

From the Editor-in-Chief
 New journal section of *Guidelines & Position Papers*

Dear readers,

This issue of the *Canadian Journal of Infection Control* features a new section: *Guidelines & Position Papers*. This new journal section has a dual purpose of highlighting the knowledge synthesis work of infection prevention and control professionals and educating readers on the newly released guidelines and position papers developed in Canada. The first publication under this section – Medical Gels – is a Position Statement developed by IPAC Canada’s Standards and Guidelines Committee.

Similar content will be featured in future issues of the journal based on its instructive component, brevity, practical applications, and other parameters. Detailed specifications for the content of this new journal section will soon be included in the *CJIC Guidelines for Authors*.

Canadian infection prevention and control professionals contribute significantly to the growing body of IPAC practice guidelines and position papers. We look forward to receiving and highlighting more of that content in the future.

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Medical gels

This position statement was developed by the Standards and Guidelines Committee:

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BACKGROUND

Medical gels¹ are used routinely in clinical practice during physician exams and diagnostic procedures. Contamination of medical gels from improper handling can result in serious healthcare-associated infections such as bacteremia and septicemia [1-13].

POSITION STATEMENT

To provide for safe handling of medical gels, the following is recommended.

1. Indications for particular gels

Indication	Type of Gel	
	Sterile	Non-sterile
Whenever a biopsy, puncture of any kind, or imminent surgery is to be performed regardless of body site	✓	
Near a fresh surgical wound	✓	
Procedure penetrating mucous membrane	✓	
Endoscopies on intact mucous membranes	✓	
Non-endoscopic procedure on mucous membranes (e.g., vaginal/rectal exam)	✓	
Non-intact skin	✓	
Intact skin		✓
Babies in NICUs and critical pediatric patients [11]	✓	

2. General considerations

- a) Sterile gels
 - Single-use packaging is required for sterile gels: once opened, the contents are no longer sterile.
 - Sterile product should be used employing the principles of asepsis.
 - Discard the opened package at end of procedure.
- b) Non-sterile gels
 - If multi-dose containers of non-sterile gels are used on intact skin, the container should be sealed correctly when not in use [11].
 - Dispensing nozzles must not come into direct contact with patients, staff, instrumentation, or the environment [5].
 - Non-sterile gel containers should never be topped up (i.e., refilled when partially empty).
 - Gel containers should never be washed and refilled for use but should be discarded when empty [11].
 - When a new bottle is opened, the bottle should be initialed by the opener, dated, and discarded after 30 days or the manufacturer’s expiry date if earlier [5].
 - Bulk containers of gel should not be used due to risk of contamination.
- c) Warming of gel
 - Do not warm gel due to the increased risk of bacterial growth [12].
 - Gels are generally stored at room temperature unless the manufacturer’s recommendations state otherwise.

d) Storage of gels

- Products must be stored in clean areas that are protected from sources of contamination such as moisture, dust, insects, etc.
- Discard the medical gel if in doubt about integrity.

GLOSSARY/DEFINITIONS

As per the Canadian Standard Association:

“SHALL” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard;

“SHOULD” is used to express a recommendation or that which is advised but not required; and

“MAY” is used to express an option or that which is permissible within the limits of the standard, an advisory or optional statement.

REFERENCES

1. Gaillot, O., Maruéjols, C., Abachin, É., Lecuru, F., Arlet, G., Simonet, M., & Berche, P. (1998). Nosocomial outbreak of *Klebsiella pneumoniae* producing SHV-5 Extended-Spectrum β -lactamase, originating from a contaminated ultrasonography coupling gel. *Journal of Clinical Microbiology*, 36(5), 1357-1360. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC104828>
2. Weist, K., Wendt, C., Petersen, L. R., Vermold, H., & Rüdén, H. (2000). An outbreak of pyoderma among neonates caused by ultrasound gel contaminated with methicillin-susceptible *Staphylococcus aureus*. *Infection Control & Hospital Epidemiology*, 21(12), 761-764. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11140910>
3. Health Canada. (1998, December). *Hand washing, cleaning, disinfection and sterilization in health care. Canada Communicable Disease Report*, 2458. Retrieved from http://publications.gc.ca/collections/collection_2016/aspc-phac/HP3-1-24-58-eng.pdf
4. Association for Professionals in Infection Control and Epidemiology. (2016). *APIC text of infection control and epidemiology*. 4th ed. Washington, D.C.: APIC.
5. Health Canada. (2004, October 20). Risk of serious infection from ultrasound and medical gels – Notice to hospitals: Important safety information on ultrasound and medical gels. Retrieved from http://www.healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2004/14290a-eng.php?_ga=2.122675147.1796390989.1508201301-1911943693.1451929294
6. Capital Health Nova Scotia. (2011, December). *Infection Prevention & Control (IPAC) position statement: Safe use of medical gels*. Retrieved from <https://www.cdha.nshealth.ca/system/files/sites/94/documents/position-statement-medical-gels.pdf>
7. Hutchinson, J., Runge, W., Mulvey, M., Norris, G., Yetman, M., Valkova, N., Villemur, R., & Lepine, F. (2004). *Burkholderia cepacia* infections associated with intrinsically contaminated ultrasound gel: The role of microbial degradation of parabens. *Infection Control & Hospital Epidemiology*, 25(4), 291-296. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15108725>
8. Jacobson, M., Wray, R., Kovach, D., Henry, D., Speert, D., & Matlow, A. (2006). Sustained endemicity of *Burkholderia cepacia* complex in a pediatric institution associated with contaminated ultrasound gel. *Infection Control & Hospital Epidemiology*, 27(4), 362-366. Retrieved from <http://www.jstor.org/stable/10.1086/503343>
9. Provenzano, D. A., Liebert, M. A., Steen, B., Lovetro, D., & Somers, D. L. (2013). Investigation of current infection-control practices for ultrasound coupling gel: A survey, microbiological analysis, and examination of practice patterns. *Regional Anesthesia and Pain Medicine*, 38(5), 415-424. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/23974866>
10. CDC Emergency Communication System. (2012, April 20). *Safety communication: Bacteria found in other-sonic generic ultrasound transmission gel poses risk of infection*. Retrieved from <http://dhhs.ne.gov/publichealth/HAN/han%20Documents/Advisory042012.pdf>
11. Oleszkowicz, S. C., Chittick, P., Russo, V., & Keller, P. (2012). Infections associated with use of ultrasound transmission gel: Proposed guidelines to minimize risk. *Infection Control & Hospital Epidemiology*, 33(12), 1235-1237. Retrieved from <https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/infections-associated-with-use-of-ultrasound-transmission-gel-proposed-guidelines-to-minimize-risk/05EEBFB7FC2B14778C3D0B1249D60425>
12. Spratt, H. G., Levine, D., & Tillman, L. (2014). Physical therapy clinic therapeutic ultrasound equipment as a source for bacterial contamination. *Physiotherapy Theory and Practice*, 30(7), 507-511. Retrieved from <https://www.tandfonline.com/doi/abs/10.3109/09593985.2014.900836?src=recsys&journalCode=iptp20>
13. Shaban, R. Z., Maloney, S., Gerrard, J., Collignon, P., Macbeth, D., Cruickshank, M., Hume, A., Jennison, A. V., Graham, R. M. A., Bergh, H., Wilson, H. L., & Derrington, P. (2017). Outbreak of health care-associated *Burkholderia cenocepacia* bacteremia and infection attributed to contaminated sterile gel used for central line insertion under ultrasound guidance and other procedures. *American Journal of Infection Control*, 45(9), 954-958. Retrieved from <https://www.sciencedirect.com/science/article/pii/S019665531730843X> *

¹ Medical gels include ultrasound gels, lubricating gels, and medicated gels.