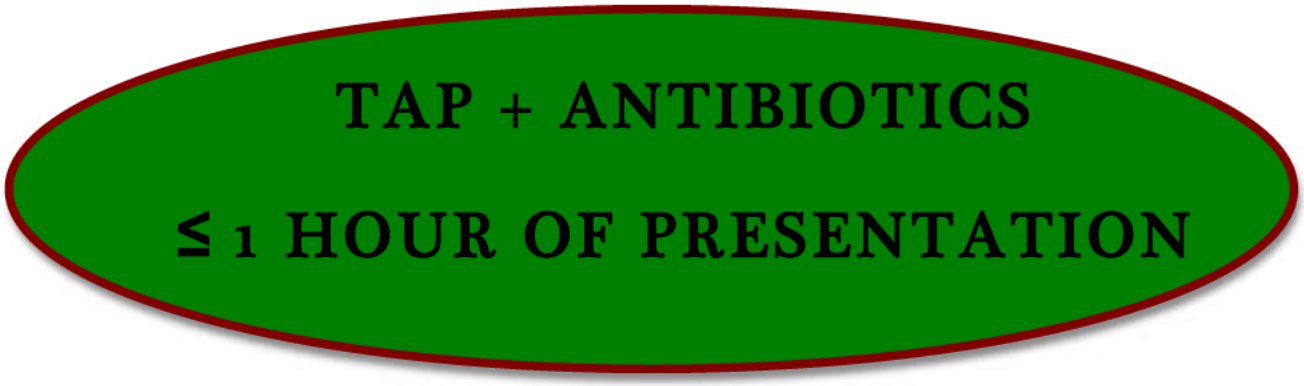
# Bristol Eye Hospital

# PRESUMED POST-OPERATIVE ENDOPHTHALMITIS PACK




This pack is to be started by the clinician who first sees the patient following presentation to Bristol Eye Hospital with presumed post-operative endophthalmitis.

**DON'T FORGET DATIX**

**(FILE THIS PACK IN PATIENT'S MEDICAL RECORDS)**

Version 4 – Dec 2016
Review Date: January 2019

Triaging by Eye Casualty receptionist
(or telephone call to Gloucester Ward)

Triaging by Eye Casualty /
Gloucester ward Nurses

Doctor / Optometrist review

Senior Doctor Opinion (2nd on call /
Consultant on call or VR Fellow)

TAP + Antibiotics

**RECENT Eye Surgery or Injection**
**(within 2 weeks)**

**+**

**REDUCED Vision**
**or**
**Eye PAIN**

**? AC inflammation+++**

**? Fibrin**

**? Hypoypon**

**?Vitreous inflammation**

**? No fundus view**

**TAP + ANTIBIOTICS**

**≤ 1 HOUR OF PRESENTATION**

***POSTOPERATIVE ENDOPHTHALMITIS PACK***

Surname…… Hospital no……..
Forename(s)……
Address ……
……
Date Of Birth …. / …. / ..... Male / Female

**Initial Ophthalmic Assessment**

Date: Patient being seen in: Eye Casualty / Gloucester Ward

Time of arrival in BEH:

Time seen by Nurse: Time seen by Doctor / Optometrist

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Primary surgery type: Date of Primary surgery:

Hospital where primary surgery done:

Vitreous and/or Aqueous specimens ALREADY sent: YES / NO

If yes, RESULT:

Intravitreal antibiotics ALREADY given? YES / NO

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Symptoms (include duration):

| Right | | Left |
|---|---|---|
| | **VA** | |
| | **AC Cells** | |
| | **Hypopyon** | |
| | **Fibrin** | |
| | **IOP** | |
| | **Lens** | |
| | **BIO score** | |
| | **Fundus appearance** | |
| | **If no fundus view: ?red reflex** | |
| | **(if no fundus view): U/S B-scan** | |

Reviewed by: Role/Grade:

[redacted]

***POSTOPERATIVE ENDOPHTHALMITIS PACK***

Surname…… Hospital no……..
Forename(s)……
Address ……
……
Date Of Birth …. / …. / ……. Male / Female

## Senior Ophthalmic Assessment

Date:

Time:

Impression:

Reviewed by: Role/Grade:

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## Management Plan: (please X)

1) **Case discussed with VR Fellow:** is there indication for Pars Plana Vitrectomy? (N.B. if PL/NPL) ☐

2) **Where procedure(s) to be done:**
   a. In theatre, OR ☐
   b. In Minor-Ops room on Gloucester Ward or Clinic Injection room if theatre **not** available ≤1 hour ☐

   (Note: Key for Minor-Ops room kept in the Store Cupboard behind Reception on Gloucester Ward (code for door: C4878))

3) **Discussed with on-call Consultant** ☐

[redacted]

***POSTOPERATIVE ENDOPHTHALMITIS PACK***

Surname..... Hospital no.....

Forename(s).....

Address .....

.....

Date Of Birth .... / .... / ..... Male / Female

**Diagnostic / Therapeutic Procedure**

Endophthalmitis Ward Biopsy Kit (kept in VR room Gloucester Ward) to be used in the Minor-ops room of Gloucester Ward or Clinic Injection room when theatres are not available.

Date and Time of Procedure:

Where carried out (please circle): Theatre / Gloucester Ward / Clinic Injection room

A/C Tap: ☐ (please X)

A/C Washout: ☐

Vitreous sample:

- Needle tap ☐
- Biopsy with Vitreous cutter ☐
- Pars Plana Vitrectomy ☐

Mircobiology specimen requested on ICE: ☐

Contact Microbiology LAB (Ext: 25551 09:00 – 17:00 Mon-Friday or Bleep 2563 out-of-hours) to expect URGENT specimen: ☐

**Intravitreal antibiotics**: (See overleaf for dilution protocol):

Vancomycin: 1.0 mg in 0.1 ml ☐

Ceftazidime: 2.0 mg in 0.1 ml ☐

If these antibiotics not given please justify:

**Subsequent Management**:

Oral Ciprofloxacin 750 mg BD: ☐

G Chloramphenicol 0.5% or G Levofloxacin 0.5% drops QDS: ☐

G Atropine1% or Cyclopentolate 1% BD: ☐

Consider Topical / Systemic Steroid treatment after 24 hours: ☐

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DATIX INCIDENCE REFERENCE No. (available when on-line form completed):

Intravitreal antibiotic use administration form completed: ☐

Tomas Burke / Johannes Keller / Bose Cole / Richard Haynes
Version 4 –Dec 2016
Review Date: January 2019

***POSTOPERATIVE ENDOPHTHALMITIS PACK***

**Antibiotic Dilutions:**

## VANCOMYCIN (1.0 mg in 0.1 ml)

1) Reconstitute VANCOMYCIN 500mg with 10 ml normal saline (50mg/ml)
2) Take 2 ml of solution and add to 8 ml of normal saline (10mg/ml)
3) 0.1 ml of this solution = 1.0 mg

## CEFTAZIDIME (2 mg in 0.1 ml)

1) Reconstitute CEFTAZIDIME 500 mg with 10 ml normal saline (50mg/ml)
2) Take 4 ml of solution and add to 6 ml of normal saline (20mg/ml)
3) 0.1 ml of this solution = 2.0 mg

## FOR USE IN PRESUMED PRIMARY POST-OPERATIVE ENDOPHTHALMITIS

| DATE | ANTIBIOTIC | DOSE | BATCH NO | EXP DATE | No. of VIALS |
|---|---|---|---|---|---|
| | VANCOMYCIN | 1 mg | | | |
| | | | | | |
| | CEFTAZIDIME | 2 mg | | | |

## Procedures

Equipment required for obtaining samples and injecting antibiotics are contained in the Ward Biopsy Kit kept in the VR Room on Gloucester Ward. Antibiotics (topical and those for intravitreal use) are kept in the drugs' cupboard on Gloucester Ward. Please inform nursing staff on Gloucester Ward when you have used the Ward Biopsy Kit so that it can be replenished.

Vitreous biopsy and injection of antibiotics to be carried out in all cases. If considering anterior chamber tap (>2+ cells in anterior chamber) perform this prior to Vitreous biopsy.

Informed consent obtained prior to procedure(s).

Hands should be scrubbed as per intravitreal injection protocol and sterile gloves are to be worn.

## Needle biopsy of vitreous

1. Prepare antibiotics as per protocol (see overleaf for dilutions), draw up more antibiotic in the syringe than you intend to inject because some of the antibiotic stays in the barrel of the needle. Antibiotics will be
2. Obtain Chloramphenicol 0.5% Minim from Ward stock
3. Recline patient
4. Apply Oxybuprocaine 0.4% to conjunctiva X 2
5. Apply Betadine prep (10% to eyelids and lashes, 5% to lacrimal sac)
6. A drape can be applied as normal, but this is not really necessary.
7. Insert eyelid speculum
8. Raise a bleb of 2% Lidocaine by injecting a small volume under the temporal limbal bulbar conjunctiva.
9. Wait 5 minutes for Lidocaine to anaesthetise the episclera (patients often still feel the entry of the biopsy needle into the eye because the uveal tissue is not anaesthetised).
10. For the biopsy use an Orange 25-gauge needle attached to a 2 ml syringe. Break the seal on the syringe before putting the needle in the eye.
11. Stand or sit on the temporal side of the patient's head, on the affected side.
12. If available, use a calliper to mark the entry point through the pars plana 3.5 mm from the corneo-scleral limbus, on the temporal side. If a calliper is not available, the end of the spout of a Minim can be used to approximate this distance as the outer diameter of the spout tip measures 3mm.
13. Grasp the conjunctiva with micro-notched forceps close to the intended entry site to stabilise the eye.
14. Enter the globe at the entry point and point the needle towards the optic nerve.
15. Gently pull back on the plunger of the syringe (with the hand that was holding the conjunctiva, as once the needle is through the sclera the globe no longer needs to be stabilised.)
16. Liquid should appear in the syringe. Aspirate about 0.4 ml.
17. If no liquid appears check the needle is attached to the syringe properly, try again and pull a little harder. Advancing the needle slightly sometimes helps, but be mindful of where the tip is at all times.
18. In elderly patients the vitreous is liquid and more likely to be detached, therefore aspiration through an Orange 25-gauge needle is usually possible, however if firm aspiration does not allow a biopsy then a larger needle is needed for example a Blue 23-gauge but being

mindful of longer needle length. If this is not possible then proceed to a biopsy with a Vitrectomy cutter (see below) involving the VR Fellow.

19. When the fluid is aspirated remove the needle from the eye.
20. Cap the aspirated fluid in the syringe, label it and send for culture.

## Injection of the intravitreal antibiotics

21. The needle to inject the antibiotic should be small, as the globe will be soft after aspirating the biopsy and it will be easier to pass a small needle into the eye.
22. Re-grasp the globe with the micro-notched forceps and insert the insulin syringe needle (or 1 ml syringe with Grey 27-gauge needle) through the same site used for aspiration (if possible) and inject the required volume.
23. Repeat with second antibiotic.
24. Remove speculum
25. Apply a drop of Chloramphenicol 0.5%
26. Apply a pad.
27. Procedure is now finished.
28. Offer the patient analgesia.
29. It is also appropriate to leave the needle used to aspirate the fluid sample in the eye after removal of the aspiration syringe (provided you are using Luer Lock syringes which facilitate easy changing of syringes). The syringes containing the antibiotic can then be attached to the needle still in the eye and the contents injected. This facilitates acquisition of vitreous sample and injection of antibiotics with only one pass of a needle through the sclera.

## Biopsy with a Vitrectomy cutter by VR Fellow/Team in Theatre (consider complete Vitrectomy to reduced pathogen load)

1. Prepare the patient as per 1 – 9 above.
2. Use the operating microscope in theatre.
3. Inform the theatre nursing staff that you need to take a vitreous cutter biopsy and the cutter aspiration tubing must not be primed with fluid prior to starting the operation.
4. A 25-guage port Pars Plana Vitrectomy should be performed
5. Attach a 2 ml syringe to the aspiration tube of the Vitrectomy cutter, the connection point is about 12 inches from the cutter handpiece.
6. Insert the Vitrectomy cutter through the sclerostomy about 5 mm into the vitreous cavity. You can place the cutter behind the IOL, and watch it cutting to reassure yourself it is not too far in.
7. Activate the cutter by pressing the foot pedal in the normal way.
8. Ask your assistant to aspirate gently on the syringe. You should keep a watch on the eye to ensure it does not rapidly collapse. Instruct your assistant to stop aspirating when they see a few centimetres of cutter tubing fill with vitreous fluid. This is enough for the biopsy.
9. Withdraw the cutter from the eye. Then aspirate the fluid in the tubing into the syringe, cap it and send for culture.
10. Consider suture of the sclerostomies with 7 or 8,O Vicryl
11. Inject the antibiotics via the sutured sclerostomy as per 21 - 22 above, but after injection of the antibiotics, pull back the conjunctiva over the sclerostomy and consider placing a 7 or 8,O Vicryl suture to the conjunctiva to hold it in position.

## Optional: Anterior chamber Tap at slit-lamp (considered if >2+ cells in anterior chamber)

1. Apply Oxybuprocaine 0.4% to conjunctiva X 2
2. Apply Betadine prep (10% to eyelids and lashes, 5% to lacrimal sac)
3. Insert eyelid speculum

4. Patient sitting comfortably at slit-lamp
5. A micro-toothed forceps can be used to stabilize the eye by grasping the conjunctiva on the nasal side of the limbus
6. Using a 1ml syringe with a Yellow 30-gauge needle, enter the anterior chamber from the temporal side of the corneo-scleral limbus. Ensure the needle is parallel to the iris plane at all times.
7. An assistant is asked to pull gently on the plunger to aspirate 0.01-0.02ml (a drop!). Watch for anterior chamber shallowing. Alternatively, the plunger can be removed from the syringe and the aqueous fluid encouraged to flow into syringe by gentle counter traction.
8. When adequate sample obtained remove the needle from the eye.
9. Cap the aspirated fluid in the syringe, label it and send for culture.
10. If proceeding to needle biopsy of Vitreous, wait for eye to regain pressure. Then proceed from 8 in Vitreous biopsy section above.

NB: Please File this Pack in the Patients Medical Records.