

A toolkit for glaucoma management in Africa

Glaucoma is the leading cause of irreversible vision impairment worldwide and the burden is largely in sub-Saharan Africa (SSA) where about 4% of adults aged 40 years and above have the condition¹. Clinic-based data have increasingly shown younger adults presenting with severe glaucoma.

In February 2019, a strategic stakeholders' workshop was organised by Light for the World, in Addis Ababa, Ethiopia. Discussions at this workshop led to the development of the first *Toolkit for Glaucoma Management in Africa*. The practical toolkit is a guide on: "Where do I start from, in developing glaucoma care services?" Its development was made possible thanks to funding from Light for the World and the Else Kröner-Fresenius-Stiftung.

The *Toolkit for Glaucoma Management in Africa* was co-developed by more than a dozen high level, renowned glaucoma experts and general ophthalmologists from the region. It builds on the important International Council of Ophthalmology (ICO) Guidelines for Glaucoma Eye Care and counts with invaluable contributions from the ICO, the International Agency for the Prevention of Blindness (IAPB), the College of Ophthalmology for Eastern, Central and Southern Africa (COECSA), the Francophone African Ophthalmic Society (SAFO), the West African College of Surgeons (WACS), the African Glaucoma Consortium, the Ethiopia, Ghana, Nigeria and South Africa Glaucoma and Ophthalmological Societies, as well as the scientific community and major international training institutions. The toolkit is instrumental to guide ophthalmologists, glaucoma specialists and glaucoma care team members and programme planners to set up integrated glaucoma care services adapted to their very own context and to strengthen the health systems sustainably. Thus, it is "by Africans for Africans."

The intended outcomes of use of the toolkit are to shift paradigm to recognise that glaucoma blindness is avoidable, to strengthen clinical services, encourage earlier detection of glaucoma and strengthen health systems governance.

The toolkit has three parts: Part one is on how to deliver good clinical care of a glaucoma patient in the Sub-Saharan African setting; Part two on how to plan, set up and deliver glaucoma services; and Part three on generating information and on glaucoma research priorities for Africa. The toolkit is a useful guide for management of glaucoma.

The first chapter has checklists to facilitate clinical diagnosis of glaucoma. However, given the different options for treatment, we tried to avoid giving specific prescriptions since that would depend on availability of the said intervention in the country. In Part one, Chapter 2 of the toolkit, there is a clinical decision support tool,

which considers the staging and severity of glaucoma and a risk assessment for progression of vision loss. This guides towards whether to choose surgery or medication or laser as the treatment of choice, where available. Chapter 3 guides the clinician towards making a diagnosis of the type of glaucoma with algorithms for dealing with specific situations for example, open-angle glaucoma, ocular hypertension, angle-closure glaucoma, cataract with glaucoma, glaucoma in pregnancy, etc. While Chapter 4 signposts selected weblinks for recipes and how-to perform the diagnostic and treatment procedures e.g. gonioscopy, selective laser trabeculoplasty, etc. Chapter 5 discusses current opinion on selected and topical issues. For example, the importance of OCT, the performance of Minimally Invasive Glaucoma Surgeries (MIGS), etc.

Part two focuses on how to set up an integrated glaucoma programme. Chapter 6 discusses levels of care and who does what and where with emphasis on integration and health systems strengthening. Chapter 7 suggests models of service delivery including financing care, facilitating early diagnosis and improving follow-up. An adapted list of essential equipment for glaucoma care is in Chapter 8. Chapter 9 highlights the need for advocacy and improving awareness for glaucoma. The key messages to consider for individuals, community or decision-makers are also highlighted. For example, we encourage or advise testing each eye every day - Just cover one eye at a time, and if you notice any difference, seek help.

Chapter 10 in part three is on Monitoring, Evaluation and Learning (MEL), listing the indicators for assessing a glaucoma care service. Chapter 11 focuses on research development and innovation for glaucoma service, indicating priority areas for research and the need for a glaucoma research and data repository to maximise the benefit of collaborations and shared learning.

The glaucoma toolkit was launched by IAPB during the World Glaucoma Week 2021. The IAPB launch outlined the development process of the toolkit and presented its content to the audience, including learnings from piloting its use in Nigeria. It was further launched in French - "Lancement Version française Boîte à Outil sur le Glaucome" in Burkina Faso on 30th March 2021 hosted by the Société Burkinabé d'Ophtalmologie; and in Mozambique on 23rd June 2021. These country launches were strategy towards action plan with relevant stakeholders on how to use the toolkit in the different units across the country and how the toolkit can be integrated into existing training curricula for general ophthalmologists and allied eye care personnel.

The toolkit is ready for use as a practical guide for glaucoma management. Its incorporation in the training for ophthalmologists and eye care personnel is ongoing. In Burkina Faso, Ethiopia and Mozambique (Light for

the World glaucoma programme countries), two lines of training on the use of the toolkit are planned: (i) training for allied eye care personnel in identification, counselling and referral of glaucoma patients by ophthalmologists who have a strong understanding of the ICO Guidelines and the glaucoma toolkit; and (ii) training for ophthalmologists by glaucoma experts. The major training colleges involved in the development have already indicated that the toolkit for glaucoma management in Africa will be incorporated into their training curricula.

The next question is does benchmarking diagnostic protocols and patterns of care according to recommended guidelines have implications on quality of care?

REFERENCE

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Kyari F, College of Health Sciences, University of Abuja, Abuja, Nigeria and London School of Hygiene & Tropical Medicine, London, UK.

Email: Fatima.Kyari1@Ishtm.ac.uk