

Letters to the Editor

Chemical Sterilization in Nursing Homes

To the Editor:

A recurring area requiring resolution in infection control in long-term care facility (SNF) is the status of "cold sterilization." (1) Is there a place? (2) Is its value limited? (3) How effective?

You have been most gracious, informative, and have resolved a great number of problems that we, as members of infection control committees, have welcomed.

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Philip W. Smith, MD responds to Dr. Silver's questions:

"Cold sterilization" generally refers to chemical sterilization as opposed to heat sterilization (autoclaving). Chemical sterilization is less reliable than heat sterilization,¹ and careful attention must be paid to precleaning of the object, concentration and freshness of chemical agent, time of contact, and physical factors such as temperature. Chemical sterilization is of value particularly with equipment that cannot tolerate autoclaving without mechanical damage.

The long-term care facility will have less need for sterile equipment than the acute care hospital. Nevertheless, nursing homes still must follow established guidelines²⁻³ for sterilizing critical medical devices (eg, lumbar puncture needles, surgical instruments) and high-level chemical disinfection of semicritical medical devices that contact mucous membrane surfaces (eg, thermometers, respiratory therapy equipment).

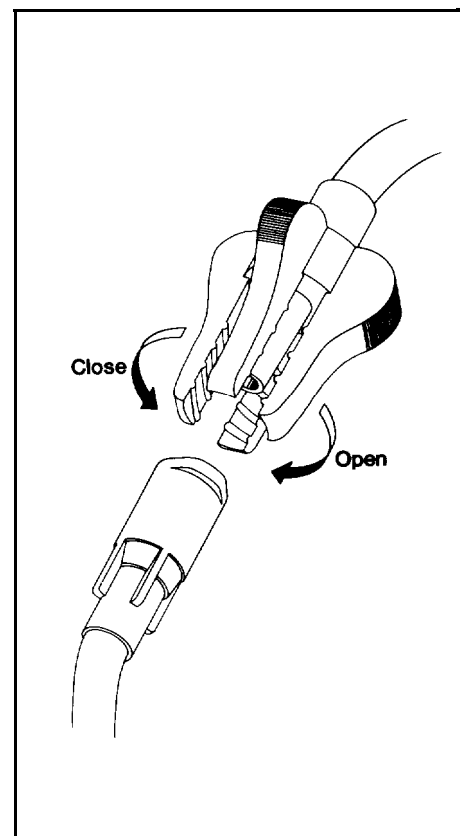
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2. Garner JS, Favero MS: Cleaning, disinfecting and sterilizing patient-care equipment. *Centers for Disease Control Guideline for Handwashing and Hospital Environmental Control*. Atlanta, 1985.
3. Rutala WA: Disinfection, sterilization and waste disposal, in Wenzel RP (ed): *Prevention and Control of Nosocomial Infections*. Baltimore, Williams and Wilkins, 1987, pp 257-282.

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Protective Ribs for Male Connectors

Most of the currently used connectors for IV lines are not well protected against accidental contamination. This pertains to urinary and peritoneal catheters, as well as most other infusion or drainage systems. The male portions of the connectors are particularly vulnerable to accidental contact with the environment, eg, the fingers of caretakers or the patients themselves under the conditions of home therapy. Contamination of catheter hubs is a well-documented mechanism for catheter sepsis,¹⁻³ and is a major factor in causing the dangerous and expensive complication of central line infection.⁴ Conceivably, the contamination of the male portion of such connectors should be prevented by protecting the connectors with overlapping ribs. Such separated ribs would have the advantage of not providing a reservoir for fluid collection and subsequent growth of micro-



Male connector protected by overlapping ribs. Threads on the underside of the rib: engage with the standard female Luer connection.

organisms. Such a proposal has been made previously,⁵ but the proposed mechanism against accidental disconnection was too cumbersome to be put into practice. An improved solution is suggested in the figure. The male portion of the connector is protected by overlapping ribs. Threads on the underside of the ribs engage with a standard female Luer connection. The connection is rapidly and easily