EDITORIAL COMMENTARY

TIME TO DEVELOP CAPACITY TO DIAGNOSE DRUG RESISTANT TUBERCULOSIS

Tertiary facilities in Ghana are re-positioning themselves to handle specifically Multi- drug resistant (MDR) and extensively drug resistant(X-DR) tuberculosis. MDR-TB is defined as TB caused by organisms that are resistant to isoniazid and rifampicin, two first line anti-TB drugs. XDR-TB is defined as MDR-TB, that is resistant as well to anyone of the fluoroquinolones and at least one of the three injectable second line drugs (amikacin, capreomycin or kanamycin).[1] MDR/XDR-TB is not only a threat to TB control efforts countrywide but a global threat.[2]

In this issue of the journal, Forson *et al* (page 42) present findings from a drug resistance study among chronic pulmonary TB cases .The authors rightly have admitted to major limitation of the study and advise caution to interpretation of results considering the facts that the results emanated from a "new" laboratory. However, findings from the study were consistent and collaborated with similar studies. The study at least reconfirmed the presence of MDR-TB in Ghana.

As at the time of writing this commentary XDR-TB has not been confirmed in Ghana. However, it is only a matter of time for this "killer bug" to emerge locally. The risk factors for creating XDR-TB are mostly man made. Among the risk factors, poor clinical care , inadequate patient support and non-adherence to treatment are known to occur in some health care facilities. And even if things are done "right" in the country the "bug" could be imported into the country through international travel.

There is therefore, no gainsaying that improving diagnosis of drug resistance TB should be on the priority list of hospitals, doctors and all health professionals. Early detection and treatment with appropriate regimens can reduce morbidity and mortality, as well as the transmission of drug resistance TB.[3] The welcome change and uniqueness of the Forson *et al* paper is that the investigators improved laboratory infrastructure, developed health personnel capacity to support the study and provided services to patients. The signals are clear. Health professionals are ready to work to improve DR-TB diagnosis. This is a good paradigm shift for tertiary facilities. What the health system currently needs is point of care diagnosis of DR-TB and Drug Sensitivity Testing (DST). The National policy recommends culture and DST for all re-treatments cases, extra pulmonary TB, smear negative TB, and new HIV positive TB suspects. All health care providers showing symptoms or suspected to have TB must have culture and DST. All patients with suspected MDR-TB or XDR-TB need access to laboratory services for adequate and timely diagnosis.

Presently, the turn-around time for diagnosing DR-TB and DST in Ghana is rather long, ranging from 2 to 8 weeks. There are new and sensitive diagnostic methods which ought to be explored. Line Probe assay for rapid DST will be introduced in two laboratories in Ghana by the end of third quarter of 2011. A system of transportation of sputum specimen to the two reference laboratories for culture & DST is a must. Liquid culture will be decentralize to at least four regional hospitals and teaching hospitals while operations research will be conducted to further evaluate and assess the impact of including GenXpert[4] as alternate to decentralize liquid culture and DST.

The protocol for diagnostic algorithm should be revised for MDR-TB and TB/HIV co-infection. Drug resistant TB and for that matter antimicrobial resistance in general require sustainable support from media to educate the general public and greater political commitment.

Frank Bonsu MB ChB MPH FGCP
National Tuberculosis Control programme
Ghana Health Service
Accra, Ghana

E-mail: fabonsu@gmail.com
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