

MEETING ABSTRACT

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Hand hygiene compliance in a tertiary university hospital

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Background

Health care-associated infections (HAI) are a major patient safety issue worldwide and several reports found that improved hand hygiene (HH) was associated with reduced HAI [1]. Reasons for low adherence to HH are diverse [2] and the Joint Commission set the targeted goal for HH compliance to achieve > 90% [1].

In 2012 the University Hospital Graz initiated the campaign “Clean Hands” and paid particular attention to improving healthcare professionals’ knowledge of the WHO’s My Five Moments for HH [3]. The main components of the campaign comprised training, distribution of posters and provision of materials encouraging patients and relatives to clean their hands. In 2013 and 2014 direct observations to assess HH compliance took part [1]. The aim of this study was to assess the compliance of HH within professional groups in three different environments.

Material and methods

In total, 23 units (wards and intensive care units) were informed that direct observations will be performed by trained hygiene experts for the WHO’s My Five Moments for Hand Hygiene model. Results are shown for a non-surgical ICU, surgical ICU and pediatric ward.

Phase 1 - baseline direct observation: Baseline direct observation took place and for each indication at least 20 direct observations had to be performed. The overall compliance was calculated when more than 150 direct observations in a unit had been performed. At the end of the direct observation feedback was given by hygiene experts.

Phase 2 - follow up direct observation: Each unit was given the opportunity to reflect their habits according to the baseline results. After 6 to 12 months, a follow up observation was performed and again feedback was given.

Results

In a non-surgical ICU, the overall compliance rate increased from 53% to 83%, in a surgical ICU from 68% to 82% and in a pediatric ward from 85% to 91% (Table 1).

Compliance rates for all professional groups increased over time and were highest within “others” (Table 2).

Conclusions

HH is considered to be the most important measure to prevent nosocomial infections [4] and results of direct observations show that HH motivation can be addressed with comprehensive HH campaigns. Overall, improvements in the HH behavior were achieved for all indications and had been near or even above to the Joint Commission recommendation. The compliance rate for the professional group “others” showed the highest increase.

Competing interests

The authors declare that they have no competing interests.

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Table 1. Compliance results in selected units (*less than 20 observations)

Indication	Observations (n)	Hand hygiene (n)	Compliance (%)
1) Before patient contact			
<i>Baseline (nonsurgical ICU)</i>	48	23	48
<i>Follow up (nonsurgical ICU)</i>	57	49	86
<i>Baseline (surgical ICU)</i>	52	33	63
<i>Follow up (surgical ICU)</i>	55	50	91
<i>Baseline (ward)</i>	66	52	79
<i>Follow up (ward)</i>	47	38	81
2) Before aseptic task			
<i>Baseline (nonsurgical ICU)</i>	29	13	45
<i>Follow up (nonsurgical ICU)</i>	30	26	87
<i>Baseline (surgical ICU)</i>	30	18	60
<i>Follow up (surgical ICU)</i>	31	18	58
<i>Baseline (ward)</i>	25	19	76
<i>Follow up (ward)</i>	20	18	90
3) After body fluid exposure risk			
<i>Baseline (nonsurgical ICU)</i>	24	19	79
<i>Follow up (nonsurgical ICU)</i>	33	28	85
<i>Baseline (surgical ICU)</i>	28	24	86
<i>Follow up (surgical ICU)</i>	30	28	93
<i>Baseline (ward)</i>	12	12	.*
<i>Follow up (ward)</i>	22	22	100
4) After patient contact			
<i>Baseline (nonsurgical ICU)</i>	74	46	62
<i>Follow up (nonsurgical ICU)</i>	61	56	92
<i>Baseline (surgical ICU)</i>	69	49	71
<i>Follow up (surgical ICU)</i>	66	58	88
<i>Baseline (ward)</i>	68	60	88
<i>Follow up (ward)</i>	58	54	93
5) After contact with patient surroundings			
<i>Baseline (nonsurgical ICU)</i>	53	20	38
<i>Follow up (nonsurgical ICU)</i>	25	13	52
<i>Baseline (surgical ICU)</i>	21	12	57
<i>Follow up (surgical ICU)</i>	22	14	64
<i>Baseline (ward)</i>	50	44	88
<i>Follow up (ward)</i>	32	30	94

Table 2. Compliance results in selected cohorts (%)

	Physician	Nurses	Others
<i>Baseline (nonsurgical ICU)</i>	43	56	39
<i>Follow up (nonsurgical ICU)</i>	54	88	79
<i>Baseline (surgical ICU)</i>	34	79	58
<i>Follow up (surgical ICU)</i>	39	90	96
<i>Baseline (ward)</i>	87	90	29
<i>Follow up (ward)</i>	84	99	48

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