Reducing Waste from Operating Theatres  
Royal Melbourne Hospital

GGHH Agenda Goals
- Leadership
- Waste
- Energy
- Water

Hospital Goal
- Reduce waste to landfill
- Reduce carbon footprint

Progress Achieved
- Financial benefits – a reduction of clinical waste has resulted in clinical waste cost savings of at least $230,000 over the baseline year of 2012-13
- Environmental benefit – since the baseline year a reduction of 187 tons of clinical waste has been achieved
- Human health benefit – Clinical waste is shredded and disinfected and then disposed of in prescribed landfill. By reducing clinical waste and increasing recycling a reduction in chemical use and landfill is achieved. This reduces greenhouse gas emissions and pollution.

The Issue
Much of the equipment used in operating theatres is disposable for reasons of sterility, this leads to a great deal of waste. Much of the waste was put into clinical waste bins costing 5.3 times more to dispose of.

Sustainability Strategy Implemented
The Perioperative Environmental & Sustainability Group at the Royal Melbourne Hospital chose to focus on reducing waste generated from their department. Members of the group were called ‘Green Champions’ and pledged to spread the word amongst their colleagues.

Implementation process
We decided to start small, beginning with Kimguard (sterile wrap) bins that were placed around the department. Green Champions encouraged everyone to dispose of Kimguard in these bins. This was followed by the introduction of cardboard and paper recycling bins, comingled glass and plastic bins, aluminium bins, battery bins and PVC bins. Recently more bins were added for recycling of the sterile towels used for drying hands.
Clinical waste bags were not opened until the end of each operation to discourage people from putting general waste in clinical waste bins.

Staff was re-educated on which items need to go into sharps disposal bins. Polystyrene cups in the tearoom were replaced with paper cups. Companies delivering items in polystyrene packaging were asked to remove the packaging after delivery. Contents of custom packs were changed to remove items regularly discarded. Staff was encouraged to shut down computers and turn off lights at the end of the day.

**Tracking Progress**

The hospital Environment and Sustainability Officer implemented audits covering the cost of waste and the quantity of clinical waste. There were dramatic reductions. Audits are done on clinical waste to check that general waste does not go into clinical waste bins.

**Challenges and lessons learned**

Staff felt initially that they were already too busy and would not have time for segregating waste to recycle but by introducing one type of recycling at a time and using ‘Green Champions’ to encourage behavior change, recycling became second nature, even during major trauma cases.

Special exemptions were received from the Environment Protection Authority regarding the classification of clinical waste to allow waste with minimal amounts of blood and body fluid to go into general waste.

**Next Steps**

The next goal is to begin metal recycling of single use instruments. An education session has been organised to reinforce the sustainability message. New staff will have a session on sustainability as part of their orientation. Companies continue to be encouraged to remove the packaging they deliver.

**Demographic information**

Melbourne Health is Victoria's second largest public health service. We provide comprehensive acute, sub-acute, general, specialist medical and mental health services through both inpatient and community based facilities through the following services: The Royal Melbourne Hospital – City Campus, The Royal Melbourne Hospital – Royal Park Campus, North Western Mental Health, North West Dialysis Service and Victorian Infectious Diseases Reference Laboratory.

Melbourne Health provides services to the culturally and linguistically diverse communities of northern and western metropolitan Melbourne, as well as providing general and specialist services to regional and rural Victorians as a tertiary referral service.

Employing over 8,900 staff across our services, Melbourne Health manages over 1,400 beds. We provide one of the two adult major trauma services to the state of Victoria.
In 2014/15, The Royal Melbourne Hospital provided over 85,000 episodes of care to patients. There were 66,155 emergency presentations, 13,663 elective patients admitted and 173,516 outpatient appointments made.

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