

Supplementary Material I: Systematic review search strategy

First, the keywords “Ventilator-Associated Methicillin-resistant Staphylococcus Aureus Pneumonia, teicoplanin, vancomycin, linezolid, and Cost-effectiveness analysis” were searched in the Medical Subject Headings (MeSH) and the search strategy was designed using MeSH terms, synonyms, and entry terms, Boolean operators (including AND and OR).

Then based on the designed strategy, the search was executed on June 8, 2025, across the following databases: PubMed, Scopus, Web of Science, and Google Scholar. To maximize document retrieval, no restrictions were imposed regarding the time frame or document type. However, the retrieved documents were limited to English and Persian languages.

The initial search conducted across the specified databases led to the retrieval of 1378 records. This total comprised 198 records from PubMed, 140 from Web of Science (WOS), 682 from Scopus, and 358 from Google Scholar.

Following the elimination of 189 duplicate records, 1189 records proceeded to the screening phases.

PubMed

NO	keywords	RESULT
1	(“Nosocomial infection”[TIAB] OR “Cross Infection”[MESH] OR “Cross Infection*”[TIAB] OR “Healthcare Associated Infection*”[TIAB] OR “Health Care Associated Infection*”[TIAB] OR “Hospital Infection*”[TIAB] OR “Healthcare-Associated Pneumonia”[MESH] OR “Healthcare-Associated Pneumonia*”[TIAB] OR “Healthcare Associated Pneumonia*”[TIAB] OR “Nosocomial Pneumonia*”[TIAB] OR “Hospital Acquired Pneumonia*”[TIAB] OR “Hospital pneumonia”[TIAB] OR “Hospital-acquired pneumonia*”[TIAB] OR “Ventilator-associated pneumonia”[TIAB] OR “Pneumonia, Ventilator-Associated”[MESH] OR “Mechanical Ventilation-Associated Nosocomial Pneumonia”[TIAB]) AND (“Methicillin-Resistant Staphylococcus aureus”[TIAB] OR “Methicillin-Resistant Staphylococcus aureus”[MESH] OR “Methicillin Resistant Staphylococcus aureus”[TIAB] OR “MRSA”[TIAB])	
2	Linezolid[TIAB] OR Linezolid[MESH] OR Linezolid[TIAB] OR Linovox[TIAB] OR Linzomed[TIAB] OR Vancomycin[TIAB] OR Vancocin[TIAB] OR Teicoplanin[TIAB] OR Targocid[TIAB] OR Ticocin[TIAB] OR Teconin[TIAB]	
3	“Cost-Effectiveness Analysis”[MESH] OR “Cost Effectiveness”[TIAB] OR “Resource Allocation”[MESH] OR “Health resource allocation”[TIAB] OR “Allocation of Resources”[TIAB] OR “Resources Allocation”[TIAB] OR “Allocative Efficiency”[TIAB] OR “Economics, Medical”[MESH] OR “Medical Economic*”[TIAB] OR “Cost-Benefit Analysis”[MESH] OR “Cost-Benefit Analysis”[TIAB] OR “Economic Evaluation*”[TIAB] OR “Costs and Cost Analysis”[MESH] OR Affordability[TIAB] OR Affordabilities[TIAB] OR Pricing[TIAB] OR Cost*[TIAB] OR “cost benefit*”[TIAB] OR “Health Care Costs”[MESH] OR “Cost-consequence*”[TIAB] OR “Cost consequence*”[TIAB] OR “Drug Costs”[MESH] OR “Employer Health Costs”[MESH] OR “Hospital Costs”[MESH] OR “Health Care Economics and Organizations”[MESH] OR “Healthcare Economics and Organizations”[TIAB] OR “Health Care Economic*”[TIAB] OR “Healthcare Economic*”[TIAB] OR “Health Economic*”[TIAB]	

4	(1 AND 2 AND 3) Filters: English, Persian	198
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Scopus

N O	keywords	RESUL T
1	TITLE-ABS-KEY(("Nosocomial infection" OR "Cross Infection*" OR "Healthcare Associated Infection*" OR "Health Care Associated Infection*" OR "Hospital Infection*" OR "Nosocomial pneumonia*" OR {Healthcare-Associated Pneumonia} OR {Healthcare-Associated Pneumonias} OR "Healthcare Associated Pneumonia*" OR "Hospital Acquired Pneumonia*" OR "Hospital pneumonia" OR {Hospital-acquired pneumonia} OR {Hospital-acquired pneumonias} OR {Ventilator-associated pneumonia} OR {Pneumonia, Ventilator-Associated} OR {Mechanical Ventilation-Associated Nosocomial Pneumonia}) AND ({Methicillin-Resistant Staphylococcus aureus} OR "Methicillin Resistant Staphylococcus aureus" OR "MRSA"))	
2	TITLE-ABS-KEY(linezolid OR linezolid OR linovox OR linzomed OR vancomycin OR vancocin OR teicoplanin OR targocid OR ticocin OR teconin)	
3	TITLE-ABS-KEY({Cost-Effectiveness Analysis} OR "Cost Effectiveness" OR "Resource Allocation" OR "Health resource allocation" OR "Allocation of Resources" OR "Resources Allocation" OR "Allocative Efficiency" OR "Economics, Medical" OR "Medical Economic*" OR {Cost-Benefit Analysis} OR "Economic Evaluation*" OR "Costs and Cost Analysis" OR Affordability OR Affordabilities OR Pricing OR Cost* OR "cost benefit*" OR "Health Care Costs" OR {Cost-consequence} OR {Cost consequences} OR "Cost consequence*" OR "Drug Costs" OR "Employer Health Costs" OR "Hospital Costs" OR "Health Care Economics and Organizations" OR "Health Care Economic*" OR "Healthcare Economic*" OR "Health Economic*")	
4	(1 AND 2 AND 3) AND (LIMIT-TO (LANGUAGE , "Persian") OR LIMIT-TO (LANGUAGE , "English"))	682

WOS

N O	keywords	RESUL T
1	TS=(("Nosocomial infection" OR "Cross Infection*" OR "Healthcare Associated Infection*" OR "Health Care Associated Infection*" OR "Hospital Infection*" OR "Nosocomial pneumonia*" OR "Healthcare-Associated Pneumonia*" OR "Healthcare Associated Pneumonia*" OR "Hospital Acquired Pneumonia*" OR "Hospital pneumonia" OR "Hospital-acquired pneumonias" OR "Ventilator-associated pneumonia" OR "Pneumonia, Ventilator-Associated" OR "Mechanical Ventilation-Associated Nosocomial Pneumonia") AND ("Methicillin-Resistant Staphylococcus aureus" OR "Methicillin Resistant Staphylococcus aureus" OR "MRSA"))	

2	TS=(linezolid OR linezolid OR linovox OR linzomed OR vancomycin OR vancocin OR teicoplanin OR targocid OR ticocin OR teconin)	
3	TS=(“Cost-Effectiveness Analysis” OR “Cost Effectiveness” OR “Resource Allocation” OR “Health resource allocation” OR “Allocation of Resources” OR “Resources Allocation” OR “Allocative Efficiency” OR “Economics, Medical” OR “Medical Economic*” OR “Cost-Benefit Analysis” OR “Economic Evaluation*” OR “Costs and Cost Analysis” OR Affordability OR Affordabilities OR Pricing OR Cost* OR “cost benefit*” OR “Health Care Costs” OR “Cost- consequence*” OR “Cost consequence*” OR “Drug Costs” OR “Employer Health Costs” OR “Hospital Costs” OR “Health Care Economics and Organizations” OR “Health Care Economic*” OR “Healthcare Economic*” OR “Health Economic*”)	
4	(1 AND 2 AND 3) AND English (Languages)	140

Google Scholar

N O	keywords	RESUL T
1	((“Nosocomial infection” OR “Cross Infection*” OR “Healthcare Associated Infection*” OR “Health Care Associated Infection*” OR “Hospital Infection*” OR “Nosocomial pneumonia*” OR “Healthcare-Associated Pneumonia*” OR “Healthcare Associated Pneumonia*” OR “Hospital Acquired Pneumonia*” OR “Hospital pneumonia” OR “Hospital-acquired pneumonias” OR “Ventilator-associated pneumonia” OR “Pneumonia, Ventilator-Associated” OR “Mechanical Ventilation-Associated Nosocomial Pneumonia”) AND (“Methicillin-Resistant Staphylococcus aureus” OR “Methicillin Resistant Staphylococcus aureus” OR “MRSA”)) AND (linezolid OR linezolid OR linovox OR linzomed OR vancomycin OR vancocin OR teicoplanin OR targocid OR ticocin OR teconin) AND (“Cost-Effectiveness Analysis” OR “Cost Effectiveness” OR “Resource Allocation” OR “Health resource allocation” OR “Allocation of Resources” OR “Resources Allocation” OR “Allocative Efficiency” OR “Economics, Medical” OR “Medical Economic*” OR “Cost-Benefit Analysis” OR “Economic Evaluation*” OR “Costs and Cost Analysis” OR Affordability OR Affordabilities OR Pricing OR Cost* OR “cost benefit*” OR “Health Care Costs” OR “Cost-consequence*” OR “Cost consequence*” OR “Drug Costs” OR “Employer Health Costs” OR “Hospital Costs” OR “Health Care Economics and Organizations” OR “Health Care Economic*” OR “Healthcare Economic*” OR “Health Economic*”)	358