

# Should Compounders Sanitize Their Gloves During a Media-Fill Test?

A recent discussion among compounding professionals raised a question that seems simple on the surface but opens the door to a much larger conversation about competency assessment design:

## **Should personnel sanitize their gloves during a media-fill test?**

As with many USP <797> implementation questions, the answer is not simply yes or no. Instead, organizations should consider the underlying purpose of the media-fill test and whether the test accurately evaluates the individual's ability to maintain aseptic technique during routine compounding activities.



## **Understanding the Purpose of a Media-Fill Test**

The media-fill test is not intended to be a "gotcha" exercise, nor is it simply a box that must be checked for compliance. Its primary purpose is to assess whether personnel can perform aseptic manipulations without introducing microbial contamination into a sterile preparation.

USP <797> identifies the media-fill test as one of the chapter-defined hands-on competencies used to

assess aseptic manipulation competency. The test is intended to challenge the individual's aseptic technique under conditions that simulate actual compounding activities.

To achieve this goal, the media-fill procedure should reflect the compounding processes, manipulations, and behaviors expected during routine operations.

### **Why the Question Matters**

The debate surrounding glove sanitization often stems from two competing viewpoints.

One perspective suggests that allowing personnel to sanitize their gloves during a media-fill test may reduce the challenge of the assessment. If the objective is to identify weaknesses in aseptic technique, should individuals be permitted to repeatedly sanitize away potential contamination?

The opposing perspective argues that personnel should perform the media-fill test exactly as they perform routine compounding. If glove sanitization is expected during actual sterile compounding activities, excluding it from the media-fill test creates an unrealistic scenario that does not accurately reflect daily practice.

Both viewpoints have merit.

The key question becomes: What behavior are you trying to evaluate?

### **The Real Goal: Replicating Routine Practice**

In most sterile compounding environments, personnel are trained to sanitize gloves at prescribed intervals and after specific activities. Glove disinfection is a routine contamination-control measure that helps maintain the cleanliness of gloved hands during compounding operations.

If a compounder would normally sanitize gloved hands before critical manipulations, after touching non-sterile surfaces, or during extended compounding activities, those same actions should generally be incorporated into the media-fill process.

Removing glove sanitization entirely may create a test scenario that personnel would never encounter during actual compounding. Conversely, permitting excessive or unnecessary glove sanitization solely to improve the chances of passing the test may undermine the value of the assessment. The goal should not be to create either the easiest or the most difficult media-fill test. The goal should be to create the most realistic one.

### **Avoid Designing a Test to Produce a Passing Result**

One of the greatest risks in competency assessment programs is the temptation to design exercises that virtually guarantee success.

Organizations should be cautious about adding steps, manipulations, or interventions solely to reduce the likelihood of contamination recovery.

A well-designed media-fill test should challenge personnel sufficiently to demonstrate competency while remaining representative of actual workflow.

Questions worth asking include:

- Does this media-fill test reflect routine compounding activities?
- Are personnel following normal procedures?

- Would an observer recognize the behavior as typical practice?
- Does the assessment provide meaningful information about aseptic technique?

If the answer to these questions is no, the assessment may be generating documentation rather than useful competency data.

### **Consider the Bigger Picture**

The conversation about glove sanitization also highlights a larger issue within competency programs: organizations often focus on whether a test is passed rather than what can be learned from the exercise.

Competency assessments should serve as opportunities to observe technique, identify training gaps, evaluate procedural effectiveness, and strengthen contamination-control practices.

A successful media-fill test is important, but so is understanding how personnel performed throughout the assessment. Were proper aseptic manipulations used? Was first air maintained? Were glove disinfection practices appropriate and consistent? Were interventions performed correctly?

These observations often provide greater insight than the final growth result alone.

### **A Practical Takeaway**

Rather than asking whether glove sanitization should be allowed during a media-fill test, organizations may benefit from asking a different question:

Does our media-fill test accurately reflect how sterile compounding is actually performed in our facility?

If glove sanitization is a routine and expected part of the compounding process, it likely belongs in the media-fill test, just not right before gloved fingertips are tested. If sanitization is being added solely to improve the likelihood of passing, the assessment may need reevaluation.

Ultimately, the strongest competency programs are those that prioritize meaningful assessment over simple compliance. A media-fill test should challenge personnel, mirror real-world practices, and provide confidence that aseptic technique can be maintained when it matters most—during the preparation of sterile products for patients.