The handling of infusions may involve a risk of nurses’ exposure to active agents by release of infusion solution into the work environment” Segner et al (2017).

Abstract:

PURPOSE: This study aims at experimentally determining the incidence and extent of liquid releases onto the operator’s hands and into the work environment during common nursing operations involving infusions.

RESULTS: In over 90% of the simulations, a release of infusion solution was observed in a standard workflow, comprising priming and decapping the infusion set, connecting it to a peripheral intravenous (IV) cannula, and detaching it again. Based on median values (229 vs. 26 μl), the release of infusion solution was about ninefold higher when using the non-optimized standard infusion set. During decapping, a hand contamination was found in a majority of cases.

CONCLUSIONS: The handling of infusions may involve a risk of nurses’ exposure to active agents by release of infusion solution into the work environment. According to our results with different infusion sets, exposure risks can be reduced technically and by appropriate handling. Nevertheless, hand contaminations found for both sets emphasize the necessity for additional measures such as more consistent use of protective gloves.
Reference:

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