

# BUG BUSTERS

## TOPICAL PREPARATIONS

### ANTIBIOTICS

|   | Name        | Vial Size          | Brands                           | Strength            | Preparation  | Refrigeration | Shelf Life         | Spectrum   |
|---|-------------|--------------------|----------------------------------|---------------------|--|---------------|--------------------|--|
| 1 | Vancomycin  | 500mg              | Ancomycin<br>Celovan<br>Covancin | 50mg/ml<br>(5%)     | "Reconstitute 500 mg of vancomycin powder for injection with 2 ml sterile water/BSS. Add to 8ml of artificial tears"             | 4 degrees     | 1week at 4 degree  | Active against GPCs - MRSA, MDR Staphylococcus epidermidis                                     |
| 2 | Cefazolin   | 500mg              | Azolin<br>Cefadin<br>Cefacas     | 50mg/ml<br>(5%)     | "Reconstitute parenteral Cefazolin 500mg with 2ml sterile water available with the injection and add to 8ml of artificial tears" | 4 degrees C   | 1week at 4 degree  | GPC, GPB, E.coli, Proteus, H.influenza   |
| 3 | Tobramycin  | 80mg/2ml           | Alitop,<br>Bactob                | 14mg/ml<br>(1.4%)   | "Add 2ml/80mg of parenteral tobramycin to commercially available tobramycin eye drops 0.3% 5 ml 15mg/5ml"                        | 4 degrees     | 1week at 4 degree  | Aerobic Gram-negative organisms  |
| 4 | Gentamicin  | 80mg/2ml           | Biogracin,<br>Garamax            | 14mg/ml<br>(1.4%)   | "Add 2ml/80mg of parenteral gentamicin to commercial gentamicin ophthalmic solution 0.3% 5 ml (15mg/5ml)"                        | 4 degrees     | 1week at 4 degree  | Aerobic GNBs   |
| 5 | Amikacin    | 250mg/2ml          | Abm, Acil,<br>Acimacin           | 2.50%               | Parenteral Amikacin 250mg/2ml is mixed with 8 ml artificial tears  |               |                    | Gram neg esp Pseudomonas, Mycobacterium & Nocardia   |
| 6 | Linezolid   | 200mg/100ml        | Anzolid,<br>Linospan             | 2 mg/ml<br>(0.2%)   | "Can use directly from parenteral Linezolid available as 200mg/100ml (2mg/ml) IV infusion"                                       |               |                    | Aerobic GPC including MRSA and VRE   |
| 7 | Ceftazidime | 500mg              | Afzid C-Zid                      | 50mg/ml<br>(5%)     | Reconstitute 500mg of Ceftazidime powder for injection with 10 ml sterile water/BSS.   | 4 deg C       | 1week at 4 degree  | Aerobic GNBs, GPBs including Pseudomonas   |
| 8 | Imipinem    | 500mg              | Cilanem,<br>Cilaspena            | 10mg/ml<br>(1%)     | "To 500mg add 10ml sterile water Take 1 ml of this solution and add 4 ml sterile water"  | 4 deg C       | 3 days at 4 degree | MDR GPB, GNBs including Pseudomonas, therapeutic option for infections caused by MDR pathogens |
| 9 | Colistin    | 1million IU (75mg) | Xylistin                         | 1.9mg/ml<br>(0.19%) | Reconstitute 1MIU(75mg) Colistimethate Sodium in 10ml sterile water. Draw 1ml of this and add 3 ml of sterile water              | 4 deg C       | 1week at 4 degree  | Gram negative bacilli and Multi drug resistant Pseudomonas & Acinetobacter                     |

### ANTI FUNGAL

|   | Name           | Vial Size | Brands                        | Strength | Preparation  | Refrigeration | Shelf Life        | Spectrum  |
|---|----------------|-----------|-------------------------------|----------|--|---------------|-------------------|---|
| 1 | Amphotericin B | 50mg      | Amfotex<br>Ambilip<br>Amfitas | 0.15%    | "Add 10 ml distilled or sterile water to parenteral 50mg of amphotericin B powder for injection. Draw 3 ml of this and add to 7ml of artificial tears eye drops" | 4 degrees     | 1week at 4 degree | Yeasts, filamentous fungi (resistance reported Aspergillus) |
| 2 | Voriconazole   | 200mg     | Voriva<br>Voriz<br>Voraze     | 1%       | Mix 20 ml ringer lactate to 200 mg voriconazole lyophilized powder   | 4deg C        | 1week at 4 degree | Broad-spectrum activity against moulds and yeasts           |

### ANTI PROTOZOAL

|   |                                 |       |  |  |        |                   |              |
|---|---------------------------------|-------|--|--|--------|-------------------|--------------|
| 1 | Chlorhexidine Diguconate        | 0.02% | Add 5microlitre ofchlorhexidine Diguconate solution (20% in water) in 5ml of Moisol using micropipette (1:1000 dilution) |  | 4deg C | 1week at 4 degree | Acanthamoeba |
| 2 | Polyhexamethyl Biguanide (PHMB) | 0.02% | Add 5microlitre of PHMB solution (20%) in 5ml of Moisol using micropipette (1:1000 dilution)                             |  | 4deg C | 1week at 4 degree | Acanthamoeba |

## SUBCONJUNCTIVAL DOSE

| S.No | Drug           | Dose (mg)     |
|------|----------------|---------------|
| 1    | Vancomycin     | 25            |
| 2    | Cefazolin      | 100           |
| 3    | Tobramycin     | 10-20         |
| 4    | Gentamicin     | 10-20         |
| 5    | Amikacin       | 25            |
| 6    | Ceftazidime    | 100-200       |
| 9    | Voriconazole   | 10 (Not used) |
| 10   | Amphotericin B | 5-10          |

## INTRAVITREAL PREPARATIONS

|   | Name           | Strength          | Brand                            | Vial Size                | Preparation   | Refrigeration | Shelf Life | Spectrum   | Repeat Injection |
|---|----------------|-------------------|----------------------------------|--------------------------|---|---------------|------------|--|------------------|
| 1 | Vancomycin     | 1 mg/ 0.1 ml      | Ancomycin<br>Celovan<br>Covancin | 500mg                    | Reconstitute 500mg of vancomycin powder for injection with 10 ml sterile water/BSS. Take 0.2 ml of this solution and make it 1 ml.  | 4 degrees C   | 24 hrs     | Active against GPCs - MRSA, MDR Staphylococcus epidermidis   | 72hrs            |
| 2 | Cefazolin      | 2.25mg/ 0.1 ml    | Azolin<br>Cefadin<br>Cefacas     | 500mg                    | Reconstitute parenteral Cefazolin 500mg with 2ml sterile water. Take 0.1 ml of this solution and make it 1 ml.  | 4 degrees C   | 24 hrs     | GPC, GPB, E.coli, Proteus, H.influenza   | 24hrs            |
| 3 | Amikacin       | 0.4mg/ 0.1ml      | Abm , Acil ,<br>Acimacin         | 100mg/ 2ml<br>500mg/ 2ml | From Parenteral Amikacin 100mg/2ml or 50mg /1 ml take 0.2 ml and add 2.3 ml sterile water.<br>From Parenteral Amikacin 500mg/2ml take 0.2 ml and add 6.15 ml sterile water.                           | 4 degrees C   | 24 hrs     | Gram neg esp Pseudomonas, Mycobacterium & Nocardia   | 24-48hrs         |
| 4 | Gentamycin     | 0.2 mg/ 0.1 ml    | Biogracin<br>Garamax             | 80mg/ 2ml                | Take 0.1 ml solution from 2ml/80mg of parenteral gentamicin and add 1.9 ml sterile water/BSS.   | 4 degrees C   | 24 hrs     | Aerobic GNBs   | 72-96hrs         |
| 5 | Amphotericin B | 5µgm/ 0.1 ml      | Amfotex<br>Ambilip<br>Amfitas    | 50mg                     | Add 10 ml of 5% dextrose to parenteral 50mg of amphotericin B powder. Take 0.1 ml of this solution and add 0.9 ml of 5% dextrose in the solution.   | 4 degrees C   | 24 hrs     | Yeasts, filamentous fungi (resistance reported for various species ofAspergillus)                              | 48hrs            |
| 6 | Voriconazole   | 50-100µgm/ 0.1 ml | Voriva<br>Voriz<br>Voraze        | 200mg                    | Mix 20 ml ringer lactate/ distilled water to 200 mg voriconazole lyophilized powder. Take 1 ml of the solution and add 9 ml of RL/distilled water to it. 0.05 ml of the solution has 50-100µgm/0.1 ml | 4 degrees C   | 24 hrs     | Broad-spectrum activity against moulds and yeasts  | 48hrs            |
| 7 | Ceftazidime    | 2.25mg/ 0.1ml     | Afzid C-Zid                      | 250mg/ml<br>500mg/2ml    | Take 0.1 ml solution from 250mg/ml or 500mg/2ml of parenteral ceftazidime and add 0.9 ml sterile water/ BSS.  | 4 degrees C   | 24 hrs     | Aerobic GNBs, GPBs including Pseudomonas   | 48-72hrs         |
| 8 | Ciprofloxacin  | 100µgm/ 0.1 ml    | Alcipro                          | 200mg/ 100ml             | "Directly loaded from the sterile vial and injected intravitreally, 0.05 ml"  | Room Temp     |            | "Broad-spectrum activity against aerobic Gram-positive and Gram-negative bacteria, Actinomyces, Nocardia spp." | 12hrs            |
| 9 | Moxifloxacin   | 200µgm/ 0.1 ml    | Vigamox                          | Topical 0.5%             | Take 0.05 ml of 0.5% moxifloxacin(Preservative free)  | Room Temp     |            | "Broad-spectrum activity against Gram-positive and Gram-negative organisms"                                    | 12hrs            |

## INTRASTROMAL PREPARATIONS

|   |                |                  |  |                        |   |
|---|----------------|------------------|--|------------------------|---|
| 1 | Voriconazole   | 50 µgm/ 0.1ml    | "From1% Topical solution voriconazole, take 1ml, add 19 ml ringer lactate to make 0.05mg/ml (50 µgm/0.1ml)"  | To be used immediately | Broad-spectrum activity against moulds and yeasts                                 |
| 2 | Amphotericin B | 5 -10 µgm/ 0.1ml | "Add 10 ml distilled or sterile water to parenteral 50mg of amphotericin B powder. From 5mg/ml solution take 0.2ml solution and add 0.8ml BSS / sterile water. Now, take 0.1ml of this solution and add 0.9ml BSS/Sterile water to create 0.1mg/1ml Amphotericin B equivalent to 10 µgm/0.1ml" | To be used immediately | Yeasts, filamentous fungi (resistance reported for various species ofAspergillus) |

## INTRAVENOUS

| S.No | Drug           | Dose  | Brands                       |
|------|----------------|---|------------------------------|
| 1    | Vancomycin     | 2 g daily in 2 doses  | Covancin, Cp-Van             |
| 2    | Cefazolin      | 1-6 g daily in 3-4 divided doses  | Azolin, Cefadin, Ciprid      |
| 3    | Tobramycin     | 3-5 mg/kg daily in 2-3 doses  | Tobacin, Tobax               |
| 4    | Gentamicin     | 3-5 mg/kg/ day in 2-3 divided doses   | Alpagen, Avrocin             |
| 5    | Amikacin       | 15 mg/kg/day in 2-3 divided doses   | Abcin, Abiox                 |
| 6    | Ceftazidime    | 2-6 g daily in 2-3 divided doses  | Fortum, Megazid              |
| 7    | Imipinem       | 2 g daily in 3-4 divided doses  | Cilanem, Cilaspena, Lastinem |
| 8    | Voriconazole   | 6 mg/kg IV every 12 hours (24 hours), then 4mg/kg × 12 hours or 200 mg/day BD | Voriva, Voriz                |
| 9    | Amphotericin B | 10-20 µgm/ml infusion   | Amfitas, Amfocare            |