**Drug Shortage in Pediatric DOTS**

A major crisis in the RNTCP program seems imminent. It is common knowledge that India bears the largest burden of TB in the world with two people dying every three minutes despite the country spending Rs 300 crore annually to detect and treat TB. Since 1993 when the RNTCP launched the DOTS program, tuberculosis mortality has dropped from 28% to 7%. But all this may be reduced to rubble due to an antiquated drug procurement system and careless government departments. It appears that the country is on the brink of a major drug stock out especially for pediatric anti-tubercular drugs. Children infected with tuberculosis are being turned away from DOTS centers. And the patients cannot approach the private sector since the regimens and schedules are different, usually an alternate day program. The tendering for the drugs which had to be done in 2011 was not done. As a consequence, drugs for 2010-11, 2011-12 and 2012-13 have not been bought. The Joint Monitoring Mission of the STOP TB program at the WHO had warned the Government of an impending stock out but yet measures were not taken in time. The consequence is glaringly obvious – a rise in both tuberculosis and drug resistant tuberculosis. Incensed, the National Human Rights Commission has issued notice to the Union Health and Family Welfare Secretary and Health Secretaries of all States. The time has come to overhaul the outdated drug procurement system and relook at the way health is being managed at the national level (The Hindu 19 June 2013, BMJ 2013;347:f4301).

**Medical Aid for Uttarakhand**

An acute shortage of essential medicines is one of the problems being combated in the flood ravaged areas of Uttarakhand. Incessant rain and disconnected roads have meant that medicine worth lakhs are lying dumped unable to reach the victims. The task of distributing medicines to the affected parts of Uttarakhand is currently going on with the help of Central Medical Store Depot based in Dehradun. Dr Panthari, President, Uttarakhand Aushadhi Vyayasayi Mahasangh, says “We have stocked medicines at Srinagar and Rudrapryag to be sent to remote areas of the worst hit Guptakashi, Gauchar and Joshimath areas of Chamoli District with the relief material but the task seems to be difficult with each passing day because crucial road links have been breached.” Eight trucks of medicines on a daily basis are being sent to the affected districts of Uttarakhand like Rudraprayag, Chamoli and Uttarkashi (http://www.pharmabiz.com, 3 July 2013).

**The Golden Hour**

Fifty percent of fatalities could be averted in road traffic accident victims if medical attention is provided in the first golden hour after injury. The recent global report on road safety by the WHO notes that only 11%-49% seriously injured victims are rushed to hospital by ambulances in India, whereas 70% of crash victims make it to emergency facilities in China and over 75% in Brazil. Recognizing this, the government is starting a pilot project. In the next couple of months, all victims of road accidents occurring on Gurgaon-Jaipur stretch of NH-8 would get free medical treatment, including hospitalization, for first 48 hours after any crash. As per the plan, Centre will provide Rs 20 crore for the cashless project. There would be a maximum cap of Rs 30,000 for free treatment of accident victims. Local volunteers will be trained as first responders in AIIMS, Delhi. They will inform a control room which will be linked to the ambulance service. The Government has also recently adopted a national Ambulance Code which stipulates minimum provisions and guidelines for ambulances in keeping with global best practices. It is hoped that if this project is successful, it will be replicated in the other National Highways network (The Hindu 22, June 2013, The Times of India 26 March 2013).

**Rudimentary Liver from Human Stem Cells**

Japanese scientists have developed a rudimentary liver which functions in a mouse from human stem cells. Takamori Takebe of the Yokohama City University began with induced pluripotent stem cells (iPS cells). They then coaxed these cells to express liver genes. Then they added endothelial cells and mesenchymal stem cells and noticed that they began to self-organize into three-dimensional structures. In the current work, Takebe transplanted buds surgically at sites in the cranium or the abdomen. In future work, Takebe hopes to create liver buds small enough to be delivered intravenously in mice and, eventually, in humans. He also hopes to transplant the buds to the liver itself, where he hopes they will form bile ducts. The transplanted animals need to be observed for several more months to see whether the cells begin to degenerate or form tumors. This is the first time that people have made a solid organ using induced pluripotent stem cells but testing whether liver buds could help actual patients is years away (Nature 3 July 2013).

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