

“Beyond the Vin:A deep dive into clinical waste”

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Objective: This review aims to identify components of oral health clinical waste, evaluate associated management challenges, and establish connections between the Four R's (Reduce, Reuse, Recycle, Rethink) and clinical waste management

Methods: Initially, Google Scholar, CDC, IPAC Canada, and WHO websites were utilized to obtain background information on the topic and to develop keywords. Then, a comprehensive electric data review of the literature was conducted to identify the most up-to-date information on oral health clinical waste using the following databases including PubMed and DOSS. All cited articles were published within the past 10 years.

Results: A total of 20 articles met the criteria; they consisted of: 2 systemic reviews, 3 scoping reviews, 1 survey study, 1 cross-sectional study, and 13 review articles.

The literature revealed that oral health offices should consider using the 4Rs (Reduce, Reuse, Recycle, and Rethink) while maintaining IPAC standards.

Discussion: Clinical waste reduction can be accomplished by reducing the use of plastic and other non-recyclable products, adopting digital radiology, partnering with recycling programs, and rethinking about adopting eco-friendly products and technologies.

Conclusion: More research is needed to understand and develop sustainable practices for managing clinical waste's impact on the ecosystem. Future studies should focus on finding alternative waste management strategies, evaluating current disposal methods' environmental impact, and exploring innovative technologies to reduce the ecological footprint.