

**NUPRO CHLORHEXIDINE GLUCONATE- chlorhexidine gluconate rinse**  
**Xttrium Laboratories, Inc.**

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**NUPRO DENTSPLY Chlorhexidine Gluconate 0.12%, USP**

**Chlorhexidine Gluconate 0.12%, Oral Rinse, USP**  
**Rx Only, NDC 65222-800-16**

**CLINICAL PHARMACOLOGY**

Chlorhexidine gluconate oral rinse provides antimicrobial activity during oral rinsing. The clinical significance of chlorhexidine gluconate oral rinse's antimicrobial activities is not clear. Microbiological sampling of plaque has shown a general reduction of counts of certain assayed bacteria, both aerobic and anaerobic, ranging from 54-97% through six months use. Use of chlorhexidine gluconate oral rinse in a six month clinical study did not result in any significant changes in bacterial resistance, overgrowth of potentially opportunistic organisms or other adverse changes in the oral microbial ecosystem. Three months after chlorhexidine gluconate oral rinse use was discontinued, the number of bacteria in plaque had returned to baseline levels and resistance of plaque bacteria to chlorhexidine gluconate was equal to that at baseline.

**Pharmacokinetics**

Pharmacokinetic studies with chlorhexidine gluconate oral rinse indicate approximately 30% of the active ingredient, chlorhexidine gluconate, is retained in the oral cavity following rinsing. This retained drug is slowly released in the oral fluids. Studies conducted on human subjects and animals demonstrate chlorhexidine gluconate is poorly absorbed from the gastrointestinal tract. The mean plasma level of chlorhexidine gluconate reached a peak of 0.206 mcg/g in humans 30 minutes after they ingested a 300-mg dose of the drug. Detectable levels of chlorhexidine gluconate were not present in the plasma of these subjects 12 hours after the compound was administered. Excretion of chlorhexidine gluconate occurred primarily through the feces (~90%). Less than 1% of the chlorhexidine gluconate ingested by these subjects was excreted in the urine.

**INDICATION**

Chlorhexidine gluconate oral rinse is indicated for use between dental visits as part of a professional program for the treatment of gingivitis as characterized by redness and swelling of the gingivae, including gingival bleeding upon probing. Chlorhexidine gluconate oral rinse has not been tested among patients with acute necrotizing ulcerative gingivitis (ANUG). For patients having coexisting gingivitis and periodontitis, see PRECAUTIONS.

**CONTRAINDICATIONS**

Chlorhexidine gluconate oral rinse should not be used by persons who are known to be hypersensitive to chlorhexidine gluconate or other formula ingredients.

**WARNINGS**

The effect of chlorhexidine gluconate oral rinse on periodontitis has not been determined. An increase in supragingival calculus was noted in clinical testing in chlorhexidine gluconate oral rinse users compared with control users. It is not known if chlorhexidine gluconate oral rinse use results in an increase in subgingival calculus. Calculus deposits should be removed by a dental prophylaxis at intervals not greater than six months. Anaphylaxis, as well as serious allergic reactions, have been reported during postmarketing use with dental products containing chlorhexidine. SEE

## CONTRAINDICATIONS.

## PRECAUTIONS

### General

1. For patients having coexisting gingivitis and periodontitis, the presence or absence of gingival inflammation following treatment with chlorhexidine gluconate oral rinse should not be used as a major indicator of underlying periodontitis.
2. Chlorhexidine gluconate oral rinse can cause staining of oral surfaces, such as tooth surfaces, restorations, and the dorsum of the tongue. Not all patients will experience a visually significant increase in tooth staining. In clinical testing, 56% of chlorhexidine gluconate oral rinse users exhibited a measurable increase in facial anterior stain, compared to 35% of control users after six months; 15% of chlorhexidine gluconate oral rinse users developed what was judged to be heavy stain, compared to 1% of control users after six months. Stain will be more pronounced in patients who have heavier accumulations of unremoved plaque. Stain resulting from use of chlorhexidine gluconate oral rinse does not adversely affect health of the gingivae or other oral tissues. Stain can be removed from most tooth surfaces by conventional professional prophylactic techniques. Additional time may be required to complete the prophylaxis. Discretion should be used when prescribing to patients with anterior facial restorations with rough surfaces or margins. If natural stain cannot be removed from these surfaces by a dental prophylaxis, patients should be excluded from chlorhexidine gluconate oral rinse treatment if permanent discoloration is unacceptable. Stain in these areas may be difficult to remove by dental prophylaxis and on rare occasions may necessitate replacement of these restorations.
3. Some patients may experience an alteration in taste perception while undergoing treatment with chlorhexidine gluconate oral rinse. Rare instances of permanent taste alteration following chlorhexidine gluconate oral rinse use have been reported via post-marketing product surveillance.

### Pregnancy

#### Teratogenic Effects

#### *Pregnancy Category B*

Reproduction studies have been performed in rats and rabbits at chlorhexidine gluconate doses up to 300 mg/kg/day and 40 mg/kg/day respectively, and have not revealed evidence of harm to fetus. However, adequate and well-controlled studies in pregnant women have not been done. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

### Nursing Mothers

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when chlorhexidine gluconate oral rinse is administered to nursing women.

In parturition and lactation studies with rats, no evidence of impaired parturition or of toxic effects to suckling pups was observed when chlorhexidine gluconate was administered to dams at doses that were over 100 times greater than that which would result from a person's ingesting 30 mL (2 capfuls) of chlorhexidine gluconate oral rinse per day.

### Pediatric Use

Clinical effectiveness and safety of chlorhexidine gluconate oral rinse have not been established in children under the age of 18.

## **Carcinogenesis, Mutagenesis, and Impairment of Fertility**

In a drinking water study in rats, carcinogenic effects were not observed at doses up to 38 mg/kg/day. Mutagenic effects were not observed in two mammalian in vivo mutagenesis studies with chlorhexidine gluconate. The highest doses of chlorhexidine used in a mouse dominant-lethal assay and a hamster cytogenetics test were 1000 mg/kg/day and 250 mg/kg/day, respectively. No evidence of impaired fertility was observed in rats at doses up to 100 mg/kg/day.

## **ADVERSE REACTIONS**

The most common side effects associated with chlorhexidine gluconate oral rinses are: 1) an increase in staining of teeth and other oral surfaces; 2) an increase in calculus formation; and 3) an alteration in taste perception; see WARNINGS and PRECAUTIONS. Oral irritation and local allergy-type symptoms have been spontaneously reported as side effects associated with use of chlorhexidine gluconate rinse.

The following oral mucosal side effects were reported during placebo-controlled adult clinical trials: aphthous ulcer, grossly obvious gingivitis, trauma, ulceration, erythema, desquamation, coated tongue, keratinization, geographic tongue, mucocele, and short frenum. Each occurred at a frequency of less than 1%.

Among post marketing reports, the most frequently reported oral mucosal symptoms associated with chlorhexidine gluconate oral rinse are stomatitis, gingivitis, glossitis, ulcer, dry mouth, hypesthesia, glossal edema, and paresthesia.

Minor irritation and superficial desquamation of the oral mucosa have been noted in patients using chlorhexidine gluconate oral rinse.

There have been cases of parotid gland swelling and inflammation of the salivary glands (sialadenitis) reported in patients using chlorhexidine gluconate oral rinse.

## **OVERDOSAGE**

Ingestion of 1 or 2 ounces of chlorhexidine gluconate oral rinse by a small child (~10kg body weight) might result in gastric distress, including nausea, or signs of alcohol intoxication. Medical attention should be sought if more than 4 ounces of chlorhexidine gluconate oral rinse is ingested by a small child or if signs of alcohol intoxication develop.

## **DOSAGE AND ADMINISTRATION**

Chlorhexidine gluconate oral rinse therapy should be initiated directly following a dental prophylaxis. Patients using chlorhexidine gluconate oral rinse should be reevaluated and given a thorough prophylaxis at intervals no longer than six months.

Recommended use is twice daily rinsing for 30 seconds, morning and evening after tooth brushing. Usual dosage is 15 mL (marked in cap) of undiluted chlorhexidine gluconate oral rinse. Patients should be instructed to not rinse with water, or other mouthwashes, brush teeth, or eat immediately after using chlorhexidine gluconate oral rinse. Chlorhexidine gluconate oral rinse is not intended for ingestion and should be expectorated after rinsing.

## **HOW SUPPLIED**

Chlorhexidine gluconate oral rinse is supplied as a blue liquid in 1-pint (473 mL) amber plastic bottles with child-resistant dispensing closures.

NDC 65222-800-16. Store at 20°C to 25°C (68°F to 77°F), excursions permitted to 15°C to 30°C (59°F to 86°F) [See USP controlled Room Temperature].

Rx Only.

**Revised:** October 2017

**Distributed by:**

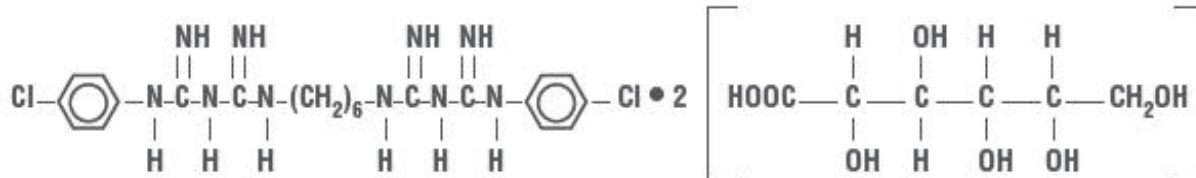
DENTSPLY Professional

1301 Smile Way

York, PA 17404 USA

## DESCRIPTION

0.12% chlorhexidine gluconate (CHG) is an oral rinse containing (1, 1<sup>1</sup>-hexamethylene bis [5-(p-chlorophenyl) biguanide] di-D-gluconate) in a base containing water, 11.6% alcohol, glycerin, PEG-40 sorbitan diisostearate, flavor, sodium saccharin, and FD&C Blue No. 1. Chlorhexidine gluconate product is a near neutral solution (pH range 5-7). Chlorhexidine gluconate is a salt of chlorhexidine and gluconic acid. Its chemical structure is:



## PRINCIPAL DISPLAY PANEL - 473 mL Bottle Label

Dentsply Sirona

Nupro®

Chlorhexidine Gluconate 0.12% Oral Rinse, USP

**DIRECTIONS FOR USE:** Fill cap to the "fill line" (15 mL). Swish in mouth undiluted for 30 seconds, then spit out. Use after breakfast and before bedtime. Or, use as prescribed.

**NOTE:** To minimize medicinal taste, do not rinse with water immediately after use.

Rx Only

KEEP OUT OF REACH OF CHILDREN

1 Pint (473 mL)

NDC 65222-800-16

Reorder # 130059

1999DSPL16BLDLA

Dentsply  
Sirona

Nupro®  
Chlorhexidine Gluconate 0.12%  
Oral Rinse, USP



**DIRECTIONS FOR USE:** Fill cap to the "fill line" (5 mL). Swish in mouth undiluted for 30 seconds, then spit out. Use after breakfast and before bedtime. Or, use as prescribed.

**NOTE:** To minimize medicinal taste, do not rinse with water immediately after use.

Rx Only

KEEP OUT OF REACH OF CHILDREN

1 Pint (473 mL)



(Crosshatch pattern does not print, it only represents solid Datalase area.)

NDC 65222-800-16

Reorder # 130059

1660SPL16LDA

**INGREDIENTS:** 0.12% chlorhexidine gluconate in a base containing water, 11.6% alcohol, glycerin, PEG-40 sorbitan disuccinate, flavor, sodium saccharin and FD&C Blue No. 1. To open, press in flat peaks while turning cap. To reseal, turn cap just "clicker" until tightly locked.

#### WHAT TO EXPECT WHEN USING CHLORHEXIDINE GLUCONATE ORAL RINSE

Your dentist has prescribed chlorhexidine gluconate oral rinse to treat your gingivitis. To help reduce the redness and swelling of your gums, use chlorhexidine gluconate oral rinse regularly as directed by your dentist. In addition to daily brushing and flossing, use chlorhexidine gluconate oral rinse as directed. If you develop allergic symptoms such as skin rash, hives, generalized swelling, breathing difficulties, light or severe dizziness, or fainting, stop using chlorhexidine gluconate oral rinse and call your dentist immediately. Chlorhexidine gluconate oral rinse may cause some tooth discoloration, or increase in tartar (calculus) formation. It is important to see your dentist for removal of any stain or tartar at least every six months or more frequently if your dentist advises. Chlorhexidine gluconate oral rinse may cause permanent discoloration of some front-tooth fillings.

\* To minimize medicinal taste, do not brush and floss daily, emphasizing areas which begin to discolor.

\* Chlorhexidine gluconate oral rinse may cause tooth discoloration. This will become less noticeable in most cases with continued use of chlorhexidine gluconate oral rinse.

\* To avoid taste interference, rinse with chlorhexidine gluconate oral rinse immediately after rinsing with any toothpaste.

\* If you have any questions or comments about chlorhexidine gluconate oral rinse, call 1-800-333-3272.

Call your health care provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-3888.

**STORE at 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F) [see USP Controlled Room Temperature].**

**CLINICAL PHARMACOLOGY:** Chlorhexidine gluconate oral rinse provides antimicrobial activity during oral rinsing. The clinical significance of chlorhexidine gluconate oral rinse's antimicrobial activities is not clear. Microbiological sampling of plaque has shown a general reduction of counts of certain assayed bacteria, both aerobic and anaerobic, ranging from 54-97% through six months use. Use of chlorhexidine gluconate oral rinse in a six month clinical study did not result in any significant changes in bacterial resistance, overgrowth of potentially opportunistic organisms or other adverse changes in the oral microbial ecosystem. Three months after chlorhexidine gluconate oral rinse use was discontinued, the number of bacteria in plaque had returned to baseline levels and resistance of plaque bacteria to chlorhexidine gluconate was equal to that at baseline.

**Pharmacokinetics:** Pharmacokinetic studies with chlorhexidine gluconate oral rinse indicate approximately 30% of the active ingredient, chlorhexidine gluconate, is retained in the oral cavity following rinsing. This retained drug is slowly released in the oral fluids. Studies conducted on human subjects and animals demonstrate chlorhexidine gluconate is poorly absorbed from the gastrointestinal tract. The mean plasma level of chlorhexidine gluconate reached a peak of 0.206 mcg/g in humans 30 minutes after they ingested a 300-mg dose of the drug. Detectable levels of chlorhexidine gluconate were not present in the plasma of these subjects 12 hours after the compound was administered. Excretion of chlorhexidine gluconate occurred primarily through the feces (~90%). Less than 1% of the chlorhexidine gluconate ingested by these subjects was excreted in the urine.

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**CONTRAINDICATIONS:** Chlorhexidine gluconate oral rinse should not be used by persons who are known to be hypersensitive to chlorhexidine gluconate or other formula ingredients.

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#### **PRECAUTIONS:**

##### **General:**

1. For patients having coexisting gingivitis and periodontitis, the presence or absence of gingival inflammation following treatment with chlorhexidine gluconate oral rinse should not be used as a major indicator of underlying periodontitis.
2. Chlorhexidine gluconate oral rinse can cause staining of oral surfaces, such as tooth surfaces, restorations, and the dorsum of the tongue. Not all patients will experience a visually significant increase in toothstaining. In clinical testing, 56% of chlorhexidine gluconate oral rinse users exhibited a measurable increase in facial anterior stain, compared to 35% of control users after six months; 15% of chlorhexidine gluconate oral rinse users developed what was judged to be heavy stain, compared to 7% of control users after six months. Stain will be more pronounced in patients who have heavier accumulations of unremoved plaque. Stain resulting from use of chlorhexidine gluconate oral rinse does not adversely affect health of the gingivae or other oral tissues. Stain can be removed from most tooth surfaces by conventional professional prophylactic techniques. Additional time may be required to complete the prophylaxis. Discretion should be used when prescribing to patients with anterior facial restorations with rough surfaces or margins. If natural stain cannot be removed from these surfaces by a dental prophylaxis, patients should be excluded from chlorhexidine gluconate oral rinse treatment if permanent discoloration is unacceptable. Stain in these areas may be difficult to remove by dental prophylaxis and on rare occasions may necessitate replacement of these restorations.
3. Some patients may experience an alteration in taste perception while undergoing treatment with chlorhexidine gluconate oral rinse. Rare instances of permanent taste alteration following chlorhexidine gluconate oral rinse use have been reported via post-marketing product surveillance.

**Pregnancy: Teratogenic Effects** Pregnancy Category B. Reproduction studies have been performed in rats and rabbits at chlorhexidine gluconate doses up to 300 mg/kg/day and 40 mg/kg/day respectively, and have not revealed evidence of harm to fetus. However, adequate and well-controlled studies in pregnant women have not been done. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when chlorhexidine gluconate oral rinse is administered to nursing women.

In parturition and lactation studies with rats, no evidence of impaired parturition or of toxic effects to suckling pups was observed when chlorhexidine gluconate was administered to dams at doses that were over 100 times greater than that which would result from a person's ingesting 30 mL (2 capfuls) of chlorhexidine gluconate oral rinse per day.

**Pediatric Use:** Clinical effectiveness and safety of chlorhexidine gluconate oral rinse have not been established in children under the age of 18.

**Carcinogenesis, Mutagenesis, and Impairment of Fertility:** In a drinking water study in rats, carcinogenic effects were not observed at doses up to 38 mg/kg/day. Mutagenic effects were not observed in two mammalian in vivo mutagenesis studies with chlorhexidine gluconate. The highest doses of chlorhexidine used in a mouse dominant-lethal assay and a hamster cytogenetics test were 1000 mg/kg/day and 250 mg/kg/day, respectively. No evidence of impaired fertility was observed in rats at doses up to 100 mg/kg/day.

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**OVERDOSAGE:** Ingestion of 1 or 2 ounces of chlorhexidine gluconate oral rinse by a small child (~10kg body weight) might result in gastric distress, including nausea, or signs of alcohol intoxication. Medical attention should be sought if more than 4 ounces of chlorhexidine gluconate oral rinse is ingested by a small child or if signs of alcohol intoxication develop.

**DOSAGE AND ADMINISTRATION:** Chlorhexidine gluconate oral rinse therapy should be initiated directly following a dental prophylaxis. Patients using chlorhexidine gluconate oral rinse should be reevaluated and given a thorough prophylaxis at intervals no longer than six months.

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**HOW SUPPLIED:** Chlorhexidine gluconate oral rinse is supplied as a blue liquid in 1-pint (473 mL) amber plastic bottles with child-resistant dispensing closures.

NDC 65222-800-16. Store at 20°C to 25°C (68°F to 77°F), excursions permitted to 15°C to 30°C (59°F to 86°F) [See USP controlled Room Temperature].

Rx Only.

Artwork Control Number: 130059-1 Rev. 5

Revised: May 2019

Distributed by:

DENTSPLY Professional

1301 Smile Way

York, PA 17404 USA

1999DSPL16BLDLA

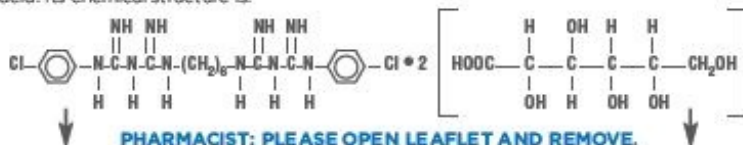


Nupro®  
Chlorhexidine Gluconate 0.12%  
Oral Rinse, USP

Rx Only

NDC 65222-800-16

**DESCRIPTION:** 0.12% chlorhexidine gluconate (CHG) is an oral rinse containing (1, 1'-hexamethylene bis [5-(p-chlorophenyl) biguanide] di-D-gluconate) in a base containing water, 11.6% alcohol, glycerin, PEG-40 sorbitan diisostearate, flavor, sodium saccharin, and FD&C Blue No. 1. Chlorhexidine gluconate product is a near neutral solution (pH range 5-7). Chlorhexidine gluconate is a salt of chlorhexidine and gluconic acid. Its chemical structure is:



## NUPRO CHLORHEXIDINE GLUCONATE

chlorhexidine gluconate rinse

### Product Information

Product Type

HUMAN PRESCRIPTION DRUG

Item Code (Source)

NDC:0116-0800

<b>Route of Administration</b>	ORAL			
<b>Active Ingredient/Active Moiety</b>				
	<b>Ingredient Name</b>	<b>Basis of Strength</b>	<b>Strength</b>	
	CHLORHEXIDINE GLUCONATE (UNII: MOR84MUD8E) (CHLORHEXIDINE - UNII:R4KO0DY52L)	CHLORHEXIDINE GLUCONATE	1.2 mg in 1 mL	
<b>Inactive Ingredients</b>				
	<b>Ingredient Name</b>	<b>Strength</b>		
	GLYCERIN (UNII: PDC6A3C0OX)			
	PEG-40 SORBITAN DIISOSTEARATE (UNII: JL4CCU7IIG)			
	ALCOHOL (UNII: 3K9958V90M)			
	SACCHARIN SODIUM (UNII: SB8ZUX40TY)			
	FD&C BLUE NO. 1 (UNII: H3R47K3TBD)			
	WATER (UNII: 059QF0KO0R)			
<b>Product Characteristics</b>				
<b>Color</b>	blue	<b>Score</b>		
<b>Shape</b>		<b>Size</b>		
<b>Flavor</b>		<b>Imprint Code</b>		
<b>Contains</b>				
<b>Packaging</b>				
<b>#</b>	<b>Item Code</b>	<b>Package Description</b>	<b>Marketing Start Date</b>	<b>Marketing End Date</b>
1	NDC:0116-0800-16	473 mL in 1 BOTTLE; Type 0: Not a Combination Product	01/17/2017	
<b>Marketing Information</b>				
<b>Marketing Category</b>	<b>Application Number or Monograph Citation</b>	<b>Marketing Start Date</b>	<b>Marketing End Date</b>	
ANDA	ANDA077789	01/17/2017		

**Labeler** - Xttrium Laboratories, Inc. (007470579)

**Registrant** - Xttrium Laboratories, Inc. (007470579)

### Establishment

Name	Address	ID/FEI	Business Operations
Xttrium Laboratories, Inc.		007470579	manufacture(0116-0800)