A total of 36 drugs were identified as visually incompatible with blinatumomab. As such, blinatumomab should not be administered simultaneously with these drugs through a common i.v. port. Blinatumomab was visually compatible with only 3 of the 39 drugs tested; further studies should be conducted to ensure the chemical stability of these mixtures.

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Auditing sterile compounding competency with video observation

The competency assessment of personnel involved in sterile compounding is of the utmost importance in reducing the potential for contaminated products.[1] Didactic training, written tests, media-fill tests, and observational audits are recommended or required, depending on each state's regulations.[2] The serious harm that may result from contaminated, wrong-dose, mislabeled, or otherwise poor quality compounded sterile products is well documented, especially after the fungal meningitis outbreak in 2012.[3]

To ensure that the pharmacy at Texas Health Presbyterian Hospital Flower Mound produces the safest and most effective sterile compounds, our management team developed a new observational audit process to validate sterile compounding competencies after initial competency is established. The process uses saved video camera footage to retrospectively review staff compliance with all steps in the sterile compounding process.

Video footage is captured by cameras that are mounted to the ceiling and enclosed in a plastic cover to minimize particle generation and enable staff to clean them easily. Two cameras, 1 in the anteroom and 1 in the buffer area, are positioned to maximize the view of each phase of compounding, from entering the anteroom and preparing supplies to appropriate doffing techniques if the gown is saved to be reused during the same shift.

The choice to utilize video footage was based on previous experience with in-person competency assessments, which are nearly impossible to adequately perform without the staff member knowing what is being done. Our managers believed that personnel purposefully slowed down and more thoroughly completed each step when they knew they were being observed. To verify that typical behaviors are audited, pharmacy managers randomly select a time when staff members prepare sterile compounds and review the footage.

Pharmacy managers developed an evaluation tool, which outlines 40 specific requirements during the compounding process. A success rate of ≥95% was established

as the minimum passing score. The pharmacy managers evaluate the saved video footage and review any concerns with the observed staff member. The lead pharmacy technician retrains all staff not attaining a passing score in identified areas for improvement. The lead technician also reviews any notable findings with those who exceed the passing score. All retraining is documented in the employee's education file.

The initial observational audits were performed during 1 compounding activity for each staff member. The evaluation tool was used consistently by the same manager to review compliance with each step. The total number of staff initially evaluated, including technicians and pharmacists, was 9. The mean score was 74.4% (range, 47.5–97.5%). All but 1 staff member scored below the goal of at least 95% compliance.

After the initial competency evaluation and retraining, a period of 3–4 weeks was allowed to pass before reevaluation to provide staff with an opportunity to become comfortable with what were considered as significant operational changes for some. During reevaluation, the same process of choosing a random compounding activity, auditing with the evaluation tool, and meeting with staff members to review the findings was performed. The mean compliance rate for all staff improved to 86.4% (range, 70–100%).

While the thought of using video footage was initially met with skepticism by our team members, managers explained the process and the importance of compliance to ensure our patients' safety before we started our assessment. At the end of the audits and feedback sessions, staff reported positive feedback about the usefulness of watching their specific activities in the i.v. rooms that did not meet the safe practices we have established.

The next planned steps of the video audits involve adding the evaluation tool score to the annual performance review for all staff, so we can more formally recognize those who perform at a high level. We also intend to observe staff during the required daily and monthly cleaning so we can audit the correct application of those techniques.

Departments may encounter several issues when implementing similar video footage observations. These may include the need to install video equipment and its positioning as well as the amount of time needed to audit all staff members, which can be substantial depending on the number of individuals who perform sterile compounding. Depending on the improvements needed, the sterile compounding process may take longer than before the correct processes are implemented.

Utilizing video footage to randomly audit sterile compounding practices has provided managers with an accurate and effective tool to improve the performance of sterile compounding personnel.

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