



Figure 8-1. The organization of the operating room includes precise order and position of the instruments, microscope, surgical bed, and the working space of the operating team.

dressing dipped in a solution with 5% to 10% concentration of povidone-iodine. The solution must be left on the skin for at least 3 minutes, after which the skin can be dried with a sterile gauze dressing so that the laminated drape adheres well.

If patients cannot be treated with povidone-iodine (because of an allergy to it or they suffer from hyperthyroidism), a 0.05% chlorhexidine aqueous solution can be used instead. The conjunctival fornix is disinfected with a few drops of 5% povidone-iodine solution for about 3 minutes. The disinfectant is then washed away by irrigating with balanced salt solution (BSS).

The next step is positioning the surgical drape, which is plastic and has a transparent, adhesive fenestration that is centered over the eye undergoing surgery. The patient is asked to keep his or her eyes open and look at the ceiling, so that the fenestration's adhesive area adheres to the eyelashes. The plastic is cut with a small pair of scissors, making sure no damage is caused to the skin, conjunctiva, or (worse still) the cornea. The speculum is positioned next.



Figure 8-2. Position of the surgeon with respect to the patient and the instruments.

If the patient's eyelashes have not been properly covered by the plastic drape, a Tegaderm (3M) dressing should be applied to keep the eyelashes out of the operating field before placing the speculum. Surgical drapes with a special opening to isolate the eye undergoing surgery are available. Once put in position, these drapes require a Tegaderm dressing to cover the eyelashes and keep them away from the operating field.

The speculum is then put into place. It is important that the speculum does not weigh down onto the eye and does not lose grip during surgery. It must not alter the forces acting on the globe by compressing or stretching the walls of the eye—this is crucial to avoid negative effects on the execution of the incisions and especially during phacoemulsification and other surgical procedures.

The speculum can be single or bivalve—both are equally satisfactory. The surgeon decides which one to use. If a single speculum is chosen (ie, a pair of singles with an elastic band), the elastic band is fixed onto the surgical drape with Klemmer forceps to obtain good exposure of the eye. The advantage of two single speculums is that patients find them less irritating and trauma is reduced, so there are fewer chances that the patient will involuntarily contract palpebral muscles, causing the expulsion of the instrument. They are more versatile and can be used to obtain a good palpebral aperture even in patients with particularly deep-set eyes. They do not hinder the surgeon's movements.

Bivalve speculums can have open or closed valves and can be adjusted with a screw. Patients find them a little more irritating compared with single speculums and, in the case of poorly cooperative patients who contract palpebral muscles, they can cause superficial abrasions to the skin.

Once the speculum is in place and good exposure of the eye is ensured, the eye and the fornices can be irrigated with BSS to remove any residual disinfectant. This wash is also useful to remove any secretions and to hydrate the corneal surface, which makes it easier for the surgeon to have a good view of the cataract and of all the structures of the