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EDITORIAL

Drug-resistant tuberculosis: how are we doing?

IN 1972, Annik Rouillon pointed out that 'to default is the natural reaction of normal, sensible people. The person who continues to swallow drugs or have injections with complete regularity in the absence of encouragement and help from others is the abnormal one.'[1]

Six years later, Grzybowski and Enarson compared poor treatment with no treatment and found, presciently and paradoxically, that poor treatment is worse than no treatment.[2] The 5-year survival rate in their no treatment group, while perhaps influenced by different times, different nutrition, different support, however, can still, however, serve as a surrogate control group to compare to current treatment regimens in gauging efficacy. That comparison with treatment for multidrug-resistant tuberculosis (MDR-TB) is not good news!

In this issue of the *Journal*, Chiang et al. compare the Grzybowski no treatment data[2] with average current outcomes of MDR-TB treatment in World Health Organization (WHO) Global Tuberculosis Control Reports, and find the overall proportion of treatment success was 48%—recognizing, of course, that some excellent MDR treatment results do exist.[3] But in many countries these results are still alarmingly close to the no treatment patients reported by Grzybowski.

Chiang et al. put the blame for these dismal results squarely on the length of the WHO-recommended regimen (total duration at least 20 months),[3] and point out that in some studies 20–50% of MDR patients are severely challenged by adverse drug effects, countering Rouillon's 1972 admonition about treatment support being key.[1]

The solution, according to Chiang et al., is to shorten the regimen, as has been done with the 'Bangladesh Regimen', in appropriate patients to a total duration of 9 months. Results have been excellent (87.9% and 86.1% treatment success), and reasonable even in patients with quinolone resistance.[3] These regimens are promising enough in appropriate patients that a new study pitting the short regimen against the WHO-endorsed longer course regimen is under way, with results due in 2016 (Stream Study).

Chiang et al. argue, however, that we cannot wait for this confirmation, and that we need to urgently adopt a short regimen in appropriate patients under proper conditions. We strongly agree with them. Furthermore, with a simple algorithm utilizing Xpert® MTB/RIF and the short MDR regimen, the WHO has endorsed its use in projects that adhere to approval by a national ethics board; delivery of treatment under operational research conditions in accordance with international standards; and monitoring of the program by an independent monitoring board.[3]

The TB community has often been slow to react to developments, citing 'the need for more data', but events sometimes drive reaction. The short regimen requires a critical component, the fluoroquinolone. But, as opposed to a time when the TB community exclusively had its own drugs, with other disciplines afraid to use them, we now share several drug classes, and therefore drug resistance, as in quinolones, which is increasing in several countries.

Chiang et al. essentially point out that the train has left the station with an effective, short regimen for MDR-TB. It is past time to get it into appropriate patients, and, hopefully, make MDR-TB management more effective.

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