E - Kit
(Endophthalmitis Kit)

INTRODUCTION
The essential element of endophthalmitis treatment is injection of intravitreal antibiotics. The current recommendation is to inject two antibiotics in bacterial endophthalmitis, one for gram positive bacteria and one for gram negative bacteria, and one antifungal antibiotic in fungal endophthalmitis. Few clinicians also recommend intravitreal dexamethasone. Irrespective of the agent, the volume of the drug is not to exceed 0.1 ml. Typically it is prepared in a tuberculin syringe from a vial with a larger drug volume; often it requires one to refer to a chart for correct dilutions. The eye is prepared with asepsis recommended for intravitreal injections. While if it is vitreous biopsy and intravitreal injection alone it can be done in an office setting and vitrectomy is combined the treatment procedure when it is done in the operating room. The essential requirements are to have all the supplies in quickest possible time since endophthalmitis is an ocular emergency and often present in unusual time.

DESCRIPTION
E-Kit provides one-stop solution for initial management of both bacterial and fungal endophthalmitis. The easy to prepare antibiotics and antifungal includes vancomycin 100 mg, cefazidime 250 mg, and voriconazole 1 mg in vials. The E-Kit benefit includes accurate and easy preparation of antibiotics, safe vitreous biopsy, intra-vitreal injection, reduced ordering time and inventory cost. The E-Kit is intended to overcome important hurdles in instituting prompt therapy in bacterial and fungal endophthalmitis like lack of an appropriate device for vitreous biopsy, non availability of recommended antibiotics and inexperience in preparing the antibiotics.

CONTENTS
1. Vancomycin for injection 100 mg - 1 No
2. Cefazidime for injection 250 mg - 1 No
3. Voriconazole for injection 1 mg - 1 No
4. 1ml Tuberculin syringes - 3 Nos.
5. 10 ml disposable plastic syringes - 2 Nos.
7. Butterfly needle and plug - 1 No.
8. 10 ml sterile water for injection - 3 Nos.
9. Wire speculum - 1 No.
10. 27G Needle - 3 Nos
11. 20G Needle - 2 Nos
12. Povidone iodine 5% topical solution 5ml - 1 No
13. Dexamethasone injection 4mg/ml - 1 No
**USAGE**

**Antibacterial Drugs**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concentration</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vancomycin</td>
<td>100 mg in Vial</td>
<td>Add 10 ml Water for Injection and withdraw 0.1 ml. 0.1 ml will contain 1 mg of Vancomycin</td>
</tr>
<tr>
<td>Ceftazidime</td>
<td>250 mg in Vial</td>
<td>Add 10 ml Water for Injection and withdraw 0.1 ml. 0.1 ml will contain 2.5 mg of Ceftazidime</td>
</tr>
</tbody>
</table>

**Antifungal Drugs**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concentration</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voriconazole</td>
<td>1 mg in Vial</td>
<td>Add 1 ml Water for Injection and withdraw 0.1 ml. 0.1 ml will contain 100 µg of Voriconazole</td>
</tr>
</tbody>
</table>

**TUBERCULIN SYRINGES & 27G NEEDLES:**

They are used to withdraw the diluted drugs and inject them intravitreally.

**10 ML PLASTIC SYRINGES AND 20G NEEDLES:**

- Among the two 10ml syringes one with 20G needle is used for withdrawing the water for injection and injecting into the antibiotics vial. To reconstitute the second antibiotic a new 20G needle can be used.
- Another 10ml syringe is used for the vitreous sample collection

**STERILE SWAB STICKS:**

E-Kit will have 5 sterile swabs which helps in cleaning, and preparing the eye and sampling.

**POVIDONE IODINE:**

Used topically before the Intravitreal injections

**BUTTERFLY NEEDLE AND PLUG:**

This is used to collect the vitreous fluid sample to be sent for microbial examination. Plug helps in holding the tube air tight at one end.

**GENERAL INFORMATION:**

The brief information of Pharmacodynamics, Pharmacokinetics, Indications, Contraindications, Warning and Precautions, Interactions with other medications, Pregnancy & Lactation use precautions, and adverse reactions for the antibiotics and antifungal are described in each individual leaflet.

**STORAGE:**

Store in a cool, dark place

*Check for manufacturing and expiry date of each individual item in the kit before using*