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Insta/Vent[™] Plus Overview

Medi/Nuclear's Insta/Vent[™] Plus is a two tube system that eliminates dead space and with an expansion bag, provides more efficient radioaerosol delivery.

Unidirectional airflow allows for the radioaerosol particles of ^{99m}Tc-DTPA or an equivalent alternative to be immediately available upon inhalation.

An airflow control device is used instead of one way valves thus eliminating restricted breathing.





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As a patient inhales, medication from the nebulizer moves through the top tube and into the mouthpiece.

When the patient exhales an internal flapper closes and exhalation is directed through the bottom tube and into a HEPA filter.

During exhalation, air continues to flow through the nebulizer into a breathing bag which acts as a reservoir to store aerosol that would normally be wasted during exhalation.

When the next breath is taken, the patient immediately inhales the aerosol mist that has filled the top tube and also the aerosol mist from the breathing bag.



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Insta/Vent[™] Plus Assembly

- Remove the components from the plastic bag:
 - Insta/Vent[™] Plus Assembly (manifold with attached nebulizer, HEPA filter, green expansion bag and breathing tubes with Flow Control and elbows).
 - Small bag containing Safety Shield™ Mouthpiece, nose clip, and "Caution Radioactive Material" label.

Note: Retain the re-sealable bag for disposal of the Insta/VentTM Plus after the ventilation study.



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- Unfold the green expansion bag.
- Open the lid of Insta/Vent[™] shield and install the Insta/Vent[™] Plus manifold.
 - A. The upper /attached breathing tube will fit through the slot at the top.
 - B. The nebulizer will be directed into the lead cylinder and into the silver oxygen/air pressure port.
 - C. The HEPA filter will extend through the exhaust opening at the bottom.





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 Press down firmly on the top of the kit, or gently rock it, to secure the nebulizer.

Note: A properly seated kit will sit below the lid line, rather than at the lid line.

Caution: Excessive force or aggressively wiggling the kit may damage the nebulizer tip, preventing the proper seating of the kit and adequate mist production.



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 While holding down the Insta/Vent[™] Plus manifold inside the shield, attach the elbow on the free end of the second breathing tube, to the HEPA filter.

The HEPA filter can be reached through the exhaust opening in the underside of the Insta/Vent[™] shield.

Recheck the manifold to be sure it is seated firmly in place.







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- Attach the Safety Shield[™] Mouthpiece to the patient port. If desired, an airfilled face mask (#MN5045) may be used instead.
- Connect the oxygen tube to the oxygen inlet connection on the front of the Insta/Vent[™] lead shield. Use only the provided oxygen tube (#IV-605). Other oxygen tubes may be slightly over-sized and could cause oxygen leakage.







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- Prepare ^{99m}Tc-DTPA or an equivalent alternative in accordance with the manufacturer's instructions.
- Using a shielded syringe and needle, inject 40 mCi in 2 mL of ^{99m}Tc-DTPA solution through the center of the grey stopper in the top of the Insta/Vent[™] manifold and into the nebulizer.
- Prior to closing the Insta/Vent[™] shield, ensure that the manifold is seated firmly into the silver oxygen/air pressure port.
- Close the lid of the Insta/Vent[™] shield.







Insta/Vent[™] Plus Operation

- Remove the Safety Shield™ Mouthpiece cover by pressing in the sides and gently pulling out.
- Place the mouthpiece in the patient's mouth.
- Place the nose clip on the patient's nose, unless using a face mask.
- Prior to turning on the oxygen/air, instruct the patient to take several test breaths from the system.





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Caution: At normal 50 PSI pressure for the oxygen/air supply, a sudden increase of flow from 0 to 10 liters/minute may blow the air line off of the Insta/VentTM shield.

Instruct the patient to breathe normally until the desired amount of radioactivity is delivered to the lungs. Breathing time should be approximately 2 minutes if the assembly recommendations are followed.

Caution: To prevent possible radiation leakage into the environment, be prepared throughout the inhalation period to shut off the oxygen flow immediately if the patient releases the mouthpiece.





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- After inhalation, turn off the oxygen/air and instruct the patient to continue breathing through the mouthpiece for additional four or five tidal breaths to clear the system of aerosol.
- Remove the nose clip and the mouthpiece from the patient.
- Have the patient expel any saliva into the cover of the mouthpiece. Attach the cover to the mouthpiece making sure it seals securely. Discard the sealed mouthpiece into the plastic bag.
- Start the patient imaging procedure as soon as it is convenient. Imaging time should be approximately one minute for 100-150,000 count images.



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Insta/Vent[™] Plus Disposal

- Be sure the oxygen/air supply is off.
- Disconnect the elbow from the bottom of the HEPA filter.
- Remove the Insta/Vent[™] shield lid and remove the used radioaerosol kit from the shield.
- Disconnect oxygen tubing from the oxygen/air source.

Warning: Disconnecting the oxygen line before removing kit may result in a vacuum sufficient enough to pull liquid into the oxygen port which could result in contamination. Please disconnect in the steps shown above.





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- Place the kit in the re-sealable disposal bag. Remove seal strip from the bag to expose the unused tape. Seal the bag securely.
- Quickly attach the radiation label, and place the kit in a shielded disposal area to allow for radioactive decay.
- Discard decayed waste according to the radioactive waste procedures established by your facility.





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Insta/Vent[™] Ordering Information

Catalog No.	Product Description	Qty/ Units
IV-600	Insta/Vent™ Radioaerosol Kit, Single Tube System	24/cs
IV-600M	Insta/Vent™ Radioaerosol Kit with Mask, Single Tube System	24/cs
IV-600P	Insta/Vent™ Radioaerosol Kit, Two Tube System	24/cs
IV-600PM	Insta/Vent™ Radioaerosol Kit with Mask, Two Tube System	24/cs
IV-600V	Insta/Vent™ Ventilator Kit for ventilator dependent patients	6/cs
IV-601A	Insta/Vent™ Portable Lead Shield, Aluminum	Each
IV-605	Oxygen Supply Tube, 7 ft.	3/pk



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For additional information, please contact:



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We're here to be of assistance!



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