



# The tolerability of diluted povidone-iodine (Braunol®) for preoperative antisepsis prior to ophthalmological surgery: An observational study

B. Braun Medical Ltd, CoE Infection Control

## **Background:**

Povidone-iodine is currently used throughout the world by ophthalmic surgeons for preoperative antisepsis. It is an antimicrobial agent of choice due to its beneficial characteristics; it is not toxic to the eye, it has a very broad antimicrobial spectrum, resistance by bacteria does not exist and it is inexpensive. Although povidone-iodine is regularly used and accepted for preoperative antisepsis for the eye, few studies have been published to evaluate the tolerability. Therefore, the aim of this study was to assess the tolerability of povidone-iodine solutions of 1.25% and 2.5% when used for preoperative antisepsis in ophthalmic surgeries.

## **Methods:**

This study was a single-centre observational study performed with 200 pre-operative ophthalmological patients. The study took place at an ophthalmology clinic located in Germany, which performs approximately 60 intraocular procedures per week and has used povidone-iodine dilutions for preoperative antisepsis for more than 14 years. This study took place from October of 2005 to June of 2007. Preoperative patients who were to undergo a lid or cataract operation, were 3–80 years of age and had an American Society of Anesthesiologists (ASA) score of 1–3 were included in the study. Patients received either 1.25% or 2.5% povidone-iodine for preoperative antisepsis to the periorbital area, conjunctiva and cornea. Nearly all patients undergoing cataract surgery (99 out of 100) received 1.25% povidone-iodine for preoperative antisepsis and patients undergoing lid surgery received 2.5% povidone-iodine according to local practice. Up to 1 ml of the solution was applied using an applicator. The povidone-iodine solution was diluted from Braunol®, B. Braun Medical Ltd., Sempach, Switzerland (7.5% povidone-iodine with a balanced salt solution). The exposure times were three, five or seven minutes. An anonymous, standardized case report form was used by the physician to assess the tolerability of the preoperative antisepsis.

## **Results:**

All together, 200 patients were observed in this study, with 99 (49.5%) patients receiving 1.25 % povidone-iodine and 101 (50.5%) patients receiving 2.5% povidone-iodine. In total, from 200 patients there were four spontaneous reports of discomfort, which were classified as "slight" after 5 minutes contact time and occurred with the 1.25% concentration. On inquiry, discomfort was reported by no new additional patients. Three patients from the group of four patients who spontaneously reported "slight" discomfort continued to report discomfort on inquiry.

## **Principal investigator:**

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## **Sponsor:**

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