How much gold is in garbage?
An operating theatre waste segregation and recycling initiative

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HRT 1520 Innovations Workshops and Awards
19–20 November 2015, Sydney
How much gold is in garbage?
An operating theatre waste segregation and recycling initiative

Key problem
• no waste segregation or recycling existent in central operating theatre (OT) complex
• 7 to 1 cost difference for clinical and general waste disposal

Aim of initiative
• to reduce amount of clinical waste
• to reduce cost for disposing of waste

Baseline data
• 100% OT waste disposed of as clinical waste

Changes implemented
• OT waste segregation and recycling
• staff education

Outcomes
• 82% reduction of clinical waste generated in the OT
• 80% cost reduction for disposal of OT waste

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Key Problem

• no waste segregation or recycling existent in central operating theatre complex
• all waste disposed of as clinical waste
• around 80% of clinical hospital waste could be disposed of as general waste [1]
• OT’s produce up to 30% of total daily hospital waste [2]
• 7 to 1 cost difference for clinical and general waste disposal at PAH

Aim of this initiative

• to introduce waste segregation and recycling to the operating theatre complex at PAH

  – reduce amount of clinical waste
  – reduce cost for disposing of waste
  – reduce the carbon footprint
Baseline Data

• established baseline
• staff education
• introduction of basic waste segregation (as per PAH waste management guidelines) into general waste and clinical waste
• introduction of recycling (cardboard, Kimguard, hard clean plastic separated from general waste)
• each period followed by a 4 week OT waste audit
Implementation

• Success
  – enthusiastic and passionate theatre staff
  – self driven, dedicated
  – determination never to give up
  – minimal financial input

• Challenges
  – increased work load
  – storage capacity
  – auditing system
  – waste tracking system
  – waste contractor
Outcomes

- **Clinical waste**
- **General waste**
- **Total waste in kg**

<table>
<thead>
<tr>
<th>Date</th>
<th>Clinical Waste</th>
<th>General Waste</th>
<th>Total Waste in kg</th>
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<td>0</td>
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Changing ratio of waste types

- **baseline**
  - clinical waste: 100%
- **segregation**
  - clinical waste: 30%
  - general waste: 40%
- **segregation and recycling**
  - recyclable waste: 20%
  - clinical waste: 20%
  - general waste: 40%
Changing cost structure

- Baseline: Primarily clinical waste with a small percentage of general waste.
- Segregation: More clinical waste, with a significant increase in general waste.
- Segregation and Recycling: Reduced clinical waste, with an increase in general waste and recycling efforts.
Lessons learnt

- perseverance
- enthusiasm
- motivation
- staff will pay attention to what leaders pay attention to

- “Lean is about eliminating the waste and improving flow, to improve the proportion of good costs to bad.” [3]

3. Jones D, Mitchell A. Lean thinking for the NHS. The NHS Confederation
Contact for this Initiative

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