

EXPOSURE TO CYTOTOXICS: A LARGE MEASUREMENT CAMPAIGN IN A HOSPITAL

Marie Robert¹, Eva Couplier¹, Elisabeth Lheritier¹

¹ Centre hospitalier de Dieppe, pharmacy, avenue Pasteur, 76202 Dieppe.

- ✓ Financing from the management
- ✓ Agreement of the Health, Safety and Working Conditions Committee

BACKGROUND

Production of anticancer drugs (AD)

→ **chemical contamination**

Studies on the entire circuit from reception to administration are still few.

OBJECTIVES

To confirm the presence and location of contamination in our establishment (6000 preparations/year)



MATERIALS & METHODS

Large sampling campaign on all stages of the circuit :

44 samples

- 25 in care units : 4 in pneumology/4 in internal medicine/17 in oncology
- 19 in the pharmacy/production unit

Sampling points: surfaces likely to be contaminated, defined in collaboration with the team of an expert university hospital, to which the processing of the samples was entrusted.

RESULTATS

- Samples (+) : 48% (12/25) in care services / 21% (4/19) in the pharmacy
- Samples (-) : 52% (13/25) in care services / 79% (15/19) in the pharmacy

C Cyclophosphamide **E** Etoposide **P** Paclitaxel **I** Irinotecan **T** Topotecan (not manufactured for 5 months)



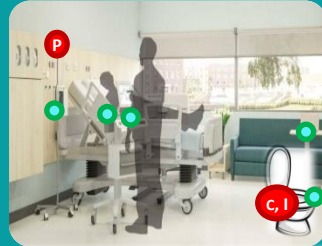
Pneumology department

- ❖ Individual room (patient treated by ETOPOSIDE)



Internal medicine department

- ❖ Individual room (patient treated by CYCLOPHOSPHAMIDE + VINCRISTIN)



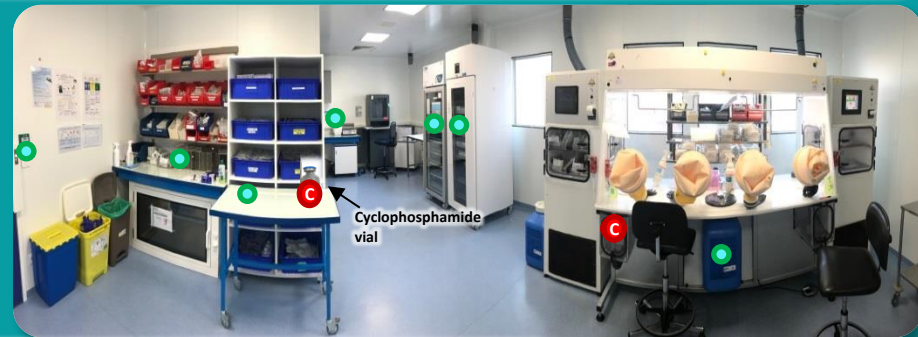
Oncology department (day hospital)

- ❖ 2 individual rooms (patients treated by PACLITAXEL/PEMETREXED)
- ❖ Common care room (capacity: 8 patients)

DISCUSSION

- Presence of cytotoxics at all stages of the circuit → majority of samples (+) : in the care services.
- **Administration** = stage at risk of professional exposure (trivialization of CA administration, exposure during disconnections, management of excreta).
- **Insufficient cleaning of premises.**
- Contaminations sometimes **far from the infusion site** (restrooms or housing services) and **persistence of traces** (AD found not administered to the patient).
- **Corrective actions:**
 - Results disseminated to all personnel involved
 - Reinforcement of individual protection measures (e.g., systematic use of gloves, frequent change of gloves), efficient cleaning of premises.
 - Systematic cleaning of the bags with a detergent at the exit of the isolator.

The new sampling campaign planned will ensure this risk is better controlled.



Pharmacy service

- ❖ CCRU: 4 (-) not shown : telephone + airlock button + transport container + plastic bags
- ❖ Warehouse Workstation: 2 (-) not shown

