

Letter to the Editor

Blood group testing in developing countries: an ignored concern

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We read the paper entitled “Knowledge of health care-associated infections among Georgian obstetricians and gynecologists” by Butsashvili *et al.* published in the May 2010 issue with great interest [1]. In the article, the authors have valiantly evaluated the knowledge of health care-associated infections and adherence to infection control precautions for prevention of infection among health care workers and patients in the obstetrics and gynecological setting. However, we would like to make the following points:

We would like to draw the kind attention of readers to an ignored, but common practice of blood group testing in developing countries, which is precipitating small but definite risk of transmitting blood-borne infections, especially infection by Hepatitis B virus.

In the primary health setting, blood group testing of a large number of pregnant mothers is done on daily basis as part of the routine antenatal check-up. In the majority of the primary health care centers all over India, the testing is done on a large wooden board or ceramic tile rather than using a separate glass slide for each patient. In this procedure, the pricked fingertip of the patient is touched to the wooden board/ceramic tile at three places in a row, then anti-A, anti-B and anti-D sera are added respectively. The same procedure is followed in the next patient in the second row just beneath the first. When the whole board/tile is used up, it is supposed to be washed with soap and water thoroughly and then used again.

We raise our concern regarding the use of this non-disposable wooden board/ceramic tile, as there is a high chance that it may be washed casually and even without the use of soap. In this situation, after

being given a micro-trauma to the fingertip in the form of a needle prick, this traumatized area is touching a potentially contaminated surface. Some blood-borne microorganisms such as HIV, HBsAg, HCV, plasmodium malaria, Lassa virus and Ebola virus can be transmitted. Hepatitis B, which has the highest transmissibility, may get transmitted via this small skin breach very easily [2].

Hepatitis B virus is a DNA virus from the hepadenavirus family with a remarkably compact genomic structure. It is a well-known fact that many cases of hepatitis B infection result from less apparent modes of non-percutaneous or covert percutaneous transmission [3]. Hepatitis B virus is relatively resistant to disinfection when compared to other parenterally transmitted viruses. Treatment with hypochloride and 2% glutaraldehyde for 10 minutes will inactivate the virus 100,000 fold. It is known that very small quantities of blood could transmit hepatitis B infection. The virus will gain entry through cuts and abrasions and mucus membranes. Biting and scratching are also important in transmission [3].

Poor knowledge of universal precautions and the modes of parental transmission of blood-borne pathogens is chiefly responsible for non adherence of these in the developing world [4]. Through this letter we would like to increase awareness among all readers, so that they may encourage the practice of using disposable glass slides while testing for blood groups over the routine of using non-disposable surfaces such as wooden boards/ceramic tiles in their health care settings.

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