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Getting a handle on instrument loan sets and reusable medical devices

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Surgical instrumentation has evolved from prehistoric times with some of the greatest developments witnessed in laparoscopic surgery as a result of multiple technological innovations^{1,2}. One of the oldest and most widely recognised surgical instruments includes the surgical knife, first described by Hippocrates dating back to the Middle Stone Age (around 8000 BC)³. During the 19th century, scalpels included ornately decorated handles, usually carved from wood or ivory, which were replaced by metal handles to facilitate heat sterilisation techniques⁴. Although the modern scalpel is an instrument commonly included during the aseptic set-up for a procedure, the historical development of the modern instrument is less well known. After overhearing his uncle complain about the inefficiencies of the Gillette blades that were being used at the time, Morgan Parker, an engineer, developed and patented a two-piece scalpel in 1915. The knife included an overlapping blade that was able to be locked into a metal handle and replaced with relative ease once blunt. This invention was later recognised and endorsed by the American College of Surgeons, assisting the surgeon and reducing the time required to change the blades during surgery³⁻⁵.

With the advent of laparoscopic surgery in the late-1980s, general surgeons developed the necessary skills to perform complex procedures, through smaller incisions, embracing the concept of minimally invasive surgery (MIS), marking it one of the greatest transformations in the history of surgery⁶. The evolution in surgery continued, with the development of the surgical robot, which was designed to extend "the capabilities of human surgeons beyond the limits of conventional laparoscopy"⁷ (p. 15). While the development of new surgical techniques is important, requiring the development of new surgical instrumentation and equipment, this also represents a potential source of surgical errors, which may impact on delivering quality patient care. The rapid expansion in surgical technique also presents a challenge for manufacturers who are required to

produce high-quality surgical instruments that meet certain design specifications and gain the approval of the surgeons who use the equipment during surgery.

Improved surgical technology and sophistication of procedures has resulted in rapid changes in instrumentation and implantable components; therefore the use of loan equipment has become common practice for healthcare service organisations (HSOs)⁸⁻¹¹. While there are a number of reasons why HSOs would borrow equipment, some of the more common reasons include inadequate storage space, infrequently performed procedures, and the high cost of purchasing surgical instrumentation. This has resulted in an increased reliance on loan equipment^{8,10,11}. There are also a number of challenges for HSOs when implementing a loan equipment program. These include loan equipment arriving too late for correct processing prior to use, inadequate instructions for processing loan equipment, and a lack of training of sterilisation services department (SSD) and perioperative nursing staff resulting in cancellations, delays or prolonged surgical procedures⁹⁻¹⁴. There are also a number of financial risks associated with the use of loan equipment; therefore, a well-defined loan equipment management program and a multidisciplinary policy on the management of loan equipment is required to minimise patient and personnel risks and ensure quality patient outcomes⁸⁻¹⁵. Introducing new equipment into the operating suite also requires appropriate training to be provided for members of the surgical team, as well as all other personnel, to be aware of the safe functioning of the equipment prior to implementation in the department¹⁶.

The purpose of the "Management of instrument loan sets and reusable medical devices" standard is to guide HSOs in the development of a loan equipment management program as well as the development of a multidisciplinary policy on the management of loan equipment. The importance of developing a loan equipment management program is to ensure that the equipment is:

- appropriate for the patient;
- available in the operating room when required;
- compliant with the manual handling requirement of the Workplace Health and Safety Regulations; and
- reprocessed according to cleaning and sterilising standards as defined in AS/NZS 4187:2014: Reprocessing of reusable medical devices in health service organisations.

It is also important that loan equipment is managed by staff who are adequately trained in reprocessing loan equipment and that the program is a cost-effective strategy for surgical services^{10,13}.

The "Management of instrument loan sets and reusable medical device" standard should be read in conjunction with the following standards:

AS/NZS 3551:2012: Management programs for medical equipment;

AS/NZS 4187: 2014: Reprocessing of reusable medical devices in health service organisations; and

AS ISO 8828:2015 Implants for surgery — Care and handling of orthopaedic implants.

With further technological innovations and continued advances in surgical technique, as well as the financial aspects of purchasing surgical instrumentation, HSOs will continue to rely on loan equipment. Therefore, a well-developed loan equipment management program and a multidisciplinary policy on the management of loan equipment will be necessary to ensure safe, quality care is provided to patients presenting to the operating suite.

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AUSTRALIAN CHARITIES AND NOT-FOR-PROFITS COMMISSION APPROVAL REPORT

ACORN receives registration as a health promotion charity

In recent months, ACORN has been successful in its application to the Australian Charities and Not-for-profits Commission (ACNC) for registration as a health promotion charity.

This approval acknowledges the College's significant role in the promotion of health and prevention of disease in our community. We have known for many years that this is what we do; however,

this application process took six months and required evidence that ACORN's activities met five criteria as follows:

1. Set, promote and continually review national 'best practice' standards for perioperative nursing.
2. Provide a central reference point for, and consultancy service on, perioperative policy, procedures and practice, to assist other