Antiseptic Prophylaxis and Therapy in Ocular Infections
Antiseptic Prophylaxis and Therapy in Ocular Infections
Principles, Clinical Practice and Infection Control

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It has been said that it is always better to prevent a disease than to treat it. This is particularly important to the eye where the potential negative outcome is blindness.

The literature on the use of antiseptic agents to prevent and treat eye infections has increased markedly in the last 30 years. In 1982, when Leonard Apt and I scoured the literature to seek scientifically sound publications (utilizing controls, randomization and masking) to justify a particular regimen to prepare eyes before surgery, we found almost none. This was approximately 100 years after Credé proved the principle that prophylaxis can prevent ocular infections in the context of ophthalmic neonatorum. We then conducted a worldwide survey to see if there was any consistency in the methods of preoperative preparation by well-known ophthalmologists [1]. We found very little uniformity.

Since then, the literature has exploded with well-done studies to prevent eye diseases. Can these studies make a difference? Consider the impact of one example – that of the application of a drop of 5% povidone-iodine solution to an eye just before surgery [2]. It is estimated that in the United States, approximately 2.5 million intraocular operations are performed annually. Assume that about 25% of cases of postoperative endophthalmitis result in functional blindness and that, according to Speaker and Menikoff [3, 4], the use of povidone-iodine preoperatively reduces the incidence of endophthalmitis from 0.24 to 0.06%. Thus, by virtue of this one intervention, more than 1,100 people annually will not suffer from blindness in one eye. This calculation is for the United States alone. Imagine the magnitude of vision preserved if all the measures promoted in this book were employed!
Obviously, this is a work that is long overdue. Professors Kramer and Behrens-Baumann are to be congratulated for bringing the collective knowledge and experience of themselves and their expert contributors, largely from Europe, to expand on this important topic. May the readers apply the lessons from this excellent text to their patients as we together continue to fight against one of the scourges of humanity – blindness.

_Sherwin J. Isenberg, MD_

**References**

Preface

In the course of the past two decades, antisepsis has witnessed more or fewer developments, depending on the respective medical discipline. Most developments were seen in skin antisepsis, which is the only area permitting standardized efficacy testing in vitro and on persons (phase 2, step 2). In addition, several indications can already be distinguished for antisepsis of the oral cavity.

Antisepsis in ophthalmology is still at an incipient stage. This is surprising since Credé’s prophylaxis has a tradition spanning more than 100 years. However, antisepsis of the eye has been well focused during the past few years. This is due to measures aimed at prevention of endophthalmitis and to increasing bacterial resistance to antibiotics.

This publication, which is the first of its kind to deal with antisepsis in ophthalmology, aims to systematically collate the available clinical and experimental findings and evaluate them in respect of their relevance to the practical setting. Since antisepsis can only be successful as part of a general infection-prevention concept, some techniques for pathogen isolation, hand hygiene and contact lens hygiene are discussed. In addition, sampling and dispatch of samples to the laboratory are presented.

All authors deserve recognition for their commitment to presenting the latest findings in their field. Furthermore, we thank the personal secretaries of the editors, Mrs. Brigitte Sümnicht and Mrs. Stefanie Scheid, for their technical assistance.

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