PILOT STUDY: JUST NEPAFENAC 0.3% ONCE DAILY POST CATARACT SURGERY

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Acknowledgements

This poster was made possible due to the help I received from Dr Brennan, Dr Mignot and the rest of the Ophthalmology Department staff at Raigmore Hospital, Inverness

Introduction

Although cataract surgery is one of the most cost-effective treatments in terms of quality-adjusted life-years that is offered on the NHS[1], the treatment method could still be improved.

Currently, one drop of dexamethasone 0.1% (Maxidex) 3 or 4 times a day is routinely prescribed post-phacoemulsification cataract surgery for up to 4 weeks[2]. This is a large number of drops, and it is clearly one of the main disadvantages of traditional treatment methods. Some patients can struggle with instillation, timing, and compliance with the large quantity of eye drops required post-cataract surgery[2]. This may result in a health care worker requiring to visit the patients who are struggling to instill the eye drops to aid them in this process. Furthermore, the steroid eye drops that are typically used after cataract surgery as also associated with frequent adverse effects[2]. Steroids can cause raised intraocular pressure and are inadequate prophylaxis for cystoid macula oedema (CMO), particularly in diabetic patients[3]. Moreover, with topical steroids, there is also a risk of secondary infections[2]. If these complications occur, patients may require more post-operative appointments, with the associated attendant costs.

With the ever-increasing number of cataract surgeries being performed, this has the potential to become a very time-consuming and costly method of treatment.



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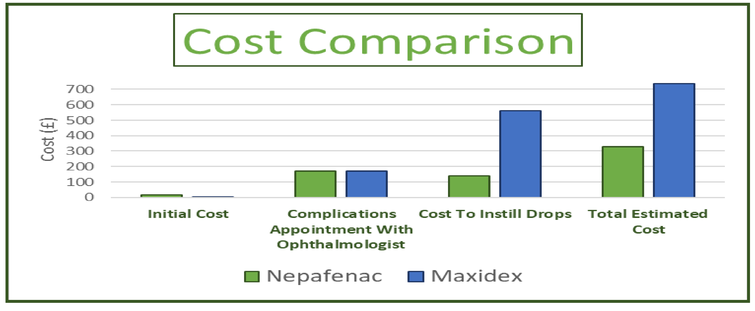
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Nepafenac

- Nepafenac 0.3% once daily has been licensed for the treatment of post-cataract surgery pain and inflammation.
- Studies looking into the efficacy of nepafenac for post-cataract pain and inflammation have found positive results with 4 weeks of treatment post operatively[4].
- Nepafenac is also associated with fewer side effects than steroid drops, as well as being the prophylaxis treatment of a major complication of cataract surgery, CMO[3]
- Although Nepafenac is associated with a more expensive initial cost, this does not contribute as much to the overall cost of the treatment as expected

Cost versus Maxidex:

	Nepafenac	Maxidex
Cost for treatment	£16.84	£4.20
Follow up outpatient clinics due to complications (estimated at £171 each)[5]	Less likely, but still included for comparison[3]	More likely[3]
Cost to send a health care worker to instill drop for entire treatment length (conservatively estimated at 30 minutes per visit for drops, £10 an hour)	1 drop per day for 28 days £140	4 drops per day for 28 days £560
Potential estimated cost	£327.84	£735.20



Methods

- We trialed the benefits of this nepafenac 0.3% for 4 weeks in 6 consecutive patients following their unilateral phacoemulsification surgery.

Results

- All patients were reviewed at one week were responding appropriately to treatment
- **Unfortunately, two out of the six patients went on to develop rebound iritis after 4 weeks of nepafenac treatment**
- One of the two patients settled with a longer course of nepafenac
- The other patient needed dexamethasone 0.1% in addition to nepafenac for their iritis to settle.

Discussion

- Other studies have used the treatment for 60 and 90 days post operatively[4].
- However, this would impact on the desired instillation reduction benefit.
- With such a large percentage of the patients trialed on nepafenac developing rebound iritis, and thus requiring further treatment, it is very hard to justify the use of nepafenac with this treatment regime.

Conclusion

Although using NSAIDs may be promising, this trial has found that nepafenac monotherapy is not a justifiably cost-effective treatment for pain and inflammation following cataract surgery compared to dexamethasone.

References

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