

COVID-19 Suggested Safe Practices

Embalming Protocols

DISCLAIMER: At this early stage in the COVID-19 pandemic, Dodge believes this document provides procedures and techniques which detail the best-known protection for funeral service personnel who may encounter and/or embalm a COVID-19 positive case. Ongoing scientific study may prove this information to be insufficient or incorrect.

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Pre/Post Embalming Procedure

- Careful case analysis of pre/post embalming protocols are required.
- Standard Precautions (Universal Precautions) and Personal Protective Equipment (PPE) should always be used, regardless of the situation.
- The Center for Disease Control (CDC) has released a guide to be utilized for postmortem care:
 - <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html>
- Cover the entire face with Dis-Spray saturated cotton.

COVID-19 cases have a lot of factors to consider such as disinfecting the virus, various time delays and other medical and/or drug therapy procedures prior to death. Since a higher than normal arterial dilution is recommended, the following factors should be taken into consideration.

- Suggested minimum preservative solution should be 5%.
 - To calculate your percentage solution, the Dodge Arterial Solution Calculator can be downloaded at: www.dodgeco.com/apps.
- Use of Halt GX or Dis-Spray as a co-injection in your arterial solution.
 - Halt GX contains BroadStat, a Dodge proprietary disinfectant blend.
- Use a drain tube with enough hose length that it reaches into the drainage receptacle
 - This will reduce splatter and aerosolization; otherwise known as a 'closed-drainage system'.
- Remove Dis-Spray saturated towel covering the face.
- Remove cotton packs from the orifices.
 - New packing can be saturated, applied and inserted.
 - All materials used in pre/post embalming should be considered as bio-waste and treated with disinfectants before placing in a medical waste container.
 - *Suggested disinfectants: Dis-Spray, Wavicide.*
- Spray Dis-Spray into the nasal passage and mouth; be sure to get deep saturation and use a barrier when applying.
 - Dis-Spray can also be injected into the nasal passage and mouth using a needleless syringe.
 - Allow the Dis-Spray to sit undisrupted for a minimum of 10 minutes.

COVID-19 Suggested Safe Practices

Embalming Protocols

- Forceps can be used to place Dis-Spray soaked cotton deep within the sinuses as well as the surface nasal passages.
- The mouth should be thoroughly cleaned and disinfected with Dis-Spray.
- Use forceps to deeply seat Dis-Spray saturated cotton into the oropharynx area (behind the mouth in the throat).
 - Barrier “plugs” may also be used by filling Webril strips with Viscerock Plus FF or Viscerock FF and folding to create a plug.
 - Coat each “plug” with an ample amount of Inr-Seel or Perma-Seel and deeply seat within the oropharynx; building a blockade to create a barrier.
- Repeat this process in the nasal passages.

For additional treatment and disinfection, you can follow the “Pre-Embalming Tracheal Treatment Techniques” at the end of this document.

- Embalm as you normally would.
- Wash the body with Dodge Prep Soap and warm water.
 - Foaming soap helps to break down and dissolve the fat layer of the virus.

Whenever possible, a closed aspirating system is the suggested and safer approach. If a hydro-aspirator is being used and feeds into an uncovered sanitary sink or similar-type basin, be sure to cover it to avoid the aerosolization of particles. The hydro-aspirator or electric aspirator discharge line should flow directly into the sewer line if possible. If this is not an option, the exit line of your aspirator should be fully submerged in the water.

- Cavity aspiration is followed by the injection of 32oz. of a suitable cavity chemical.
 - *Suggested Dodge cavity chemicals: Dri Cav, PermaCav Fifty, Halt Cavity.*
 - *Cavity chemical should be a 21 index or greater.*
- Aspiration above the diaphragm should be repeated several hours later.
 - Introduction of another 16oz. of cavity chemical should follow the 2nd aspiration.
- An additional step would be to inject Halt Cavity or Halt GX into the right and left lungs. Injection site should be your incision site.
- Cotton towels saturated with Dis-Spray should cover the incision while you remove the trocar; disinfect the trocar as its being removed from the deceased.

Cases are being reported to have large amounts of clotting in the lungs which is hindering the distribution of arterial chemicals, thus creating an environment where the virus can thrive postmortem.

- Wash the deceased again with Dodge Prep Soap.
- Spray the face and hands with Dis-Spray and allow to dry.
- Follow the proper protocol for cleaning and disinfecting all surfaces, instruments, walls, and floors of the prep and dressing rooms.
- Cots and transfer equipment should also be cleaned and disinfected after each use.

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Embalming Protocols

Pre-Embalming Tracheal Treatment Techniques

Reportedly, the lungs of COVID-19 cases are the epicenter of the virus because they contain fluid and a very sticky mucus that the virus can thrive in. To neutralize this fluid within the lungs, the following techniques may be used by gaining access to the trachea through the incision made at the carotid artery. The trachea is a direct line to the lungs and divides into right and left bronchi, the route into each lung.

- Method #1:
 - Tie off the esophagus before embalming to control possible purge.
- Method #2:
 - Use a 60cc syringe filled with Halt GX or Dis-Spray and hypodermic needle.
 - Insert the hypodermic needle and inject Halt GX or Dis-Spray directly into the trachea.
 - This process may need to be repeated multiple times.
- Method #3:
 - Attach cavity injector to an infant trocar with a bottle of Halt GX or Dis-Spray.
 - Insert the infant trocar into one side of the trachea.
 - Allow the chemical to flow into the trachea and fill the lungs.
- Method #4:
 - Place 16oz. of Halt GX or Dis-Spray into embalming machine.
 - Access the trachea.
 - Insert an arterial tube and allow chemical to flow into the trachea.
 - Allow contact time for chemicals to work and use ample volume.

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