

An audit assessing regulatory compliance of businesses that perform colonic lavage

Sinead A Flanigan^{a,c}, Toni J Cains^a, Leigh N McIndoe^a and Mark J Ferson^{a,b}

^a Public Health Unit, South Eastern Sydney Local Health District, NSW, Australia

^b School of Population Health, UNSW Sydney, Australia

^c Corresponding author: sinead.flanigan@health.nsw.gov.au

Article history

Publication date: 5 July 2023

Citation: Flanigan SA, Cains TJ,

McIndoe LN, Ferson MJ. An audit assessing regulatory compliance of businesses that

perform colonic lavage. *Public Health Res Pract.* 2023; Vol.33(2):e32232210.

First published 28 July 2022. <https://doi.org/10.17061/phrp32232210>

Introduction

Colonic lavage involves cleansing the entire colon from the rectum to the caecum by administering water or herbal solutions.^{1,2} A single session generally lasts 30–45 minutes and uses 18–20 litres of water.²

Despite the popularity of colonic lavage, there is limited evidence to support any benefits, but there are reports of serious adverse outcomes, including infection and traumatic injury.

If equipment is not sterile and strict hygienic procedures are not followed, there is potential for transmission of enteric infections, such as amoebiasis and hepatitis A, and of blood-borne viruses such as hepatitis B and C and HIV.^{1,2,3} Perforation of the bowel or other organs has also been reported, caused by high water pressure.²

This paper outlines the findings of the first compliance audit of colonic lavage businesses undertaken in New South Wales (NSW), Australia.

Methods

A standardised audit tool was developed following requirements of the *NSW Public Health Regulation 2012* ('the Regulation'), best practice advice outlined in the NSW Health fact sheet on colonic lavage hygiene standards¹, and the State of Victoria's infection prevention and control guidelines.²

The audit tool included a checklist covering seven main areas: business details, colonic lavage equipment, plumbing/sewage, premises and procedure (infection control, cleaning, and staff personal protective equipment), patient records and staff training.

The audit tool was used to assess and report on compliance of all commercially operated colonic lavage premises within South Eastern Sydney Local Health District (SESLHD). All colonic lavage businesses are required to be registered with their local government authority under the *Public Health Act 2010*. A list of all the registered businesses was requested from the relevant councils. An online search was undertaken for unregistered colonic lavage businesses, using a number of search terms: 'colonic lavage', 'colonic irrigation', 'colonic'. No unregistered businesses were identified.

A sample was collected from the water storage tank, of the colonic lavage machines at each of the businesses, for microbial analysis to assess filtration systems and detect any backflow. This was modelled on the work of Istre et al., in which water sampling was undertaken to identify the effectiveness of cleaning the colonic lavage machine.³ *Escherichia coli* and heterotrophic plate count (HPC) were used to represent the potential health risk associated with faecally contaminated water.

It is noted that there is no legislative requirement for water quality checks for colonic lavage. As a guide, we used the *Australian drinking water guidelines*⁴, which require an *Escherichia coli* count of <1 cfu/100ml, and the *NSW Health public swimming pool advisory*, which requires HPC to be <100 cfu/ml.⁵

Results

The audit inspections were undertaken between November 2018 and June 2019. Eleven colonic lavage premises were identified across six of the seven local government areas within SESLHD, the seventh local government area did not have any recognised colonic lavage businesses.

The tool helped highlight a number of non-compliances and current practices within the businesses.

Table 1. Microbial water sampling

Premises	Open/closed machine	HPC (cfu/ml)	<i>Escherichia coli</i>
1	Open	6 500	<1
2	Open	1 100	<1
3	Closed	Not sampled	Not sampled
4	Closed	8 700	<1
5	Closed	23 000	<2
6	Closed	740	<1
	Closed	<10	<1
7	Open	>30 000	<1
	Closed	3 700	<1
8	Closed	<10	<1
9	Open	2 000	<1
10	Closed	300	<1
11	Closed	<1	<1

Source: analysed by NSW Government Forensic and Analytical Science Service

HPC = heterotrophic plate count

Non-compliance included:

- Of the 19 staff who conducted colonic lavage, only one was wearing an impervious apron while administering the procedure, as required by the regulation

- In the absence of standard training requirements, staff knowledge and training were not consistent, with staff obtaining training from various institutes
- Elevated HPC was identified in nine of the 13 lavage machines sampled (Table 1).

Conclusion

By administering the audit tool we found that colonic lavage operators would benefit from more stringent legislation or guidelines to improve their understanding of, and compliance with, appropriate infection control standards. The audit tool was found to be effective in identifying risks associated with colonic lavage, particularly infectious disease risks. We make the following recommendations after undertaking this audit:

- That NSW Health develop a best practice guideline for colonic lavage operators, which incorporates infection control guidelines appropriate to the procedure
- That operators are provided with education about correct use of personal protective equipment as part of their infection control training
- That microbial water sampling is undertaken of water storage tanks on a 6-monthly basis, and appropriate action is undertaken on failed results.

Peer review and provenance

Externally peer reviewed, not commissioned.

Competing interests

None declared

Author contributions

SF undertook the on-site inspections, data collection, design, drafting, analysis of data and editing of the manuscript. TC, LM and MF were responsible for contributing to the design of the manuscript, reviewing and editing the manuscript and providing analytical advice.

References

1. NSW Health. Colonic lavage (or colonic irrigation) – hygiene standards. Sydney: NSW Government; 2013 [cited 2018 Sep 6]. Available from: www.health.nsw.gov.au/environment/factsheets/Pages/colonic-lavage.aspx
2. Victoria State Government. Hair, beauty, tattooing and skin penetration industries. Melbourne: Victoria State Government Department of Health; 2021 [cited 2019 Jul 5]. Available from: www.health.vic.gov.au/infectious-diseases/hair-beauty-tattooing-and-skin-penetration-industries

3. Istre GR, Kreiss K, Hopkins RS, Healy GR, Benzinger M, Canfield TM, et al. An outbreak of amebiasis spread by colonic irrigation at a chiropractic clinic. *N Engl J Med.* 1982;307(6):339–42.
4. National Health and Medical Research Council. Australian drinking water guidelines 6, National water quality management strategy; version 3.7. Canberra: Commonwealth of Australia; 2011 [cited 2022 May 11]. Available from: www.nhmrc.gov.au/about-us/publications/australian-drinking-water-guidelines
5. NSW Health. Public swimming pool and spa pool advisory document. Sydney: Health Protection NSW; 2013 [cited 2022 May 11]. Available from: www.health.nsw.gov.au/environment/Publications/swimming-pool-and-spa-advisory-doc.pdf

Copyright: 

© 2022 Flanigan et al. This article is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence, which allows others to redistribute, adapt and share this work non-commercially provided they attribute the work and any adapted version of it is distributed under the same Creative Commons licence terms. See: www.creativecommons.org/licenses/by-nc-sa/4.0/