



Document Title	Protocol of Topical Natamycin 5% eyedrops for fungal keratitis	
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Acronyms

AK	Acanthamoeba Keratitis
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Definitions

- Keratitis: inflammation of the cornea , can be infectious or non-infection.

Protocol of Topical Natamycin 5% eyedrops for fungal keratitis

Introduction

Fungal keratitis is a devastating eye condition. This condition often leads to blindness often necessitating a corneal transplant or removal of the eye.

There are a variety of fungi which can cause this infection in the eye. Filamentous fungi include fusarium and aspergillus. Non-filamentous include candida.

The studies have shown that filamentous fungal keratitis which are the more prominent better respond to natamycin 5%.¹ Candida responds better to amphotericine B.

Voriconazole is an alternative anti-fungal which can treat both filamentous and non-filamentous, however unfortunately sub-optimally. It also should not be used solely which is now happening at Al Nahdha Hospital. This has been shown in the MUTT-2 trial.²

Aim and Objectives

To develop guidelines in the effective management of fungal keratitis, and prevent its possible complications in patients at Al Nahdha Hospital.

Method and Procedure

1. When to consider Natamycin 5%
 - 1.1. In cases presented with clinical suspicious of fungal keratitis
 - 1.2. In cases confirmed by corneal scraping culture
2. Who can instill the eye Natamycin 5%
 - 2.1. The patient him/herself, caregivers, allied health staff
3. Dosage:

One drop into the affected eye(s) every 1 hour initially. Then the frequency will be tapered down.

No dilution is needed.
4. Monitoring:

depending on the clinical response- which may take up to 6 weeks treatment. Close observation is required when the treatment is discontinued to rule out recurrence. Please see **figure 1**.

Requirements:

- Natamycin 5% is not available at Al-Nahdha Hospital. It is expected that with the start of using natamycin, the hospital stay for treating keratitis will be reduced along with the complications and their expenses. The rate of corneal transplantation and loss of eye will be reduced.
- No additional human/non-human resources are needed.
- See the flow-chart above on how Natamycin 5% is going to be used.

Document History and Version Control

Version	Description	Review Date
1	Initial Release	

References

1. Prajna NV, Krishnan T, Mascarenhas J, et al. The mycotic ulcer treatment trial: a randomized trial comparing natamycin vs voriconazole. *JAMA Ophthalmol.* Apr 2013;131(4):422-9. doi:10.1001/jamaophthalmol.2013.1497
2. Prajna NV, Krishnan T, Rajaraman R, et al. Effect of Oral Voriconazole on Fungal Keratitis in the Mycotic Ulcer Treatment Trial II (MUTT II): A Randomized Clinical Trial. *JAMA Ophthalmol.* Dec 1 2016;134(12):1365-1372. doi:10.1001/jamaophthalmol.2016.4096

Figure 1

