

Recycling in Theatres Inkosi Albert Luthuli Central Hospital- South Africa

GGHH Agenda Goals

* ELECTRICITY

* WATER

* WASTE

Hospital Goal

- Reduce-Reuse-Recycle
- Reduce waste to landfill
- Waste separation at source



The Issue

We joined the GGHH network in 2016 and started our *Reduce-Reuse-Recycle* campaign in 2017. After implementing paper recycling throughout the hospital, we specifically implemented *recycling at source* in July 2017. However, due to infection control concerns and long-standing, embedded work practices in theatres, recycling at the theatre complex was not initially embraced.

Barriers encountered:

- There was a belief that it was not permitted to recycle anything that had gone through the doors of the theatre and that clean blue wrap for instruments could not be recycled.

The GGHH Committee at IALCH believed that a simple mind shift and change to basic work practices would allow for most of the uncontaminated waste to be routed out of the set-up-rooms and theatres, into recycling.

Sustainability Strategy Implemented

Engagement with theatre management, Infection Prevention Control (IPC) and other stake holders took place to learn more about the barriers to recycling at theatres and to agree on a workable recycling solution for all. An understanding of the current process was gained.

Prior to implementation: In each set-up room, packaging from consumables and blue wrap was disposed of in general waste bins. Inside the theatre itself, packaging from the medication area was kept separate from contaminated waste and was disposed of in a roundabout trolley lined with a clear bag which was then emptied into general waste bins outside the theatre door.

Simple changes agreed to:

- Items would be removed from their packaging inside the set-up room and the packaging disposed of in a roundabout trolley lined with a clear plastic bag. Before proceeding into theatre, the liner would be removed from the roundabout and the contents emptied into the recycling box outside the theatre doors. The liner would then be put back on the roundabout trolley. Blue wrap would also be routed to the recycling box from the set-up room.

- Inside the theatre itself, paper and plastic that had not been in contact with the patient, would be disposed of in the same roundabout trolley as per normal procedure. After the procedure, the bag would be tied and disposed of in the recycling box outside the theatre doors.



Lined Roundabout Trolley

Implementation process

Engagement

An inspection of theatres took place by Clinical Care Manager, IPC Manager, Theatre Management, Waste Service Provider, Cleaning Management and Facilities Management to determine what the current disposal practices were, what type of waste was generated that could be recycled and where it was generated. The group also identified where the recycling stations could be located for each theatre to make recycling simple and accessible.

Initial Implementation

Waste Manager sourced cardboard recycling boxes from an external recycling company. Most were free, some had to be paid for. Signage was made for every theatre set-up room to indicate what could be recycled and what could not. The poster displayed an arrow “Recycle Here” and the unlined, cardboard box was placed below it.

- Challenge 1: there was insufficient space in the set-up rooms for the recycling boxes and the boxes ended up being moved around and then pushed out into the passages.
- Solution: Facilities agreed to relocate the boxes into the main passage, one outside each set up room door with a recycling sign above it.



Theatre Recycling Box & Poster

Clearing of Boxes

The clearing of the boxes from the 16 theatres in the main theatre complex went through 3 trials. Initially clearing was to be done throughout the day by the cleaning team who were responsible for emptying the general waste bins. The unlined recycling boxes were to be taken to the waste room outside the theatre

complex and tipped into large bins specifically stationed there for recycled waste, to be collected by the Waste team at identified times throughout the day.

- **Challenge 2:** Cleaners didn't have capacity to take one box at a time to the external Waste Room and ended up leaving the recycling to pile up or mixing the recycling waste with the general waste to make space in the boxes.
- **Solution:** Plastic liners had to be placed inside each recycling box. The cleaner would then remove the recycling contents with the liner and be able to transport it easier and separate from other waste to the external waste room. The Recycling bags would be collected by the waste team and sorted at Waste Department. The plastic liners would be re-used in the Waste Dept for shredded paper transported in trailers to the Recycler.
- **Challenge 3:** After this change, Recycling boxes were still being left to overflowing. Theatre management complained that the passages looked untidy due to the overflowing boxes outside each set up room.
- **Solution:** Waste Dept assigned one staff member to focus on clearing recycling boxes in the hospital. He attends at theatre complex 3 times per day or on demand to empty the recycling boxes while the rest of the hospital locations would log a call for collection. He wheels his large waste trolley into the entrance of theatre complex, in front of the red line, and then loads all the bags from the recycling boxes onto the trolley. No boxes are removed from the theatre complex which assist with cross contamination prevention. As a result, plastic liners in the boxes are still a requirement. These liners are re-used at the waste dept to hold shredded paper that is transported off site.
- **Challenge 4:** Recycling boxes in the main passages remained unsightly and complaints were lodged with Facilities Management.
- **Solution:** Recycling boxes were moved from outside each set up room door to an area around the corner, 4 boxes grouped together for 4 theatres. Despite the increased distance, the boxes are used.

Progress Achieved

- **Environmental benefit**
 - Less waste to landfill.
- **Other benefits of the theatre recycling program**
 - Increased awareness amongst theatre staff on its responsibility to recycle and reduce its impact on the environment.
- **Financial aspects**
 - Financial benefit has not been realised yet. We break even on recycling rebates. Rebates are set off against costs of labour and boxes. Additional costs are absorbed by the waste service provider.



Recycling boxes positioned on each corner of a theatre

Tracking Progress

- We have gone from zero to 20 large bags of recycling from theatres, average per day.
- We track recycling volumes for the hospital in general on a shared template, updated monthly.
- We tracked satisfaction levels through engagement, ad-hoc feedback and through Collateral Meetings with the Peri Op Domain held monthly.

The decision-making process

Facilities management and waste management drove the decision-making process. Decisions were made in conjunction with theatre management and IPC. Meetings were held ad-hoc and were generally one-on-one engagements.

Initial Staff training

- Once the boxes were placed, training sessions were held with theatre staff over 2 weeks to explain the concept of recycling and how it would take place at theatres. This training was conducted by the Waste Department and Facilities Management in consultation with theatre management.
- Training of theatre doctors took place c/o the Clinical Care Manager who ensured that all doctors received information on the recycling program together with copies of the posters and communication material.

Follow Up Training

Theatre management ensure that all new staff are briefed on the recycling requirements at theatre and waste department make themselves available to do ad-hoc training when required. At IALCH, waste in service sessions are an ongoing activity and GGHH is incorporated into these sessions.

Period of Implementation

3 months

Next Steps

- Repeat in-service training to all theatre staff.
- Hold in-service with cleaning staff at theatres.
- Re-visit progress on recycling practices in Trauma Theatres.
- Monitor and track progress specifically on Theatre volumes.

Demographic information

Inkosi Albert Luthuli Central Hospital is a flagship tertiary and quaternary hospital, that provides accessible, specialised, quality patient care using cutting edge technology and research. It is an acute and specialised referral hospital, servicing the vast KZN region and half of the Eastern Cape. It has a capacity of 846 beds and boasts the country's only dedicated 46-bed burns unit. In excess of 2,500 staff are employed at IALCH which excludes the private partner support staff. It is, in fact, the first hospital in South Africa to adopt a public/private partnership in the delivery of its services.

Quotes:

Waste Manager, Sean Hagan:

Recycling at theatres has proven to be a win as there's now 20 bags of paper and plastic being collected from theatres daily that would have previously gone to landfill. This is progress 😊

Theatre Ward Manager, Sr Salome Pillay:

The recycling initiative at theatres has raised awareness amongst the staff on the importance of recycling. Great progress has been noted since the start of the initiative. Re-cycling is finally being done right.

Sr Zarina Naidoo, IPC Nurse:

Recycling in theatres is working well. People are much more aware of recycling their waste as opposed to before when everything went into general waste."

Links

<http://www.ialch.co.za/>

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