



Decontamination after Inadvertent Release

PROCEDURE and SPILL KIT

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INADVERTENT RELEASES:

- Finger pricking
- Spilling
- Glass break



CONTAMINATION

➤ **Personel**

➤ **Surfaces**



PERSONEL DECONTAMINATION

- Decontamination of persons has priority and must always take place first
 - ❖ If skin is contaminated with CMR (Carcinogenic, Mutagenic, Reprotoxic) drugs it must be flushed immediately with copious amounts of cold, running water
 - ❖ Splashes in the eyes must immediately be rinsed for at least 10 min. with copious amounts of water or isotonic saline solution. An ophtalmologist must then be consulted without delay



SURFACES DECONTAMINATION

➤ **SPILL KIT** preparing

SPILL KIT



BASIC PRINCIPLES

- The contents of spill kit enable small quantities of dangerous drugs, e.g. cytostatics, to be cleared up safely
- The spill kit may only be used by persons who have previously undergone a qualified, documented training course about handling dangerous substances and using the spill kit
- In every case of spillage the supervisor will decide whether the contents of the spill kit are suitable for clearing it up

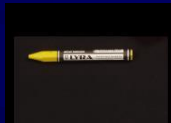


PROCEDURE

1. Securing decontaminated area
2. Employee(s) protection
3. Cleaning performing
4. Waste disposal
5. Documentation

1. SECURING CONTAMINATED AREA

- Contaminated surfaces must be secured immediately to avoid further persons being endangered
- The area can be marked using chalk
- Putting up a warning notice is particularly necessary in areas which are relatively free accessible (e.g. wards, medical practices, goods delivery areas in the pharmacy)
- In addition, action must be taken to prevent draughts and air currents (ventilation, door) in areas where the contamination includes powdered material



Vorsicht Zytostatikaverschüttung



Vorsicht Zytostatikaverschüttung



2. EMPLOYEE PROTECTION

- ✓ Single-use overall or gown
- ✓ Overshoes
- ✓ Respiratory protection mask (3M)
- ✓ Protective gloves
 - nitrile gloves (two pairs)
 - household gloves
- ✓ Protective eyewear

CAP AND OVERSHOES



SINGLE-USE OVERALL OR GOWN



EYEWEAR AND RESPIRATORY PROTECTION MASK



PROTECTIVE GLOVES



3. CLEANING

➤ Dry substances

- The material used to collect them up must be dampened with water

➤ Liquids

- Preferred cloths with high capacity for binding liquids (in order to guarantee protection against further carry-over) - with one liquid-tight side

3.1. CLEANING – BROKEN GLASS

- Contaminated broken glass must be collected up using appropriate aids:

- scraper, dustpan and cardboard
- brush should never be used in view of danger of swirling up



- Additional pair of gloves must be worn:

- household gloves



3.2. CLEANING

- The contaminated surfaces must be thoroughly cleaned
- Two-stage procedure produces the best result:
 1. aqueous 0.05 M NaOH solution
 2. 98 % isopropyl alcohol
- Rough cleaning with tensides or household cleaners

4. WASTE DISPOSAL

- All wastes are placed in plastic bags which are then tightly sealed using the cable ties



- The plastic bags are immediately placed in designated cytostatics waste containers (which may not be opened again!) labelled according to the normal regulations



5. DOCUMENTATION

- The spill must be documented in writing and measures specified for preventing future spills
- Every hospital may use its own form for documentation
- A replacement spill kit must be acquired after every incident



FINAL REMARKS

- Every pharmacy must have a **hazar defence plan** listing measures to be taken after **inadvertent release**
- This plan is prepared on the basis of risk analysis and must contain instructions for preventing damage to **persons** and the **environment**
- One component of this plan is specifying the existence of **spill kit**



FINAL REMARKS

- This spill kit must be available in all the areas where cytostatics are handled
- The responsibility for installing and maintaining spill kits is ideally carried by the pharmacy as a central unit
- The removal and disposal of spilled cytostatics may be performed only by properly instructed personnel
- The procedure to be followed after inadvertent release is part of the working rules and the annual instruction



Thank you for attention