



Children's Hospital of Eastern Ontario
Pharmacy Department

LANSOPRAZOLE 3 mg/mL ORAL SUSPENSION
[with CHEO Sodium Bicarbonate 8.4% solution]

Date Prepared: ____ / ____ / 20 ____

LOT: NS _____

Expiry Date: ____ / ____ / 20 ____

Final Checked By: _____

INGREDIENTS	MFR	LOT #	EXPIRY DATE	FORMULA QUANTITY	QUANTITY USED	PREPARED	CHECKED
Lansoprazole 30 mg capsules	Takeda®			10 capsules			
Sodium Bicarbonate				8.4 g			
Sterile Water for Irrigation				QS to 100 mL			

Risk Summary:

Always follow policies & procedures for risk assessment/NAPRA level as determined by your own pharmacy department.

Equipment and PPE:

- Glass mortar and pestle
- Graduated cylinder
- Glass stirring rod
- Large glass beaker
- Magnetic stirrer
- Amber GLASS bottles
- Standard CHEO Level B PPE (hair bonnet, mask, +/- beard cover, clean gown and nitrile gloves)

Procedure:

Always follow departments training protocols and policies and procedures that are currently in place.

STEP 1: Prepare the Sodium Bicarbonate solution:

1. Dissolve sodium bicarbonate powder in the total volume of sterile water for irrigation. A magnetic stirrer is recommended.
2. Solution is ready when it is clear. Put aside.

STEP 2: Make lansoprazole suspension:

There are two ways to proceed with compounding this suspension:

Method A:

1. Add a small amount of the sodium bicarbonate solution to the beads and let stand to soften the beads. This may take several minutes.
2. Levigate beads with small amounts of sodium bicarbonate solution until a smooth paste is formed. Add more solution to the paste until a liquid is formed.



Children's Hospital of Eastern Ontario
Pharmacy Department

3. Transfer contents into the graduated cylinder.
4. Rinse the mortar and pestle with sodium bicarbonate solution and pour into graduated cylinder.
5. QS to final volume with sodium bicarbonate solution. Stir well.
6. Dispense in amber glass bottle(s). Refrigerate

Method B

1. Pour about half of the sodium bicarbonate solution needed for the recipe into a beaker. Place the beaker on the magnetic stirrer, and turn the stir function on (at about 50-75% full speed).
2. Open capsules into the beaker while it's stirring. Keep the stirrer moving so the beads do not settle.
3. Suspension might still be cloudy as the last capsule is opened; keep stirring until solution looks uniform and beads are dissolved (~ 5-10 minutes).
4. Pour into a graduated cylinder. QS with more sodium bicarbonate solution.
5. Dispense in amber glass bottle(s). Refrigerate

Before washing, rinse equipment into medication disposal bin, and not directly into sink.

Quality Control:

- Final Appearance: milky white, foamy suspension
- Packaging: amber GLASS bottles
- Storage & BUD: 7 days refrigerated.

Sample Label:

<p>Children's Hospital of Eastern Ontario LANSOPRAZOLE 3 mg/mL Oral Suspension SHAKE WELL. REFRIGERATE. Quantity: LOT: Expiry:</p>

Reference(s):

- Calgary Health Region Children's Hospital Formula, accessed 2015
- Verbal communication with IWK (Nov 2010 by AB)
- Ann Pharmacother . 2000; 34(5):600-4
- Morrison JT, Lugo RA, Thigpen JC, Brown SD. Stability of extemporaneously prepared lansoprazole suspension at two temperatures. J Pediatr Pharmacol Ther. 2013;18(2):122-127.
- Pediatric Drug Formulations, 4th ed., Cincinnati, Ohio USA: Harvey Whitney Books, 2000.
- Ensom, Decarie, Sheppard. Stability of Lansoprazole in Extemporaneously Compounded Suspensions for Nasogastric or Oral Administration. CJHP. Vol 60, No. 3; June 2007: 184-91.
- Lexi-comp's Clinical Reference Library. Version 2004.4 Providence, RI USA: Electronic Book Technologies, Inc. Lexi-comp.

Formulation Review:

Master Formula Revision Dates: Nov 05; Jan 06; Sep 06; Feb 07; Nov 10 ; Dec 10 ; Dec 15; feb 2018 ; Jan 2020; June 2021.