What was done?

Implementation of a training program for the Cytotoxics Preparation Unit (CPU) focusing on product and staff safety. Key steps were hand washing and simulated disinfection with fluorescent gel, media fill and simulated preparations with fluorescent dye. Wipe sampling of cytotoxic contamination is now performed routinely and is considered as an indirect performance indicator.

Why was it done?

Improved processes were required due to PIC’s (2) requirements and workplace safety legislation. Moving to new CPU facilities was also a trigger for this improvement.

The training program started in 2013 and the aim was to change from an informal training to a program where minimal qualification standards were achieved despite heavy workload and budget constraints.

How was it done?

Absence of national experience required literature review and support from other hospital in Europe. Lack of commercial products and budget constraints led to adoption of more affordable solutions like in-place compounding of fluorescein vials, and use of standard sodium chloride IV bags for the media fill test. Other resources were procured externally and adapted. Staff motivation was enhanced with their involvement in the goals and open discussion of results.

What has been achieved?

All relevant staff went through the training and reached the qualification thresholds. Hand wash and disinfection were performed twice, before and after a formal presentation. In the discussion with staff between sessions, besides lecturing, there was a critical review of results and a training video was shown, with a clear focus on improvement. Second session had better results. All pharmacy technicians successfully performed media fill test (no microbial growth), and fluorescein test (no dye spots counted). Surface cytotoxic contamination (8 drugs tested in 5 locations) is mostly in line with reference values.

What next?

Training program is to be repeated yearly, as well as the monitoring processes. Future steps will also focus on cleaning procedures and related training requirements. Despite budgetary and staff constraints, a sustainable training program can be implemented with adaptation of published sources, resulting in adhesion to good practice.

References

(1) USP <797> – Pharmaceutical Compounding-Sterile Preparations
(2) PIC/S guide to good practices for the preparation of medicinal products in healthcare establishments, PI 010-3, October 2008.

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