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1: [J Hosp Infect.](#) 2005 Jan;59(1):4-11.

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**Considering risks to healthcare workers from glutaraldehyde alternatives in high-level disinfection.**

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Due to concerns over glutaraldehyde's toxicity, two substitutes have recently been introduced; ortho-phthalaldehyde (OPA), and a mixture of hydrogen peroxide and peracetic acid. There is limited information about the health effects for employees from these products. This study assesses the current practices regarding the use of high-level disinfectants in British Columbian hospitals and predicts the relative toxicities of each product. Industry practices were compiled using a comprehensive survey of current practices and decision processes in all hospitals in British Columbia. Of 95 hospitals, 64 returned surveys; 80% of these used high-level disinfection. Among user hospitals, 49% used glutaraldehyde alone and 51% had introduced alternatives. Concern about staff health was the most common reason for substituting, but this was frequently not considered when choosing specific alternatives. Hospitals that involved occupational health, infection control or regional staff in high-level disinfectant decisions used glutaraldehyde alternatives less often. In most hospitals, it was difficult to find individuals who were knowledgeable about the use of disinfectants. Potential health effects associated with each type of high-level disinfectant were assessed by review of the published literature and available manufacturers' data along with qualitative structure-activity relationship analysis. Results indicated that although all products irritate the skin and respiratory tract, OPA is a potential dermal and respiratory sensitizer but hydrogen peroxide and peracetic acid do not cause allergic reactions. Despite little being known about the risks to employees from glutaraldehyde alternatives, their use is widespread. The potential risks of all high-level disinfectants are serious; thus regulators and users are faced with important risk management decisions before and after they have been introduced into the workplace.

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