.  
#14 postoperative.ab,ti.  
#13 preoperative.ab,ti.  
#12 perioperative.ab,ti.  
#11 'intensive care'.ab,ti.  
#10 'critical care'.ab,ti.  
#9 "inpatient\*".ab,ti.  
#8 hospitalized.ab,ti.  
#7 hospitalised.ab,ti.  
#6 hospitals.ab,ti.  
#5 hospital.ab,ti.  
#4 exp Surgery/  
#3 exp Intensive Care/  
#2 exp Hospitalized Patients/  
#1 exp Hospitals/

Hits: 95 / 30