Is it really malaria?

An Interactive Group Discussion Guide

Methods for Diagnosis

QUESTIONS	KEY POINTS TO DISCUSS
Why do you think some health care providers do not trust RDTs?	If they say that microscopy sometimes contradicts malaria RDTs (e.g., an RDT may give negative results, but the microscopy results are positive) explain that most microscopists have not been trained ***specifically in malaria microscopy*** and the training is very hard. Among people who have completed malaria microscopy training in Nigeria, only 40% passed the test. If they say that RDT can miss some species of malaria, explain that P. falciparum is the most common species in Nigeria (95-99%). The other species are rare and even then, they present with MIXED infection. You have the best technology possible for detecting malaria in Nigeria today. If they say that RDT misses cases with low parasite load, explain that any patient with symptoms would have enough parasites to be detectable by RDT.
How many health care providers do you think can accurately diagnose malaria based on their clinical judgment?	They may say that doctors would be able to accurately diagnose malaria based on clinical judgement. Explain that a study conducted in 2016 called the National Health Facility Assessment found that only 12% of all health workers were able to diagnose malaria with anaemia correctly. Only 36% of medical doctors were able to give a correct diagnosis.
In your opinion, which is more accurate? A rapid HIV blood test or a malaria RDT?	They are equally accurate (99-100% sensitive). They use the same technology.
When can you use microscopy?	You can use microscopy to **diagnose** malaria if you're a certified expert in malaria microscopy. If not, use RDT. If the child has symptoms of **severe malaria**, use **RDT to confirm malaria** rapidly so treatment can start. Then use **microscopy to monitor** parasite density in the next 2-3 days. Some PHCs have microscopy but those microscopes are typically very old, the reagents often have quality issues (like sediment), there is poor lighting, and the slides are scratched. This leads to artefacts and false positives. Do microscopy only when you have a good microscope (clear lens, etc), good reagents, good supplies, and a lab scientist who has passed malaria microscopy training.

Quality Assurance for mRDT

QUESTIONS TO ASK	KEY POINTS TO DISCUSS
What quality assurance do you think is done to ensure the mRDTs give accurate results?	If they do not know, explain that the tests are approved by WHO and undergo QA testing by the University of Lagos. The lab in Lagos is only one of three labs in the world that is certified for RDT QA by WHO.
Some providers still doubt the quality of RDTs. Why do you think that might be?	They may say that storage is not good, they the RDTs may go bad due to heat, or some may have expired, which is why they may give incorrect results.
Did you hear about a study funded by WHO in 2017 where they collected mRDTs from heath facilities and national medicine stores and tested them for accuracy?	If not, share the highlights from the study: • Study was conducted across 6 geopolitical zones in Nigeria • Samples were of CareStart Malaria Ag and SD-Bioline RDTs. • Samples were collected from 414 health facilities and National Medical Stores out of 646 in the study area. • All RDTs passed lot testing (100%), *despite some of the RDTs having expired*. A truly expired or spoiled RDT will give an invalid result, not a negative result.
Based on the testing by NAFDAC, and the WHO study, do you think we can trust RDT results?	They should say they can trust the mRDT results.
Which malaria test is more susceptible to user errors (mistakes in the testing process) – RDTs or microscopy?	User error happens with RDTs as well. Sometimes the laboratory technician does not use the correct number of drops of buffer, uses the wrong buffer solution, or does not wait the correct amount of time before reading the results. This is because different brands of RDT have different protocols.
Despite the potential for user error to affect the results of both microscopy and RDT, which one do you think is most reliable?	RDT is the most reliable, however the health care provider can ask the lab tech to confirm the correct procedure when performing the test.

Finding the Correct Ailment

QUESTIONS TO ASK	KEY POINTS TO DISCUSS
How common is malaria in children under 5?	Nationally, 27% in 2015 down from 42% in 2010 (NMIS, expert microscopy). Malaria is declining in Nigeria. From 2015-2017, for example, over 62 million nets were distributed in Nigeria (seems high but comes from WHO 2018 report). More people have a bed net than before, so it makes sense that the risk of malaria overall is decreasing.
What are the other leading causes of fever?	Other leading causes of fever include meningitis, pneumonia, and diarrhea. **These are some of the top causes of death in children under 5**. Viral illnesses are also common, in both children and adults. We need to pay more attention to the whole child, not just malaria.
What should a provider do when they see a child with fever?	Do an RDT and assess the child for different causes of fever. The child may have malaria alone, no malaria, or malaria and co-infection with other diseases. If the RDT is negative, do not provide antimalarials. If they have the ability to test for other illnesses (such as in hospitals) then they can do those tests. Otherwise, they can prescribe something to relieve the symptoms, such as an analgesic or something to reduce fever. We will train them on the IMCI guidelines. It is a process developed by WHO to diagnose and treat children in low-resource settings. It has been proven to reduce mortality.
What if a child got better after taking ACT when a test showed no malaria? Was the test wrong?	No, it means that the child probably had a virus which would have gotten better on its own. Evidence from Sub-Saharan Africa indicates that the majority of systemic infections and acute respiratory infections in children are due to viruses.
Are ACTs free to patients?	They may say yes. If no, why not? No. ACTs are only truly free if the patient has confirmed malaria. If you give ACT without confirmation, then you might be costing that family more money and worry, and ultimately the life of that child. Studies in other parts of Africa have shown higher rates of death for children treated presumptively.