SASPI

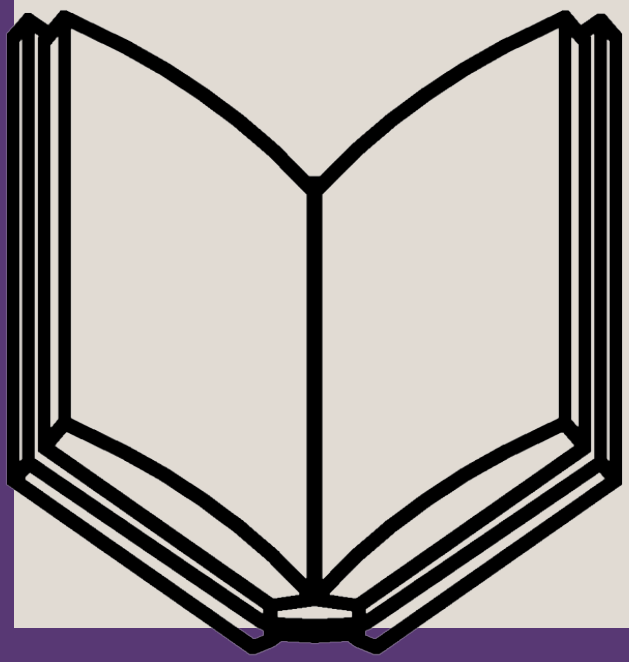
SOCIETY OF ANTIMICROBIAL STEWARDSHIP PRACTICES IN INDIA

WELCOME TO OUR

Newsletter

DEC 2024

In collaboration with AIIMS BATHINDA



- Filled with information
- critical analysis
- New strategies and lot more....

NEWSLETTER
SASPI

DECEMBER 2024

SOCIETY OF ANTIMICROBIAL STEWARDSHIP PRACTICES IN INDIA
&
ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS) BATHINDA

PRESIDENTS NOTE

Dear Members & Readers,
Greetings from the President's Desk!

As we welcome the New Year 2025, I extend my heartfelt gratitude to all members, seniors, and past presidents for entrusting me with the honor of leading SASPI.
Antimicrobial resistance (AMR), often termed the "Silent Pandemic," threatens modern medicine, with 39 million projected deaths from drug-resistant pathogens over the next 25 years. Addressing this requires moving beyond siloed efforts. Integrative Stewardship—combining Antimicrobial Stewardship, Diagnostic Stewardship, and Infection Control—offers a patient-centered, holistic approach.
To combat AMR and healthcare-associated infections, collaboration among policymakers, healthcare workers, and communities is crucial. Together, we can drive sustainable healthcare improvements and tackle this critical global challenge.

SASPI collaborates with clinicians, diagnosticians, and healthcare workers to promote Integrative Stewardship, emphasizing infection control, diagnostics, and therapies to combat antimicrobial resistance (AMR). During "World AMR Awareness Week" (18–24 Nov), members embraced the theme "Educate. Advocate. Act Now." In December 2024, SASPI will host its 5th educational webinar. Recently, 42 practice statements were released to standardize Integrative Stewardship in tertiary care hospitals across India.
JASPI, SASPI's journal, has added "Journal Autopsy" and "Stewardship Pearls" sections, offering key insights into stewardship practices. This model aligns with the vision of Viksit Bharat by fostering robust healthcare systems, reducing illness, and mitigating resistance through collaboration and innovation.

Best Regards
President, SASPI

NEWSLETTER

Here is What we have !

- *Antimicrobial Stewardship Pearls for optimized use of antibiotics*
- *Diagnostic Stewardship*
- *Laboratory -based algorithm to determine blood cultre contamination*
- *Stewardship for Urinary Tract Infections*
- *Cascade Reporting for Antimicrobbial susceptibility Testing*
- *IPC What metaanalysis says*
- *What's New?*
- *Antibiotics summary: AWARE and more*
- *WAAW 2024 activities by AIIMS Bathinda- A snapshot*

INVITED EDITOR
AIIMS BATHINDA

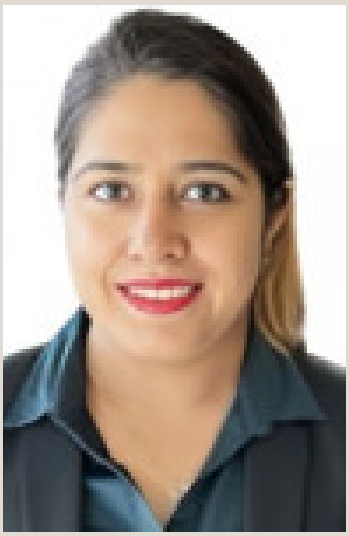
Dr. Rachna Rohilla
Assistant Professor
Pharmacology
All India Institute of Medical Sciences
Bathinda, Punjab, India

Content edits, formatting & Designing
Dr. Samiksha Bhattacharjee
AssistantProfessor
Pharmacology
AIIMS Deoghar &
Joint Director Public Health Committee, SASPI

ANTIMICROBIAL STEWARDSHIP PEARLS FOR OPTIMIZED USE OF ANTIBIOTICS "START SMART, NEXT FOCUS"

Compiled by:
Dr. Rachna Rohilla, Assistant Professor,
Department of Pharmacology, AIIMS Bathinda

Drug: Selecting empirical antibiotic based on guidelines including local epidemiological patterns and antibiogram. Keeping in view the co-morbid conditions and tissue penetration is equally important.



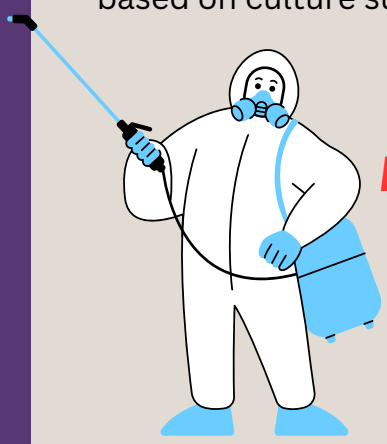
Dose: Dosing recommendations based on AWaRe antibiotic book, keeping in view the working mechanism of antibiotic (PK/PD) for selecting duration and frequency of administration. EUCAST suggests pathogen specific dosing for certain pathogens based on breakpoints and MDR organisms.

Delivery: The route of administration is sometimes important consideration especially for ocular/CNS conditions where the penetration remains a concern e.g Intraventricular administration of Amphotericin B for fungal CNS infections or Colistin administration for A.baumannii meningitis.

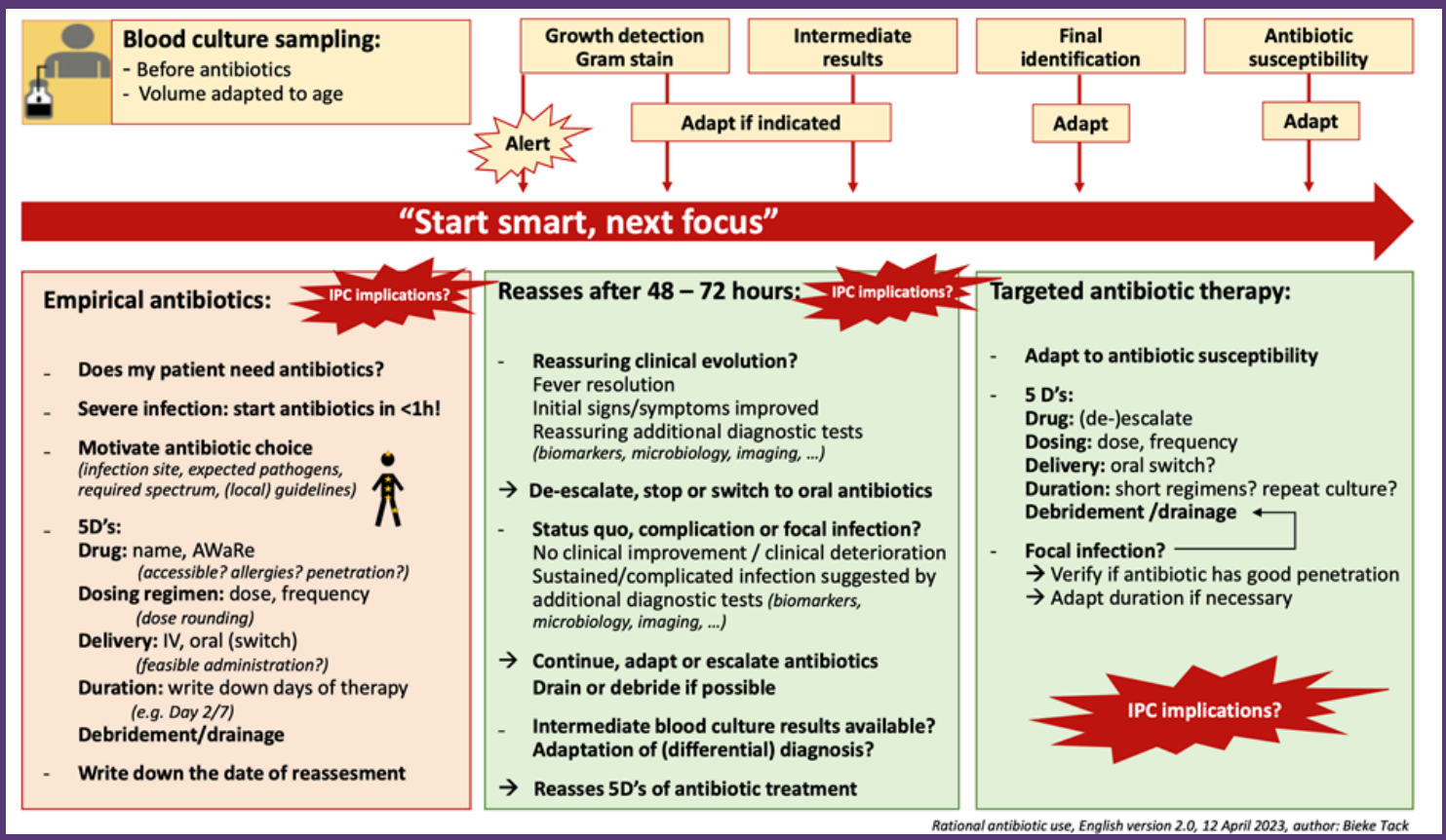
Duration: A shorter treatment can be considered based for certain conditions like uncomplicated UTI, pneumonia, S.aureus bacteremia, typhoid fever after risk-benefit assessment. In addition, IV to Oral switch should be considered once patient improves.

Debridement/Drainage: Source control where ever possible is must in addition to antibiotics.

De-escalation: De-escalation from broad spectrum to narrow spectrum antibiotic based on culture susceptibility report.



Antibiotics should not compensate for lack of hygiene/infection control


Blood culture sampling:
- Before antibiotics
- Volume adapted to age
Growth detection Gram stain
Intermediate results
Final identification
Antibiotic susceptibility
Alert
Adapt if indicated
Adapt
Adapt
"Start smart, next focus"
Empirical antibiotics:
IPC implications?
- Does my patient need antibiotics?
- Severe infection: start antibiotics in <1h!
- Motivate antibiotic choice
(infection site, expected pathogens, required spectrum, (local) guidelines)
- 5D's:
Drug: name, AWaRe
(accessible? allergies? penetration?)
Dosing regimen: dose, frequency
(dose rounding)
Delivery: IV, oral (switch)
(feasible administration?)
Duration: write down days of therapy
(e.g. Day 2/7)
Debridement/drainage
- Write down the date of reassesment
Reasses after 48 – 72 hours:
IPC implications?
- Reassuring clinical evolution?
Fever resolution
Initial signs/symptoms improved
Reassuring additional diagnostic tests
(biomarkers, microbiology, imaging, ...)
→ De-escalate, stop or switch to oral antibiotics
- Status quo, complication or focal infection?
No clinical improvement / clinical deterioration
Sustained/complicated infection suggested by additional diagnostic tests (biomarkers, microbiology, imaging, ...)
→ Continue, adapt or escalate antibiotics
Drain or debride if possible
- Intermediate blood culture results available?
Adaptation of (differential) diagnosis?
→ Reasses 5D's of antibiotic treatment
Targeted antibiotic therapy:
- Adapt to antibiotic susceptibility
- 5 D's:
Drug: (de-)escalate
Dosing: dose, frequency
Delivery: oral switch?
Duration: short regimens? repeat culture?
Debridement /drainage
- Focal infection?
→ Verify if antibiotic has good penetration
→ Adapt duration if necessary
IPC implications?
Rational antibiotic use, English version 2.0, 12 April 2023, author: Bieke Tack

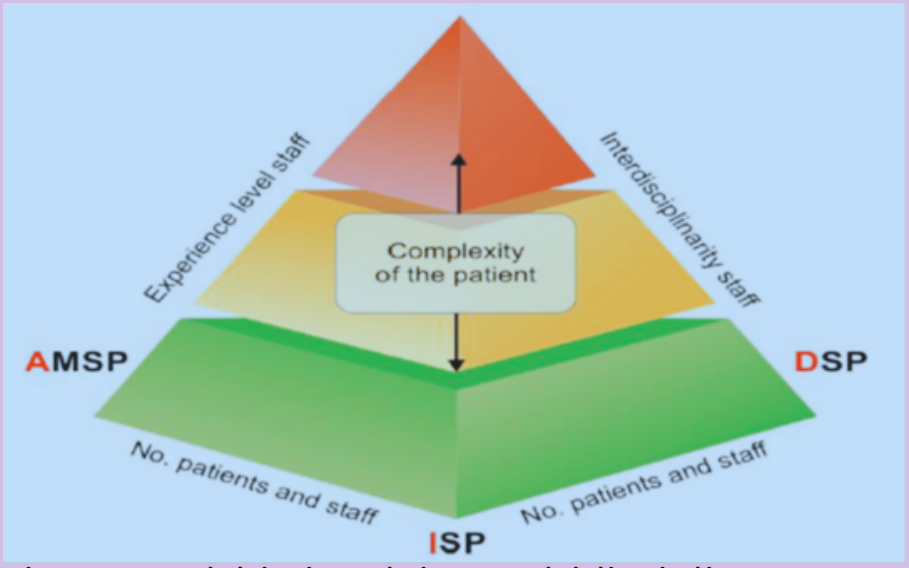

UNDERSTAND
Information about bacteria, antibiotics & resistance
RAISE AWARENESS
Inspiration & tools for raising awareness, education & training
MEASURE
Tools to help assess antibiotic use, resistance & impact of interventions
RATIONAL USE
Support for setting up stewardship in healthcare & food animal production
PREVENT INFECTION
Support for IPC & limiting spread of resistance in healthcare & food animals
POLICY
Support for developing & implementing National Action Plans

Diagnostic Stewardship

Dr. Bhawna Sharma and Dr. Jai Ranjan
Assistant Professor, Department of Microbiology, AIIMS Bathinda

According to WHO Diagnostic stewardship is defined in the GLASS manual as: "coordinated guidance and interventions to improve appropriate use of microbiological diagnostics to guide therapeutic decisions."

AID INTEGRATED STEWARDSHIP MODEL



Diagnostic stewardship involving multidisciplinary teams across the diagnostic pathway as shown below:

Pre-analytical

PHYSICIAN
- ✓ Proper History and examination
- ✓ Optimum sample source
- ✓ Adequate test
- ✓ Provide adequate clinical data

NURSE/STAFF
- ✓ Proper sample collection
- ✓ Adequate sample labelling and transport

MICROBIOLOGIST
- ✓ Recommend diagnostic test
- ✓ Assess sample quality

Counsel about right sample, right test, right time

Analytical

PHYSICIAN
- ✓ Provide real time clinical feedback to guide any ddtional test required

LABORATORY STAFF
- ✓ Appropriate sample processing and avoid contamination
- ✓ Sample Preservation

MICROBIOLOGIST
- ✓ Determine sample adequacy for testing
- ✓ Recommend additional diagnostic tools as per clinical data provided
- ✓ Reject sample as per rejection criterias`

Post Analytical

MICROBIOLOGIST
- ✓ Mention colonization on the reports
- ✓ Add comments regarding sample appropriateness
- ✓ Cascade reporting for antimicrobial susceptibility

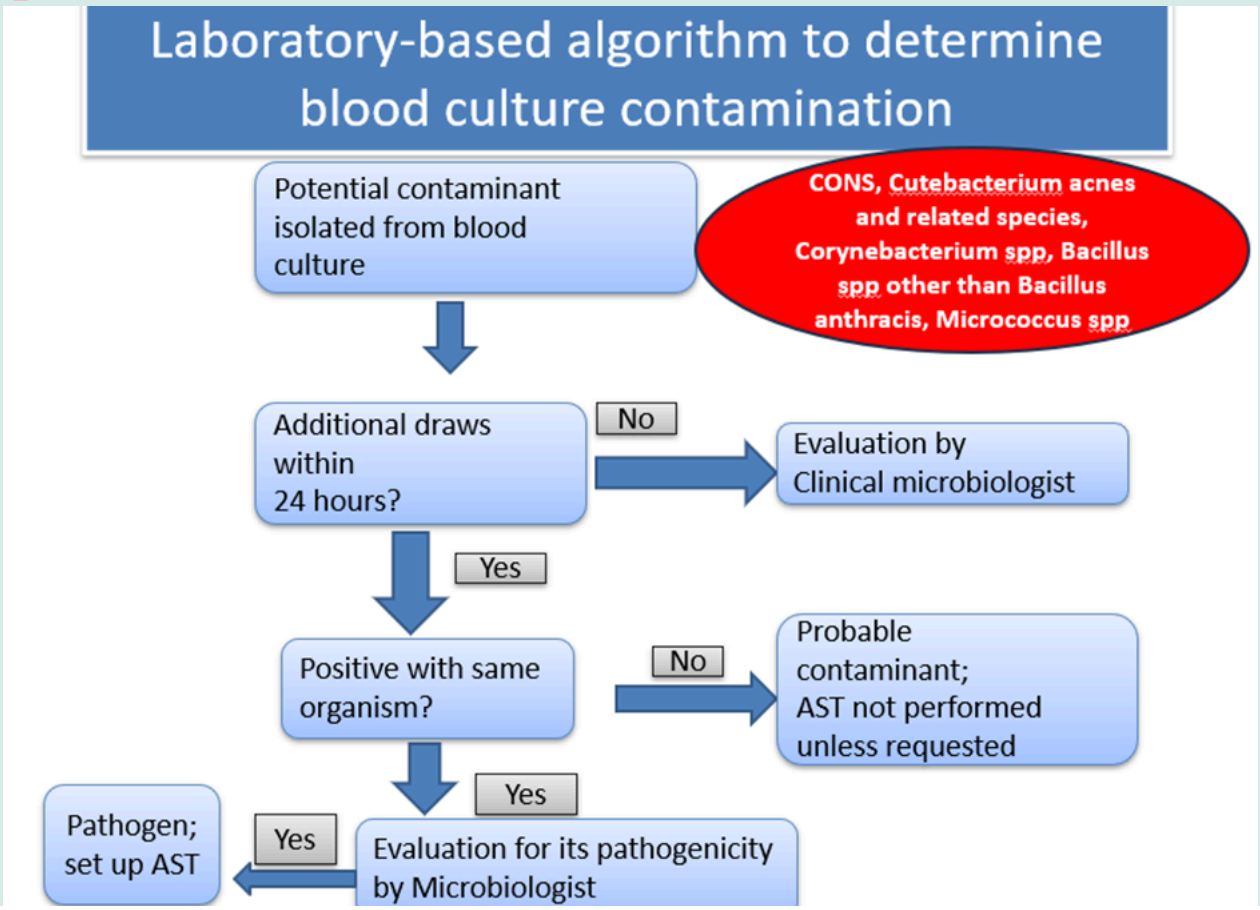
crical call alerts
- ✓ Recommend additional tests if required

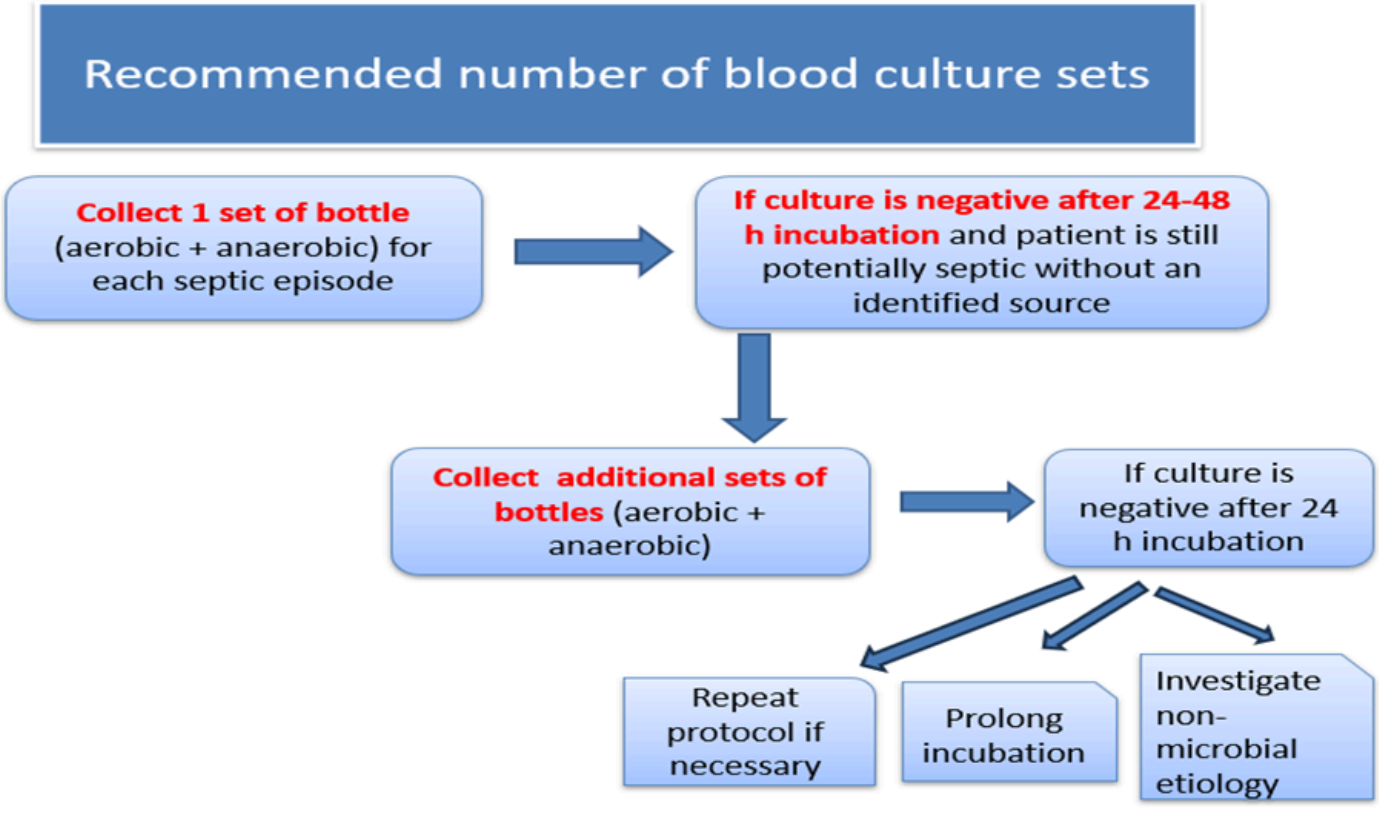
LABORATORY STAFF
- ✓ Timely reporting
- ✓ Integratinh online reporting system

PHYSICIAN
- ✓ Collaborate with microbiologist to ensure proper analysis of results
- ✓ Correalate the results with clinical data

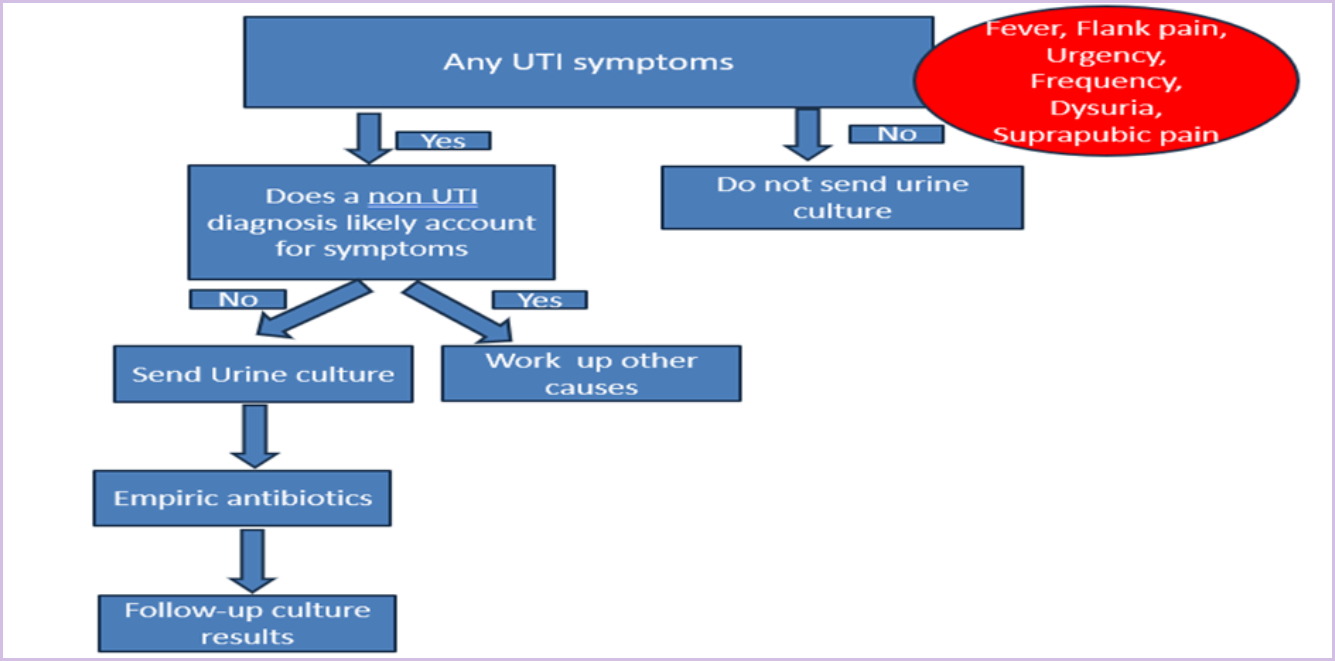
Key Role in this phase

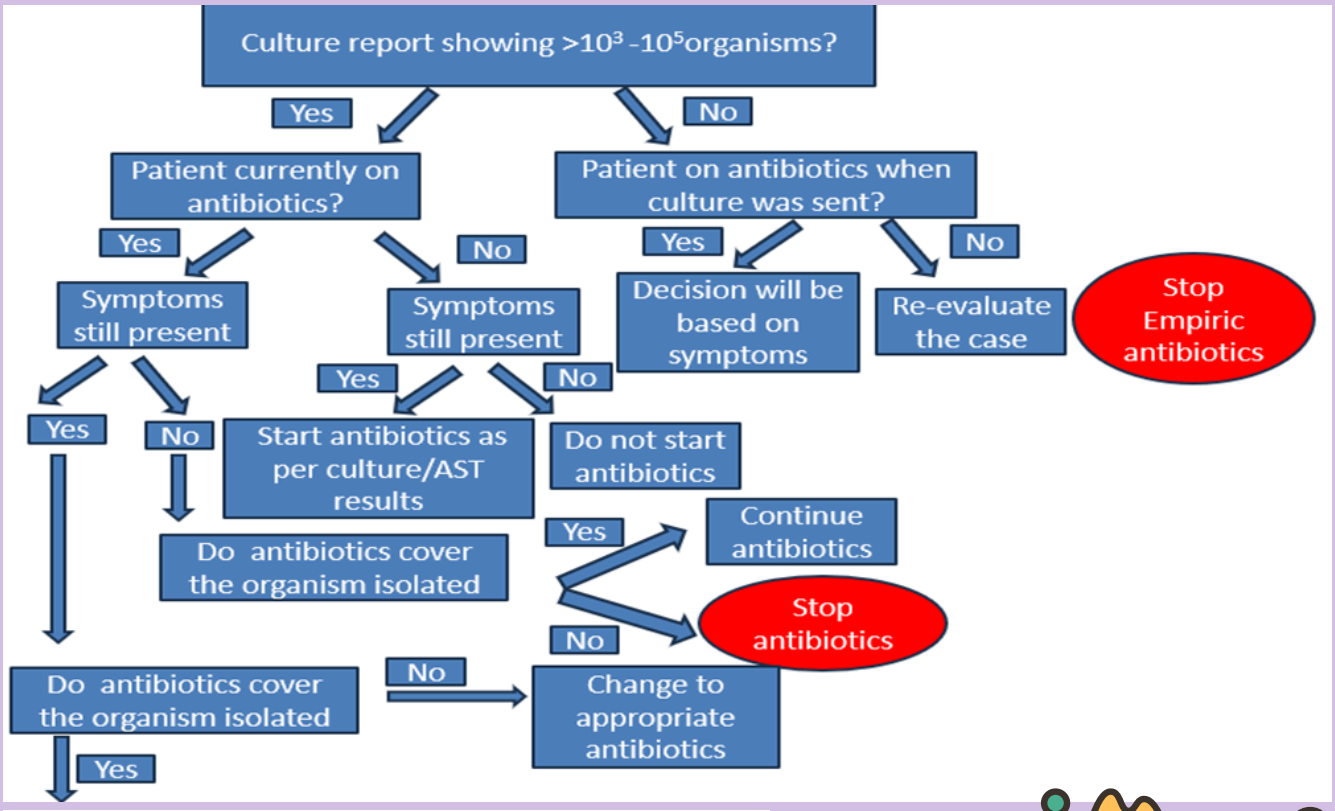
Always consult for any query

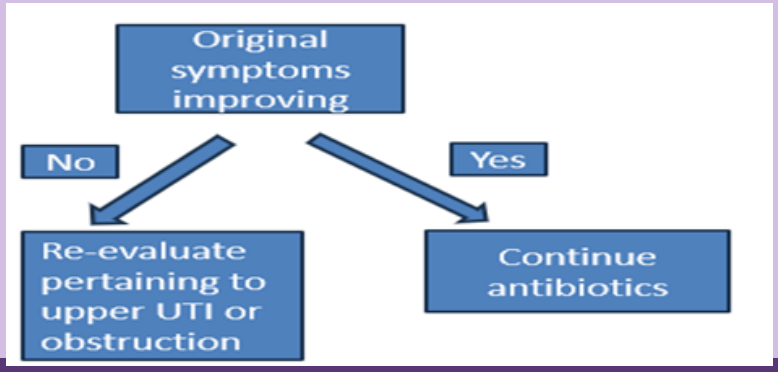

Laboratory-based algorithm to determine blood culture contamination
Potential contaminant isolated from blood culture
CONS, Cutebacterium acnes and related species, Corynebacterium spp, Bacillus spp other than Bacillus anthracis, Micrococcus spp
Additional draws within 24 hours?
No
Evaluation by Clinical microbiologist
Yes
Positive with same organism?
No
Probable contaminant; AST not performed unless requested
Yes
Pathogen; set up AST
Yes
Evaluation for its pathogenicity by Microbiologist


Recommended number of blood culture sets
Collect 1 set of bottle (aerobic + anaerobic) for each septic episode
If culture is negative after 24-48 h incubation and patient is still potentially septic without an identified source
Collect additional sets of bottles (aerobic + anaerobic)
If culture is negative after 24 h incubation
Repeat protocol if necessary
Prolong incubation
Investigate non-microbial etiology

Stewardship for Urinary tract infections







Cascade Reporting for Antimicrobial Susceptibility Testing

It is a strategy for reporting antimicrobial susceptibility where secondary agents are reported only if the organism is resistant to primary, narrow-spectrum agents in the drug class.

Tier System: CLSI guidelines prioritize Tier 1 drugs, with Tier 2–4 used if resistance arises. Tier 1 is routinely tested; Tier 2–3 are reported via cascade; Tier 4 is reported on request or by cascade.

Example: Table taken from CLSI 2024 M100 34thedition

Table 1A-1. Enterobacterales (excluding *Salmonella/Shigella*)[a]

Tier 1: Antimicrobial agents that are appropriate for routine, primary testing and reporting	Tier 2: Antimicrobial agents that are appropriate for routine, primary testing but may be reported following cascade reporting rules established at each institution	Tier 3: Antimicrobial agents that are appropriate for routine, primary testing in institutions that serve patients at high risk for MDROs but should only be reported following cascade reporting rules established at each institution	Tier 4: Antimicrobial agents that may warrant testing and reporting by clinician request if antimicrobial agents in other tiers are not optimal because of various factors
Ampicillin			
Cefazolin	Cefuroxime		
Cefotaxime or ceftriaxone[b]	Cefepime[c]		
	Ertapenem Imipenem Meropenem	Cefiderocol	
		Ceftazidime-avibactam	
		Imipenem-relebactam	
		Meropenem-vaborbactam	
Amoxicillin-clavulanate Ampicillin-sulbactam			
Piperacillin-tazobactam			
Gentamicin	Tobramycin	Plazomicin	
	Amikacin		
Ciprofloxacin Levofloxacin			
Trimethoprim-sulfamethoxazole			
	Cefotetan Cefoxitin		
	Tetracycline[d]		
			Aztreonam
			Ceftaroline[b]
			Ceftazidime[b]
			Ceftolozane-tazobactam
Urine Only			
Cefazolin (surrogate for uncomplicated UTI)[e]			
Nitrofurantoin			
		Fosfomycin[f] (*Escherichia coli*)	

Use of comments in clinical microbiology reporting: Need of an hour

Ø Comments related to specimen collection
Ø Comments if clinical data is missing in requisition form

Ø Comments related to intrinsic resistance
Ø Comment related to pathogenicity of any organism and its clinical correlation

Ø Comments related to AST
Ø Comments related to specific organism-antibiotic interaction

Ø Infection control advice
Ø Follow up report

A short summary of meta-analysis studies on impact of infection control measures in terms of antimicrobial resistance

Dr. Sivanantham Krishnamoorthi, Associate Professor, Department of Microbiology, All India Institute of Medical Sciences (AIIMS) Bathinda, Punjab, India

Study	Population/ Patinet/ Problem	Intervention/ Exposure	Comparison	AMR related Outcome measure	Finding
Hammond NE et al., 2022	ICU patients on mechanical ventilation	Selective Decontamination of the Digestive Tract	Standard care or placebo	Incidence of positive cultures of antimicrobial-resistant organism	Available data regarding the incidence of positive cultures of antimicrobial-resistant organisms were notamenable to pooling and were of very low certainty
Wong VWY et al., 2022	Long-term care facilities for older people	IPC interventions: (i) Horizontal interventions: administrative engagement, barrier precautions, education, environmental cleaning, hand hygiene, performance improvement, and source control; and (ii) vertical intervention: active surveillance plus decolonization	Usual care (Before-after studies; interrupted time-series studies)	MDRO Colonisation and infections	Overall low quality of evidence. Meta-analysis did not demonstrate a significant decrease in MRSA colonization following IPC interventions. While the pooled estimates varied by intervention types, none consistently produced significant results. Vertical interventions may reduce MRSA colonization but horizontal interventions had no effects. Some smaller studies with low methodological quality produced exaggerated positive interven-tion effect estimates. IPC interventions may reduce VRE and GNB colonization while they had an inconsistent impact on MDRO infections. Administrative engagement is a core component in all successful IPC programmes to curtail MDRO colonization in LTCFs
Alexandre R Marra et al., 2018	Acute care non-outbreak setting	discontinuation of contact precautions for multidrug-resistant organisms	Infection Rate of MDROs	MDRO infection rate	Discontinuation of CPs for MRSA and VRE has not been associated with increased infection rates.

Study	Population/ Patinet/ Problem	Intervention/ Exposure	Comparison	AMR related Outcome measure	Finding
N L Plantinga et al., 2017	Medical and surgical ICUs with low level of antibiotic resistance	Selective digestive decontamination (SDD) and selective oropharyngeal decontamination (SOD)	Standard care or placebo	survival in ICUs of lo level antibiotic resistance	SDD and SOD improved hospital and ICU survival compared to standard care in both patient populations, with SDD being more effective than SOD.
Nattawat Teerawattanapong et al., 2017	Adult patiens admitted in ICUs	Antimicrobial stewardship program (ASP), environmental cleaning (ENV), decolonization methods (DCL), or source control (SCT), simultaneously.	Standard care (STD)	MDR-GNB acquisition, colonization, and infection	4-component strategy composed of STD, ASP, ENV, and SCT was the most effective intervention (rate ratio [RR], 0.05 [95% confidence interval {CI}, .01-.38]) to prevent MDR-GNB acquisition.
Hua-Ping Huang et al., 2016	Adult ICUs	Chlorhexidine gluconate (CHG) bathing	Soap and water or other routine care	Acquisition of MRSA and VRE	A significant reduction in the risks of MRSA acquisition in the CHG bathing group (RR, 0.78; 95% CI, 0.68 to 0.91; p = 0.001) with a low heterogeneity (I2 = 12%; p = 0.34); Also, decreased VRE acquisition (RR, 0.56; 95% CI, 0.31 to 0.99; p = 0.05) and there was a moderate heterogeneity (I2 = 67%)
Giulia De Angelis et al., 2014	Hospitalised patients	IPC measures	Various components of IPC measures	Spread of VRE	Overall study quality was low; Implementation of hand hygiene was associated with a 47% decrease in the VRE acquisition rate (pooled RR 0.53, 95% CI 0.39-0.73, I(2) 26%) while contact precautions did not significantly reduce the VRE acquisition rate (pooled RR 1.08, 95% CI 0.63-1.83, I(2) 0%).

What's cookin'?

NEW

NAFITHROMYCIN

Claimed to be India's first Indigenous antibiotic.

Officially launched by Union Minister of India in November 2024.
Still under review from CDSCO and not yet approved.

A Phase II study evaluated Nafithromycin against Moxifloxacin in patients with Community-Acquired Bacterial Pneumonia. The primary efficacy endpoint, clinical cure, was achieved by 91.9% (83.2 to 97.0) of patients in the Nafithromycin 800 mg (3-day) group, 89% (79.5 to 95.1) in the Nafithromycin 800 mg (5-day) group, and 87% (77.4 to 93.6) in the Moxifloxacin 400 mg (7-day) group.(1)

Non-serious adverse events were reported in 14.86% of patients in the Nafithromycin 800 mg (3-day) group compared to 7.89% in the Moxifloxacin group, with the most common events being gastrointestinal symptoms (vomiting, nausea, diarrhea) and hypertension.(2)
There were 2 serious adverse events in Moxifloxacin group and 1 each in Nafithromycin group however the causality of the adverse/serious adverse events was not available.(2)

In a Phase III study, a three-day treatment with Nafithromycin achieved a clinical cure rate of 96.7%, compared to 94.5% in the Moxifloxacin arm.(3)

The Phase III study reported no serious adverse events (AEs). All observed AEs were mild, with most deemed unrelated to the study drugs by investigators, except for nausea and gastrointestinal effects.(3)

While the results of the Phase II and Phase III studies have not yet been published, it is claimed that Nafithromycin achieves lung exposure levels eight times higher than Azithromycin, with 10- to 100-fold greater potency against certain respiratory pathogens.(3)

Although Nafithromycin showed higher clinical cure rates as compared to Moxifloxacin with a shorter treatment duration but side-effects were higher in Nafithromycin arm (14.86% vs. 7.89%) in phase II clinical trial. If approved by CDSCO, this indigenous drug could be a major leap in fight against multi-drug resistant pneumonia

References
1. https://www.clinicaltrialsregister.eu/ctr-search/trial/2016-001246-26/results
2. https://clinicaltrials.gov/study/NCT02903836?intr=Nafithromycin&rank=4&tab=results&a=6
3. https://www.wockhardt.com/wp-content/uploads/2023/12/wockhardt-announces-successful-completion-of-pivotal-phase-3-pneumonia-study-of-its-macrolide-antibiotic-nafithromycin-wck-4873.pdf

Compiled by: Dr. Dhruv Mahendru, Senior Resident, Department of Pharmacology, AIIMS Bathinda.

Table: Antibiotics according to WHO Essential Medicine List, 2023 including division as per AWaRe classification into "Access, Watch and Reserve" and mechanism of action, Adult and Pediatric dosing
Prepared by Dr. Rachna Rohilla , Assistant Professor, Pharmacology, AIIMS Bathinda

Antibiotic	A/W/R	Class and Subclass	Mechanism	Adult dosing	Pediatric dosing	Optimal effect (PK/PD) if	Comment, if any
Benzathine benzylpenicillin	Access	Penicillinase labile penicillin	Cell wall synthesis inhibition	2.4 million IU (~1.8 g) IM (Only for IM use)	50,000 IU/kg (~37.5 mg/kg) IM single dose in congenital syphilis	Frequent or continuous infusion (T>MIC)	Indication is syphilis. The number of doses depends on the stage of the infection
Benzylpenicillin	Access			4 – 24 million units/day IV in 4-6 divided doses	100,000 – 400,000 units/kg/day IV in 2-4 divided doses		Only for IV use
Phenoxymethylpenicillin	Access			1500 – 4000 mg PO in 3-4 divided doses	50 mg/kg/day PO in 3-4 divided doses		
Procaine benzylpenicillin	Access			IM: 1.2 million IU (1.2 g) once daily dose	IM: 50,000 IU (50 mg)/kg once daily dose		Only for IM use
Amoxicillin	Access			IV: 3000 – 12000 mg/day IV in 3-6 divided doses PO: 1500 – 3000 mg/day PO in 3 doses	IV: 100 – 200 mg/kg/day IV in 3-4 divided doses PO: 50 – 100 mg/kg/day PO in 2-3 divided doses		
Ampicillin	Access			6000 – 8000 mg/day IV in 3-4 divided doses	100 – 200 mg/kg/day IV in 3-4 divided doses		
Cloxacillin	Access	Penicillinase stable penicillin		IV: 4000 – 12000 mg/day in 4-6 divided doses PO: 2000 mg/day in 4 divided doses	IV: neonates: 50 – 100 mg/kg/day in 2 doses; Children: 100 – 200 mg/kg/day in 4 divided doses PO: 60 mg/kg/day in 4 divided doses		

Cefalexin	**Access**	1st generation cephalosporin		1500 mg PO in 3 divided doses	50 mg/kg/day PO in 2 divided doses
Cefazolin	**Access**			6 g IV in 3 divided doses or 2 g single dose for surgical prophylaxis	50 mg/kg/day IV in 2 divided doses or 50 mg/kg single dose for surgical prophylaxis
Cefuroxime	**Watch**	2nd generation cephalosporin	Cell wall synthesis inhibition	1.5 gm IV as single dose for surgical prophylaxis	50 mg/kg IV as single dose for surgical prophylaxis
Cefotaxime	**Watch**	3rd generation cephalosporins		3000 – 8000 mg/day IV in 3-4 divided doses	100 – 200 mg/kg/day IV in 3-4 divided doses (In neonates 100 mg/kg/day in 2 divided doses)
Ceftriaxone	**Watch**			1000 – 4000 mg/day in 1-2 divided doses IV/IM	80 – 100 mg/kg/day in 1-2 divided doses IV/IM
Ceftazidime	**Watch**			3000 – 6000 mg/day IV in 3-4 divided doses or continuous infusion	100 – 200 mg/kg/day IV in 3-4 divided doses
Cefixime	**Watch**			PO: 400 – 800 mg/day in 1-2 divided doses	PO: 10 – 20 mg/kg/day in 1-2 divided doses

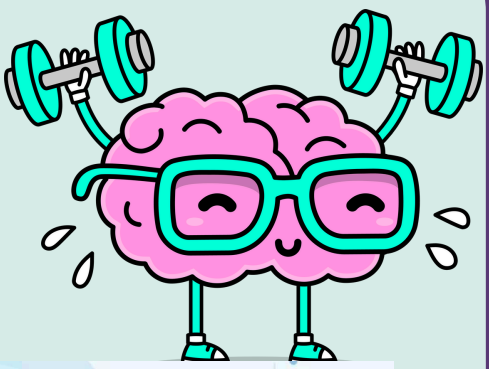
Cefiderocol	Reserve	Siderophore cephalosporin		6 gm IV in 3 divided doses	--	INJ	
Amoxicillin + Clavulanic acid	Access	Beta-lactam combination agent		IV: 3000/600 mg – 6000/600 mg/day in 3 divided doses PO: 1500/375 – 2625/375 mg/day in 3 divided doses	IV: 100/10 – 150/15 mg/kg/day in 3-4 divided doses PO: 50/12.5 – 90/22.5 mg/kg/day in 3-4 divided doses	PO/INJ	
Piperacillin + Tazobactam	Watch			12000/1500 mg – 16000/2000 mg/day IV in 3 divided doses (if extended 4-hour infusion) or 4 doses (if 30-minute infusion)	320/40 mg – 400/50 mg/kg/day in 4 divided doses	INJ	
Ceftazidime + Avibactam	Reserve			6000/1500 mg IV in 3 divided doses	150 mg/kg/day ceftazidime + 37.5 mg/kg/day avibactam IV in 3 divided doses	INJ	
Ceftolozane + Tazobactam	Reserve			3000/1500 mg IV in 3 divided doses	90 mg/kg/day IV in 3 divided doses (max 1.5 g/dose)	INJ	
Meropenem	Watch	Carbapenem		3000 – 6000 mg/day IV in 3 divided doses	60 mg/kg/day IV in 3 divided doses	INJ	
Imipenem + Cilastatin	Watch	Carbapenem		3000 mg IV in 3 divided doses	75 – 100 mg/kg/day IV in 3-4 divided doses	INJ	Avoided in neonates and patients with history of seizures

Meropenem + Vaborabactam	Reserve	Beta-lactam combination agent		6000/6000 mg IV in 3 divided doses	--	INJ	
Vancomycin	Watch	Glycopeptide		IV: 30 – 40 mg/kg/day in 2-3 divided doses PO: 500 - 2000 mg in 4 divided doses (for C.difficile only)	IV neonates: 30 mg/kg/day in 2 divided doses IV children: 15 mg/kg/day in 3 divided doses PO: 20 – 40 mg/kg/day 4 divided doses	INJ (/PO)	Only gram positives; PO only for C.difficile Therapeutic drug monitoring recommended to ensure efficacy
Fosfomycin	Reserve	Fosfomycin		IV: 18 – 24 gm in 3 divided doses	IV: 200 – 400 mg/kg/day in 2-3 divided doses	INJ	
Colistin	Reserve	Polymyxins		IV: 9 million IU CMS loading dose followed by 9 – 12 million IU CMS in 2 divided doses as maintenance dose	IV: 2.5 – 5 mg/kg/day CBA (75,000 – 1,50,000 IU/kg/day CMS) in 2 divided doses	INJ	Only gram negatives
Polymyxin B	Reserve	Polymyxins		2.5 mg/kg (25,000 IU/kg) IV loading dose followed by 3 – 6 mg/kg (30,000 – 60,000 IU/kg) IV in 2 divided doses as maintenance dose	2.5 mg/kg IV loading dose followed by 1.5 – 3 mg/kg/day in 2 divided doses as maintenance dose	INJ	Only gram negatives

Gentamicin	Access	Aminoglycosides	Protein synthesis inhibition	5 -7 mg/kg/day IV single daily dose	7 mg/kg/day IV single daily dose (5 mg/kg/day in 1st week of life)	INJ	Therapeutic drug monitoring is recommended to minimize toxicity
Amikacin	Access			15 mg/kg/day IV single daily dose	15 – 20 mg/kg/day IV single daily dose	INJ	Therapeutic drug monitoring is recommended to minimize toxicity
Plazomicin	Reserve			15 mg/kg/dose IV as single daily dose	--	INJ	
Spectinomycin	Access	Aminocyclitols		2000 mg IM single dose	--	INJ	
Doxycycline	Access	Tetracycline		PO: 200 mg in 2 divided doses or 300 mg single dose for cholera	PO: 2 – 4 mg/kg single dose or 300 mg single dose if >45 kg for cholera	PO/ INJ	
Clindamycin	Access	Lincosamide		IV: 1800 – 2700 mg in 3 divided doses PO: 1800 mg in 3 divided doses	IV/PO: 15 mg/kg/day in neonates and 30 mg/kg/day in children in 3 divided doses	PO/ INJ	
Chloramphenicol	Access	Pheniocol		4 gm IV in 4 divided doses	100 mg/kg/day IV in 4 divided doses	PO/ INJ	Use chloramphenicol in children only when no other option is available due to toxicity concerns
Azithromycin	Watch	Macrolide		PO: 500 – 1000 mg/day in single dose	PO: 10 – 20 mg/kg/day in single dose	PO/ INJ	
Clarithromycin	Watch			IV/PO: 500 – 1000 mg/day in 2 divided doses	PO: 15 mg/kg/day in 2 divided doses	PO/ INJ	

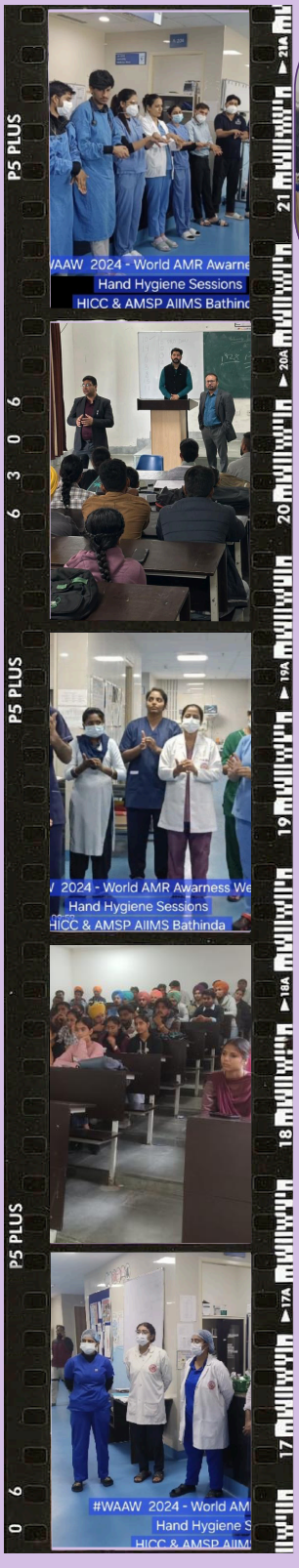
Linezolid	Reserve	Oxazolinones		IV/PO: 1200 mg in 2 divided doses	IV/PO: 30 mg/kg/day in 3 divided doses beyond 1st week of life or 20 mg/kg/day in 2 divided doses if < 7days	PO/INJ	Activity against Tuberculosis
Metronidazole	Access	Nitroimidazoles	Nucleic acid inhibition	PO/IV: 1500 – 2250 in 3 divided doses	PO/IV: 15 mg/kg/day in 2 divided doses in neonates and 22.5 mg/kg/day in 3 divided doses in children	PO/INJ	
Nitrofurantoin	Access	Nitrofuran		PO: 200 mg in 2 divided doses (modified release) or 200 mg in 4 divided doses (immediate release)	PO: 4 mg/kg/day In 2 divided doses (modified release) or 4 mg/kg/day in 4 divided doses (immediate release)	PO	Indicated for lower UTI
Ciprofloxacin	Watch	Fluoroquinolone		IV: 800 – 1200 mg/day in 2-3 divided doses PO: 1000 – 1500 mg/day in 2-3 divided doses	IV/PO: 20 – 30 mg/kg/day in 2 divided doses	PO/INJ	
Trimethoprim + Sulfamethoxazole	Access	Dihydrofolate reductase inhibitor		PO: 1600/320 mg in 2 divided doses	PO: 40 mg/kg/day SMX + 8 mg/kg/day TMP in 2 divided doses	PO	

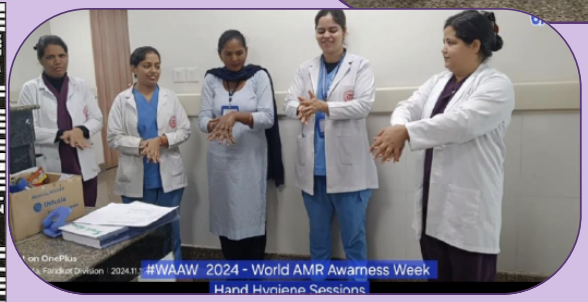
ACTIVITIES
AIIMS BATHINDA

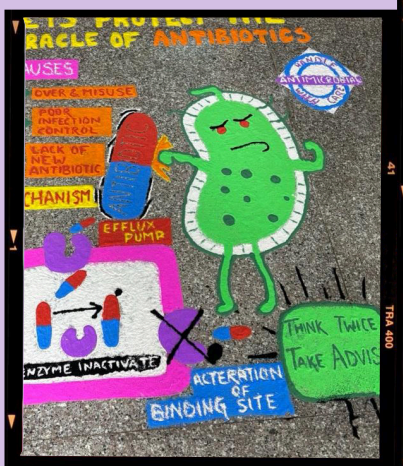


World Antimicrobial resistance Awareness Week (WAAW) 2024

Department of Pharmacology and Antimicrobial Stewardship Committee,
All India Institute of Medical Sciences (AIIMS), Bathinda, Punjab







Day 7: Media outreach via newspaper column and Hand hygiene awareness among HA and SA staff of AIIMS Bathinda

AIIMS Bathinda celebrated World AMR Awareness Week (WAAW) 2024: Uniting against Antimicrobial Resistance

Antimicrobial resistance (AMR) poses a growing threat to public health worldwide, making initiatives like WAAW crucial in raising awareness and fostering collective action.

Antimicrobial resistance (AMR) refers to the ability of microorganisms to resist the effects of antimicrobials, including antibiotics, antivirals, and antifungals. This resistance poses a significant and growing threat to public health worldwide. The overuse and misuse of antimicrobial agents not only in humans but in animals and agriculture has contributed to the emergence of resistant strains of microorganisms, making infections more challenging to treat and increasing the cost of therapy.

World AMR Awareness Week (WAAW) serves as a pivotal initiative in acknowledging and combating this global health crisis. The week-long event is designed to draw attention to the complexities of antimicrobial resistance, educating healthcare professionals, communities, and the general public about the responsible use of antimicrobial agents. By fostering awareness, WAAW aims to instigate collective action, encouraging individuals, healthcare providers, and policymakers to work together in adopting strategies that mitigate the impact of AMR.The overarching theme of this significant event for 2024 is **"Educate, Advocate and Act now."**

The initiatives undertaken during WAAW, such as educational workshops, community

At the **community level** and as responsible citizens, there are some **Do's and Don'ts** we can adopt in our lives.

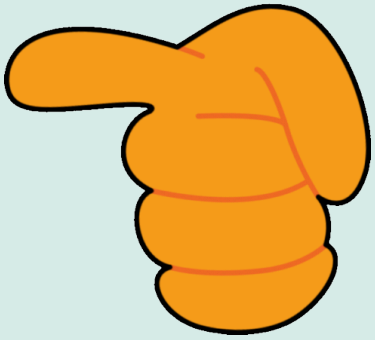
- **Never use left-over antibiotics**
- **Never share antibiotics with others**
- **Do not self-prescribe antibiotics or take over-the counter antibiotics without prescription**
- **Only use antibiotics when prescribed**

In essence, the significance of WAAW lies in its ability to unite diverse stakeholders, including healthcare professionals, researchers, policymakers, and the public, in a collective effort to curb the rise of antimicrobial resistance and safeguard the effectiveness of crucial medical treatments for generations to come.

In a proactive step towards addressing a critical global health concern, AIIMS Bathinda's Antimicrobial Stewardship Committee and Department of Pharmacology organized activities to sensitise the healthcare professionals as well as general public towards the growing concern of antimicrobial resistance (AMR) by undertaking various activities throughout the week (CME and scientific sessions, awareness sessions among

AIIMS Bathinda celebrated World AMR Awareness Week (WAAW) 2024: Uniting

SEE YOU



At ASPICON 2025
AIIMS Mangalagiri

!!BLOCK THE DATES!!

AIIMS Mangalagiri

Andhra Pradesh

Department of Clinical Microbiology

is Proud to Host

ASPICON – 2025

Dates: 4th to 7th September 2025

The 7th Annual Conference of
Society for Antimicrobial Stewardship Practices in India [SASPI®]

THEME: ASSERTING A.M.R. AWARENESS [AAA]