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Report in Brief

Disposable Gloves for Use in Health Care Settings: A Review

Context

Infection control measures in health care settings help to prevent the spread of infection. One method of infection control involves the use of personal protective clothing or equipment to create a physical barrier between potential infectious material and the health care worker. Disposable gloves are a common example of personal protective equipment worn to prevent infection, and their use has become standard in health care settings across Canada. Gloves may also be important for preventing exposure to other hazards such as chemotherapy, electric shock, and radioactive materials.

Technology

In order to be licensed for use in Canada, medical gloves must be approved by Health Canada. Advances in glove technology have permitted the introduction of different types of medical gloves such as vinyl, nitrile, and neoprene gloves. These newer gloves can reduce the risk of allergic reactions — an important limitation of latex gloves — and may differ in strength, durability, cost, recommended duration of use, and clinical effectiveness.

Issue

The availability of different types of gloves for use in health care settings has made the selection of gloves more complex. To help with decision-making on the choice of gloves, this review will examine the safety, clinical effectiveness, and cost-effectiveness of the different types of disposable gloves available, as well as a review of evidence-based guidelines on their use. This is an update of a previous review completed in 2011.

Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

Key Messages

When selecting disposable gloves for use in health care settings:

- There is no evidence to indicate a difference in safety or clinical effectiveness amongst the different types of gloves.
- There was no difference in touch sensitivity or psychomotor performance between latex and nitrile gloves; however, comfort ratings did differ.
- There are significant differences in the cost of the various glove types but no evidence on their cost-effectiveness.

Results

The literature search identified 182 citations, with no additional articles identified from other sources. Of these, 4 potentially relevant studies were identified, with 1 randomized controlled study meeting the criteria for inclusion in this review.