

#### 4. Training community health extension workers and community volunteers

Training CHEWs and community volunteers before MDA ensures smooth implementation. There are three phases of training. The first two-day training session is for divisional coordinators and supervisors from all over the district that will carry out MDA. The second two-day training session is for CHEWs, who are team leaders at the distribution posts. Finally, there is a one-day training session for community volunteers.

Everyone is taught about trachoma and SAFE, the trachoma situation in the country and respective districts, the pharmacology of azithromycin (with emphasis on uses, doses and possible side effects), the mapping of the distribution area, dosing of azithromycin and the use of the height stick, writing patient details, and how to write the daily summary reports. The different duties of the divisional coordinators, supervisors, CHEWs and community volunteers are then clearly explained to each respective group.

#### 5. Mass treatment

The CHEWs are responsible for all activities at the treatment posts. These include identifying the areas that have not been visited. In cases of side effects or adverse drug reactions, CHEWs give first aid and notify the Ministry of Health immediately.

During the MDA, a CHEW is paired with two community volunteers. One volunteer measures the height of each person who will receive treatment to establish the appropriate dose, and the second volunteer records the personal details and the dose the person will receive. The antibiotic (azithromycin) is administered by the CHEW according to height, and older people are also examined for trichiasis. At the end of each day the CHEW tabulates the number of people treated and the drugs used as well as any wastage, and sends the daily summary to the supervisor.

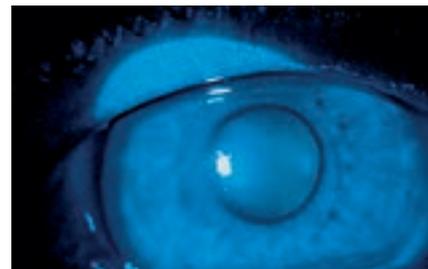
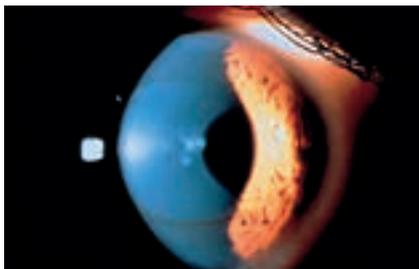
The supervisors and divisional coordinators have broadly similar roles, just at different levels. They work together to ensure every team has enough azithromycin to ensure smooth distribution and that unused drugs are returned to a central store. Supervisors collate the reports submitted by teams and send them to the coordinator they report to. Coordinators collate all the supervisor reports and send them to the DHMT.

#### References

- Okeibunor JC, Amuyunzu-Nyamongo M, Onyeneho NG, Tchouankeu YF, et al. Where would I be without ivermectin? Capturing the benefits of community-directed treatment with ivermectin in Africa. *Trop Med Int Health* 2011;16(5):608–621.
- Cairncross S, Braide EI, Bugri SZ. Community participation in the eradication of guinea worm disease. *Acta Trop* 1996;61(2):121–136.

#### PICTURE QUIZ

### Diagnose this



© American Academy of Ophthalmology, used by permission

A 19-year-old college student complains of poor vision. He states that he has long been nearsighted but that his glasses have recently required several changes, and even with his most recent correction, he is having difficulty. Examination reveals a best-corrected acuity of 20/40 with spectacle correction. The results of slit lamp biomicroscopy are shown.

#### What is the most likely diagnosis?

- Keratoconus  Pellucid marginal degeneration  
 Terrien's marginal degeneration  Keratoglobus

#### ANSWER

configuration is that the patient presents with progressive and marked against-the-rule astigmatism. Generally, there is no circular iron deposition or apical reticular scarring as in keratoconus. Keratoglobus is a diffuse thinning of the ocular coats, including cornea and sclera. Patients with keratoglobus often have a markedly steepened cornea, a blue sclera, and a tendency for corneal rupture with trauma. There is also an association with Terrien's marginal degeneration is an inflammatory vasculitis, including lipid deposition, and nonlenticular thinning and ectasia of the corneal periphery.

The patient's history and corneal appearance on biomicroscopy are most consistent with keratoconus. Progressive myopia, multiple spectacle or contact lens changes, and a qualitatively unsatisfactory best-corrected acuity suggest early keratoconus. The presence of a distinct Fleischer ring representing iron deposition at the level of the basal epithelium is diagnostic of this disorder. Pellucid marginal degeneration is a distinct disorder in the spectrum of noninflammatory ectasias of the cornea; however, it differs from keratoconus in that the thinnest area of the cornea is not at the apex of the cone, but rather in a crescentic distribution near the inferior limbus. The effect of this pathologic

**Keratoconus is the most likely diagnosis.**

Reproduced by kind permission of the Ophthalmic News and Education (ONE®) Network of the American Academy of Ophthalmology. Visit [www.aaopt.org/one](http://www.aaopt.org/one)

#### EXCHANGE

### Clinical case study

#### Irfan Jeeva

Ophthalmology Specialist Registrar

#### Aditi Das

Ophthalmic Public Health Trainee

#### Andy Cassels-Brown

Consultant Ophthalmologist  
Leeds University, Leeds, UK.

A 35-year-old man presented at our eye clinic with a 2-day history of a red, sore and watery right eye. He had visited Cameroon 4 months prior to presentation.

Examination of the right eye revealed an injected conjunctiva and a coiled, mobile and translucent worm in the sub-conjunctival space (Figure 1). A diagnosis of loiasis was made on the basis of clinical examination, parasitological analysis, a full blood count (which revealed eosinophilia) and a blood film (which showed microfilaria).

Removal of the worm (*Loa loa*) was attempted using an aseptic technique and minimal illumination. A sub-conjunctival injection of 2% lignocaine and 1:100,000 dilution of adrenaline



Figure 1

Irfan Jeeva

was used to anaesthetise the eye and a 2 cm horizontal conjunctival incision was made. Despite multiple attempts to grasp the worm with forceps, it could not be extracted due to its slippery exterior. Gentle cautery was applied to seal the space around the worm and facilitate removal. Topical antibiotic was then applied and the conjunctiva closed with 6/0 vicryl. Within a week, the patient's ocular symptoms improved.

*Loa loa* is a filarial nematode with a predilection for ocular tissues. With increasing international travel it is important that ophthalmologists become familiar with the various ocular presentations of infectious diseases, which untreated can cause serious morbidity and mortality.