

Report on a practical test with the RELAX dental mirror

For E. HAHNENKRATT GMBH

**Centre for Dental, Oral and Maxillofacial Medicine of the
Johann Wolfgang Goethe University Hospital, Frankfurt, Germany**

Department of dental prosthetics

Director: Prof. Dr. H.-Ch. Lauer

Dr. Jan Brandt	DELIVERY ADDRESS	Postal address:
Consultant;	Theodor-Stern-Kai, Haus 29	Theodor-Stern-Kai, Haus 29
Prosthetic specialist	60596 Frankfurt am Main	60590 Frankfurt am Main
	Germany	Germany
	Date: 03 February 2015	Tel.: +49 (0)69 6301-83617
	Email: brandt@med.uni-frankfurt.de	Fax: +49 (0)69 6301-3711

The dental mirror is a central dental instrument during intraoral diagnosis and treatment. The general handling, ergonomics and also the possibility of reprocessing are decisive parameters in the evaluation of this type of instrument.

In this practical test the RELAX dental mirror from E. Hahnenkratt GmbH was used in the routine daily practice of the Department of Dental Prosthetics of the Centre for, Oral and Maxillofacial Medicine (Carolinum) of the Goethe University in Frankfurt am Main, Germany, by different dentists and dental professionals over a period of six months. It involves an autoclavable plastic dental mirror. The two versions of the mirror Rhodium FS and ULTRA FS were integrated in the test in six available colours.

Assessment of the general handling and ergonomics of the dental mirror tested was very positive. In this context, the light weight of the instrument and the appealing haptics were highlighted as being very attractive features. The light-weight mirror was found to be especially beneficial during longer treatment procedures. The recessed grip on the instrument handle made it comfortable to hold for all testers, especially when the mirror had to be held against the pressure of the tongue.

The ULTRA FS version of the mirror was particularly impressive. The instruments with the ULTRA FS mirror were preferred by the dentists who took part due to the sharp and particularly clear mirror image.

Reprocessing a dental instrument is a routine procedure in daily practice. Risk assessment was completed in compliance with the RKI (Robert Koch Institute) guidelines published in the Federal Health Gazette according to Table 1: "Risk evaluation and classification of medical products before processing". In our dental hospital the dental mirrors were classified as "semi-critical A". The sterilisation working stage is therefore optional. Even with "semi-critical B" sterilisation remains an optional stage. According to the instrument processing instructions, processing is considered complete after thermal disinfection and checking the instruments. The material of an instrument should not change during processing and the colour stability also plays an important role. The tested dental mirrors are autoclavable.

In the practical test the mirrors were processed daily in the thermal disinfectant (Miele G 7882 CD) at 92°C and then dried at 99° (total duration: 85 min.) using Mucapur AF (Merz Hygiene GmbH, Frankfurt am Main, Germany) as the cleaning agent and Mucapur N (Merz Hygiene GmbH, Frankfurt am Main, Germany) as the neutralising agent. No significant changes were determined here, either in the surface quality or in the colour (see also Fig. 1-4). It was also established during the process procedure that - in comparison with the models used in the hospital up till now - the smooth transition from mirror glass to the frame had a positive effect on avoiding possible residues. In addition, the different colours of the instruments ensured easy, reliable assignment to the relevant treatment area.

Figures 1-4 show a selection of the dental mirrors used in the practical test. The mirror on the left is unused and the instrument on the right, slightly lower has been used and was already processed daily over a period of six months.

Fig.1:



Selection of dental mirrors used in the practical test - unused (upper dental mirror) and processed (lower dental mirror)

Fig. 2



RELAX dental mirror in black - unused (left) and processed (right)

Fig. 3



RELAX dental mirror in white- unused (left) and processed (right)

Fig. 4



Arrow tip: Example of an insignificant change in colour on the edge. This could also only be determined in the black version.

The colour and material stability during the daily processing procedure ensured the high longevity of the instruments.

In summary, the practical test carried out produced a positive result for the RELAX dental mirror, both in terms of the comfortable ergonomics and also the quality of the mirror. The very clear ULTRA FS version, in particular, made viewing easier and therefore detection and also working with an indirect view via the mirror.