

# \* Otic Formulation :



شابت حتى عن المستحضرات الأذنية :

## Uses of Otic Formulation (solutions, suspensions, Gels, Ointments)

- ① Bacterial growth in external auditory canal
- ② Ear wax impaction
- ③ Irrigation solution
- ④ swimmer's Ear (otitis externa) of the Ear.
- ⑤ Skin Disorders

<p>① Bacterial growth in external auditory canal</p> <p>↓ التعامل المفاداة للمعوى بتحضير على شكل قطرات هواء خائفة معاليل أو معالقات</p> <p>Anti-infective agents are formulated into eardrops (solutions or suspensions) in a vehicle of <u>anhydrous glycerin</u> or <u>propylene glycol</u>.</p> <p>Otic solutions and suspensions are used to treat infections in the external auditory canal.</p> <p>المميزات تشمل : ① glycerin, ② propylene glycol, ③ vegetable oils, ④ mineral oils, or ⑤ low molecular weight polyethylene glycols.</p> <p>The above solvents adhere to the canal <u>better than water and alcohol</u>. (Suspensions) provide longer drug effect.</p>	<p>② Ear wax impaction</p> <p>↓ الشمع في المهق في الأذن والشمع في المهق في الأذن يصعب إزالته</p> <p>The cerumen remaining in the ear will become <u>dry</u> and difficult to remove from the canal.</p> <p>Formulation containing <u>carbamide peroxide</u>, <u>glycerin</u>, <u>hydrogen peroxide</u>, and <u>olive oil</u>.</p> <p>① help soften &amp; break down the dried cerumen ② They have anti-infective action.</p> <p>Glycerin is hygroscopic and absorbs moisture → soften the cerumen. Olive oil serves as a softening agent and increase viscosity of the formulation to stay longer in the air.</p>	<p>③ Irrigation solution</p> <p>↓ محاليل غسل الأذن</p> <p>An ear irrigation solution that <u>contain water</u> and <u>alcohol</u> is used following the treatment with <u>Carbamide peroxide</u> formulation.</p> <p>Flow out of the canal easily. The ear is flushed with the solution with a soft rubber ear syringe.</p> <p>Water should leave the canal out because it will support bacterial growth.</p> <p>May contain <u>surfactants</u> to enhance the spreading of the solution.</p>	<p>④ swimmer's Ear (otitis externa) of the Ear.</p> <p>↓ أذن السباح</p> <p>Water becomes lodged between cerumen and the tympanic membrane. Trapped water can encourage bacterial growth.</p> <p>Formulations include: ① isopropyl alcohol, ② glycerin, ③ boric acid, ④ hydrocortisone, ⑤ ethyl alcohol, and ⑥ acetic acid.</p> <p>- Also aminoglycoside antibiotics can be added if infection is present - The alcohol in the formulation help to reduce the surface tension of water which aids in its removal from the canal. - Glycerin in the formulation absorbs water - Acetic acid reduces pH in the canal to minimize bacterial growth.</p>	<p>⑤ Skin Disorders</p> <p>↓ الاذن الخارجية هي هيكل مغطى بالجلد مما يجعله عرضة لمفاتيح المالات الطبيعية التي تحدث الأضرار في الجسم.</p> <p>في حصول بكتريا ال Otic رقم للدكتور 14 واجهه ما يوسع احطه هونان</p>
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### طريقة الاستعمال :

- 1) Tilt the patient's head at a 45° angle.
- 2) Place the otic solution in the ear canal.
- 3) Insert a cotton plug to retain the medication for 15-30 minutes.
- 4) Gently flush the ear canal with lukewarm water.
- 5) Use a soft rubber ear syringe for flushing.

## How to use otic drops

- 1) Wash your hands.
- 2) Warm the dropper bottle in your hands.
- 3) If a suspension, shake well.
- 4) Draw up a small amount of medication into the dropper. Lie on your side so the affected ear points toward the ceiling.
- 5) Position the tip of the dropper just inside the canal. Avoid touching the dropper against the ear.
- 6) For adults, hold the ear lobe up and (back) for children, hold the ear lobe (down and back).
- 7) Squeeze the directed numbers of drops into the ear canal and allow the drops to run into the ear.
- 8) Remain lying 3-5 minutes, gently massage the area around ear to aid in spreading of drops in the canal.
- 9) Place a clean cotton pledge just inside ear to prevent leakage when in upright position.
- 10) Replace cap

# Tips ونصائح

- ① Do not use ear drops if your eardrum has been damaged  
لا تستخدم القطرات إذا كان طبلة الأذن تالفة / متهالكة
- ② Avoid using very hot or very cold eardrops.  
تجنب استخدام قطرات الأذن الساخنة جداً أو الباردة جداً
- ③ The medication should be at room temperature or slightly warmer.  
لزم يكون دواء القطرات بدرجة حرارة الغرفة أو دافئاً قليلاً
- ④ Warm the drops by holding the bottle in your hands for a few minutes.  
يمكن دفئ القطرات عن طريق إمساك الزجاجة في اليدين لبضع دقائق.

# Packaging

- ✳ Solutions and suspensions packaged in small (5-15 ml) dropper bottles or droptainers  
الحلول والمعلقات ممتلئة في زجاجات صغيرة (5-15 مل) من القطرات أو السوائل  
Nasal كان 15-30
- ✳ Otic ointments can be packaged in an ophthalmic tube  
مستحضر الأذن يمكن تعبئتها في أنبوبة عينية  
تقدر تعبئتها بالأنابيب العينية بالعين لتسهيل الاستخدام
- ✳ Many otic formulations are self-preserving because of the high concentration of glycerin, propylene glycol, or alcohol  
العديد من تركيبات الأذن ذاتية الحفظ لأنها تحتوي على تركيز عالٍ من الجليسرول، بولي بروبيلين جليكول، أو الكحول
- ✳ If the above agents are not present a preservative should be added  
إذا لم تكن هذه المواد موجودة، يجب إضافة مادة حافظة

