

The efficacy of chlorhexidine mouthwash, with and without an anti-discoloration-system (ADS), on the parameters plaque, gingivitis and tooth surface discoloration = a systematic review and meta-analysis



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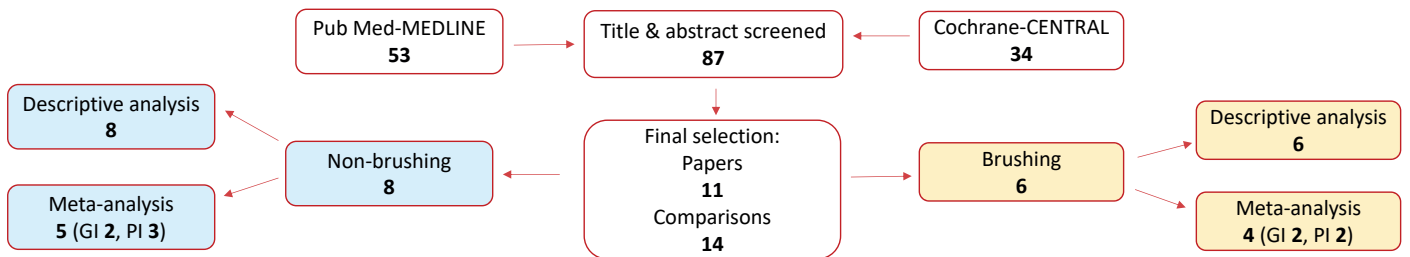
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PD085

Aim: The aim of this systematic review was to determine, if an anti-discoloration system(ADS), added to CHX-mouthwash is effective in order to reduce tooth surface discoloration. Additionally to evaluate whether CHX maintains its efficacy with respect to plaque and gingivitis.

Conclusion: The addition of ADS to CHX-MW generally reduces tooth surface discoloration and does not appear to affect its properties with respect to gingival inflammation and plaque scores. The recommendation emerging from this review is that with respect to plaque and gingivitis reduction CHX-MW+ADS should be considered in order to avoid tooth surface discoloration.

Methods: MEDLINE-PubMed and Cochrane Central Register of Controlled Trials were searched from their inception up to April 2018 to identify eligible studies. The inclusion criteria were (randomized) controlled clinical trials conducted with human participants in good general health. Papers evaluating the effect of a CHX-MW+ADS compared to CHX without ADS were included.

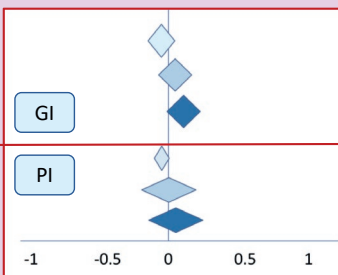


Results:

Non-brushing						
Author, year	Intervention	SI	PI	BI	GI	Control
Basso et al. (2008)	CHX-MW+ ADS 0.2%	+	o	□	o	CHX-MW 0.2%
Li et al. (2013)	CHX-MW+ ADS 0.12%	+	-	□	-	CHX-MW 0.12%
Weinstein et al. (2014)	CHX-MW + ADS 0.09%	+	o	□	o	CHX-MW 0.2%
Marrelli et al. (2015)	CHX-MW+ ADS 0.2%	+	+	□	□	CHX-MW 0.2% (A)
		+	-	□	□	CHX-MW 0.2% (B)
Cortellini et al. (2008)	CHX-MW + ADS 0.2%	+	□	□	o	CHX-MW 0.2%
Bevilacqua et al. (2016)	CHX-MW + ADS 0.2%	o	o	o	o	CHX-MW 0.2%
		o	o	o	o	CHX-MW 0.12%

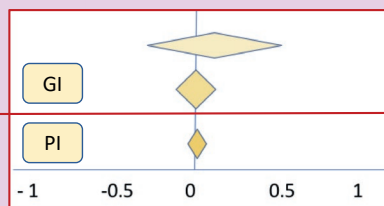
Brushing						
Author, year	Intervention	SI	PI	BI	GI	Control
Bernardi et al. (2004)	CHX-MW+ ADS 0.2%	+	o	□	o	CHX-MW 0.2%
Solis et al. (2010)	CHX-MW+ ADS 0.2%	+	o	o	□	CHX-MW 0.2%
Graziani et al. (2013)	CHX-MW + ADS 0.2%	o	-	o	o	CHX-MW 0.2% (A)
		o	-	o	o	CHX-MW 0.2% (B)
Pereira et al. (2017)	CHX-MW + ADS 0.2%	+	o	□	□	CHX-MW 0.2%
Varoni et al. (2017)	CHX-MW + ADS 0.12%	o	o	o	□	CHX-MW 0.12%

SI Staining Index
 PI Plaque Index
 BI Bleeding Index
 GI Gingival Index
 + Significant difference in favour of CHX + ADS
 - Significant difference in favour of CHX
 o No significant difference
 □ No data available (not tested)



Base -0.01[-0.04;0.02]
 End 0.04[-0.02;0.11]
 Diff. 0.05[-0.00;0.11]

Base -0.01[-0.05;0.03]
 End -0.00[-0.25;0.25]
 Diff. 0.05[-0.22;0.31]



Base 0.11[-0.28;0.49]
 End 0.00[-0.05;0.06]
 Diff. Not applicable

Base Not applicable
 End 0.01[-0.01;0.02]
 Diff. Not applicable