



IN THE LOOP

Maintaining Sterility for Epidural Anesthetic Injection

ESCO
SCIENTIFIC

The epidural anesthetic injection is a known solution to chronic pain caused by inflamed spinal nerves. Administration of epidural anesthetic injection to affected patients helps them resume their normal activities. This medication may temporarily relieve pain for several days to months. Unfortunately, it comes with a risk of contamination when the compounded medicine will be injected into the epidural space, due to the absence of an immune system in our spine. There were several cases where patients died from fatal meningitis after the occurrence of an infection of the cerebrospinal fluid succeeding a spinal nerve root anesthetic injection.



TO PROTECT THE PATIENT, MAINTAINING STERILITY OF THE COMPOUNDED MEDICINE IS CRITICAL.

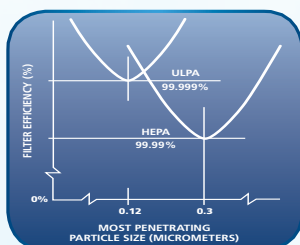
This non-hazardous sterile compounding needs to be performed in accordance with USP <797>. The Primary Engineering Control (PEC) can be a **laminar flow cabinet**, placed inside ISO Class 7 or cleaner cleanroom, with ISO Class 8 or cleaner anteroom. Using a cleaner laminar flow cabinet with ISO Class 3 work zone instead of ISO Class 5, paired with ISO Class 5 cleanroom, will help improve the sterility of the compounded medicine.

Please note that ISO classification quantifies the number of particles inside a given space. There are still contaminants inside an ISO Class 5 laminar flow cabinet, albeit at significantly lower than in a normal room.



LHG-4AG-F

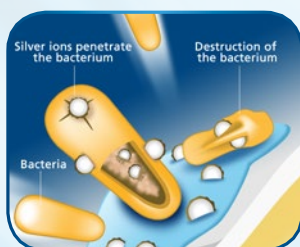
Because there is no immune system inside our cerebrospinal fluid, health care institutions should not take any chances. Esco laminar flow cabinets are equipped with advanced contamination control features:



ULPA filter. Provides ISO Class 3 work zone instead of ISO Class 5 work zone provided by conventional laminar flow cabinets with traditional HEPA filter.



Easy-to-clean work zone. It doesn't have a return air plenum where molds can grow. The tray is designed to contain spill and prevent dripping.



Antimicrobial powder coating. Exterior and inside the plenum are coated with Esco Isocide™ to further reduce contamination.



The quietest in the market at only 52.4 dBA. It uses an advanced plenum design to reduce blower rpm and noise. This improves concentration during the critical work of compounding sterile medicine.

Reference:

[1] Weinstein SM, Herring SA. (2003). NASS. Lumbar epidural steroid injections. *Spine J* 3(3 Suppl):375-445.

