

Advisory on the Use of Salt Tablet Saline

The rising costs of hydrogel lens care solutions and the adverse ocular responses of some patients to preservatives in saline solutions have caused many practitioners to prescribe patient-prepared salt tablet saline.

This is considered an appropriate saline for thermal disinfection, simple rinsing of surfactant cleaners or preparation of enzyme tablets. However, it constitutes a potential risk when used in other fashions in room temperature care systems. Any use of salt tablet saline after the disinfection step is totally inappropriate as the solution is not sterile.

In the author's experience, home-prepared saline has been most often misused with the Septicon system when it is substituted for preserved or sterile non-preserved salines for overnight storage. Based on the research of Pitts,¹ Morgan,² Milauskas,³ and Wilson,⁴ it is clear that this constitutes a risk of lens contamination and the possible result of infection. The distilled water used in the preparation of these salines may not be sterile when purchased and is likely to become contaminated as it stands for weeks or months with no preservative protection. The tiny mixing bottles are equally susceptible to contamination and/or continuation of microbial growth. If salt tablet saline is used for storage, the patient will take the time to clean and disinfect the lenses, and then store them in a contaminated environment prior to insertion. There is nothing to break the cycle of

contamination in this situation unless the prepared saline is made and boiled daily and the lens storage case is boiled regularly.

Fortunately, the incidence of serious ocular infections associated with hydrogel lens wear is low. However, in those cases where significant damage to vision has occurred the infective organism was usually found growing in the lens storage solution.

As protectors of our patients' ocular health, it is our duty to minimize the risk of infection. Therefore, we conclude that it is not appropriate to prescribe the use of home-prepared salt tablet saline with the Septicon System or with any room temperature care system after the disinfection cycle.

If non-preserved salines must be used, the appropriate solutions are sterile unit dose salines or pressurized aerosol saline.

J.E. Josephson

References

1. Pitts RE, Kachmer, JH: Evaluation of soft contact lens disinfection in home environment. *Arch Ophthalmol* 97(3): 470-472, Mar 1979.
2. Morgan JF: Complications associated with contact lens solutions. *Ophthalmol* 86: 1107-1119, June 1979.
3. Milauskas AT: Pseudomonas aeruginosa contamination of hydrophilic contact lens solutions. *Trans Am Acad Ophth and Otolaryng*, 76(2): 511-516, 1972.
4. Wilson L: Contact lens solutions in the United States *JBCLA*, 7(4): 213-217, October 1984.

Editor's Note: The following exchange of correspondence was forwarded to the CJO by one of the correspondents, Dr. Howard Backman of Pierrefonds, Québec.

Dear Sir:

I am a practising Optometrist and would like to file a complaint with the Health Protection Branch concerning a health hazard.

Contact lenses and, in particular, soft contact lenses have become very popular. It is common that patients are dispensed used lenses rather than new sterile lenses. Manufacturers, such as Bausch & Lomb, encourage the dispensing of lenses from "inventory". This means that an Optometrist, Optician or Ophthalmologist could provide the lens to the patient on his or her first visit. These lenses are used for the initial examination and then dispensed. If the patient has problems, the lenses are exchanged or returned with a refund. What usually happens to the lenses that the patient has used? The manufacturer will *not* take them back at no charge, therefore they are often dispensed again. What about the patient who is dissatisfied? Are the lenses destroyed or dispensed again to someone else? Manufacturers such as Coopervision have even stated publicly that some practitioners will permit their patients to try out lenses.

I am concerned that there is a strict law

concerning the resale of used medications, undergarments, swim suits, and cosmetics. That is, the consumer may not return these products once they have been used. I believe that your agency should protect the public by regulating contact lenses in the same manner. Only sealed, sterile, new lenses provided by the manufacturer could be dispensed. The public should be informed as to the common practice of receiving worn, used and sometimes non-sterile contact lenses. Lenses should be in the original container with the specifications written on it as received from the manufacturer. Too often the patient is not even informed as to the *name* of the product he or she is using and this presents problems to other practitioners when the patient decides to see another practitioner.

I hope that you will investigate this problem. It is not with the manufacturers of the lenses but rather with the dispensers. The dispensers often provide used lenses and do not provide the patients with the brand name of their lenses. This applies to all three groups mentioned above.

Thank you for your attention to this important matter.

Dr. H.A. Backman
Optometrist
Pierrefonds, Qué.

Continued on P. 88