

## **Greener Hospitals – Cleaner Environment**

It has recently been reported that the Environment Ministry will take action to shutdown all private hospitals in the country, if they fail to obtain an Environment Protection Licence before December 31 this year. This move comes because of the widespread practice of illegally disposing of solid and liquid waste from hospitals, clinics and medical laboratories, despite regulations.

Hospitals consume a significant amount of water, ranging from 400 to 1200 liters per day per bed, much of which is disposed of into the municipal network collection system or into cesspits, without adequate treatment. The result is the contamination of the municipal sewers leading to ground and surface water pollution. Although some of this waste is simply washing water not problematic, once mixed with more polluted water, such as that from operating theatres, laboratories and x-ray units, the entire amount is polluted with pathogens, toxic compounds and heavy metals.

Untreated wastewater from hospitals is rich in micro-organisms, including pathogenic species, which pose serious health risks, such as diarrhoea and worm infections. They may contain medicines and antibiotics, toxic chemicals, x-ray fluids, mercury from dental processes and other heavy metals, as well as blood and other body fluids. All this makes an unhealthy and unpleasant cocktail that is difficult to treat.

Until recently hospitals did not even come under the existing regulatory framework of the National Environmental Act of Sri Lanka and were therefore not monitored. Instead hospitals, clinics and medical laboratories were responsible for voluntary monitoring and implementation of pollution prevention activities. To address this there is a draft national policy and national guidelines for Health-Care Waste Management in Sri Lanka. The recommendation made in these guidelines is for the treatment of effluents by Chlorination followed by disposal to a septic tank and soak-away pit or to sewerage - but this is not enough. .

Several recommendations exist for hospitals to reduce, recycle and effectively dispose of their waste. These include reducing the use of mercury by identifying the processes in which it is used and introducing alternatives. More than 100 dental clinics in Colombo will participate in a “Go Green” project aiming for zero environmental effect from dental dangerous waste containing mercury. Amalgam separators will soon be installed at the clinics collecting 99% of the amalgam which contains mercury, in a project led by Sweden Recycling AB and funded by the Swedish International Development Agency (SIDA).

Some hospitals are actively seeking effective strategies to reduce waste. For example the Kurunegala Teaching Hospital has teamed up with the International Water Management Institute (IWMI) and the National Cleaner Production Centre (NCPC) in a project funded by the European Union. They are also working with the NWSDB on a project to provide a new improved treatment plant for the residual waste. Similarly Elpitiya hospital is getting being supported by AmeriCares to replace their dysfunctional wastewater treatment plant, as part of a major post-tsunami project to improve facilities at the hospital. Other government hospitals with treatment systems include Maharagama Cancer Hospital, Galle General Hospital, Batticaloa Hospital and Pannipitiya Hospital. Some of these treatment plants are in disrepair but the NWSDB is working closely with them to improve functioning, operation and maintenance.

Such moves are not easy – hospitals, especially government hospitals, have financial constraints, and their priority is to provide medical care to large numbers of people. Reducing waste and recycling can however have positive impacts both on the environment and funds, and may go some way towards financing appropriate treatment. If these actions are not taken then the hospitals may find themselves with even bigger bills, as they try to treat patients who are suffering the effects of their pollution.