

Nebulized Colistimethate (Coly-Mycin®) or Colistin

When to Use this Medicine

Colistimethate is used to treat lung infections caused by *Pseudomonas*, a type of bacteria.

Dose - Either 75 mg or 150 mg twice a day through a nebulizer (each vial contains 150mg).

Supplies for One Month of Treatment (75mg Nebulized Twice Daily for One Month)

Product name	Quantity	NDC#
Colistimethate sodium 150mg vial 2mL	30 vials	39822-0615-01
Sterile water for injection flip top vial 10 ml	300 mL (30 vials x 10 mL)	00409-4887-10
Sodium chloride inhalation solution 0.9% 3mL OR 5mL depends on availability	180 mL (60 vials x 3 mL) 300 mL (60 vials x 5 mL)	00487-9301-03 (3 mL) 00487-9301-05 (5 mL)
Mini-Spike Dispensing Pins	60 Dispensing Pins	08021-4120-12
Luer-lock syringe 3mL (no needle)	60 syringes	08290-3095-75
Alcohol wipes	1 box (100/box)	

Supplies for One Month of Treatment (150mg Nebulized Twice Daily for One Month)

Product name	Quantity	NDC#
Colistimethate sodium 150mg vial 2mL	60 vials	39822-0615-01
Sterile water for injection flip top vial 10 ml	300 mL (30 vials x 10 mL)	0409-4887-10
Sodium chloride inhalation solution 0.9% 3mL OR 5mL	180 mL (60 vials x 3 mL) 300 mL (60 vials x 5 mL)	00487-9301-03 (3 mL) 00487-9301-05 (5 mL)
Mini-Spike Dispensing Pins	90 Dispensing Pins	08021-4120-12
Luer-lock syringe 3mL (no needle)	60 syringes	08290-3095-75
Alcohol wipes	1 box (100/box)	

How do I prepare the colistin?

Colistimethate comes as a powder in small vials. Store the unused vials at room temp. Before use, you must dilute with sterile water.

- **You must store in fridge after you dilute** the vial with water.
- **Only make enough to use within 24 hours.**
- Throw away any mixed and unused after 24 hours.

How to Prepare

1. Prepare a clean area for mixing.
2. Wash your hands.
3. Wipe off the top of one sterile water vial and the colistimethate vial(s) using a separate alcohol wipe for each vial. Discard the alcohol wipes.
4. Open the packages for the Mini-Spike Dispensing Pins (MSD Pin). You'll use one for each colistimethate vial and one for a single vial of sterile water. The MSD Pins allow you to add or withdraw liquid to a vial without using a needle.

How to Mix

1. Pick up the MSD Pin using the tab (do not touch the pointed end of the spike). If you touch the pointed end, throw it away and open a new package.
2. Using one MSD Pin, insert the pointed end into one **sterile water** vial through rubber stopper.
3. Using the other MSD Pin, insert the pointed end into one colistimethate vial through the rubber stopper.
4. If fixing **two** colistimethate vials for use within one day, insert a third MSD Pin into the second vial of colistimethate.

5. Remove the blue cap from the top of each, taking care to not touch the top. Place the blue caps on a clean paper towel.
6. Open up the package for one 3 mL Luer-lock syringe. Pick up the 3 mL syringe by the barrel (do not touch the tip of the syringe).
7. Screw the syringe tip into the top portion of the MSD Pin in the sterile water vial.
8. Withdraw 2 mL of sterile water into the syringe by pulling back on the tip of the plunger of the syringe with one hand while holding the sterile water vial with the other hand (do not touch the sides of the plunger or the tip of the syringe).
9. Unscrew the syringe from the MSD Pin.
10. Screw the syringe that has the 2 mL of sterile water into the top portion of MSD Pin in the colistimethate vial.
11. Inject the sterile water into the colistimethate vial and swirl gently to mix. Do not shake the vial as this will make the medicine foam.
12. If you prepare a second vial for use on the same day, you may use the same syringe. Withdraw 2 mL water from the sterile water vial and add to the second vial and swirl gently to mix. Do not shake the vial as this will make the medicine foam.
13. Place the blue cap on the top of the MSD Pin for the second vial. Make sure not to touch the tip of the MSD Pin.

14. **Store this second vial in the fridge until use, but no longer than 24 hours after mixing.**

15. The sterile water vial must be discarded after use. It cannot be saved for reuse even if there is water left in the vial.

Measuring the Correct Dose of Colistimethate for Nebulization

Each vial of colistimethate contains 150 mg of drug in a 2 mL volume.

1. Using a new 3 mL Luer- lock syringe, screw the syringe into the top portion of the MSD Pin in the colistimethate vial and draw up the dose.
 - A 150 mg dose is 2 mL of solution (one vial provides the full dose).
 - A 75 mg dose is 1 mL of solution (one vial provides two doses).
 - **Your dose is _____ mg which is _____ mL of solution.**
2. Unscrew the syringe and put your measured dose into the nebulizer cup.
3. Using a new 3 mL Luer- lock syringe, screw the syringe into the top portion of the MSD Pin in the colistimethate vial and draw up the dose.
4. Unscrew the syringe and put your measured dose into the nebulizer cup.

Diluting the Medicine in the Nebulizer Cup

1. Add enough sodium chloride (0.9%) solution to the nebulizer cup to total about 3 mL in the cup. Adding the sodium chloride to the colistimethate in the nebulizer cup makes it easier to nebulize the medicine without coughing. If your pharmacy supplies you with sodium chloride 0.9% 3 mL vials:
 - Add about 1/3 (or 1 mL) of the vial to the cup if your dose is 150 mg.
 - Add about 2/3 (or 2 mL) of the vial to the cup if your dose is 75 mg.
2. If your pharmacy supplies you with sodium chloride 0.9% 5 mL vials:
 - Add about 1/5 (or 1 mL) of the vial to the cup if your dose is 150 mg.
 - Add about 2/5 (or 2 mL) of the vial to the cup if your dose is 75 mg.

If you add more of the sodium chloride 0.9% solution to the cup, this will not affect the treatment. Adding more will only increase the length of time needed to nebulize the medicine.

Use a separate sodium chloride 0.9% vial for each treatment. The vial is designed for single use only and must be tossed after a single use.

Storage Guidelines

Put, unused mix of colistimethate in the fridge until your next treatment. Once prepared, it must be either used right away or stored in the fridge for use within 24 hours. If the mix is not used the same day it must be thrown away.

How do I do the nebulizer treatment?

1. Attach one end of the smooth tubing to the air compressor and attach the other end to the nebulizer and turn on. You should see a fine mist. If not, make sure the compressor is working by taking off the smooth tubing. Feel for air coming out. If the compressor is working, check all connections. If the nebulizer is still not misting, use a different nebulizer kit.
2. Place the mouthpiece in your mouth. Some small children use a mask over the mouth and nose rather than a mouthpiece.
3. Take slow, deep, even breaths through your mouth. Make sure the medicine cup is kept upright.
4. Do the treatment until the medicine is finished (no mist comes out). If the medicine sticks to the side of the cup, gently tap the sides of the cup.
5. Foam may develop in the medicine cup during treatment. This is a normal.
6. After the treatment is over, pour 2 teaspoons of clean water into your nebulizer. Turn the air compressor on and let the water mist through the nebulizer for 15 seconds just as if you were doing a treatment. This will clean out any medicine that remains in the tiny tubes.

How do I use?

Take all your medicine and airway clearance treatments in the order below. If you have not been given a certain medicine listed below, you can skip that step. Please follow any specific orders your doctor gives you.

1. Bronchodilator (Albuterol)
2. Hypertonic saline (Hyper-Sal™)
3. DNase (Pulmozyme®)
4. Airway clearance (vest, acapella, flutter, manual chest physiotherapy)
5. Asthma controller medicines (Flovent®, Advair, Symbicort)
6. Aerosolized antibiotic (Cayston®, TOBI®, Colistin)

How often are treatments done?

Treatments are most often twice daily. Your symptoms should improve or remain stable as you do the treatments. If your infection does not improve or if it gets worse, call your doctor.

Are there any side effects?

Some people have shortness of breath and increased coughing. If these occur, call your doctor.

How to Clean and Disinfect the Small Volume Nebulizer

You need to clean and disinfect your nebulizer daily to prevent infection and keep the device working well.

To Clean

1. Take the nebulizer apart and wash the pieces in warm soapy water.
2. Rinse with hot tap water.
3. Place the parts in a bowl and add enough 70% ethyl alcohol to fully cover them.
4. Soak all parts for 20 minutes.

5. Rinse all parts of the nebulizer with sterile water. Do not use water from the faucet, bottled water or distilled water. To make water sterile, you can boil it for 5 minutes.
6. Use this water once, and then throw it out.
7. Place the parts on a paper towel to dry.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5851