



What are the preferred antibiotics for empirical antibiotic therapy in pyogenic spinal infections?



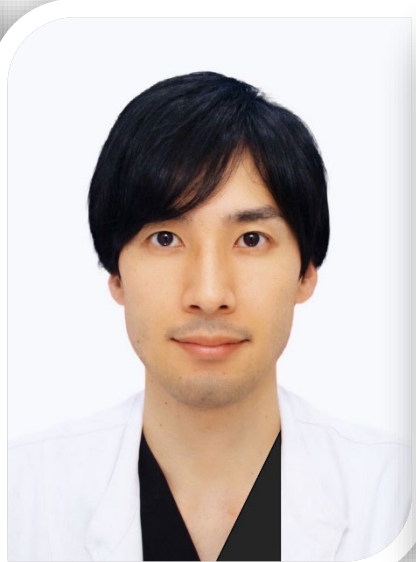
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Why is this topic Important

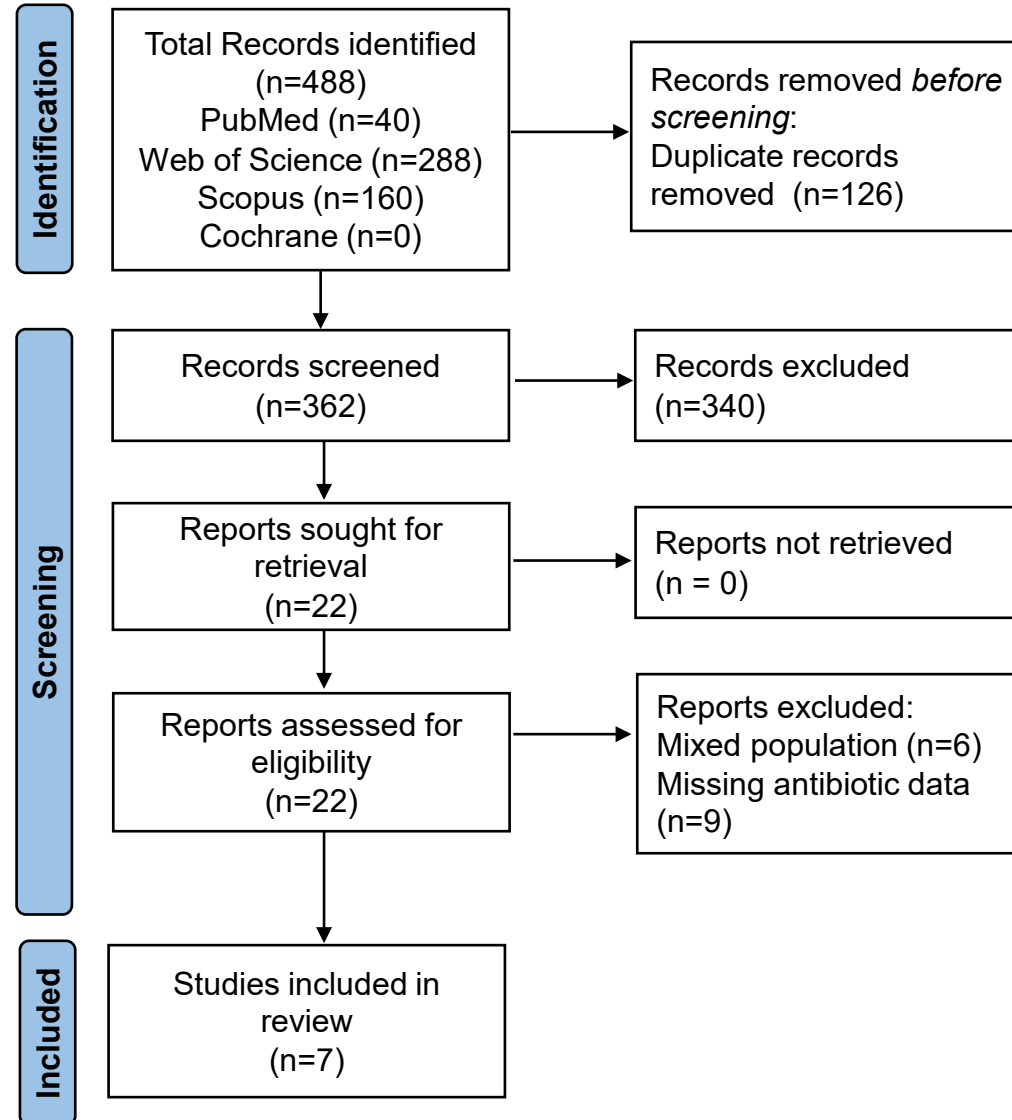
- Despite the increased availability of recent diagnostic methods, the causative organisms in all pyogenic spinal infections could not be identified, and there is a need to start the patients on EAT.
- The WHO has emphasized the rational antibiotic usage that is appropriate for the clinical condition for an adequate period that meets the clinical needs at a low cost to the patient
- However, there is no clear consensus on the right choice of empirical antibiotic treatment for pyogenic spinal infections.



Literature Review/ Process



Scopus





Findings from Literature

Sl. No	Author	Year	Sample size	Empirical Antibiotic Therapy	Susceptibility	Treatment duration
1	P Viale et. al	2008	48	Levofloxacin + Rifampicin	84.1%	15.1 weeks
2	J Lora-Tamayo et al.	2011	72	Levofloxacin + Rifampicin	93%	8 weeks
3	S Desoutter et al.	2015	101	Ofloxacin + Rifampicin	58%	6-12 weeks
				Levofloxacin + Rifampicin	75%	
				Ciprofloxacin + Clindamycin	76%	
				Ciprofloxacin + Amox/Clav	77%	
4	J Urrutia et al.	2015	97	Ciprofloxacin + Cephalosporins	Not reported	12 weeks
5	G Mohamad et al.	2018	45	Ciprofloxacin + Cephalosporins	Not reported	12 weeks
6	KH Park et al.	2019	358	Levofloxacin + Rifampicin	73.5%	>8 weeks
				Levofloxacin + Clindamycin	71.2%	
				Ciprofloxacin + Amox/Clav	64.5%	
				Vancomycin + Ciprofloxacin	93%	
				Vancomycin + Ceftriaxone	94.1%	
				Vancomycin + Ceftazidime	95.8%	
				Vancomycin + Cefepime	95.8%	
7	SH Lee et al.	2022	183	Cephalosporins	89%	6 weeks



Findings from Literature

- Empirical antibiotic therapy is dependent on the host, the clinical situation, and the epidemiologic risk, as well as the local historical in vitro susceptibility data.
- Hence, a two-tiered approach is suggested in the choice of antibiotic regimen.
- First, rifampicin with fluoroquinolones could be considered in areas with low incidence of resistant strains of *Staph. aureus* after excluding *Mycobacterium tuberculosis*.
- If healthcare-associated resistant strains are expected, vancomycin combined with broad-spectrum cephalosporin or fluoroquinolone or carbapenams could be considered as the empirical antibiotic treatment for pyogenic spinal infections.



Question:

What are the preferred antibiotics for empirical antibiotic therapy in pyogenic spinal infections?



Response:

- ❖ **Choice of empirical antibiotic therapy should be considered based on the host, the clinical situation, and the epidemiologic risk, as well as the local historical in vitro susceptibility data of the expected pathogen.**



❖ **Vote:**

Agree – 100%, Disagree – 0%, Abstain – 0%
(Unanimous Consensus)