



WHEN YOU NEED CHLORHEXIDINE.



2023



Curasept never stops its research of the best solutions.



ABOUT US

Curasept S.p.A was founded in 2001 by former managers of Warner Lambert Consumer Healthcare.



IT IS A PRIVATELY OWNED ITALIAN COMPANY SPECIALISING IN ORAL CARE.

Its offices are located in Via Parini 19, Saronno (VA).

Since its foundation, the Company success is based on the innovation that the R&D team ensures in all the Curasept's products.

The first amazing example of this attitude to progress has been, in 2002, the design and development of the **first innovation in the chlorhexidine market since the 1960s: the ANTI-DISCOLORATION SYSTEM (ADS®)** that now is an international patent.

This system revolutionized the sector, by allowing the use of chlorhexidine without one of its well-known side effects, the risk of tooth discoloration.

ADS | DNA



Chlorhexidine

BY 2005 THIS PRODUCT, CALLED CURASEPT ADS, IT HAD BECOME PRODUCT LEADER OF THE CHLORHEXIDINE MARKET IN PHARMACIES IN ITALY.

But Curasept never stops its research of the best solutions for its patients and stakeholders; for this reason the innovation in the chlorhexidine field continued with a line extension due to the association of hyaluronic acid, chlorobutanol, hamamelis virginiana extract or PVP-VA and colostrum to the chlorhexidine.

DAYCARE
Non-chlorhexidine
daily use

IN 2007 A NON-CHLORHEXIDINE DAILY USE MOUTHWASH RANGE WAS LAUNCHED UNDER THE CURASEPT DAYCARE LABEL.

More recently, in 2016, CURASEPT launched the BIOSMALTO range, a new formula that helps the remineralisation of tooth enamel.

This product, year after year, is becoming closer to the leadership of the remineralization market.

CURASEPT
BIOSMALTO

Curasept S.p.A. is a joint stock company, that operates in the oral hygiene sector.

In Italy Curasept sells directly in the dental and through concessionaries in the pharmacy channel being.

**#1 COMPANY IN THE
CHX MARKET**
in pharmacies with
65,9%
of market share in Italy*.

The Company
sells internationally
in more than
40 countries
through
35 distributors.



**New Line MAT November 2022, Chlorhexidine market.*

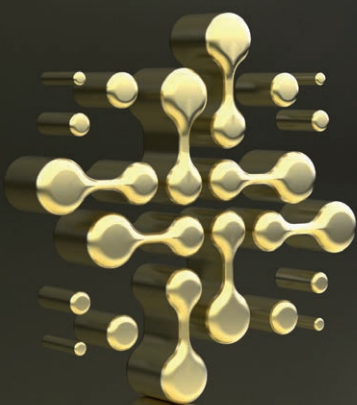


The first chlorhexidine revolution.



CHLORHEXIDINE ADS

“Today, chlorhexidine is the active ingredient that represents the “gold standard” in plaque control and in preventing gingivitis.



IT PERFORMS BACTERICIDAL ANTIMICROBIAL ACTIVITY, HAS A BROAD SPECTRUM AND MINIMAL BACTERIAL RESISTANCE.

Its main feature is its high substantivity, i.e. the ability to bind to oral structures and be released gradually over time, even for several hours, as it binds to teeth and mucous membranes, extending its action for approximately 12 hours after rinsing.”

GRAZIANI F, CHIEFFI S, TOMASI C.
“Atlas of Periodontology and Implant Therapy”
Volume I, p. 134/135.

DESPITE ITS GREAT THERAPEUTIC VALUE THE CHLORHEXIDINE HAS A WEAK POINT.

Tooth pigmentation is possibly the most reported side effect related to the prolonged use of chlorhexidine, and it can lead to a consistent limit, lowering the patient compliance with the prescribed treatment.

The chlorhexidine lead to enamel pigmentation through three ways:

1

This molecule **triggers the Maillard reaction** that leads from sugars and glycosalamines to yellow and brown compounds.

2

This molecule **denatures the disulfide bridges in proteins leading to SH groups** that bind the Fe^{3+} in the mouth forming yellow and brown compounds.

3

This molecule **interacts with pigmenting substances** in the foods and drinks.

CURASEPT MADE THE DIFFERENCE BY NOT SETTLING FOR A PRODUCT THAT, ALTHOUGH EFFECTIVE, WAS SEVERELY RESTRICTED IN ITS USE.



By investing in research and development, an **innovative formulation was created**, which **significantly reduces the discoloration effect on enamel** while retaining the positive effects of the treatment.

A milestone in the history of oral care, which effectively marked the **first major chlorhexidine revolution**.



A system that reduces tooth pigmentation, the most common and troublesome side-effect **associated with the use of chlorhexidine, through two mechanisms of action.**

1

INTERFERENCE WITH MAILLARD REACTION

Thanks to Sodium Metabisulphite, it transforms diketosamines into Bertagnini compounds, **interrupting the sequence of these reactions.**

2

INTERFERENCE WITH THE PROTEIN DENATURATION REACTION

Thanks to Ascorbic Acid, it reduces Fe^{3+} to Fe^{2+} , **preventing the formation of organic ferric sulphides.**

“Others benefits of the ADS[®]”

UNALTERED ACTIVITY OF CHLORHEXIDINE

ADS[®] components do not reduce the substantivity of chlorhexidine, do not impair its bactericidal, bacteriostatic and denaturing activity and do not bind to molecules in solution.

CLINICALLY CONFIRMED EFFICACY

Chlorhexidine with ADS[®] as well as reducing staining, can decrease plaque and gingival inflammation as effectively as chlorhexidine alone (also described by Italian Ministerial Guidelines on Oral Health, 2014).

TOTAL SAFETY AND VERSATILITY

Chlorhexidine with ADS[®] can be safely used for both short- and long-term treatment. According to concentration and components' addition can be used for a medium-long period.

ALCOHOL AND SLS FREE FOR A BETTER COMPLIANCE

The absence of alcohol and SLS reduces pain, mucosal dehydration and irritations during rinsing.



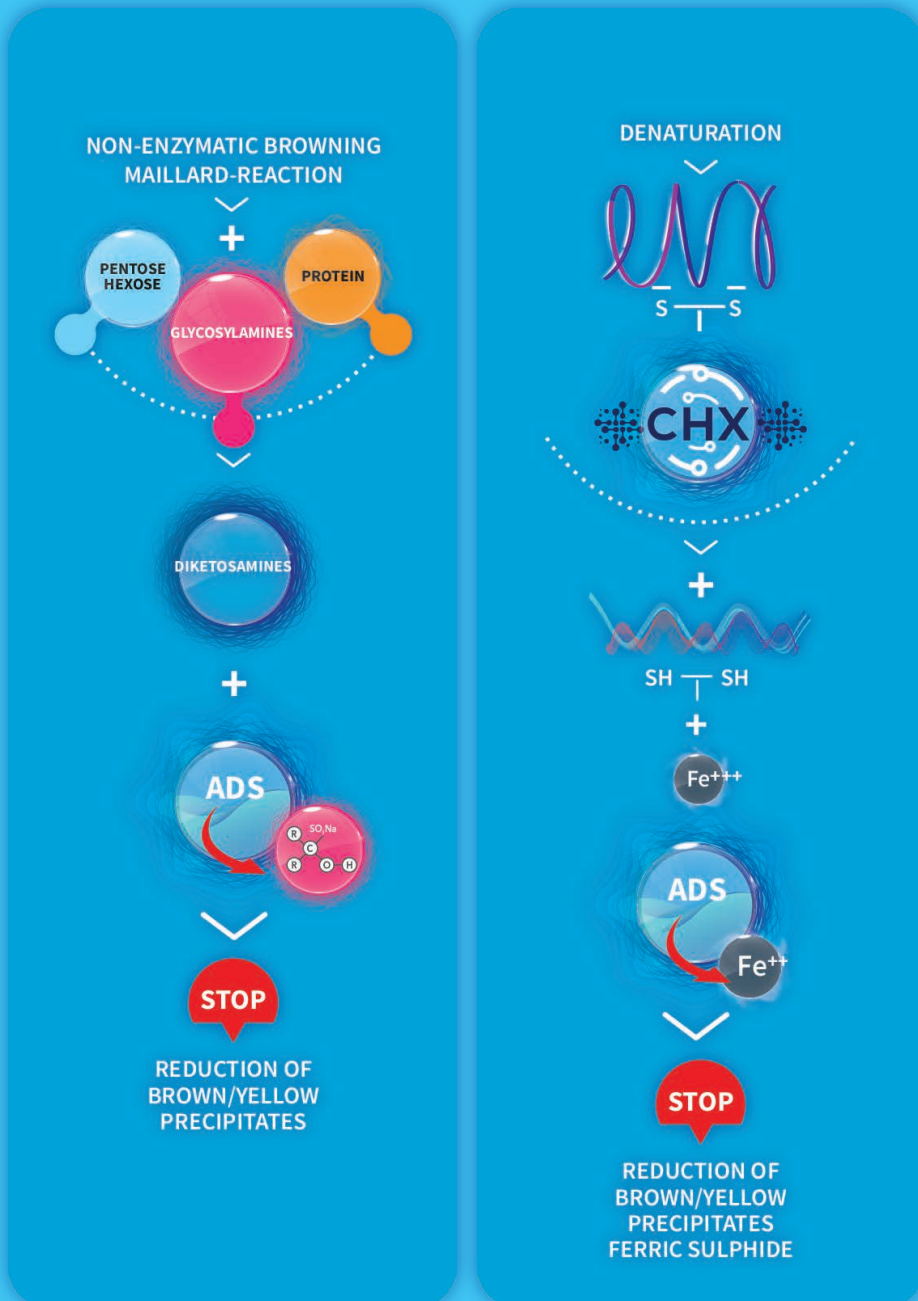
Chlorhexidine digluconate



ADS system

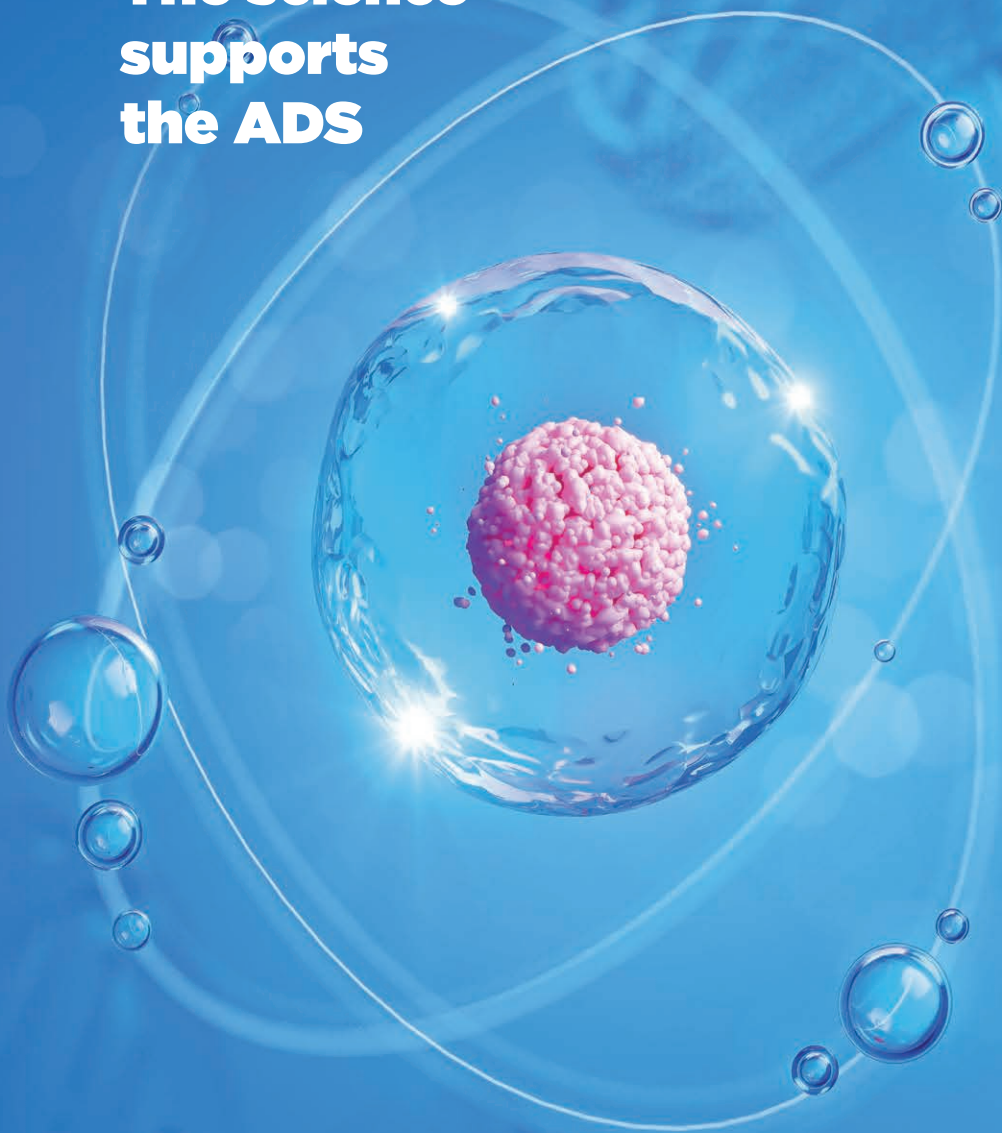
It acts on the etiological factors of gingivitis and periodontal disease, with bactericidal and disintegrating effects of the Biofilm. *“Chlorhexidine digluconate is the best anti-plaque and anti-gingivitis agent available today”.*

Sushma Nachnani UHRG Director
(University Health Resources Group)





**The science
supports
the ADS**





The efficacy of Curasept ADS®.

CLINICAL STUDIES

The efficacy of Curasept ADS® against the gingival irritation was **confirmed by many in vitro and in vivo studies.**

“The answer to the question – whether ADS works or not – is: the chlorhexidine with ADS does eliminate the side effect of staining.”

“The chlorhexidine with ADS® appeared to be effective in preventing stain on the teeth”.

Lang NP, et al. 2012
Swiss Dent

“Chlorhexidine with ADS® caused less pigmentation, was burdened by less side effects and was more agreeable than a chlorhexidine without ADS®; chlorhexidine with ADS® was as effective as chlorhexidine without ADS® in reducing gingival signs of inflammation in the post-surgical early healing phase”.

Cortellini P, Pini Prato GP, Tonetti M, et al. 2008
Journal of Clinical Periodontology

“Post-surgery plaque control regimen based on CHX and CHX+ADS®+HA mouthrinses is associated with optimal quality of early wound healing. This positive finding can be partly explained by the substantial antiplaque and antigingivitis effect”.

Trombelli L, et al. 2018
International Journal of Hygiene



In 2002 Curasept designed and patented the ADS system.

A system that reduces tooth pigmentation, the most common and troublesome side-effect associated with the use of chlorhexidine.

® **ADS**
ANTI DISCOLORATION
SYSTEM





CURASEPT®

AUTHOR	DENTAL BRANCH (periodontology, ortho...)	CURASEPT ADS® FORMULA
Graziani 2021 Graziani et al Sidp 20 23-25 September 2021	PERIODONTOLOGY ORAL SURGERY	CURASEPT 0.20% WITH HYALURONIC ACID
Trombelli 2018 International Journal of Dental Hygiene; EUROPERIO 9, Amsterdam (June 20-23, 2018)	PERIODONTOLOGY ORAL SURGERY	CURASEPT 0.20% WITH HYALURONIC ACID
Cortellini 2008 J Clin Period	PERIODONTOLOGY ORAL SURGERY	CURASEPT 0.20%
Varoni 2017 Am J Dent	PREVENTION	CURASEPT 0.12%
Palaia 2018 Clin Oral Invest	ORAL SURGERY	CHLORHEXIDINE 0.20% WITH HYALURONIC ACID
Solis 2011 J Periodont	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Bernardi 2004 Int J Dent Hygiene	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Brambilla 2018 Unpublished data	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Moroz 2017 Annals of Parasitology	PREVENTION	CURASEPT 0.05%
Bevilacqua 2016 Am J Dent.	PREVENTION PERIODONTOLOGY ORAL SURGERY	CURASEPT 0.20%
Jurišić 2018 Int J Dent Hygiene	ORTHODONTICS PREVENTION	CURASEPT 0.20%
Donati 2012 Dental Clinics	ORAL SURGERY/ONCOLOGY	CURASEPT 0.20% AND GEL 1%
Gasparone 2014 Poster – EFOSS-IADH Congress, Berlin	ORAL SURGERY	CURASEPT 0.20% AND CHLOROBUTANOL

TABLE OF ADS® STUDIES

COMPARISON FORMULA	STUDY TYPE	N. OF PATIENTS IN VIVO IN VITRO SAMPLES	IS ADS® EFFECTIVE AGAINST STAINS?	IS CHX + ADS® EFFECTIVE AGAINST PLAQUE AND INFLAMMATION?
CHLORHEXIDINE 0.20%	11	35	NOT EVALUATED	Effective in wound healing
CHLORHEXIDINE 0.20%	CLINICAL	35		✓
CHLORHEXIDINE 0.20%	CLINICAL	48	✓	✓
CHLORHEXIDINE 0.12%	CLINICAL	22	✓	✓
CHLORHEXIDINE 0.20% PLACEBO	CLINICAL	56	NOT EVALUATED	✓
CHLORHEXIDINE 0.20%	CLINICAL	15	✓	✓
CHLORHEXIDINE 0.20%	CLINICAL	15	✓	✓
• PVP-VA coll 0.1% • CHX GEL 1% • CHX 0.12% freshly prepared	LABORATORY	80 disks obtained from natural teeth	NOT EVALUATED	✓
OTHER 12 MOUTHWASHES	LABORATORY	36 plates	NOT EVALUATED	✓
• CHLORHEXIDINE 0.20% • CHLORHEXIDINE 0.12%	CLINICAL	53		✓
• CHX 0.20% • PLACEBO	CLINICAL	80	NOT EVALUATED	✓
STANDARDIZED ORAL HYGIENE ONLY	CLINICAL	52	NOT EVALUATED	✓
CURASEPT 0.20%	CLINICAL	42		✓



CURASEPT®

AUTHOR	DENTAL BRANCH (periodontology, ortho...)	CURASEPT ADS® FORMULA
Addy 2005 Int J Dent Hygiene	PREVENTION PERIODONTOLOGY	CURASEPT 0.12% AND CURASEPT 0.20%
Ramberg 2013 Poster	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Abdalrahman 2014 Master of Science Thesis	PREVENTION	CURASEPT 0.20%
Graziani 2015 Oral Health Prev Dent	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Marrelli 2015 Ann Stomatol	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Kouadio 2017 J Clin Exp Dent	PREVENTION	CURASEPT 0.12%
Bassani 2007 Poster	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Graziani 2009 Doctor Os	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Basso 2008 Dental Cadmos	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Basso 2005 Dental Cadmos	PREVENTION PERIODONTOLOGY	CURASEPT 0.20%
Li, Lang 2012 Swiss Dent	PREVENTION PERIODONTOLOGY	CURASEPT 0.12%
Bellia 2006 Università di Napoli	ORTHODONTICS PERIODONTOLOGY	CURASEPT 0.2% AND CURASEPT 0.12% TOOTHPASTE
Weinstein 2015 Doctor Os		ALL FORMULAS WITH ADS® SYSTEM
van Swaaij 2018 Poster Europerio 9, Amsterdam		MOUTHWASHES WITH ADS® SYSTEM

TABLE OF ADS® STUDIES

COMPARISON FORMULA	STUDY TYPE	N. OF PATIENTS IN VIVO IN VITRO SAMPLES	IS ADS® EFFECTIVE AGAINST STAINS?	IS CHX + ADS® EFFECTIVE AGAINST PLAQUE AND INFLAMMATION?
CHX 0.20% AND ALCOHOL	LABORATORY	24 acrylic blocks		✓
• CHX 0.12%/CPC 0.05% • CHX 0.12% ALCOHOL • NAF 0.05%	CLINICAL	17	✓	
• CHX 0.12% + CPC ALCOOL FREE • CHX 0.20% WITH ALCOHOL • PLACEBO	LABORATORY	56 culture plates	NOT EVALUATED	✓
• CHX 0.20% WITH ALCOHOL • CHX 0.20% ALCOHOL FREE • PLACEBO	CLINICAL	70	✓	✓ Effective on bleeding index
• CHX 0.20% WITH ALCOHOL • CHX 0.20% ALCOHOL FREE • PLACEBO	CLINICAL	200	✓	✓
• CHX 0.10% AND CHLOROBUTANOL 0.5% • POSITIVE CONTROL (TEA)	LABORATORY	Extracted teeth (unknown number)	✓	NOT EVALUATED
CHX 0.20% WITH ALCOHOL	CLINICAL	50	✓	✓
• CHX 0.20% WITH ALCOHOL • CHX 0.20% ALCOHOL FREE • PLACEBO	CLINICAL	40	✓	
CHX 0.20% WITH ALCOHOL	CLINICAL	30	✓	✓
CHX 0.20%	CLINICAL	20	✓	✓
• CHX 0.12% • PLACEBO	CLINICAL	26	✓	
CHX 0.2% 0.20% AND CURASEPT 0.12% TOOTHPASTE	CLINICAL	45	✓	
	REVIEW	30 publications examined		
	REVIEW	87 publications examined 11 selected	✓	✓

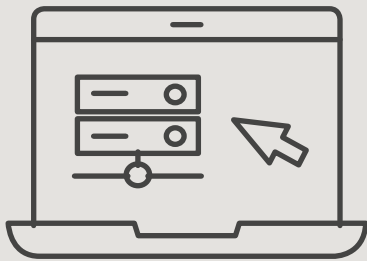


Meta-analysis revolution.

ADS Meta-Analysis

As **main support** about the value of the ADS **there is a meta-analysis** of the literature.

VAN SWAAIJ BWM, VAN DER WEIJDEN GA,
BAKKER EWP, SLOT DE - 2018



THE EFFICACY OF CHLORHEXIDINE MOUTHWASH, with and without an Anti Discoloration System (ADS®), on the parameters plaque, gingivitis and staining control.

A SYSTEMATIC REVIEW AND META-ANALYSIS.

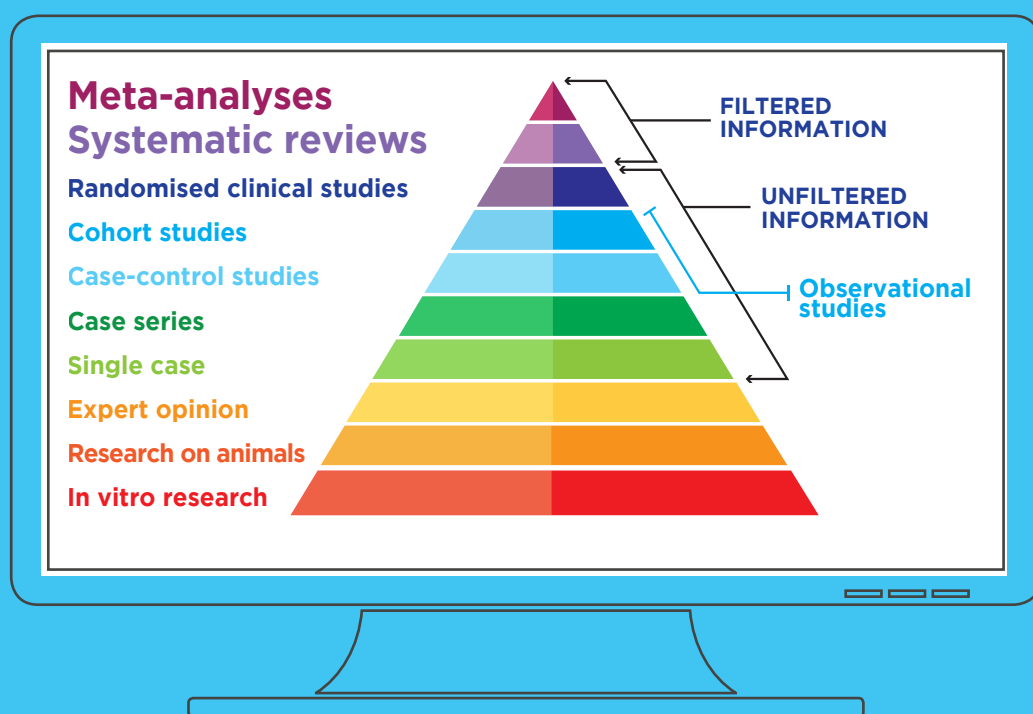
AIM OF SYSTEMATIC REVIEW

TO DETERMINE WHETHER COMBINING CHLORHEXIDINE WITH ADS® IS EFFICACIOUS IN REDUCING TOOTH DISCOLORATION, WHILST MAINTAINING THE PLAQUE- AND GINGIVITIS-REDUCING EFFECTS OF CHLORHEXIDINE.

87 publications analysed, **11** articles selected for review (**6** with protocols in which mechanical hygiene was discontinued, **5** in which mechanical hygiene was not discontinued). It was possible to obtain **14** direct comparisons, **9** of which were included in the final meta-analysis.



SYSTEMATIC REVIEWS AND META-ANALYSIS: THE HIGHEST LEVEL OF SCIENTIFIC EVIDENCE.



CONCLUSIONS

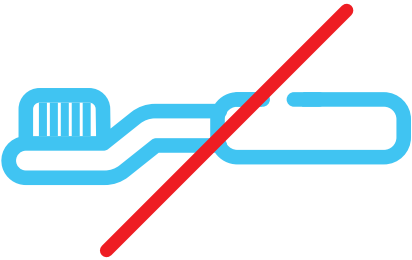
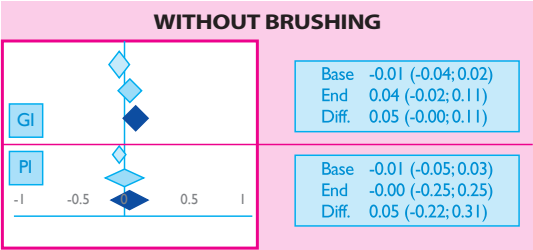
- Adding ADS® to a chlorhexidine mouthwash significantly reduces tooth discoloration and does not affect the action of chlorhexidine in controlling gingival inflammation and plaque indices.
- The recommendation resulting from this review is that the chlorhexidine + ADS® combination should be taken into consideration, given its efficacy in reducing plaque and gingival inflammation associated with anti-discoloration activity.

Results of the systematic review with the group without brushing (above, 6 publications, 8 comparisons) and with brushing (below, 5 publications, 6 comparisons).

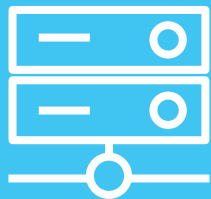
1

WITHOUT BRUSHING

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



SI: Stain Index. **PI:** Plaque Index. **BI:** Bleeding Index. **GI:** Gingival Index.
+ : Significant difference in favour of CHX + ADS® - : Significant difference in favour of CHX.
○ : No significant difference. □ : No data available (not tested).

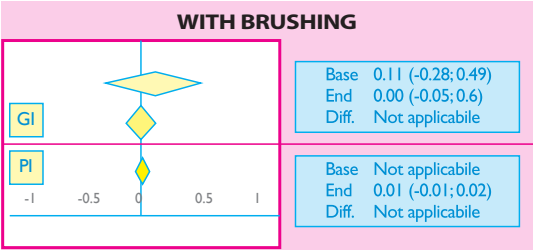


The charts show the results of the meta-analysis.

2

WITH BRUSHING

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



SI: Stain Index. **PI:** Plaque Index. **BI:** Bleeding Index. **GI:** Gingival Index.
+ : Significant difference in favour of CHX + ADS® - : Significant difference in favour of CHX.
○ : No significant difference. □ : No data available (not tested).

The minimal deviation from the value “zero” confirms that there is no significant difference between Curasept ADS® and chlorhexidine without ADS® in controlling plaque and gingival inflammation.

Curasept ADS



220-720

INTESIVE
TREATMENT

212-712

PROLONGED
TREATMENT

205-705

DAILY
TREATMENT

GELS

PROLONGED LOCAL
TREATMENT



Curasept ADS line is the first chlorhexidine line to contain the anti-discoloration system that allows the dentists and patients to use chlorhexidine without its famous side effects i.e pigmentation and taste disturbance.

REGENERATING
WITH HYALURONIC ACID

SOOTHING
WITH CHLOROBUTANOL

ASTRINGENT
WITH HAMAMELIS VIRGINIANA

PROTECTIVE
WITH PVP-VA + COLOSTRUM



CURASEPT®

**ADS
Classic line**

CLASSIC

**CURASEPT ADS® 220
Mouthwash
CURASEPT ADS® 720
Toothpaste
0.20% Chlorhexidine**



**Intensive protection for
irritated gums.**

TOPICAL USE

**CURASEPT ADS® 350
Gingival Gel
0.5% Chlorhexidine**



Use Mouthwash with the appropriate Toothpaste, Gel

THE **CHLORHEXIDINE-BASED** PRODUCT RANGE WITH ADS that protects your teeth and the health of oral mucosa in case of gingivitis or periodontitis.

CURASEPT ADS® 212
Mouthwash
CURASEPT ADS® 712
Toothpaste
0.12% Chlorhexidine



Prolonged
antiplaque action.

CURASEPT ADS® 205
Mouthwash
CURASEPT ADS® 705
Toothpaste
0.05% Chlorhexidine
+ 0.05% Fluoride



Antiplaque and
remineralizing action.

CURASEPT ADS® 1%
Parodontal Gel
1% Chlorhexidine + PVP/VA



Medical Device  0373
Read carefully warnings
and instructions for use.

and Toothbrush for the maximum antiplaque efficacy.



CURASEPT®

ADS Specific Treatments

ASTRINGENT

**Mouthwash
Toothpaste
Parodontal Gel***
0.20% Chlorhexidine
+ Hamamelis Virginiana



Helps reducing in case of
gingival bleeding due to
inflammation or plaque
accumulation.

SOOTHING

**Mouthwash
Toothpaste
Parodontal Gel***
0.20% Chlorhexidine
+ Chlorobutanol



Relief of irritative symptoms
involving the oral and
gingival mucosa.

Use Mouthwash with the appropriate Toothpaste, Gel

THE RANGE OF **ASSOCIATIONS**
WITH **CHLORHEXIDINE** suitable
for specific surgical requirements.

REGENERATING

Mouthwash*
Toothpaste
Parodontal Gel*
0.20% Chlorhexidine
+ Hyaluronic Acid



During healing process,
supporting repair of
wounds.

PROTECTIVE

Mouthwash*
Toothpaste
Parodontal Gel*
0.20% Chlorhexidine
+ PVP-VA and Colostrum



Antiplaque treatment in
patients with weakened
immune systems, more
prone to gum disease.

*Medical Device 
Read carefully warnings
and instructions for use.

and Toothbrush for the maximum antiplaque efficacy.

CURASEPT ADS

ASTRINGENT TREATMENT

CHLORHEXIDINE 0.20% + ADS + HAMAMELIS VIRGINIANA

IT STOPS THE BLEEDING ACTING BOTH ON
THE SYMPTOM AND ITS CAUSE.



Mode of use:

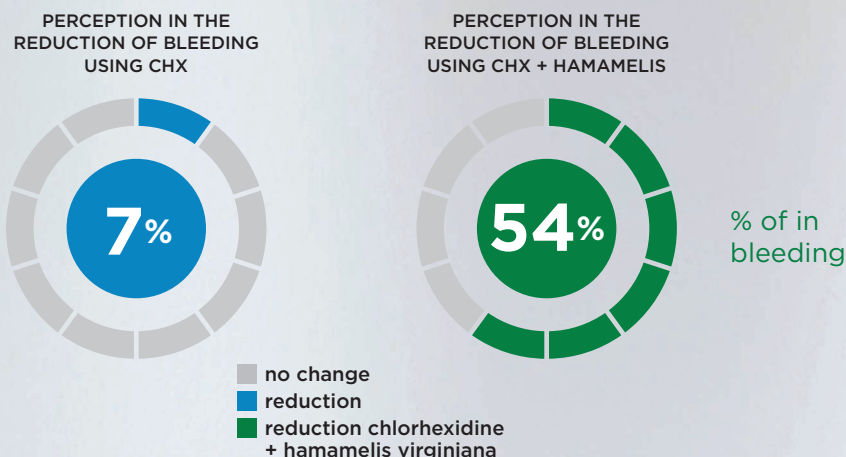
- Mouthwash 7/14 days
- Toothpaste 2 months
- Gel* 2 times a day for 10 days

*Medical Device 
Read carefully warnings
and instructions for use.

SPECIFIC TREATMENTS

The chlorhexidine eliminates the plaque that causes the bleeding while the Hamamelis Virginia leaf extract stops the bleeding itself.

ASTRINGENT EFFICACY FROM THE FIRST DAY OF TREATMENT



(02) Basso M., Gone Benites J. M., Bordini G.: Astringent effectiveness of a 0,2% chlorhexidine mouthwash with Hamamelis Virginia. Randomized, parallel, double-blind, controlled clinical trial. University of Milan. In Press 2016.



APPLICATION:

- Sensitive and bleeding gums
- Irritation and swelling of mucous membranes and gums
- Tongue irritation
- Support in case of use of anticoagulant or antiplatelet drugs
- Useful for taking dental impressions in the dental office

CURASEPT ADS

SOOTHING TREATMENT

CHLORHEXIDINE 0.20% + ADS + CHLOROBUTANOL

THE CHLORHEXIDINE ELIMINATES THE PLAQUE THAT CAUSES THE INFLAMMATION AND IRRITATION WHILE THE CHLOROBUTANOL HELPS IN RELIEVE THE PAIN.



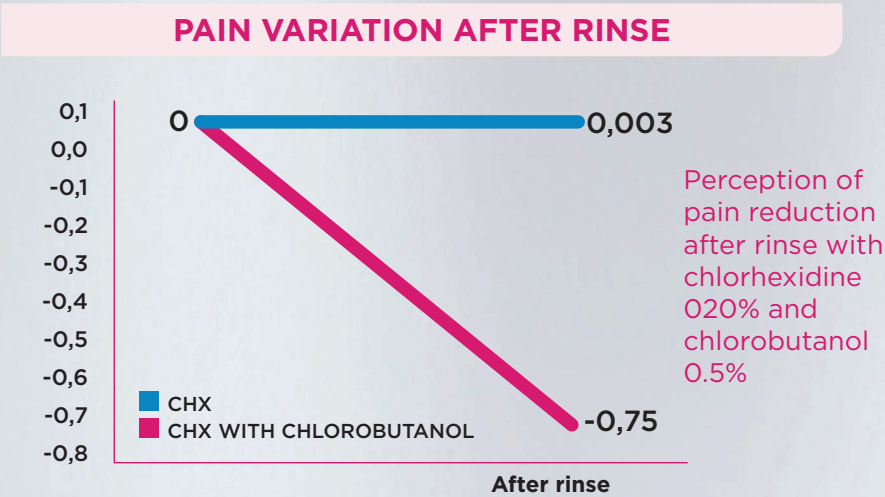
Mode of use:

- Mouthwash 7/14 days
- Toothpaste 2 months
- Gel* 2 times a day for 10 days

*Medical Device 
Read carefully warnings
and instructions for use.

SPECIFIC TREATMENTS

The combination between the anti plaque action of chlorhexidine and the benefits of chlorobutanol against pain and irritation helps in limiting the prescription of oral NSAIDs (non-steroidal anti-inflammatory drugs).



(03) Gasparone S., Gone Benites J., Basso M., Balducci L., Motta J. : Use of Chlorexidine 0,20% and Chlorexidine 0,20% + Chlorobutanol after extractive surgery. EFOSS-IADH International Congress, Abstract 859, Berlin 2014.



APPLICATION:

Plaque accumulation and pain caused by:

- Removable dentures
- Orthodontic appliances
- Tooth extractions
- Traumas
- Lesions infectious origin

Do not use below 6 years old and during pregnancy.

CURASEPT ADS
REGENERATING TREATMENT
CHLORHEXIDINE 0.20% + ADS
+ HYALURONIC ACID

PROTECTS THE MUCOSA DURING HEALING
PROCESS AND SUPPORTS THE REPAIR OF
WOUNDS.



Mode of use:

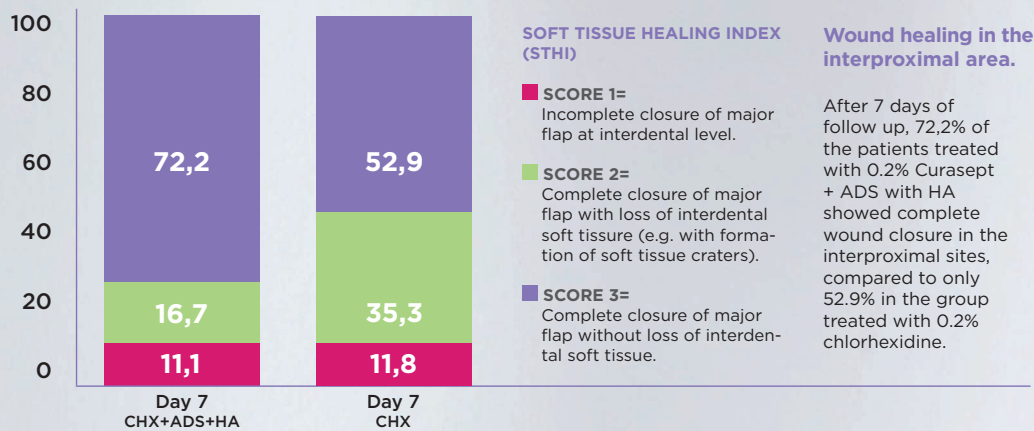
- Mouthwash* 7/14 days
- Toothpaste 2 months
- Gel* 2 times a day for 10 days

*Medical Device 
Read carefully warnings
and instructions for use.

SPECIFIC TREATMENTS

The association of the antiplaque action of chlorhexidine and the regenerating action of hyaluronic acid on the oral mucosa protects mucous membranes and speeds up wound healing and tissue repair thanks to the mechanical moisturizing and re-epithelising action of the hyaluronic acid.

CURASEPT ADS 0.20 + ADS PROMOTES MORE RAPID HEALING



(04) Guarnelli ME, Farina R, Simonelli A, Pramstraller M, Maietti E, Trombelli L. Clinical efficacy of a Chlorhexidine flap surgery: a triple-blind, parallel-arm, randomized controlled trial. Europerio 9, Asmterdam, (June 2018).



APPLICATION:

- After complex dental extraction procedures
- Dental implants surgery
- Bone regeneration procedures
- Periodontal plastic surgery i.e. in all cases where a more rapid normalisation of lesions is necessary, guaranteeing success of the dental procedures with more satisfying results for the patient.

CURASEPT ADS

PROTECTIVE TREATMENT

CHLORHEXIDINE 0.20% + ADS + COLOSTRUM + PVP-VA

HELPS TO PROTECTS THE EASILY IRRITABLE
MUCOSA FROM INFLAMMATION AND
RECURRENT GINGIVAL DISORDERS.



Mode of use:

- Mouthwash* 7/14 days
- Toothpaste 2 months
- Gel* 2 times a day for 10 days

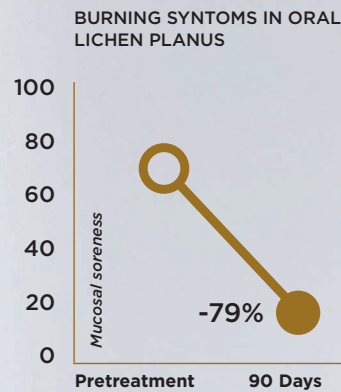
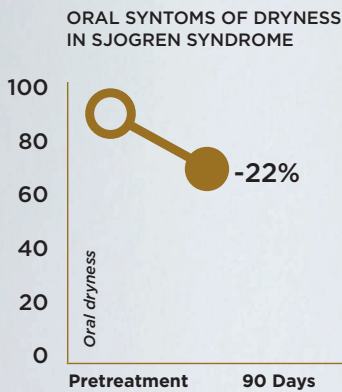
*Medical Device 
Read carefully warnings
and instructions for use.

SPECIFIC TREATMENTS

While the chlorhexidine eliminates the plaque, the PVP-VA and colostrum enhance the natural immune system defences in the mouth helping to protect the gums and the oral mucosa in weak patients as: smokers, diabetic or cancer patients and obese.

BOVINE COLOSTRUM

Reduction of subjective symptoms in patients with inflammatory diseases⁽⁴⁾



(4) Pedersen A. M. et al.: Oral findings in patients with primary Sjogren's syndrome and oral lichen planus - a preliminary study on the effects of bov.



APPLICATION:

Treatment for the easily irritated mucous membranes weakened by:

- Dry mouth syndromes
- Smoke
- Diabetes
- Radiotherapy/Chemiotherapy
- Immune syndromes
- Drugs and immunosuppressive medicinal products



ADS-DNA
line





DNA, the fundamental molecule of life.

Innovation is in our DNA

DNA is the fundamental molecule of life and is **responsible for maintaining and transmitting genetic information** in all things, from bacteria to humans.

Since the structure of DNA was identified in 1953, **many studies have been carried out to understand its functions, methods of replication and the implications for the treatment of degenerative and hereditary diseases.**

The **pharmaceutical industry** took an interest in this very special molecule back in the 1950s, beginning **experimenting with the aim of developing an effective treatment for dermatological conditions induced by ionising radiation.**

MANY STUDIES CARRIED OUT ON THE EPITHELIUM AND CONNECTIVE TISSUES

In fact, it was found that a new biologically active functional ingredient, composed of sodium DNA extracted from organic tissue – purified, depolymerised and neutralised with sodium ions – could have **significant protective and regenerative effects on the epithelium and the connective tissue.**

The most notable application of sodium DNA was in 1986 when it was used to tackle diseases caused by the Chernobyl disaster. In the following years, a **number of clinical trials aimed at treating different types of skin and mucous membrane lesions and conditions confirmed its benefits.**



It act as cellular bioactivator **with a double action: anti-inflammatory activity, tissue repair stimulation.** It also counteracts the irritating effect on gingival tissues due to the prolonged use of Chlorhexidine.

® **DNA**
NATURAL CONDITIONING
ACTION



Integration of natural sciences and engineering sciences.

BIOTECHNOLOGY

Research for perio and implant patients.



CURASEPT STARTED A THOROUGH ANALYSIS OF ALL AVAILABLE SCIENTIFIC DOCUMENTATION ON SODIUM DNA AND VALIDATED ITS USE IN THE ORAL CAVITY through various steps that would have demonstrated and ensured that it is truly effective in this specific medical-pharmacological field:

INDEPENDENT IN VITRO TESTS

in collaboration with the University of Milan and the Laboratory of Microbiology and Oral Microscopy, conducted by Prof. Eugenio Brambilla and Dr. Andrei Ionescu;

IN VIVO TESTS

in collaboration with the G. D'Annunzio University of Chieti Pescara, conducted by Prof. Antonio Scarano's group.

ANTI-INFLAMMATORY ACTIVITY

TISSUE REPAIR STIMULATION.





SODIUM DNA:

What is and how it works.

DNA SODIUM OR PDRN (POLYDEOXYRIBONUCLEOTIDE) SODIUM SALT, IT IS CONSTITUTED FROM A MIXTURE OF DNA FRAGMENTS WITH MOLECULAR WEIGHT FROM 250 TO 500 KDA.

The mechanism of action of Sodium DNA involves two processes:

1 Interaction with A2a adenosine receptors*

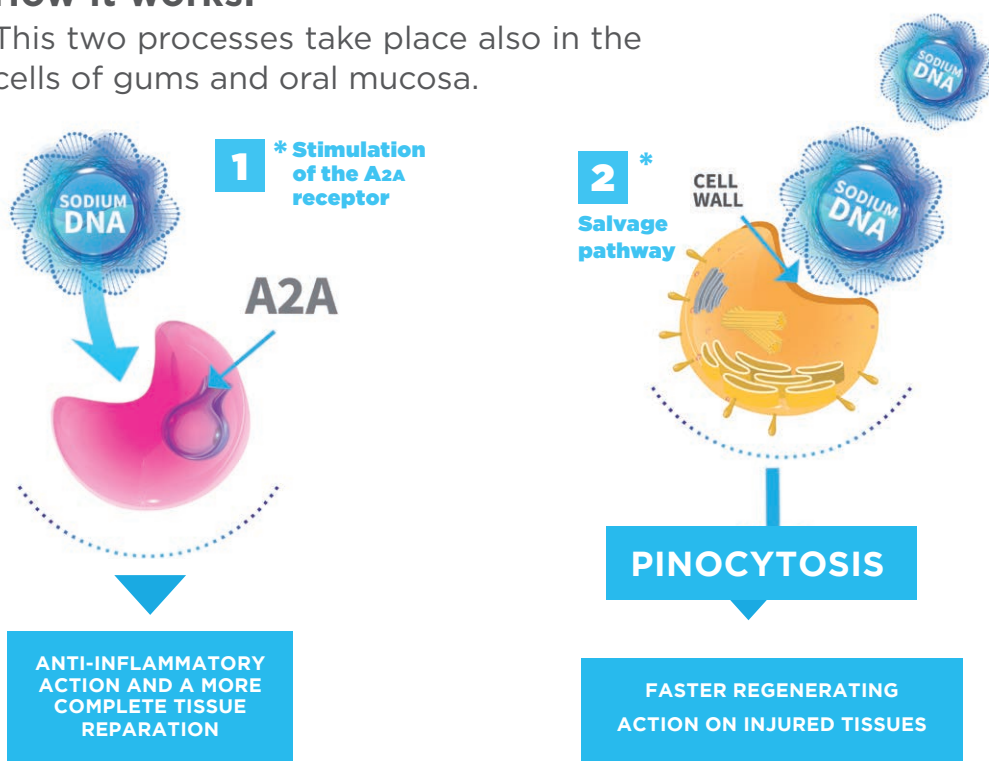
It provides an anti-inflammatory action and modulates multiple cellular inflammatory mediators.

2 “Salvage pathway”*

Nucleotide salvage pathways are used to recover bases and nucleosides that are formed during degradation of RNA and DNA. Through this pathway the sodium DNA, through, pinocytosis, is internalized into the cell. Then, these polynucleotides are depolymerized into smaller molecules that enter into the nucleus and are used to synthesize other substances for the cell survival and the support of the regenerative processes.

How it works.

This two processes take place also in the cells of gums and oral mucosa.





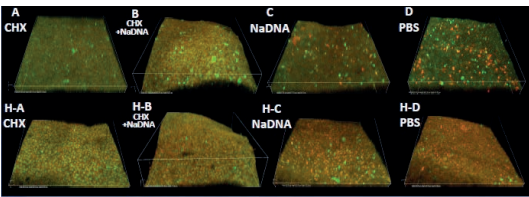
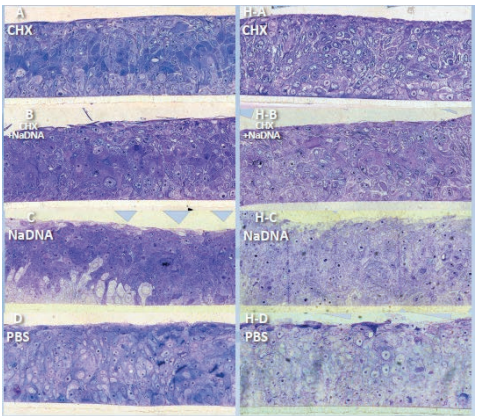
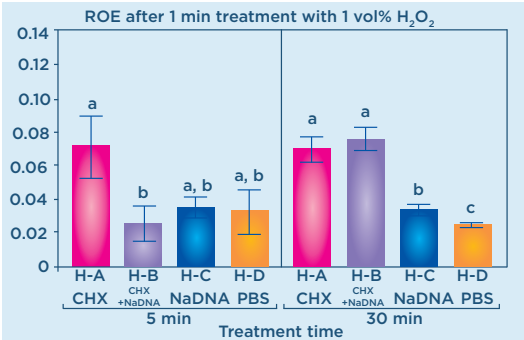
Na-DNA mouthwashes reduce cell degeneration: Bioreactor-based Reconstituted Oral Epithelium model. A biomimetic approach.

AUTHORS: Andrei Cristian Ionescu¹, Matteo Basso², Maria Giulia Pulcini², Arturo Dian², Eugenio Brambilla¹.
1. Oral Microbiology and Biomaterials Laboratory, Department of Biomedical, Surgical and Dental Sciences, University of Milan, Italy.
2. IRCCS Galeazzi Orthopedic Institute, Department of Biomedical, Surgical and Dental Sciences, University of Milan, Italy.

AIM OF THE STUDY: the aim of this research is to evaluate the benefits of adding a mixture of sodium DNA to a chlorhexidine mouthwash on tissue made up of human epithelial cells (Reconstituted Human Oral Epithelium ROE) undergoing oxidative stress, in terms of viability and morphological changes.

MATERIALS AND METHODS: 32 tissue samples were exposed to 4 different mouthwash formulations ((A) 0.2% CHX, (B) 0.2% CHX + Na-DNA, (C) Na-DNA, (D) Negative control) for 5 and 30 minutes after oxidative stress caused by 1 minute of contact with H₂O₂. In order to examine the relationship between the living and dead cells, the samples were analysed with an MTT colorimetric assay (tetrazolium-based viability assay). As for cellular distress (presence of vacuoles, changes in the nuclei, etc.) or tissue distress (widening of intercellular spaces, disruption of epithelial layers, etc.), they were observed under the confocal laser microscope and, through histological analysis, under the transmission electron microscope and optical microscope.

RESULTS: viability test: H-C showed significantly higher viability than H-D, which suggests that NaDNA has a significant protective effect on cell viability. Confocal laser: CHX caused the loss of cell junctions in the surface layer. PBS-C and H-C showed fewer dead cells than PBS-D and H-D, respectively. Histologic examination: CHX, and H₂O₂ treatment, in particular, caused alterations in cell structure. PBS-B, and H-B in particular, showed fewer alterations than PBS-A and H-A, respectively. In both H-B and H-C, some cells that do not show signs of degeneration were found in the innermost layers, where they were most likely protected by the combined action of CHX and oxygen and where NaDNA helped to minimise cell damage.



CONCLUSIONS: the addition of a mixture of sodium DNA clearly showed that it has a protective effect against cell degeneration caused by oxidative stress. When added to a chlorhexidine mouthwash or gel, it can help minimise biological tissue damage and accelerate the healing of inflammation by promoting faster wound healing.

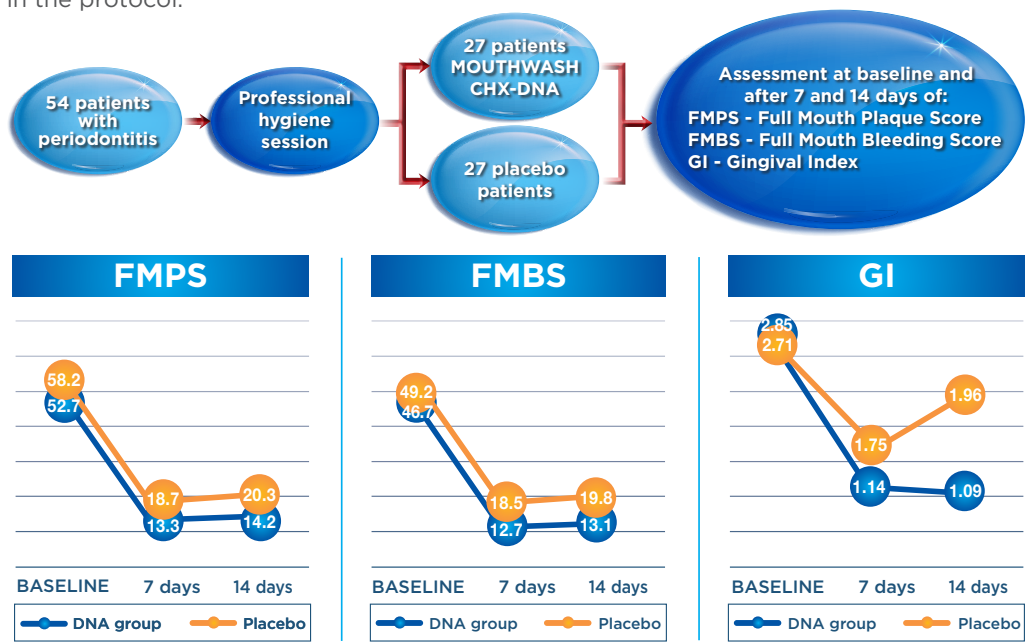
CLINICAL INVESTIGATIONS

Evaluation of the clinical efficacy of two different chlorhexidine-based mouthwash formulations: a triple-blind randomised controlled trial.

Authors: Prof. Antonio Scarano, “G. D’Annunzio” University of Chieti-Pescara, Department of Medical, Oral and Biotechnological Sciences.

AIM OF THE STUDY: to clinically evaluate, after two weeks, the antimicrobial and dental plaque control properties of a 0.2% Chlorhexidine + ADS SYSTEM, PVP-VA and Sodium DNA formulation against a placebo, in patients with periodontal disease.

MATERIALS AND METHODS: A total of 54 patients with pockets larger than 3 mm on at least 20 elements were selected. At baseline, the plaque index was assessed via FMPS and the gingival inflammation indices via FMBS and GI. Once the initial measurements were completed, the patients underwent a professional oral hygiene session and were given either a bottle of mouthwash CHX 0.2% - ADS - DNA - PVP-va (Group A) or a bottle of placebo (Group B), in an anonymous pack. FMPS, FMBS and GI were then re-evaluated after 7 and 14 days, while the patient continued with the at-home oral hygiene routine, as recommended in the protocol.



RESULTS: Graphs showing plaque presence (FMPS) and gingival inflammation (FMBS and GI). It is worth noting that a mouthwash with chlorhexidine, ADS system, sodium DNA, and PVP-VA is especially beneficial in reducing inflammation when combined with a proper oral hygiene routine.

CONCLUSIONS: A substantial decrease was observed in clinical parameters such as inflammation and bleeding in the periodontal tissues of patients, along with a decrease in bacterial plaque buildup after treatment, and such evidence supports treatment with a mouthwash containing 0.2% Chlorhexidine + A.D.S. SYSTEM, PVP-VA and Sodium DNA.

WHAT DO WE LEARN from this study? The use of a mouthwash containing chlorhexidine 0.2%, ADS system, sodium DNA, and PVP-VA can help to relieve periodontal inflammation and optimise bacterial plaque control in patients with chronic periodontitis after undergoing a professional hygiene session and being provided with oral hygiene instructions.

CURASEPT ADS | DNA CHLORHEXIDINE 0.20% INTENSIVE TREATMENT



CE*

* Medical Device CE 0373 Read carefully warnings and instructions for use.

CURASEPT ADS-DNA 220

MOUTHWASH - 200 ml*

Treatment of gum and oral cavity inflammation.

Fast antiplaque and antibacterial action.

Alcohol free.

SLS free.

PVP-VA Protective film.

Regenerative effect on oral mucosa.



CURASEPT ADS-DNA 720

TOOTHPASTE - 75 ml

SLS free.

Intensive antiplaque action.

Keeps the teeth white.

Regenerative effect on oral mucosa.

Mouthwash: 7/14 days

Toothpaste: 2 months

CURASEPT ADS | DNA CHLORHEXIDINE 0.12% PROLONGED TREATMENT



* Medical Device **CE** 0373 Read carefully warnings and instructions for use.

CURASEPT ADS-DNA 212

MOUTHWASH - 200 ml*

Treatment of gum and oral cavity inflammation.

Prolonged antiplaque and antibacterial action.

Alcohol free.

SLS free.

PVP-VA Protective film.

Regenerative effect on oral mucosa.



CURASEPT ADS-DNA 712

TOOTHPASTE - 75 ml

SLS free.

Prolonged antiplaque action.

Keeps the teeth white.

Regenerative effect on oral mucosa.

Mouthwash: 1 month
Toothpaste: 4 months

CURASEPT ADS | DNA CHLORHEXIDINE 0.05% PLAQUE AND CAVITIES TREATMENT



CURASEPT ADS-DNA 205

MOUTHWASH - 200 ml

Antiplaque and
remineralising action.
Protects the gums and dental
enamel for daily treatment.
Alcohol free.
SLS free.
Regenerative effect on oral
mucosa.

CURASEPT ADS-DNA 705

TOOTHPASTE - 75 ml

SLS free.
Daily protective action
of teeth and gums.
Keeps the teeth white.
Regenerative effect on oral
mucosa.

Mouthwash and toothpaste:
daily use.



CURASEPT ADS | DNA CHLORHEXIDINE 0.5% TOPICAL TREATMENT



CURASEPT ADS CHLORHEXIDINE 1% TOPICAL TREATMENT



CURASEPT ADS-DNA 350

GEL - 30 ml*

Topical gingival treatment.
Treatment of peri-implantitis,
gingivitis and affections of the
oral cavity.

Fast antiplaque and
antibacterial action.

Regenerative effect on oral
mucosa.

CURASEPT ADS 1%

PERIODONTAL GEL - 30 ml*

Intensive topical antiplaque
gingival treatment.
Treatment of active periodontal
pockets, gingivitis, periodontitis,
peri-implantitis.
Fast anti-plaque and
antibacterial action.

2 times a day for 10 days



Curasept ADS|DNA PRO LINE

CURASEPT guided by the principle from **continuous improvement**, carried out a further step forward, to obtain a even **more complete action** from **Chlorhexidine+ADS products**. This was made possible thanks to the use of **DNA/RNA IN ASSOCIATION WITH HYALURONIC ACID**.



Chlorhexidine digluconate

It acts on the etiological factors of gingivitis and periodontal disease, with bactericidal and disintegrating effects of the Biofilm. *“Chlorhexidine digluconate is the best anti-plaque and anti-gingivitis agent available today”.*

Sushma Nachnani UHRG Director
(University Health Resources Group)



ADS system

Curasept ADS line is the first chlorhexidine line to contain anti-discoloration system that allows the dentists and patients to use chlorhexidine without its famous side effects i.e pigmentation and taste disturbance.

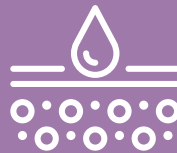


DNA/RNA

It acts as cellular bioactivator with a double action:

- anti-inflammatory activity
- tissue repair stimulation.

It also counteracts the irritating effect on gingival tissues due to the prolonged use of Chlorhexidine.



Hyaluronic acid

Hyaluronic Acid has proven to be crucial in the management of periodontitis and perimplantitis as adjuvant in the regenerative process of the oral mucosa.

It also moisturizes and protects the oral tissues.

CURASEPT ADS PERIO PRO CU

MOUTHWASH



Available 200 ml and 500 ml - Cosmetic

Its use is recommended in all cases where it is necessary to help membranes, ensuring the success of perio and dental procedures patient, for example in the presence of:

- Root planing
- In the event of gingivitis and periodontitis
- Laser surgeries
- Gingival drafts.

STOMISED SOLUTIONS



CHX 0.12%
+ ADS + DNA
+ HYALURONIC ACID

ANTIPLAQUE

PROTECTIVE IN CASES
OF GINGIVITIS
AND PERIODONTITIS

KEEPS THE GUMS IN
GOOD CONDITION

FASTER REGENERATION
OF DAMAGES

NO ALCOHOL

NO SLS

repair and moisturize the treated mucous
with more satisfactory results for the

CURASEPT ADS IMPLANT PRO

MOUTHWASH



200 ml - Cosmetic

Its use is recommended in all cases where it is necessary to help membranes, ensuring the success of dental procedures with more example in the presence of:

- Insertion of dental implants
- Immediate loading procedures
- After multiple complex dental extractions
- Bone regeneration procedures.

CUSTOMISED SOLUTIONS

CHX 0.20%
+ ADS + DNA
+ HYALURONIC ACID

FAST ANTIPLAQUE ACTION

ADJUVANT IN THE
REGENERATIVE PROCESS
OF THE ORAL MUCOSA

KEEPS THE GUMS IN
GOOD CONDITION

FASTER REGENERATION
OF DAMAGES

NO ALCOHOL

NO SLS

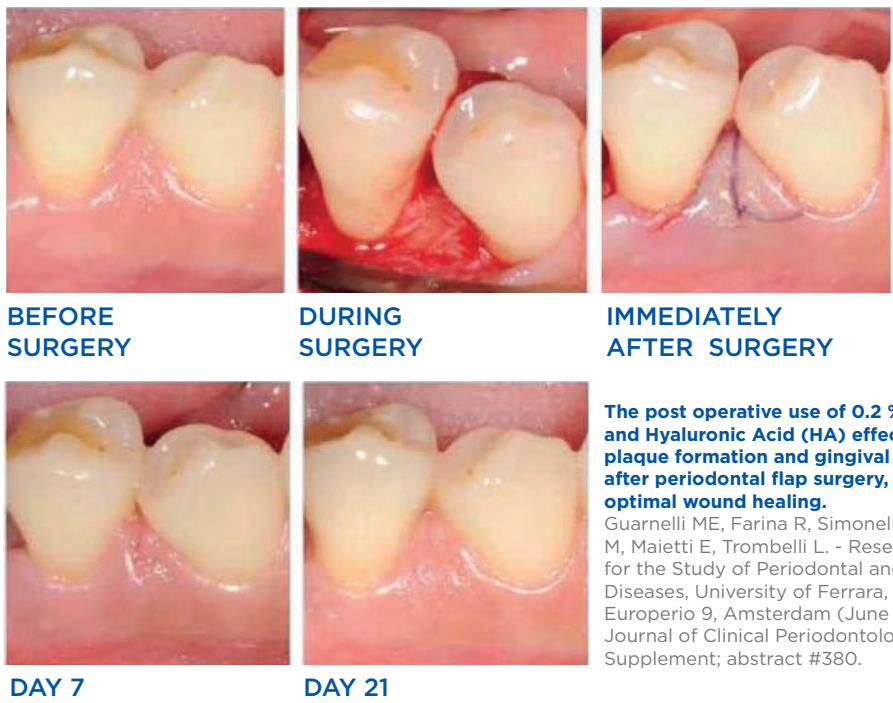
repair and moisturize the treated mucous
satisfactory results for the patient, for

TROMBELLI L. ET AL 2018 -
Clinical efficacy of a Chlorhexidine-based mouthrinse containing hyaluronic acid and an anti-discoloration system in patients undergoing flap surgery: a triple-blind, parallel-arm, randomized controlled trial.

0.2% CURASEPT + ADS + HA PROMOTES EARLY AND OPTIMAL HEALING OF THE SURGICAL WOUND.

Clinical images showing optimal healing following periodontal surgery after treatment with 0.2% Curasept + ADS with HA.

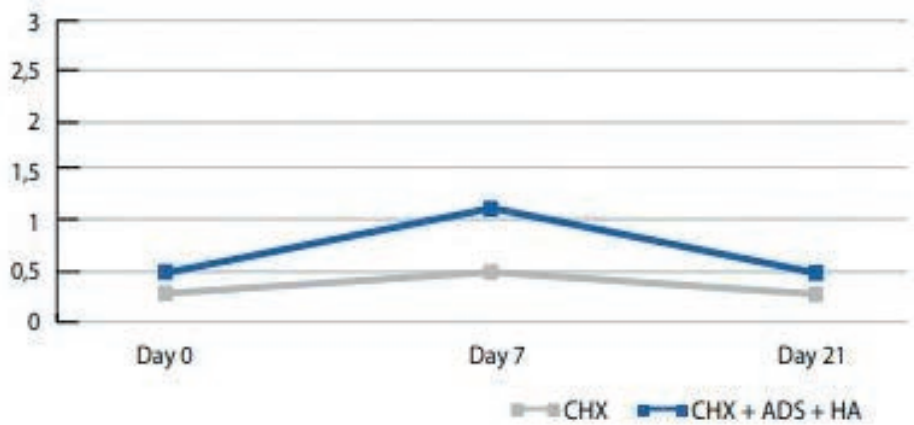
The images demonstrate that the use of **Curasept + ADS with HA allows an effective control of plaque and gingival inflammation as early as at 7 days, and promotes optimal wound healing.**



0.2% CURASEPT + ADS + HA OPTIMALLY CONTROLS GINGIVAL INDEX.

Evolution of the Gingival Index (GI) during the trial period.

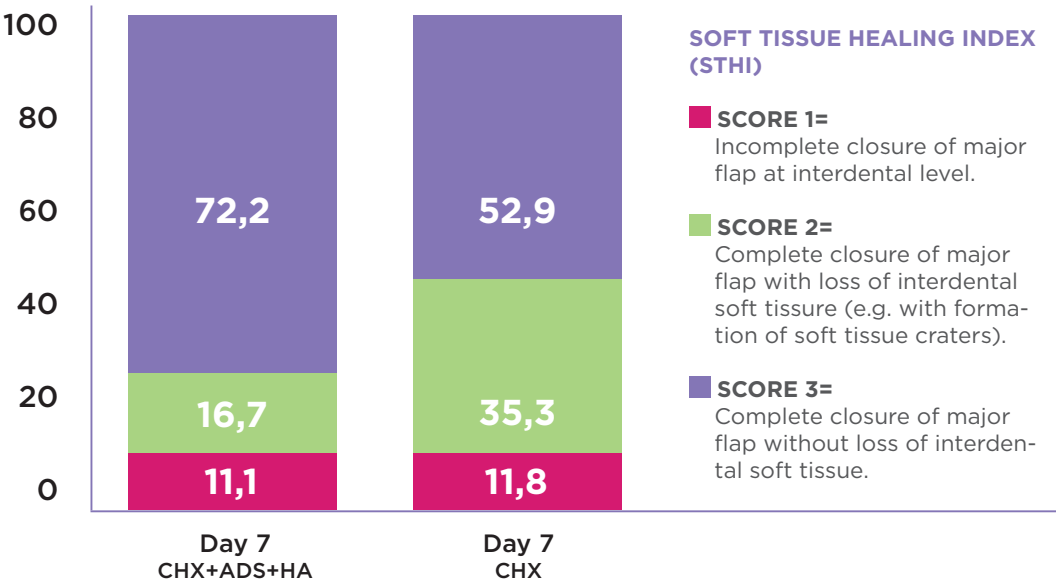
The values of GI in the group treated with 0.2% Curasept + ADS with HA was similar to GI values in the group treated with 0.2% chlorhexidine alone.



0.2% CURASEPT + ADS + HA PROMOTES MORE RAPID HEALING.

Wound healing in the interproximal area.

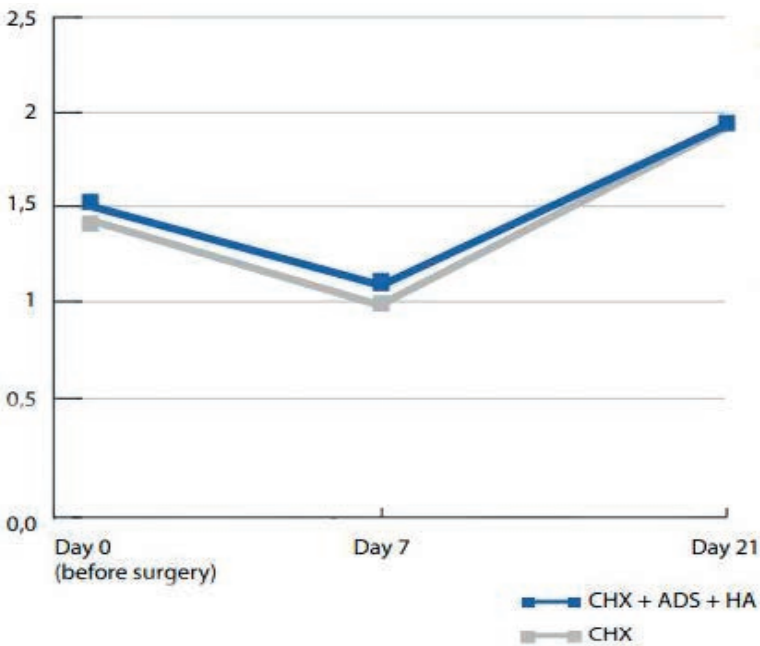
After 7 days of follow up, 72,2% of the patients treated with 0.2% Curasept + ADS with HA showed complete wound closure in the interproximal sites, compared to only 52.9% in the group treated with 0.2% chlorhexidine.



0.2% CURASEPT + ADS + HA EFFECTIVELY CONTROLS PLAQUE INDEX.

Wound healing in the interproximal area.

After 7 days of follow up, 72,2% of the patients treated with 0.2% Curasept + ADS with HA showed complete wound closure in the interproximal sites, compared to only 52.9% in the group treated with 0.2% chlorhexidine.



Guarnelli ME, Farina R, Simonelli A, Pramstraller M, Maietti E, Trombelli L. - *Clinical efficacy of a Chlorhexidine-based mouthrinse containing hyaluronic acid and an anti-discoloration system in patients undergoing flap surgery: a triple-blind, parallel-arm, randomized controlled trial*; Journal of Clinical Periodontology 2018 Supplement, abstract #380.

CORTELLINI P, PINI PRATO G, TONETTI M, ET AL 2008 - Chlorhexidine with an Anti Discoloration System after periodontal flap surgery: a crossover, randomized, triple-blind clinical trial.

OBJECTIVE: To evaluate the efficacy, the side effects, and the patient acceptance of a 0.20% chlorhexidine mouthwash containing ADS® compared with a traditional 0.20% chlorhexidine mouthwash without ADS®.

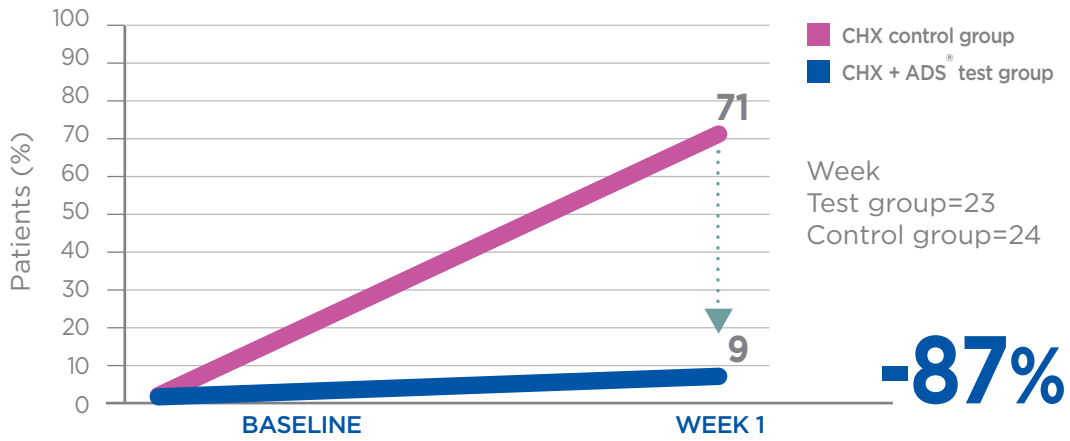
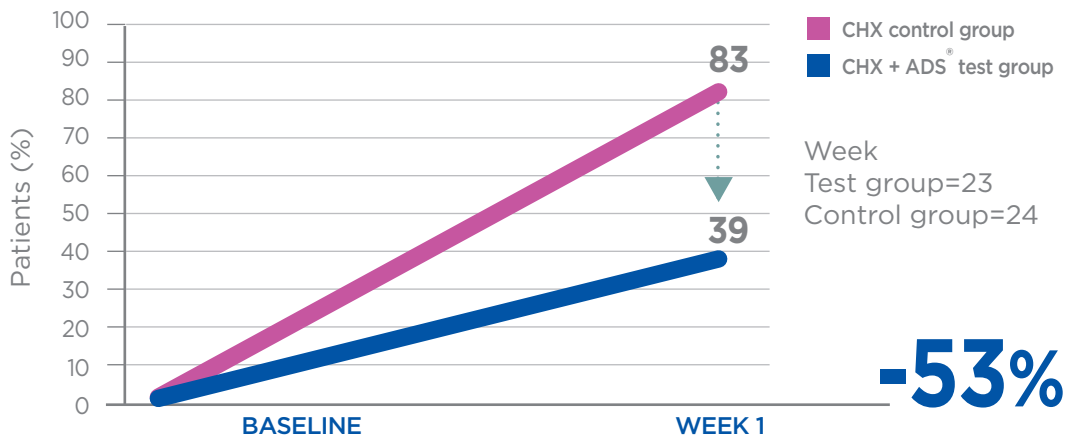
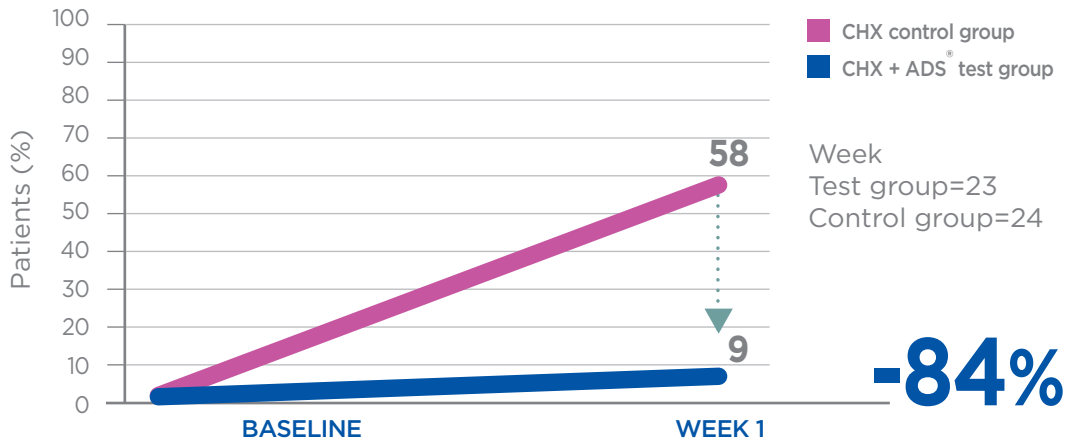
Study conducted on 48 patients with advanced periodontal disease undergoing periodontal flap surgery.

International publication of a triple blind, randomized controlled crossover trial.

RESULTS:

- Identical efficacy in reducing gingival inflammation.
- Superior satisfaction:
no alteration of taste or salt perception in the CHX+ADS® group.
- Less irritation of oral tissue and mucosa in the CHX+ADS® group.
- Significant reduction in tooth discoloration in the CHX+ADS® group.

The graphs show the percentage of patients who reported dental discoloration after just one week of mouthwash use. For all three tooth areas considered, the ADS® mouthwash caused much less discoloration than a traditional mouthwash without ADS®.

-87% of patients with discoloration in the incisal area**-53% of patients with discoloration in the interproximal area****-84% of patients with discoloration in the gingival area**

PALAIA G ET AL 2018 -

Evaluation of wound healing and postoperative pain after oral mucosa laser biopsy with the aid of compound with chlorhexidine and sodium hyaluronate: a randomized double blind clinical trial.

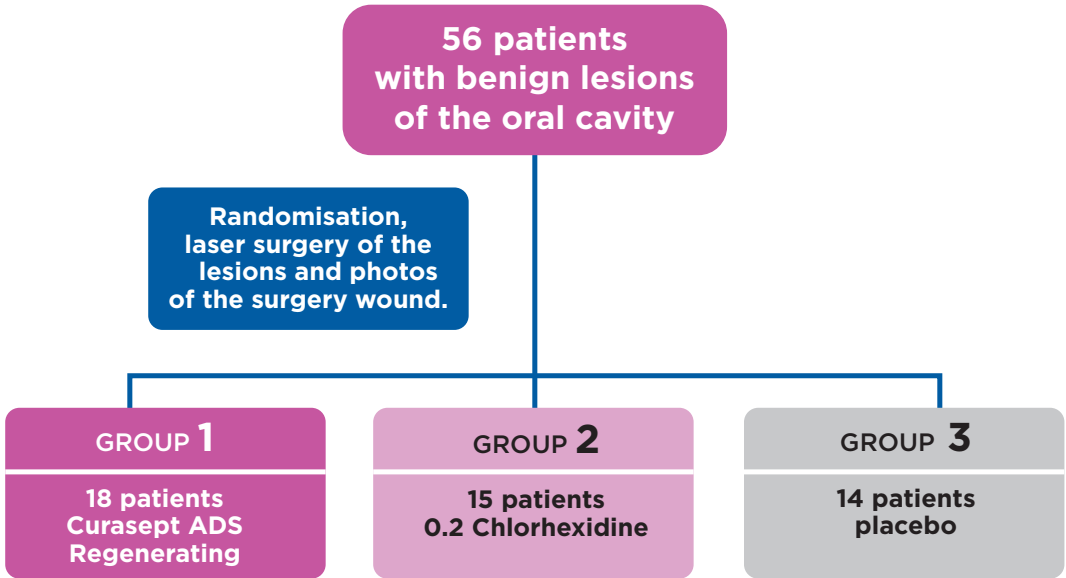
OBJECTIVE: Assess second-intention healing of the surgical wound and post-surgery pain after the laser surgery and use of a chlorhexidine and sodium hyaluronate-based mouthwash.

56 patients with benign oral cavity lesions undergoing laser-assisting removal biopsy.

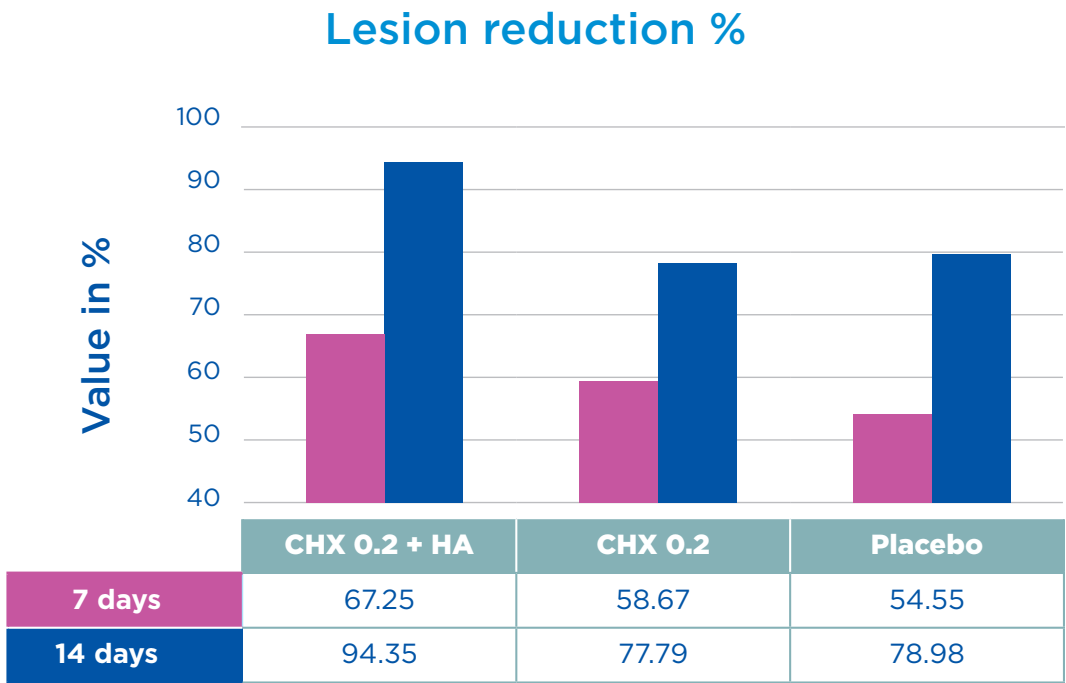
International publication of a clinical controlled randomised doubleblind trial, in parallel groups.

RESULTS:

- The mouthwash holding chlorhexidine and sodium hyaluronate is an effective support to increase the second-intention wound healing.
- The use of a mouthwash holding chlorhexidine and sodium hyaluronate can be suggested after laser surgery, in the absence of sutures to get the best possible wound healing.



Re-assessment after 7 and 14 days with photos.
The lesion area which is still present is confronted with the initial lesion size, through a software and the healed lesion area is reported in % (PHI, Percentage Healing Index).



In the diagram the Percentage Healing Index (PHI) after confronting the initial lesion area with the lesion area still present after 7 and 14 days. Remark that the group CHX + HA reported at any interval a higher healing percentage than the group simply administered Chlorhexidine (CHX) which on its turn does not exhibit any further benefit to healing if compared to the placebo.

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