The following recommended practices were developed by the AORN Recommended Practices Coordinating Committee and have been approved by the AORN Board of Directors. They were published as proposed recommended practices in the January 1992 AORN Journal for comment by members and others. These practices are intended as achievable recommendations representing what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the recommended practices can be fulfilled.

AORN recognizes the numerous different settings in which perioperative nurses practice. The recommended practices are intended as guidelines adaptable to various practice settings. These practice settings include traditional operating rooms, day clinics, physicians offices, cardiac catheterization laboratories, endoscopy rooms, radiology departments, and all other areas where surgery may be performed.

**PURPOSE**

These recommended practices provide guidelines for achieving sterilization of instruments, supplies and equipment. The creation and maintenance of an aseptic environment is a direct influence on the outcome of surgical interventions. Measures for preventing surgical wound infection include provision of instruments, supplies and equipment free of contamination at the time of use. Sterilization provides the highest level of assurance that an object is free of viable microbes.

**RECOMMENDED PRACTICE I**

Items to be sterilized should be cleaned to eliminate all soil before sterilization.

**Interpretive Statement 1**

Items should be decontaminated in a clean controlled environment.

**Rationale**

Physical design for separating decontamination and processing procedures, ventilation, temperature, humidity, appropriate protective attire of personnel, and cleaning procedures are some of the factors that should be controlled to ensure appropriate pre-sterilization processing.

**Interpretive statement 2**

Items should be thoroughly cleaned and dried in accordance with AORN. Recommended practices for care of instruments, scopes and powered surgical instruments.

**RECOMMENDED PRACTICE II**

Items to be sterilized should be packaged according to the guidelines established in the AORN “Recommended practices for selection and use of packaging materials”.

**Discussion**

The Association for the Advancement of Medical Instrumentation (AAMI) provides guidelines for the weight and density of sets and linen packs. The recommended maximum density for linen packs of 0.12 grams per cubic centimetre is derived from the recommended maximum size (30 X 30 X 50 cms) and weight (5.5 Kg) of the pack. Instrument sets should be sterilized in perforated trays, wire mesh bottom trays, or specially designed containers. Instruments should be held open and unlocked. Wrapped sets should be weight specified by the manufacturer of the instruments, sterilizer, and container system.
This weight is the total weight of the metal mass of the instruments and does not include the weight of the wrapping materials. If an instrument, sterilizer/container system is used, container manufacturers' written instructions for maximum weight, set preparation, sterilizer loading procedures, exposure times, and drying should be followed. Scientific data in support of these recommendations should be provided by the manufacturer.

**RECOMMENDED PRACTICE III**

Saturated steam under pressure should be used to sterilize heat-and moisture-stable items.

**Interpretative statement 1**

The manufacturer's written instructions for operating the sterilizer should be followed.

**Rationale**

Sterilizers vary in design and performance characteristics so cycle parameters should always be verified against the sterilizer manufacturer's written instructions for the specific sterilizer and load configuration being used.

**Discussion**

In general the most common temperature and time parameters are as follows. For gravity-displacement cycles: 10-25 minute exposure time at 132 °C to 135 °C and up to 30 minute exposure time at 121 °C. For pre-vacuum cycles: 3-4 minutes at 132 °C to 135 °C. If a sterilization container system is used as packaging, the container manufacturer's written recommendations regarding exposure time should be consulted and compared with those of the sterilizing manufacturer. In addition, certain types of medical equipment (e.g. some air-powered instruments) may require prolonged exposure times.

**RECOMMENDED PRACTICE IV**

Flash (steam) sterilization should be used only in emergency situations.

**Interpretative statement 2**

Packages should be thoroughly cooled before being handled or removed from the sterilizer cart.

**Rationale**

Items with temperature variances placed in contact with each other could result in recondensation forming a fluid pathway through which microorganisms could pass.

**Discussion**

Flash sterilization may be used for the immediate need of an individual item. This would include items that have dropped on the floor and instances where there's no other sterilization alternative.

**Interpretative statement 1**

Flash (steam) sterilization should be used only when there is insufficient time to sterilize an item by the preferred prepackaged method.

**Interpretative statement 2**

Exposure times, temperature relationships should follow all manufacturers' written instructions.

**Discussion**

The following are AAMI recommendations for Flash sterilization cycle parameters.

- Load contents: Metal instruments no porous items, no lumens
- Temperature: 132 °C
- Gravity Displacement Cycle Time: 3 minutes
- Pre-vacuum Cycle Time: 3 minutes

**Interpretative statement 3**

Woven/nonwoven textiles may be used during flash sterilization.

**Rationale**

Exposure time and temperature relationships vary with the load contents and the effect of coverings or underlays.

**Interpretative statement 4**

Implants should be flash sterilized only if there is insufficient time to sterilize using the preferred wrapped method.

**Rationale**

Flashed implants should be used only if the results of the biological indicator are available before implantation.

**Interpretative statement 5**

Sterilizer function should be monitored with mechanical, chemical and biological indicators to meet all of the monitoring standards established for pre-vacuum or gravity displacement sterilizers.

**Rationale**

The use of indicators provides information to demonstrate that conditions for sterilization have been met.

*This article will be continued in the April issue of Steriview*
Medical Concepts Development

Offering quality drapes combined with unmatched service

MCD, a quality manufacturer of incise, fluid control and specialty drapes recently visited South Africa as part of its promotional campaign to formally introduce its MCD drape to the local market.

With over 10 years’ experience in the manufacture of drapes, MCD has carved for itself a sizeable world market.

Says Steve Hannes, Operations Director, Sales and Marketing: “MCD offers high-quality, cost-effective drapes and with an increasing focus on cost containment, we believe that the MCD drape is a potentially viable alternative to what is currently being used in this country.

"As manufacturers of our own products we are well placed to offer quality products to our customers worldwide. In addition, we are better placed to meet individual customer specifications and needs."

MCD’s ISO 9001 certified facility in St Paul, Minnesota, produces over 200 different surgical drape styles. These are typically used in most procedures, especially orthopedics, ophthalmology and angiography. Every MCD product carries the CE mark of conformity.

MCD’s manufacturing capabilities include:
- Creation of innovative thin films, absorbent materials and proprietary adhesives
- Precision coating of adhesives, with sheeting, slitting and lamination of a wide variety of materials
- Precision die-cutting, kiss cutting, printing and heat sealing

Says Steve: "I have been tremendously impressed by the widespread use of surgical drapes in South Africa as this technology has been proven worldwide to reduce postoperative infection rates. I firmly believe that MCD has the qualities to become a valuable partner to South African hospitals.

"It is also clear that the South African medical professional faces the same problems and challenges as their counterparts all over the world. We are all being challenged to continue offering a quality and committed service while simultaneously having to focus on cutting costs and improving productivity.

"Against this backdrop it is becoming increasingly important for hospitals to forge a long term business relationship with an experienced, informed and responsive manufacturer such as MCD through its distributor Safmed.”
Safmed now manufactures Aseptor Bags

Safmed has purchased the Aseptor Sterilization Bag manufacturing plant from Kohler Flexible Packaging.

The new facility is based in Ndabeni, Cape Town and Safmed will aim to meet the country’s need for Sterilization Bags.

The Aseptor Bag is the only Sterilization Bag manufactured in South Africa under the strict controls of ISO 9002 and is constructed of Imported (MOH) Medical Grade Paper to BSI specifications. Using the latest lead-free indicator ink the performance of the bag is of a consistent standard.

Safmed will pursue improvements to the product and seek cost efficiencies. Sizing and design of bags will receive attention. In addition other types of paper bags will be manufactured to meet other needs in hospitals. It is envisaged that Ward/Disposable bags and Pharmacy Bags will be produced.

This move will bring Safmed closer to its customers as products can be produced to their requirements.

NEW APPOINTMENTS

Rory Campbell recently joined Safmed as their Senior Accountant. Rory brings with him solid auditing and accounting skills gained over six years working for well-established auditing firm. Rory aims to implement solid accounting systems and controls as well as to provide management with sound financial information.

Adriaan Swanepoel, hospital representative, has joined Safmed and will be responsible for servicing customers in Durban and the rest of Kwa-Zulu Natal.