

Appendix. Table 1. Search strategy

Boolean terms	Search	Records retrieved
<i>Antimicrobial stewardship AND nurses AND guidelines (OR white paper OR position statement OR policy statement OR brief OR standards OR strategy OR protocol OR recommendations OR action plan OR implementation OR competencies)</i>	PubMed #search 1	749
	PubMed #search 2	39
	EBSCO Host #search 1	612
	EBSCO Host #search 2	16
	Google scholar #search 1	303
	Google scholar #search 2	17
<p>#Search 1: 30th July 2018 (Limited to: 1990 to 2018, hospital setting, English language)</p> <p>#Search 2: 20th August 2020 (Limited to: 2018 to 2020, hospital setting, English language)</p>		

Table 2. Guidelines included in the study (*n*=43)

Year Published	Authors	Country of origin	Organisation/society	Overall goal of guideline	Objectives: 1: Representation of the nurse on guideline panel (<i>n</i> =12) 2: Inclusion of nurse (category) on hospital AMS team (<i>n</i> =14) 3: Recommendations for clinical role of the bedside nurse (<i>n</i> =14)
1997	Shlaes, Gerding, John et al. ³	USA	Society for Healthcare Epidemiology of America and Infectious Diseases Society of America (SHEA/IDSA)	Guidelines for the prevention of antimicrobial resistance in hospitals	1: No 2: No 3: No
2006	Nathwani ³⁰	Scotland	Scottish Medicines Consortium (SMC)	Recommendations for antimicrobial use in antimicrobial stewardship	1: Yes 2: No 3: No
2007	Dellit, Owens, McGowan et al. ⁶	USA	Infectious Diseases Society of America and Society for Healthcare Epidemiology of America (IDSA/SHEA)	Guidelines for developing antimicrobial stewardship programs in hospitals	1: No 2: No 3: No
2007	Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) ³¹	Ireland	Health Protection Surveillance Centre, Ireland	Annual report on antimicrobial resistance (Ireland)	1: Yes 2: No 3: No
2009	Drew, White, MacDougal et al. ³²	USA	Society of Infectious Diseases Pharmacists	Guidelines for antimicrobial stewardship	1: No 2: No 3: No

2009	Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) ³³	Ireland	Health Protection Surveillance Centre, Ireland	Guidelines for antimicrobial stewardship in hospitals (Ireland)	1: No 2: Yes: IPC nurse specialist 3: No
2011	Duguid and Cruikshank ³⁴	Australia	Australian Commission on Safety and Quality in Health Care (ACSQHC). Australian Government	Antimicrobial stewardship in hospitals	1: No 2: Yes: IPC nurse specialist 3: No
2011	Spellberg, Blaser, Guidos et al ³⁵	USA	Infectious Diseases Society of America (IDSA)	Policy recommendations for antimicrobial resistance	1: No 2: No 3: No
2012	Society for Healthcare Epidemiology of America, Infectious Diseases Society of America and Pediatric Infectious Diseases Society ²	USA	Society for Healthcare Epidemiology of America, Infectious Diseases Society of America and Pediatric Infectious Diseases Society (SHEA/IDSA/PIDS)	Policy statement on antimicrobial stewardship	1: No 2: No 3: No
2012	Teng, Lee, Yeo et al. ³⁶	Singapore	Ministry of Health	Guidelines for antimicrobial stewardship training and practice	1: No 2: No 3: No
2013	Public Health England ³⁷	UK	Department of Health and Social care	Guidelines on antimicrobial prescribing and stewardship competencies	1: Yes 2: No 3: No
2014	Centers for Disease Control and Prevention ¹	USA	US Department of Health and Human Services	Core elements of hospital antibiotic stewardship programs	1: No 2: No 3: Yes

					<ul style="list-style-type: none"> • Nurse role: evidence-based stewardship
2014	Department of Health ³⁸	South Africa	National Department of Health	Antimicrobial Resistance National Strategy Framework 2014 – 2024	1: No 2: No 3: No
2014	Ministry of Health ³⁹	Malaysia	Ministry of Health	Protocol for implementation of antimicrobial stewardship programs in healthcare facilities	1: No 2: Yes: IPC nurse specialist 3: No
2014	Royal College of Nursing ²⁰	UK	Royal College of Nursing (RCN)	RCN position on the nursing role in combating antimicrobial resistance	1: Yes 2: Yes: IPC nurse specialist 3: Yes <ul style="list-style-type: none"> • Nurse role: infection prevention and control; administration of antibiotics; evidence-based stewardship; facilitating transitions of care
2015	Department of Health ⁴⁰	South Africa	National Department of Health	Implementation plan for the Antimicrobial Resistance Strategy Framework in South Africa: 2014–2019	1: No 2: No 3: No
2015	Department of Health ⁴¹	Western Australia	Ministry of Health	Antimicrobial stewardship policy	1: No 2: Yes: IPC nurse specialist/NP

					3: Yes • Nurse role: administration of antibiotics; evidence- based stewardship
2015	World Health Organization ⁴²	International	World Health Organization	Global Action Plan on Antimicrobial Resistance	1: No 2: No 3: No
2016	Communicable and Infectious Disease Steering Committee ⁴³	Canada	Pan-Canadian Public Health Network	Recommendations for antimicrobial stewardship	1: No 2: No 3: Yes • Nurse role: prescribing antibiotics
2016	Barlam, Cosgrove, Abbo et al. ⁴⁴	USA	Infectious Diseases Society of America and Society for Healthcare Epidemiology of America (IDSA/SHEA)	Guidelines on implementing an antimicrobial stewardship program	1: No 2: No 3: No
2016	Department of Health ⁴⁵	South Africa	National Department of Health	Background document on antimicrobial resistance	1: No 2: No 3: No
2016	Department of Health ⁴⁶	South Africa	National Department of Health	Guidelines for antimicrobial stewardship	1: No 2: Yes: Hospital nurse manager 3: No
2016	De With, Allerberger, Amann et al. ⁴⁷	Germany	German Society for Infectious Diseases (GSID)	Guideline for implementation of antimicrobial stewardship	1: No 2: No 3: No

2016	HealthCare CAN and National Collaborating Centre for Infectious Diseases ⁴⁸	Canada	Public Health Agency of Canada	National action plan on antimicrobial stewardship	1: Yes 2: Yes: Registered nurse 3: No
2016	Healthcare Infection Control Practices Advisory Committee ⁴⁹	USA	US Federal advisory committee	Guidelines for antimicrobial stewardship	1: Yes 2: No 3: No
2016	Levy Hara, Kanj, Pagani et al. ⁵⁰	International	Antimicrobial Stewardship and Resistance Working Groups of the International Society of Chemotherapy	Recommendations for antibiotic use in antimicrobial stewardship	1: No 2: Yes: IPC nurse specialist 3: No
2016	Morgan, Croft, Delone et al. ⁵¹	USA	Society for Healthcare Epidemiology of America (SHEA)	Recommendations for antimicrobial stewardship	1: No 2: No 3: No
2016	National Institute for Health and Care Excellence ⁵²	UK	Department of Health	Recommendations for antibiotic use in antimicrobial stewardship	1: Yes 2: No 3: No
2017	American Nurses Association/ Centers for Disease Control and Prevention Workgroup ²¹	USA	American Nurses Association/Centers for Disease Control and Prevention Workgroup (ANA/CDC)	White paper recommendations on the role of registered nurses in hospital antimicrobial stewardship	1: Yes 2: Yes: Registered nurse 3: Yes • Nurse role: infection prevention and control; administration of antibiotics; evidence-based stewardship; collaboration; facilitating transitions of care

2017	American Society of Health-System Pharmacists ⁵³	USA	American Society of Health-System Pharmacists (ASHSP)	Guidelines for the implementation of antimicrobial stewardship programs	1: No 2: No 3: No
2017	Canadian Nurses Association ⁵⁴	Canada	Canadian Nurses Association (CNA)	Brief on the use of nurses in combating antimicrobial resistance	1: Yes 2: Yes: Registered nurse 3: Yes • Nurse role: infection prevention and control; administration of antibiotics; evidence-based stewardship; collaboration; facilitating transitions of care; prescribing antibiotics
2017	Department of Health ⁵⁵	Australia	Ministry of Health	National Antimicrobial Resistance Strategy 2015-2019 progress report	1: No 2: No 3: No
2017	European Commission ⁵⁶	EU	European Commission (EU)	Guidelines for antimicrobial use in human health	1: No 2: Yes: Registered nurse 3: Yes • Nurse role: infection prevention and control; administration of antibiotics; evidence-based stewardship; facilitating transitions of care

2017	European Federation of Nurses Associations ⁵⁷	EU	European Federation of Nurses Associations (EFN)	Recommendations for nurses' role in combating antimicrobial resistance	1: Yes 2: No 3: Yes • Nurse role: collaboration
2017	International Council of Nurses ⁵⁸	International	International Council of Nurses (ICN)	Position statement on nurses' role in combating antimicrobial resistance	1: Yes 2: Yes: Registered nurse 3: Yes • Nurse role: infection prevention and control; administration of antibiotics; collaboration; facilitating transitions of care
2017	Ministerial Advisory Committee on Antimicrobial Resistance ⁵⁹	South Africa	National Department of Health	Guidelines on implementation of antimicrobial stewardship using a One Health approach	1: No 2: Yes: Hospital nurse manager 3: No
2017	The Joint Commission ⁶⁰	USA	Standards-setting and accrediting body for US health care	Standard for antimicrobial stewardship	1: No 2: No 3: No
2018	Australian Commission on Safety and Quality in Health Care (ACSQHC) ⁶¹	Australia	Australian Government	Antimicrobial stewardship in Australian Healthcare	1: No 2: Yes: Registered nurse 3: Yes • Nurse role: infection prevention and control;

					administration of antibiotics; evidence-based stewardship; collaboration; facilitating transitions of care
2018	Hawkey, Warren, Livermore et al. ⁶²	UK	Joint Working Party of the British Society for Antimicrobial Chemotherapy, the Healthcare Infection Society and the British Infection Association	Recommendations for antibiotic use within antimicrobial stewardship	1: No 2: No 3: No
2018	Manning, Septimus, Dodds Ashley et al. (APIC /SHEA/SIDP) ⁶³	USA	Association for Professionals in Infection Control and Epidemiology and the Society for Healthcare Epidemiology of America (APIC/SHEA)	Position paper on the role of infection prevention and control within antimicrobial stewardship	1: Yes 2: No 3: Yes • Nurse role: infection prevention and control
2018	World Health Organization ⁶⁴	International	World Health Organization	WHO Competency Framework for Health Workers' Education and Training on Antimicrobial Resistance	1: No 2: No 3: Yes • Nurse role: infection prevention and control; administration of antibiotics; facilitating transitions of care
2019	Centers for Disease Control and Prevention ⁶⁵	USA	US Department of Health and Human Services	The Core Elements of Hospital Antibiotic Stewardship Programs:	1: No 2: No 3: Yes

				2019	<ul style="list-style-type: none"> • Nurse role: infection prevention and control; administration of antibiotics; evidence-based stewardship; facilitating transitions of care
2019	Department of Health ⁶⁶	South Africa	National Department of Health	Guidelines for the prevention and containment of antimicrobial resistance in South African hospitals	<p>1: No 2: No 3: Yes</p> <ul style="list-style-type: none"> • Nurse role: infection prevention and control; administration of antibiotics; evidence-based stewardship