

## Useful resources: instruments and consumables

### IAPB Standard List

The **IAPB Standard List** provides information for eye health providers on a carefully evaluated range of eye care technologies, supplies, and training resources suitable for use in settings with limited resources.

You can now register to use the new interactive, online IAPB standard list (<http://IAPB.standardlist.org>) which allows you to create a 'basket' of items that you can print out and use when drawing up an order.

Individuals working for IAPB member organisations, or working in partnership with these organisations, will have access to the full functionality of the site, which includes being able to see the prices of all items and, in the near future, to order directly from suppliers.

Registration may take one or more days to be approved.

Paper copies of the IAPB Standard List can be ordered from Teaching Aids at Low Cost (TALC).

### TALC (Teaching Aids at Low Cost)

PO Box 49, St Albans, Hertfordshire, AL1 5TX, UK. Tel +44 (0) 1727 853869. Email [info@talcuk.org](mailto:info@talcuk.org)

**Teaching and learning resource**  
**Prozesky D, Stevens S, Hubley J.**  
**Effective Teaching and Learning for Eye Health Workers**, International Centre for Eye Health, 2006. Free download (720 KB) on [www.cehjournal.org/icehpubs.html](http://www.cehjournal.org/icehpubs.html) or order free of charge from TALC. High-income countries pay £5.

### Videos

**Karen Watts.** Handling and passing of surgical instruments; Instrument care during decontamination and sterilisation; Handling of sterile supplies (all part of the 'Nursing' package). Cost: Rs 500 per package + free postage (India only) or US \$40 per package for international orders. Order from LV Prasad Eye Institute. Write to Shobha Mocherla, A-V Producer, Central Audio-Visual Unit (CAVU) L V Prasad Eye Institute, L V Prasad Marg, Hyderabad 500 034, India. Email: [video@lvpei.org](mailto:video@lvpei.org)

**Procurement agencies in Africa**  
**Joint Medical Stores, Uganda.**  
Plot 1828 Gongonya Rd, PO Box 4501

Kampala. Tel +256 (0)414510096 or toll free (Uganda only): 0800 123124. Email [store@jms.co.ug](mailto:store@jms.co.ug) or visit [www.jms.co.ug](http://www.jms.co.ug)

**Missions for Essential Drugs, Kenya.** PO Box 78040-00507, Viwandani, Nairobi  
Tel +254 (0)203920102. Email [customerservice@meds.or.ke](mailto:customerservice@meds.or.ke) or visit [www.meds.or.ke](http://www.meds.or.ke)

**Action Medeor, Tanzania.** PO Box 72305, Dar es Salaam, Tanzania.  
Tel +255 (0)222863136.

**Cameroon Baptist Convention Health Services, Cameroon.**  
Cameroon Baptist Convention Health Board, PO Box 1 Bamenda, North West Province, Cameroon.  
Tel: +237 (0)77964683.  
Email: [info@cbchealthservices.org](mailto:info@cbchealthservices.org) or visit [www.cbchealthservices.org](http://www.cbchealthservices.org)

### Pre-shipment inspection companies

INTERTEK  
<http://www.intertek.com/government/pre-shipment-inspection/>

COTECNA  
<http://www.cotecna.com/COM/EN/psi.aspx>

SGS  
[http://www.sgs.com/pre\\_shipment\\_inspection\\_-\\_import\\_verification.htm?serviceld=6942&lobld=5549](http://www.sgs.com/pre_shipment_inspection_-_import_verification.htm?serviceld=6942&lobld=5549)

**Courses: care and maintenance of ophthalmic instruments**  
**LAICO, Aravind Eye Care Systems (AECS)** runs six-week training courses in Madurai for instrument technicians. These are repeated four times a year (US \$325). LAICO offers shorter courses on invitation at a range of different training centres. The LAICO team has also helped to establish instrument maintenance training centres at the National Eye Institute, Kaduna, Nigeria; the National Institute of Ophthalmology, Hanoi, Vietnam, and Kikuyu Eye Unit, Kenya. Write to Prof V Srinivasan, LAICO, 72, Kuruvikaran Salai, Gandhi Nagar, Madurai 625 020, Tamil Nadu, India. Email: [v.srinivasan@aravind.org](mailto:v.srinivasan@aravind.org) or visit [www.aravind.org/education/coursedetails.asp](http://www.aravind.org/education/coursedetails.asp)



## Instrument



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Some eye units have technicians who are responsible for taking care of instruments. It is certainly important to have a specific person assigned to do tasks such as monthly checking and maintenance, even on a part-time basis.

However, everyone working in an ophthalmic operating theatre must be competent in the care, handling, storage, and maintenance of instruments. This will help to improve surgical outcomes, maintain an economic and affordable service for patients, and provide a safe environment for the wellbeing of patients and staff.

Including instrument care in theatre courses and in-service training is one way of ensuring staff competence. Table 1 opposite provides some guidance about the different skills each team member must be able to master.

To support in-service training, we suggest that you provide staff with lists of duties, protocols, and guidelines for instruments. This ensures that everyone will adhere to the same standards when they demonstrate instrument handling, care, and maintenance to learners. These documents can also serve as a reference for learners.

Support learners by encouraging staff to provide close supervision and give constructive (positive, supportive, and informative) feedback.

### A supportive environment

Training by itself is not enough. Staff require an environment that supports them to take good care of instruments and provide high-quality care in the operating theatre. The different components of the health system (human resources, finance, equipment and supplies, leadership and governance, and health information systems) provide a useful framework

### Human resources

- Plan for sufficient trained personnel to work in the operating theatre; this ensures that the standards of instrument care are maintained.
- Include a section on instrument care in the job descriptions of staff. Job descriptions document the roles and responsibilities of each person in the operating team and can be used as a basis

# care: everyone's responsibility

**Table 1: Roles of the eye care team members in looking after instruments**

Instrument cleaning nurse/ technician	Circulating nurse (or equivalent)	Surgical assistant/scrub nurse (or equivalent)	Surgeon
<b>To ensure safety</b>			
<ul style="list-style-type: none"> <li>careful passing and placement of instruments, e.g., onto cleaning dishes and instrument trays</li> </ul>	<ul style="list-style-type: none"> <li>careful passing to the instrument cleaning nurse or technician</li> </ul>	<ul style="list-style-type: none"> <li>careful handling to and from the surgeon</li> </ul>	<ul style="list-style-type: none"> <li>careful handling to and from the surgical assistant/scrub nurse</li> </ul>
<b>To enhance efficiency and facilitate quality outcomes</b>			
<ul style="list-style-type: none"> <li>place instruments in order of use</li> </ul>	<ul style="list-style-type: none"> <li>collect used instruments and take these to the cleaning area</li> </ul>	<ul style="list-style-type: none"> <li>collect the used instruments immediately after surgery, take to the cleaning area</li> </ul>	<ul style="list-style-type: none"> <li>use instruments for their intended purpose</li> </ul>
<b>To maintain sterility</b>			
<ul style="list-style-type: none"> <li>follow recommended temperatures and times for autoclaving and/or soaking</li> </ul>	<ul style="list-style-type: none"> <li>check sterility indicators</li> <li>take care when opening the autoclave, placing instruments on sterile trolley</li> <li>ensure that sterile water is ready for rinsing instruments that have been soaked</li> </ul>	<ul style="list-style-type: none"> <li>careful passing to surgeon, using aseptic non-touch technique</li> <li>ensure that instruments that have been sterilised in a sterilisation solution are thoroughly rinsed before use</li> </ul>	<ul style="list-style-type: none"> <li>handle and use instruments properly for their intended purpose</li> </ul>
<b>To prevent loss and preserve functionality of instruments</b>			
<ul style="list-style-type: none"> <li>account for all instruments</li> <li>check instruments before putting them away: tips, sharpness, rust, functional springs, hinges, and damage, ideally with magnification</li> <li>dry instruments before storing on clean, closed shelves in a secure but ventilated environment</li> </ul>	<ul style="list-style-type: none"> <li>keep a list of damaged instruments and inform the nurse/technician, so that these instruments can be repaired or replaced as soon as possible</li> <li>do not keep defective instruments in surgical sets</li> <li>ensure all instruments are accounted for</li> </ul>	<ul style="list-style-type: none"> <li>ensure all instruments are accounted for, especially when removing drapes from the trolley</li> <li>ensure that instrument sets are correct, with the known number and type of instrument in place</li> </ul>	<ul style="list-style-type: none"> <li>use instruments for their intended purpose</li> <li>report defective instruments</li> </ul>
<b>To maintain instruments and prevent damage</b>			
<ul style="list-style-type: none"> <li>clean instruments individually</li> <li>use correct solutions in appropriate concentrations and containers for soaking and cleaning</li> <li>place instruments carefully, without piling, in cleaning and rinsing dishes, the autoclave, and/or the sonic cleaner</li> <li>protect the tips of sharp instruments when packing or storing them</li> </ul>	<ul style="list-style-type: none"> <li>careful handling and proper passing, especially when instruments are not packed in an instrument tray</li> </ul>	<ul style="list-style-type: none"> <li>handle instruments properly during cleaning and surgery</li> <li>wipe instruments during surgery if required</li> <li>carefully place instruments next to each other on the trolley</li> <li>group different types of instruments together</li> </ul>	<ul style="list-style-type: none"> <li>handle instruments as per protocol</li> <li>avoid throwing instruments down, hand them to the scrub nurse instead</li> </ul>

for evaluating staff performance. You can then evaluate (and reward) staff competence in instrument care.

- Provide continuing professional development in instrument care. For example, ask staff to teach skills they know well to small groups of co-workers, or ask staff to reflect on their instrument care and come up with ways of improving what they do. You can also encourage staff to read and discuss articles on equipment care such as those in this journal (see page 44 of this issue, as well as previous issues).

**Finance**

- Purchase the best quality instruments that your eye centre can afford as these are likely to last longer and may contribute to better quality outcomes

- Purchase sufficient instruments for the number of patients seen in your unit
- Purchase appropriate instruments for different procedures
- Allocate funds for replacement of defective instruments.

**Equipment and supplies**

- Develop and implement protocols for instrument maintenance and care
- Schedule monthly maintenance procedures, including a check of the functionality of the instruments.

**Leadership and governance**

- Ensure that your eye unit complies with standards of occupational health and safety, theatre design and layout, materials, and infrastructure.
- Develop and implement checklists from best practice and evidence-based

standards, guidelines, or protocols to cover the following areas: equipment, instruments, infection control, documentation, administration, stock management, productivity, and the roles and responsibilities of staff.

**Health information systems**

- Report defective instruments to the person responsible on a regular basis, ideally at the end of the day or of the operating list.

**Service delivery**

- The quality of care during outreach visits should be maintained at similar standards to a permanent facility. This means taking the same level of care with instruments and adhering to the same high standards of disinfection. Ensure instruments are packed carefully for transport.