FAQs: The WHO and LED Fluorescence Microscopy for AFB Detection

What is the official policy of the World Health Organization (WHO) on LED fluorescence microscopy for AFB detection?

In a July 2010 policy statement entitled “Fluorescent Light Emitting Diode (LED) Microscopy for Diagnosis of Tuberculosis” (available at [http://www.who.int/tb/laboratory/who_policy_led_microscopy_july10.pdf](http://www.who.int/tb/laboratory/who_policy_led_microscopy_july10.pdf)), the WHO recommended that LED Fluorescence Microscopy be phased in as a replacement for light microscopy using Ziehl-Neelsen (ZN) stain and conventional fluorescence microscopy for AFB detection.

Did the WHO report any increases in sensitivity using LED fluorescence microscopy?

Yes. In its report, the WHO claimed that LED Fluorescence microscopy was 6% more sensitive than light microscopy, and 5% more sensitive than conventional fluorescence microscopy.

What other advantages did the WHO cite in its policy statement?

The WHO reported several other advantages using LED Fluorescence microscopy, including increased efficiency (with results in half the time of ZN), cost effectiveness, and several qualitative advantages including durability, portability, and no dark room requirement.

What assistance will the WHO provide to countries implementing LED fluorescence microscopy?

In the policy statement, the WHO noted that it will develop and distribute technical specifications for LED fluorescence microscopy devices, standard operating procedures, and quality control programs. It will also facilitate coordination of standardized training at a country level.

Is there financial assistance available for this upgrade?

Many independent funding sources have made the improvement of AFB detection a high priority. For more information, or to apply for a grant, please consult the websites for any of the following organizations: The Global Fund ([www.theglobalfund.org](http://www.theglobalfund.org)), PEPFAR ([www.pepfar.gov](http://www.pepfar.gov)), USAID ([www.USAID.gov](http://www.USAID.gov)), and The World Bank ([www.web.worldbank.org/USAID.gov](http://www.web.worldbank.org/USAID.gov)).

Did the WHO recommend the use of any specific LED fluorescence microscopy systems or devices?

No. The WHO does not endorse any products. However, the QBC ParaLens Advance LED fluorescence microscopy attachment meets the WHO’s recommendations by providing accurate, cost-effective LED fluorescence microscopy appropriate for any lab or clinic conducting TB screening. For more information, please consult any of the marketing materials available for the ParaLens Advance.

Does the WHO’s recommendation pertain to specific types of LED Fluorescence microscopy devices (e.g. standalone microscopes v. microscope attachments)?

The WHO policy statement does not specify any particular type of device. For an independent comparison of LED fluorescence microscopy options, please consult the following article: [http://www.expert-reviews.com/doi/pdf/10.1586/erd.09.26](http://www.expert-reviews.com/doi/pdf/10.1586/erd.09.26).

The WHO recommends training in its policy statement. Where can I receive training on TB detection using LED fluorescence microscopy?

QBC Diagnostics’ ParaWorld training courses and supplies offers educational resources for users interested in TB detection using LED fluorescence microscopy. For more information, please consult [www.qbcdiagnostics.com/ParaWorld](http://www.qbcdiagnostics.com/ParaWorld).