

Increasing acceptance of annual in-house training for CMR substances: change from face-to-face to webinar

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Introduction

The University Medical Center of the State of Schleswig-Holstein (UKSH) consists of two hospitals (Kiel and Lübeck) which are nearly 100 km apart. Each hospital has its own pharmacy whose pharmacists have knowledge about handling carcinogenic (c), mutagenic (m) or reprotoxic (r) substances (CMR). Staff members of the UKSH who handle CMR substances, especially oncological wards and outpatient clinics, are required to participate at an annual in-house training that is done orally and workplace-related. It needs to match German legislation of the Ordinance on Hazardous Substances (§14). Until 2021 the two hospitals have done the training separately. During the COVID-19 pandemic, however, it became obvious that the separate face-to-face trainings at both hospitals needed to be modified into a webinar. Consequently from 2022 on a webinar has been offered for staff members of both hospitals (fig.1).

Material and methods

From 2016 to 2021 participants in the hospital from Kiel were counted and the ratio of participants per training was analyzed. Since 2022 the data were analyzed for both hospitals combined.

Fig.1: Timeline: type of training from 2016 to 2023

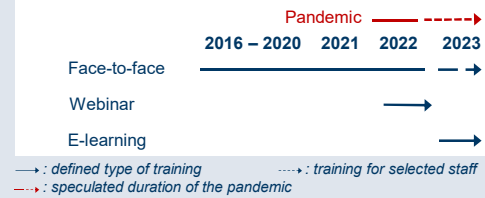


Fig. 2a: Number of participants

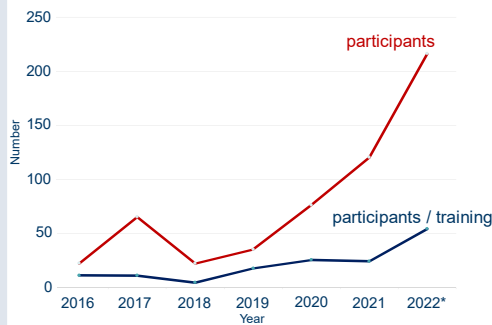
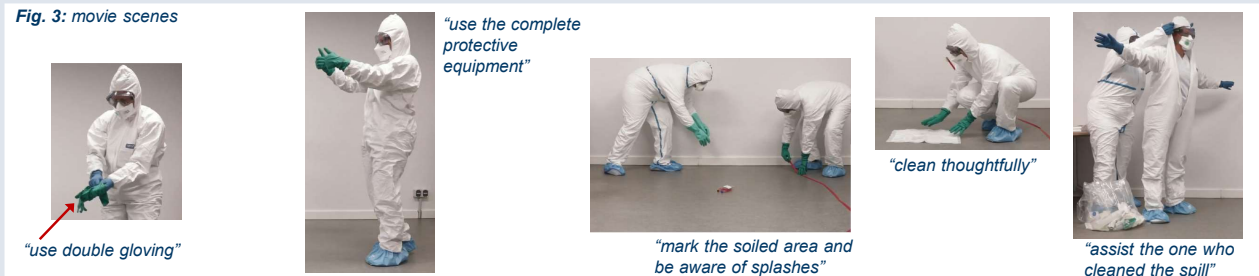


Fig. 2b: Number of trainings and participants 2016 to 2022

	2016	2017	2018	2019	2020	2021	2022*
Number of trainings:							
Face-to-face	2	6	5	2	3	1	0
Webinar	0	0	0	0	0	4	4
Number of participants (p)	22	65	22	35	76	120	216
Number of p/training	11,0	10,8	4,4	17,5	25,3	24,0	54,0

* Data for both hospitals Kiel and Lübeck

Fig. 3: movie scenes



Results and discussion

From 2016 to 2020 a face-to-face training during working hours was offered to staff members including a spill kit demonstration in minimum of four times a year. Some trainings were accepted well while others have fallen out due to lack of participation. Thus the number of trained staff in the hospital in Kiel had a large variation (fig.2b) (2016: 22 participants (p), 2017: 65 p, 2018: 22 p, 2019: 35 p, 2020: 76 p), especially when correlated to the single training (t) (e.g. 2019: 17,5 p/t vs 2018: 4,4 p/t).

As a consequence of the COVID-19 pandemic the new webinar was initiated for the staff of the hospital in Kiel in 2021 and already 108 p could be counted in 4 webinars (27 p/t). For individual staff members a face-to-face training was still available (12 p). In the first four webinars in 2022, where staff members of both hospitals could register, 216 persons participated. This means a ratio of 54 p/t. Two more webinars scheduled for 2022 have already been booked by 45 staff members so far as well as one face-to-face training has been arranged.

During the pandemic a face-to-face training of cleaning a spill with CMR substances was not possible due to hygienic rules. Therefore a training movie (fig.3) was made by pharmacy staff so that every participant of a webinar learned how to use the spill kit.

Conclusion

The change from a face-to-face training to a webinar increased the acceptance of staff members to undertake the training. As a webinar is independent from the availability of room and distance, more staff members of both hospitals attended the webinars. Both staff members and instructor stayed at their work area or took place from home, as access to the world wide web is sufficient for participating. In 2023 an e-learning tool will be implemented to benefit from the complete independence of available overlapping working hours from both the instructor and UKSH staff. To adhere to German law selected staff members still need to be trained face-to-face in cleaning a spill with CMR substances. Furthermore this staff will benefit from training in a live modus because of the experience in handle the spill kit will lead to more calmness in critical situations.