**IMPROVEMENT OF HAND HYGIENE IN PEDIATRIC HEMATOLOGY UNIT**

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**Objective**: Hand-hygiene is important for prevention of nosocomial infections. The aim of this study was increasing awareness and knowledge of healthcare workers and caregivers about hand-hygiene, generating evidence about pathogen growth on the hands and improving hand-hygiene.

**Patients and Methods:** Study was performed in pediatric hematology unit. Study group was healthcare workers and caregivers. In a six week period, without informing the timing of the procedure, hand cultures were obtained from the study group by requesting wearing sterile gloves filled with liquid culture medium. In the following four weeks, repeated training sessions were performed every week about hand washing and using alcohol hand rub. Posters were placed on the walls showing microorganisms, hand washing techniques. In the following six weeks, hand cultures were obtained again. Frequency of the bacterial growth and colony counts were compared in pre and post-training cultures.

**Results:** Pretraining 200, post training 180 hand cultures were obtained. Significant decrease were seen in post-training samples in *Acinetobacter* (p=0,02), *Bacillus* (p=0,012), Methicilin-rezistant *Staphylococcus aureus* (p=0,007), Methicilin-sensitive *Staphylococcus aureus* (p=0,001), *Pseudomonas spp* (*Pseudomonas*  *aeruginosa* dışı) (p=0,043),  *Staphylococcus epidermidis* (p=0,001) and *Staphylococcus haemolyticus* (p=0,005). Colony counts decreased significantly in hand cultures obtained post-training, compared to pre-training cultures. (p=0,001). Decrease in colony counts were significant both in healtcare workers and caregivers (physicians p=0,001, nurses p=0,001, cleaning staff p=0,002, caregivers p=0,001). Decrease in colony counts were significant in Enterobacter cloacae and S. epidermidis (p=0,008, p=0,001).

**Conclusion:** Repeated training sessions and posters about hand hygiene, screening with hand cultures improve hand hygiene.

Aslı Ece Yakıcı adlı Pediatri Araştırma görevlisinin uzmanlık tezi (2017)

Türkiye Klinikleri Pediatri dergisinde hakem değerlendirmesinde.