



Sustainability in the Breast Operating Theatre: Promoting a Multidisciplinary Sustainability strategy across multiple centres

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Abstract

Introduction: Operating theatres in hospitals are critical areas that generate a significant amount of waste, including single-use items, which have a significant effect on the NHS carbon footprint. The use of appropriate surgical attire, including theatre hats, plays a vital role in maintaining hygiene and promoting a sterile environment within operating theatres. The introduction of the Intercollegiate Green Theatre Checklist highlighted several ways to improve sustainability in a theatre setting.

Methods: A multicentre audit across six hospitals in NHS region was conducted. Each theatre where breast surgery was performed recorded the number of reusable and disposable hats compared to disposable ones.

Results: A total of six hospitals within the Northwest Deanery NHS trusts responded accessing a total of 57 theatre staff. In total 19% of theatre staff (n= 11/57) use a reusable hat ranging from 10% (n = 1/10) through to 20% (n = 2 / 10, table 1). An assessment of cost-effectiveness was additionally undertaken, after the initial cost purchasing hats an annual saving of roughly £20,000 can be made by staff using reusable hats.

Conclusion: Implementation of reusable hats in surgical theatres presents a promising opportunity to improve sustainability in healthcare. The evidence suggests that reusable hats can effectively reduce waste generation, offer potential cost savings, and maintain appropriate hygiene levels. However, successful implementation requires addressing challenges, ensuring user acceptance, and establishing robust protocols for cleaning and maintenance.

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Table 1. Number of theatre staff in an individual theatre using a reusable or disposable hat.

Hospital	Reusable Hat used	Disposable Hat used	Total	Sustainable (%)
Blackpool	2	8	10	20%
Wigan	2	9	11	18%
Blackburn	3	10	13	23%
Bolton	2	10	12	17%
UHSM North	1	9	10	10%
Manchester	1	8	9	11%

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