Reduction of Inappropriate Waste Disposal in the Cath Lab

Dr. Jack Laffan

Cork University Hospital, Cork, Ireland

Cardiac catheterisation laboratories (cath labs) utilise large volumes of single-use products. Many of these products are prepared in a sterile manner and become contaminated with blood or other bodily contact following use. Long established clinical waste bins are used to handle this waste. Collection and disposal of clinical waste is governed by EU legislation ⁽¹⁾. Disposal of clinical waste costs between 4 and 10 times as much to dispose of than general waste for landfill ⁽²⁾. Most products used in cath labs come in clean, recyclable cardboard boxes; often containing recyclable plastic wrapping. Many cath labs do not operate a specific recycling programme for appropriate material. Previous studies have shown a large volume of potentially recyclable waste is discarded in clinical waste bags; and a significant reduction in waste generated in cath labs and operating theatres by dedicated instituting recycling programmes (2,3,4).



OBJECTIVES

We wished to establish a dedicated recycling programme and determine the environmental and financial gains.

METHODS

Specific recycling bins were installed in 2 cardiac cath labs in a large tertiary hospital. All appropriate recyclable waste material was discarded in these bins. Care was taken not to contaminate clean packaging with blood as this would then be required to be discarded in the clinical waste bins. Weight of recyclable waste was recorded per bin at the end of a week.

RESULTS

The cath labs with the new bins operated 56 cases over a week (38 in 1 lab, 18 in the other). Waste recovered was 21kg (16kg in one bin, 5kg in the other). Part of the reason for the discrepancy is that the cath lab with the smaller volume primarily performed coronary angiography, while most cardiac intervention (PCI) was performed in the busier cath lab. Waste recovered per procedure was not recorded but previous studies have found a higher volume for PCI ⁽⁴⁾.



CONCLUSIONS

Large volumes of potentially recyclable materials are inappropriately discarded in clinical waste bins. Institution of a dedicated recycling programme can significantly reduce inappropriate waste disposal, leading to environmental and financial gains.

REFERENCES

1. DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives. http://data.europa.eu/eli/dir/2008/98/oj

2. Sort your waste! An audit on the use of clinical waste bins and its implications. H Runcie. Future Healthc J October 2018. DOI: https://doi.org/10.7861/futurehosp.5-3-203

3. <u>Best Practice Guide on Healthcare Risk</u> Waste efficiency in Theatres (PDF, 1.73MB, <u>4 pages)</u>

4. Recyclable Waste in the Cardiac Catheterization Laboratory: The Potential to Curb the Carbon Footprint. H Doshi *et al.* JACC Cardiovasc Interv. 2023 Mar 27;16(6):737-738. doi: 10.1016/j.jcin.2023.01.367.