Rigorous hygiene practices are vital in the quest to prevent the occurrence of endophthalmitis following cataract surgery, the UKSCRS XXXV Congress meeting heard.

Christopher Liu FRCOphth, consultant ophthalmic surgeon, Sussex Eye Hospital, told delegates that prevention is better than cure and there are a number of key precautionary measures that can be taken to minimise endophthalmitis risk factors.

Dr Liu emphasised the importance of absolute cleanliness at all times, starting with the surgeon himself, to the scrub nurse, to the theatre, to the instruments, the patient and their follow-up carers.

“For the surgeon the first scrub is meant to be five minutes. Povidone-iodine 10 per cent detergent would be a good agent. Keep your nails short and clean and always assume that the gloves have perforations, even when you put them on, as there is a perforation rate that is allowed for glove manufacturers.

“Try not to touch the tips of the instruments and make sure when you wear your facemask that your nose and chin are covered and try to avoid talking as much as possible. If you sneeze, don’t turn to one side, step back and sneeze forward. Excessive movements should also be avoided,” Dr Liu advised.

“It is also really important that instruments are cleaned before sterilisation otherwise the proteins and so on will simply be baked onto the instruments,” he noted, adding that air quality is another important aspect of hygiene control.

Safest option

Discussing wound considerations, he suggested that a scleral tunnel is the safest option, “though it is not practised much anymore so it’s down to your corneal wounds, which leak more frequently.”

He said if surgeons use a longer wound it is likely to be more secure, especially if they do not stretch it. “With hard nuclei beware of burning the wound with a phaco burn as well,” he cautioned.

Dr Liu said if surgeons use a temporal wound it might consider asking the patient to wear a shield continuously for the first few days. If using subconjunctival injection make sure it is kept away from the wound, he stressed.

“Whenever you are in doubt if there is a leaky wound then put a suture in, that helps a lot.”

When finishing up surgery, Dr Liu recommended using povidone iodine post-drape if the tear film looks dirty. He also advocated pulling instruments out gently and coming out of position slowly whilst irrigating so as to avoid creating an unwanted vacuum drawing extracellular fluids into the eye. He also advised removing the speculum carefully without pressing on the eye, and removing the drape in a sterile fashion.

Antibiotic ointment should be applied to the lid margins if there is still some blepharitis postoperatively. Moreover, contact lens wearers should remove them a day or two beforehand.

Summarising his prevention strategies, Dr Liu said surgeons should keep their operations short and free from unnecessary complications, and use subconjunctival or intracameral cefuroxime. Some patients may benefit from preoperative antibiotics. Finally, pay close attention to wound architecture and wound protection and place a suture if in doubt, and use an eye shield for temporal wounds.