

**Appendix 5 Excluded systematic reviews after full text selection (n=136)**

Year	Authors	Title	Reason for exclusion
1997		Collaborative systematic review of the randomised trials of organised inpatient (stroke unit) care after stroke. Stroke Unit Trialists' Collaboration	Intervention is focused on one patient group
1997	Griffith et al.	Internal medicine residency training and outcomes	No adverse patient outcomes reported No patient safety intervention
1998	Saint	Risk reduction in the intensive care unit	Pharmacological studies No patient safety intervention
1999	Meagher	Colorectal cancer: is the surgeon a prognostic factor? A systematic review	Intervention is focused on one patient group
2001	Gillespie et al.	Interventions for preventing falls in elderly people	Updated by another included review
2001	Ioannidis	Evidence on interventions to reduce medical errors: an overview and recommendations for future research	No adverse patient outcomes reported
2001	Rawal	Treating postoperative pain improves outcome	Pharmacological studies
2001	Shojania et al.	Making health care safer: a critical analysis of patient safety practices	Overall review (used for snowballing)
2002	Berenholtz et al.	Qualitative review of intensive care unit quality indicators	No quantitative outcomes
2002	Harkness	Review: specialised multidisciplinary follow up reduces hospital admissions but not mortality in patients with heart failure	No systematic review
2002	Iregui et al.	Nonpharmacological prevention of hospital-acquired pneumonia	No systematic review
2002	Kehlet	Multimodal strategies to improve surgical outcome	No adverse patient outcomes reported
2003	Gandjour et al.	Threshold volumes associated with higher survival in health care: a systematic review	No intervention studies included; only observational studies
2003	Kaushal et al.	Effects of computerized physician order entry and clinical decision support systems on medication safety: a systematic review (Structured abstract)	Updated by another included review
2003	McDonnell et al.	Acute pain teams and the management of postoperative pain: a systematic review and meta-analysis	No intervention studies included; only observational studies
2003	Patel et al.	New treatment strategies for severe sepsis and septic shock	No systematic review
2004	Dodek et al.	Evidence-based clinical practice guideline for the prevention of ventilator-associated pneumonia	No adverse patient outcomes reported
2004	Gastmeier	Nosocomial infection surveillance and control policies	No systematic review
2004	Kalant	Volume and outcome of coronary artery bypass graft surgery: are more and less the same?	Intervention is focused on one patient group
2004	Lang et al.	Nurse-patient ratios: a systematic review on the effects of nurse staffing on patient, nurse employee, and hospital outcomes	No quantitative outcomes
2004	Phillips et al.	Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis	Intervention is focused on one patient group
2004	Picheansathian	A systematic review on the effectiveness of alcohol-based solutions for hand hygiene	Pharmacological studies
2004	Rideout	Review: comprehensive discharge planning plus post-discharge support reduced total readmissions in older patients with congestive heart failure	No systematic review
2004	Shepperd et al.	Discharge planning from hospital to home	Updated by another included review
2005	Davoli et al.	[Volume and health outcomes: an overview of systematic reviews]	Not in English
2005	Lee	A systematic review for effective management of central venous catheters and catheter sites in acute care paediatric patients	No patient safety intervention
2006	Aneman	Medical emergency teams: a role for expanding intensive care?	Updated by another included review
2006	Gastmeier	Prevention of catheter-related bloodstream infections: analysis of studies published between 2002 and 2005	No patient safety intervention
2006	Lawrence et al.	Clinical guidelines. Strategies to reduce postoperative pulmonary complications after noncardiothoracic surgery: systematic review for the American College of Physicians	Duplicate record
2006	Lawrence et al.	Strategies to reduce postoperative pulmonary complications after noncardiothoracic surgery: systematic review for the American College of Physicians	No patient safety intervention
2006	Numata et al.	Nurse staffing levels and hospital mortality in critical care settings: literature review and meta-analysis	No intervention studies included; only observational studies
2006	Pearson et al.	Systematic review of evidence on the impact of nursing workload and staffing on establishing healthy work environments	No intervention studies included; only observational studies
2006	Rabie	Handwashing and risk of respiratory infections: a quantitative systematic review	No hospital setting
2006	Sanghera et al.	Interventions of hospital pharmacists in improving drug therapy in children: a systematic literature review	No quantitative outcomes
2006	Washer	Infection control strategies for methicillin-resistant staphylococcus aureus and vancomycin-resistant enterococcus: What is the evidence?	No intervention studies included; only observational studies
2007	Aboeela et al.	Effectiveness of bundled behavioural interventions to control healthcare-associated infections: a systematic review of the literature	No intervention studies included; only observational studies
2007	Burgers et al.	[Relationship between volume and quality of care for surgical interventions; results of a literature review]	No intervention studies included; only observational studies Not in English
2007	Chowdhury et al.	A systematic review of the impact of volume of surgery and specialization on patient outcome	No intervention studies included; only observational studies
2007	Foley et al.	Specialized stroke services: a meta-analysis comparing three models of care	Intervention is focused on one patient group No patient safety intervention
2007	Gastmeier	Evidence-based infection control in the ICU (except catheters)	No patient safety intervention

2007	Gastmeier	Prevention of ventilator-associated pneumonia: analysis of studies published since 2004	No patient safety intervention
2007	Kane et al.	The association of registered nurse staffing levels and patient outcomes: Systematic review and meta-analysis	No intervention studies included; only observational studies
2007	Kane et al.	Nurse staffing and quality of patient care	No intervention studies included; only observational studies
2007	McGaughey et al.	Outreach and Early Warning Systems (EWS) for the prevention of Intensive Care admission and death of critically ill adult patients on general hospital wards	Updated by another included review
2007	Pedrosa et al.	Effects of educational programs in post-operative pain [Portuguese]	Not in English
2007	Siddiqi	Interventions for preventing delirium in hospitalised patients (Review)	Updated by another included review
2007	Whitehorn	A review of the use of insulin protocols to maintain normoglycaemia in high dependency patients	No systematic review
2007	Winters et al.	Rapid response systems: a systematic review	Updated by another included review
2007	Wong	The relationship between nursing leadership and patient outcomes: a systematic review (Structured abstract)	No adverse patient outcomes reported
2008	Allen	How has the impact of 'care pathway technologies' on service integration in stroke care been measured and what is the strength of the evidence to support their effectiveness in this respect?	Intervention is focused on one patient group
2008	Crowe et al.	Systematic review of the effectiveness of nursing interventions in reducing or relieving post-operative pain	Pharmacological studies
2008	Eslami et al.	The impact of computerized physician medication order entry in hospitalized patients--a systematic review	No quantitative outcomes
2008	Shamliyan et al.	Just what the doctor ordered. Review of the evidence of the impact of computerized physician order entry system on medication errors	No intervention studies included; only observational studies
2008	Yamada et al.	A review of systematic reviews on pain interventions in hospitalized infants	Pharmacological studies and clinical interventions
2009	Arora et al.	Hospitalist handoffs: a systematic review and task force recommendations	No adverse patient outcomes reported
2009	Cohen et al.	Effect of clinical pharmacists on care in the emergency department: a systematic review	No adverse patient outcomes reported
2009	Cozart	Falls aren't us: state of the science	No adverse patient outcomes reported
2009	Dückers et al.	Safety and risk management interventions in hospitals: a systematic review of the literature	Overall review (used for snowballing)
2009	Endacott et al.	An integrative review and meta-synthesis of the scope and impact of intensive care liaison and outreach services	Updated by another included review
2009	Fung-Kee-Fung et al.	Regional collaborations as a tool for quality improvements in surgery: a systematic review of the literature	No quantitative outcomes
2009	Grinstein-Cohen et al.	Improvements and difficulties in postoperative pain management	No adverse patient outcomes reported
2009	Gruen et al.	The effect of provider case volume on cancer mortality: systematic review and meta-analysis	No intervention studies included; only observational studies
2009	Helfand	Assessment and management of acute pain in adult medical inpatients: A systematic review	No adverse patient outcomes reported
2009	Kaur et al.	Interventions that can reduce inappropriate prescribing in the elderly: a systematic review	No adverse patient outcomes reported
2009	Marwick	Care bundles: The holy grail of infectious risk management in hospital?	No systematic review
2009	Reckmann et al.	Does computerized provider order entry reduce prescribing errors for hospital inpatients? A systematic review	No adverse patient outcomes reported No systematic review
2009	Stern	Interventions to reduce the incidence of falls in older adult patients in acute-care hospitals: a systematic review	Updated by another included review
2009	van Rosse et al.	The effect of computerized physician order entry on medication prescription errors and clinical outcome in pediatric and intensive care: A systematic review	No intervention studies included; only observational studies
2009	West et al.	Nursing resources and patient outcomes in intensive care: a systematic review of the literature	No intervention studies included; only observational studies
2009	Zilberberg et al.	Implementing quality improvements in the intensive care unit: ventilator bundle as an example	No intervention studies included; only observational studies
2010		Nursing staff and patient results: systematic review about the existing relationship [Spanish]	Not in English
2010	Archampong et al.	Impact of surgeon volume on outcomes of rectal cancer surgery: a systematic review and meta-analysis	No intervention studies included; only observational studies
2010	Barocas et al.	Impact of surgeon and hospital volume on outcomes of radical prostatectomy	No intervention studies included; only observational studies
2010	Cameron et al.	Interventions for preventing falls in older people in nursing care facilities and hospitals	Updated by another included review
2010	Chen et al.	Do multi-component hospital-based programs prevent delirium? A systematic review	No full text available
2010	Fanara et al.	Recommendations for the intra-hospital transport of critically ill patients	Designs
2010	Giakoumidakis et al.	The association between the nursing workload and patient mortality [Greek]	Not in English
2010	Hall et al.	Effectiveness of interventions designed to promote patient involvement to enhance safety: a systematic review	No quantitative outcomes
2010	Karthikesalinga	Volume-outcome relationships in vascular surgery: the current status	No intervention studies included; only

	m et al.		observational studies
2010	Meddings et al.	Systematic review and meta-analysis: reminder systems to reduce catheter-associated urinary tract infections and urinary catheter use in hospitalized patients	Updated by another included review
2010	Muir	A systematic review of the effect of medication reconciliation on medication discrepancies and adverse drug events	No full text available
2010	Rabol et al.	Outcomes of classroom-based team training interventions for multiprofessional hospital staff. A systematic review	No intervention studies included; only observational studies
2010	Seehusen	Clinical pathways: Effects on practice, outcomes, and costs	No systematic review
2010	Subirana Casacuberta et al.	[Nursing staff and patient results: systematic review about the existing relationship]	Not in English
2010	Suri et al.	Post discharge management programs for elderly heart failure patients: A systematic review and meta-analysis of randomized clinical trials	No full text available
2010	Wong et al.	A systematic review of medication safety outcomes related to drug interaction software	No hospital setting
2011	Abbenbroek et al.	Intensive care unit volume - Outcome relationship: Is bigger better?	No full text available
2011	Anderson et al.	Interventions designed to prevent healthcare bed-related injuries in patients	Updated by another included review
2011	Bakker et al.	Perioperative cardiac evaluation, monitoring, and risk reduction strategies in noncardiac surgery patients	No systematic review
2011	Bapoje et al.	Effectiveness of rapid response call criteria: A systematic review and meta-analysis	No full text available
2011	Camp	Efficacy of medication reconciliation in the prevention of adverse events [Spanish]	Not in English
2011	Evans	The effect of surgical training and hospital characteristics on patient outcomes after pediatric surgery: a systematic review	Intervention is focused on one patient group
2011	Fletcher et al.	Patient safety, resident education and resident well-being following implementation of the 2003 ACGME duty hour rules	No intervention studies included; only observational studies
2011	Fry	Literature review of the impact of nurse practitioners in critical care services	No quantitative outcomes
2011	Gomes da et al.	Influence of dimensioning the nursing staff on the quality of care of the critical patient [Portuguese]	Not in English
2011	Hansen et al.	Interventions to reduce 30-day rehospitalization: a systematic review	No patient harm reported
2011	Kaki et al.	Impact of antimicrobial stewardship in critical care: a systematic review	No intervention studies included; only observational studies
2011	Ketelaar et al.	Public release of performance data in changing the behaviour of healthcare consumers, professionals or organisations	No adverse patient outcomes reported Intervention is focused on one patient group
2011	Nikolaidou et al.	Nursing management of postoperative pain in children after cardiac surgery	No full text available
2011	Reddy	Pressure ulcers	Clinical interventions (no specific patient safety interventions)
2011	Rubulotta	Rapid response systems: A re-analysis based on frequency of rrs calls and discovery of methodological issues	No full text available
2011	Wilson	The effect of nurse staffing on clinical outcomes of children in hospital: a systematic review	No intervention studies included; only observational studies
2011	Wulff	Medication administration technologies and patient safety: a mixed-method systematic review	No quantitative outcomes
2012	Anderson et al.	Interventions designed to prevent healthcare bed-related injuries in patients	Updated by another included review
2012	Alsulami et al.	Double checking the administration of medicines: what is the evidence? A systematic review	No adverse patient outcomes reported
2012	Alsulami et al.	A systematic review of the effectiveness of double checking in preventing medication errors	No full text available
2012	de Cordova et al.	Twenty-four/seven: a mixed-method systematic review of the off-shift literature	No intervention studies included; only observational studies
2012	DiBardino et al.	Meta-analysis: multidisciplinary fall prevention strategies in the acute care inpatient population	Updated by another included review
2012	Greig	A review of nosocomial norovirus outbreaks: Infection control interventions found effective	No intervention studies included; only observational studies
2012	Harden	What is best practice to prevent wrong-site surgery?	No full text available
2012	Joram et al.	Healthcare-associated infection prevention in pediatric intensive care units: a review	No systematic review
2012	Kadda et al.	The role of nursing education after a cardiac event	Intervention is focused on one patient group
2012	Kul et al., M.	Effects of care pathways on the in-hospital treatment of heart failure: a systematic review	Intervention is focused on one patient group
2012	Laugaland et al.	Interventions to improve patient safety in transitional care - a review of the evidence	No quantitative outcomes
2012	McGahan et al.	Nurse staffing levels and the incidence of mortality and morbidity in the adult intensive care unit: A literature review	No intervention studies included; only observational studies
2012	Popp	Prevention and treatment options for postoperative delirium in the elderly	No systematic review
2012	Rennke et al.	Interventions to prevent adverse events and readmissions after hospital discharge: A systematic review	No full text available
2012	Rotter et al.	The effects of clinical pathways on professional practice, patient outcomes,	No quantitative outcomes

		length of stay, and hospital costs: Cochrane systematic review and meta-analysis	
2012	Snyder et al.	Effectiveness of barcoding for reducing patient specimen and laboratory testing identification errors: a Laboratory Medicine Best Practices systematic review and meta-analysis	No adverse patient outcomes reported
2013	Aya et al.	Goal-directed therapy in cardiac surgery: a systematic review and meta-analysis	Intervention is focused on one patient group
2013	Benbassat	The effect of clinical interventions on hospital readmissions: a meta-review of published meta-analyses	No patient harm reported
2013	Georgiou et al.	The effect of computerized provider order entry systems on clinical care and work processes in emergency departments: A systematic review of the quantitative literature	No adverse patient outcomes reported
2013	Graabaek	Medication Reviews by Clinical Pharmacists at Hospitals Lead to Improved Patient Outcomes: A Systematic Review	No patient harm reported Mortality data, but no quantitative outcomes.
2013	Groves	The Relationship Between Safety Culture and Patient Outcomes: Results From Pilot Meta-Analyses	No quantitative outcomes
2013	Holly et al.	Evidence-Based Practices for the Identification, Screening, and Prevention of Acute Delirium in the Hospitalized Elderly: An Overview of Systematic Reviews	No systematic review
2013	Johansson et al.	Effectiveness of non-cardiac preoperative testing in non-cardiac elective surgery: a systematic review	Intervention is focused on one patient group No patient safety intervention
2013	Kwan et al.	Medication reconciliation during transitions of care as a patient safety strategy: a systematic review	Updated by another included review No adverse patient outcomes reported
2013	Li et al.	Oral topical decontamination for preventing ventilator-associated pneumonia: a systematic review and meta-analysis of randomized controlled trials	Intervention is focused on one patient group
2013	Majka et al.	Care Coordination to Enhance Management of Long-Term Enteral Tube Feeding: A Systematic Review and Meta-Analysis	Intervention is focused on one patient group
2013	Ojeleye et al.	The evidence for the effectiveness of safety alerts in electronic patient medication record systems at the point of pharmacy order entry: a systematic review	No adverse patient outcomes reported
2013	Omidvari et al.	Nutritional screening for improving professional practice for patient outcomes in hospital and primary care settings	No quantitative outcomes
2013	Radley et al.	Reduction in medication errors in hospitals due to adoption of computerized provider order entry systems	No adverse patient outcomes reported
2013	Shekelle	Nurse-patient ratios as a patient safety strategy: a systematic review	No intervention studies included; only observational studies
2013	Spinewine et al.	Approaches for improving continuity of care in medication management: a systematic review	No quantitative outcomes
2013	Winters et al.	Rapid-response systems as a patient safety strategy: a systematic review	Updated by another included review No intervention studies included; only observational studies
2013	Wong et al.	The relationship between nursing leadership and patient outcomes: a systematic review update	No intervention studies included; only observational studies