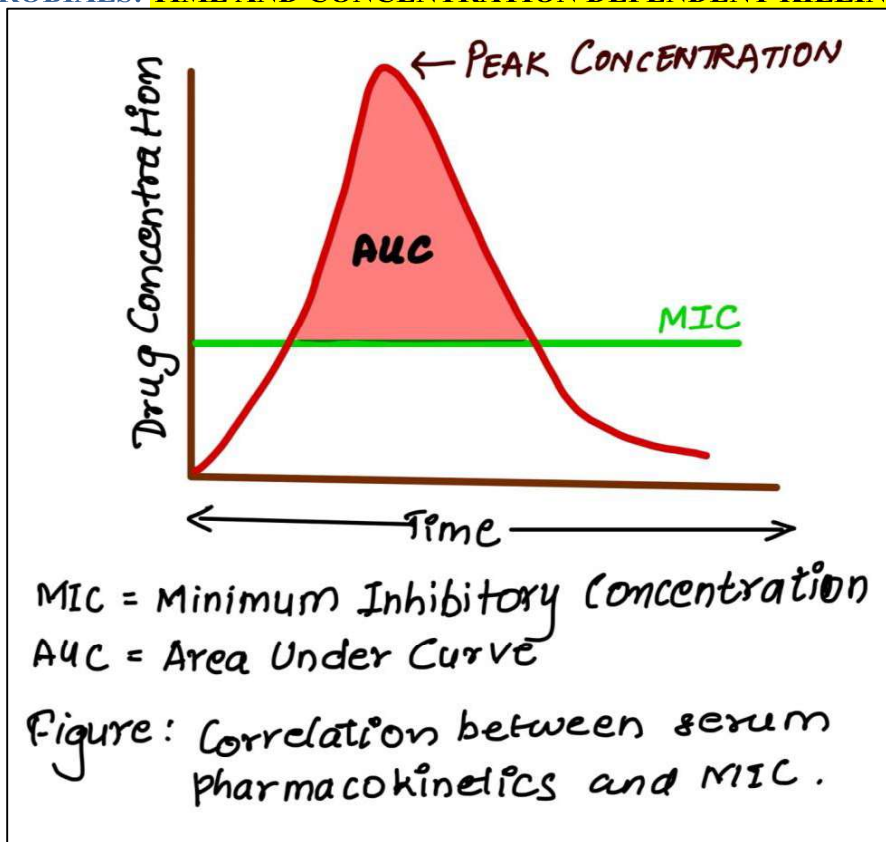




**ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS)
RISHIKESH, UTTARAKHAND, INDIA**



Integrated Antimicrobial Stewardship (IAS) Practice Addendums
ANTIMICROBIALS: TIME AND CONCENTRATION DEPENDENT KILLING



TIME DEPENDENT KILLING	CONCENTRATION DEPENDENT KILLING
Therapeutic effect: During time for which drug concentration remain above MIC	Therapeutic effect: Drug concentration should reach maximum (peak) concentration
$t > MIC$	Peak/MIC ratio
Minimal or no Post-antibiotic effect	Post-antibiotic effect present
Goal of therapy: Optimize duration of exposure of antimicrobial to microorganism	24hour AUC/MIC ratio correlate to clinical and bacteriologic efficacy
Administered as continuous IV infusion	Administered as single dose usually
Examples	Examples
1. Beta-lactams like amoxicillin	1. Aminoglycosides like Amikacin
2. Vancomycin	2. Fluoroquinolones like Ciprofloxacin
3. Clindamycin	3. Metronidazole
4. Macrolides like Clarithromycin	4. Azithromycin
5. Linezolid	5. Daptomycin



अखिल भारतीय आयुर्विज्ञान संस्थान ऋषिकेश
All India Institute of Medical Sciences, Rishikesh, 249203
चिकित्सा अधीक्षक
Medical Superintendent


#AIIMSRISH/MS/235/20 December, 2023

Office Order

It is instructed to all **area in-charge ANSs** to use time-dependent antimicrobials (as below) in 3hour infusions (NOT push/ 10-30min infusions) with recommended dilutions to enhance drug efficacy for the admitted patients where treating clinicians prescribe these drugs.

1.	Penicillin and its class of drugs
2.	Cephalosporins like Ceftriaxone, Cefoperazone, Cefepime etc
3.	Carbapenams like Meropenam, Imipenam, etc
4.	Monobactam like Aztreonam, etc
5.	Macrolides like Clarithromycin, etc (EXCEPT Azithromycin)
6.	Oxazolidinones like Linezolid, Etc
7.	Glycycyclines like tigecycline
8.	Clindamycin
9.	Flucytosine

- You can indent more infusion pumps as required from pharmacy store for the same and ensure this right practice through ward SNOs and NOs.
- Within 30days of the order, there will be surveillance of each area by AMSP Nurse to observe the compliance. Any non-compliance to be strictly monitored.


Prof. R. B. Kalia
(Medical Superintendent)

Copy to: -

1. PPS to Executive Director (For info.)
2. Dean(A)
3. All HODs/Faculty Members
4. NS for ensuring the right AMSP practice.
5. HIC Committee members/all faculties/ANSs/SNOs