References

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Overcoming the hazards of storing cultures in liquid nitrogen

Many laboratories find it both rapid and convenient to store microbiological cultures in liquid nitrogen. The Code of Practice for the Prevention of Infection in Clinical Laboratories and Post-Mortem Rooms (para 23b),¹ however, specifically excludes the storage of ampoules containing infectious material in the liquid phase, although storage in the vapour phase is permitted.

It is likely that some clinical laboratories are still storing cultures in the liquid phase of liquid nitrogen either because they have inherited a liquid phase storage vessel (for

example, Union Carbide LR30A) or because they are unaware of the regulations. Some vials invariably leak liquid nitrogen when immersed, and on subsequent removal may explode as a result of the change of temperature causing a rapid expansion of the liquefied gas. If the explosion occurs after the vials are removed from their protective cardboard tube the danger to the individual is greatly increased, as is the disruption caused in the laboratory. Although vials can be prevented from exploding by sealing them in a membrane (Nunc Cryoflex), this is both time consuming and an additional expense.

With the assistance of the British Oxygen Company it has been possible to produce a simple and effective method of storing vials in the vapour phase of liquid nitrogen in storage vessels originally designed for liquid phase storage. The modification entails soldering the side seam of the storage canister (Figure) and soldering a circular blank to its base over the existing mesh. To prevent liquid entering the modified canister, the level of liquid nitrogen in the container needs to be lowered and a measure is available for this or can easily be made. Also topping up needs to be done with care.

The only problem experienced has been leakage through imperfectly soldered joints. This can be remedied by resoldering. The small cost of the modification for each canister is amply justified by not having to replace a liquid phase refrigerator with one designed for vapour phase storage in order to comply with the Howie Code of Practice.

TD WYATT
The Laboratories,
Mater Infirmorum Hospital,
Belfast BT14 6AB

Reference

- ¹ Code of practice for the prevention of infection in clinical laboratories and post-mortem rooms. London: HMSO, 1978.

Some new titles

The receipt of books is acknowledged, and this listing must be regarded as sufficient return for the courtesy of the sender. Books that appear to be of particular interest will be reviewed as space permits.

Mechanisms of Gastrointestinal Inflammation. Proceedings of the Fourth BSG/SK & F International Workshop 1983. Ed VS Chadwick. (Pp 87; free of charge to registered members of the medical profession with a special interest in gastroenterology. 1984.

Replication of Viral and Cellular Genomes. Ed Y Becker. Developments in Molecular Virology. (Pp 373; D fl 185.00/US\$61.00. Martinus Nijhoff. 1983.

Current Therapy in Gastroenterology and Liver Disease 1984-1985. Theodore M Bayless. (Pp 517; £50.) Blackwell Scientific Publications. 1984.

Assessment of the Newborn. A Guide for the Practitioner. Ed M Ziai, TA Clarke and TA Merritt. (Pp 425; US \$60.50.) Quest Publishing Agency. 1984.

Notice

The William B Castle Symposium on Advances in Hematology

The 2nd William B Castle Symposium on Advances in Hematology, sponsored by the West Roxbury Veterans Administration Hospital, Brigham and Women's Hospital, and Harvard Medical School, will be held on 2 November 1984 at the New England Life Hall in Boston. Guest speakers will include Drs Allan J Erslev (Philadelphia), Anthony S Fauci (Bethesda), David W Golde (Los Angeles), Samuel Hellman (New York), Arthur W Nienhuis (Bethesda), and Russell Ross (Seattle). Advance registration is required and enrolment is limited. For further information contact Andrew I Schafer MD, Hematology Division, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. (617) 732-5840.

Storage canister showing unsealed base and side seam.