DOTS in Aral Sea area

Sir—Reviews done by Médecins Sans Frontières (MSF) of its efforts to implement tuberculosis treatment in western Uzbekistan and northern Turkmenistan concurs with the views expressed by Dermot Maher and colleagues (Aug 4, p 421)[1] that putting patients with tuberculosis in the centre of their own care is central to the success of directly observed treatment short course (DOTS) for tuberculosis.

The rapidly shrinking Aral Sea in Central Asia, resulting in loss of crop yield and fishing, has impinged negatively on the socioeconomic status of the population. Moreover, the effect on health has been substantial, and the return of tuberculosis is pathognomonic of this trend. With an incidence of tuberculosis of 100–150 per 100 000 population, by MSF's estimates, this disease is a problem in districts straddling the former Aral Sea coast on the scale of that in countries in WHO's high burden league, such as Russia and China.[2] MSF began working in the region 3 years ago, rolling out DOTS among a target population of 3·8 million spread over huge, largely desert expanses. To date, more than 6000 treatment episodes have been registered.

MSF has helped to equip 19 diagnostic laboratories for smearing and microscopy, to train and support health care workers to use observed treatment in 13 inpatient facilities and hundreds of ambulatory clinics, to computerise the information system for case registration and reporting, and to supply drugs and reagents at no charge to the patients and the local service. Through effective advocacy, it has helped procure external funding for medications in Uzbekistan and achieve commitment from the government of the two countries to establish national policies on tuberculosis in the near future.

Whereas the mainstay of observation in our programmes remains the health-care worker, the internal reviews noted that distances between the patients and the health-care workers continue to present a formidable obstacle, making regular observation of doses, even three times weekly, difficult to achieve.

Pete Moore[3] has reiterated the need to reorient the role of health workers in DOTS, from one of passive observer to that of counsellor. However, we believe that he presents insufficient information on who the alternative observer could be. There is growing acknowledgment through the official stand of key international authorities on tuberculosis[4,5] that, although the observation component is important, bringing the observer closer to the patient is more crucial than mandating a professional to watch patients swallow drugs.

In the Aral Sea area, patients' preference for observers, be it state care worker, Red Crescent nurse, family member, employer, or neighbourhood committee members, will become a priority to improve adherence to the observed methods. Health-care workers' role would be to provide backup support, to train and regularly supervise observers, and to manage arising difficulties, such as adverse reactions to medication.

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Paid plasma donation and risk of blood-borne diseases in blood-product recipients

Sir—Since the 1970s, outbreaks of blood-borne diseases in plasmapheresis centres have been described.[1] These outbreaks probably arose because of practices associated with human blood injection, reuse of material, and sharing of syringes or intravenous lines during apheresis. These procedures have made commercial plasmapheresis centres a high-risk environment for transmission and could explain the high rates of seroconversion for blood-borne diseases reported among paid donors.[2]

Plasma obtained through plasmapheresis from paid donors carries a higher risk of blood-borne disease than that from unpaid donors.[3] The argument has been that people who need the money from selling their plasma have risk behaviours for these infections. In more-developed countries, however, injecting drug users or promiscuous people will be excluded by law from being plasma donors. The high prevalence of different markers for blood-borne diseases in end products of plasma recorded since 1973 cannot be explained by inclusion of high-risk donors from more-developed countries.[4,5] By contrast, high prevalence of blood-borne diseases in paid donors in less-developed countries has been attributed to iatrogenic infection because of unsanitary practices in the plasmapheresis centres during the aphapheresis.[2]

Plasma-donors in poor countries are unlikely to be injecting drug users; they are frequently poor people that find selling plasma a way to earn or supplement their earnings. Viral RNA and high titres of specific antibodies for blood-borne diseases in commercial plasma-derivative products, therefore, probably reflects the fact that the main source of plasma used by the industry is from less-developed countries.[4,5]

In Mexico in 1986, there was an outbreak of HIV-1 infection among paid donors.[2] We recovered frozen plasma from nine of these HIV-1-positive paid donors and measured antibodies to hepatitis C virus. No donor was an injecting drug user or reported homosexual contacts. Seven proved positive for hepatitis C infection. The paid donors are probably, therefore, infected with multiple blood-borne diseases during plasmapheresis. Paid plasma donors in less-developed countries such as Mexico, India, and China are infected with HIV-1 and hepatitis C or B virus.[2]

Plasma obtained from less-developed countries has been trafficked through station countries, where brokers relabel its source and re-export it to the fractionation industry, as happened in Canada and Switzerland and, later, with Austria and South Africa. Thus, commercial plasmapheresis in less-developed countries puts donors and recipients at risk by contamination of the plasma pool by blood-borne pathogens.

Recipients of products derived from plasma should have the right to know the country of origin of the plasma; this information should appear in the label. Patients with hepatitis C should be asked about history of plasma selling or of having received plasma-derivative products. Many patients with unknown risk factors for hepatitis C virus can probably be placed in this risk group, as was proposed a decade ago for HIV.

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