

Background :

CD preparation is an hazardous activity, can involved an exposure of workplace and hospital personnel (acute or delayed). Surface contamination rate with CD was evaluated by wipe sampling.

Methods :

20 wipe samples (N= 20) targeting critical steps

Preparation (n=12)

Isolator, preparation room (PR)

Dispensation (n=3)

Dispensing area (DA)

Administration (n=5)

Day hospital of oncology-hematology (DH)

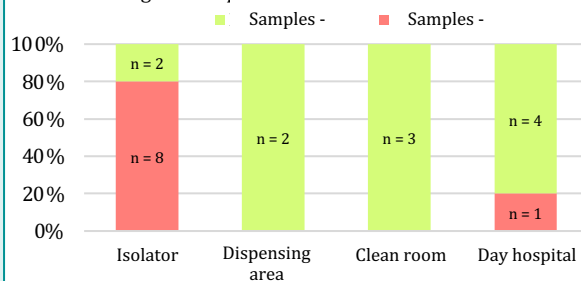


Quantity of CT was determined by liquid chromatography tandem mass spectrometry

< LOD	< 10 x LOQ	10-100 x LOQ	> 100 x LOQ
Not found	Low quantity	Intermediate quantity	High quantity

Results :

Percentage of samples contaminated by at least one CT



45 % of contaminated samples (n = 9/20)

18 analyzes per sample, including 35 positive out of 360, or 9%.

The following molecules were not found :
Dacarbazine, Doxorubicin, Epirubicin, Melphalan, Docetaxel, Irinotecan, Paclitaxel, Pemetrexed, Topotecan, Vinblastine.

R : Right; L : Left

Molécules (ng/pf)	Isolator						Day hospital		
	R glove, post 1	L glove, post 1	R cuff, post 1	L cuff, post 1	L glove, post 2	Garbage can handle	Door handle	Residual containers	CT bag
5FU	9	8	22	53	16	3	3	40	
Cytarabine					33				
Gemcitabine				5	11			21	
Cyclophosphamide								1	
Etoposide	38	7							90
Ifosfamide	59	18	4	7		1	3		
Methotrexate	3	1	4	2	2				
Platinum	4	3	7	36	4	1	1	1	

Rate of molecules found for positive samples

Conclusion :

PR, DA, and DH were not contaminated, suggesting **effective cleaning methods** and **safe administration**. Despite the use of a closed system for Ifosfamide, the large quantity found in the isolator requires corrective measures focused on good preparation practices and on continuous training of pharmacy technicians with the implementation of a fluorescein test to raise their awareness. Realizing samples for detecting surface contamination is currently not recommended. A comparison with other centers appears to be essential in order to optimize the management of these contaminations.