

The Role of Direct Feedback in Improving Hand Hygiene Technique

P288

Á. Lehotsky^{1,2}, L. Szilágyi², Gy. Wéber¹, P. Róna², R. Pethes², P. Szerémy², T. Haidegger^{2,3}

1 – Dept. of Surgical Research and Techniques, Semmelweis University, 2 – Clariton Kft, 3 – Austrian Center for Medical innovation and Technology (ACMIT)

Introduction

- Hand hygiene is the single most important tool to prevent nosocomial infections. It is proven that electronic equipment helps to improve hygiene-related behavior by giving objective, instant feedback.
- The aim of this study was to analyze the effects of instantaneous objective feedback on hand hygiene technique.

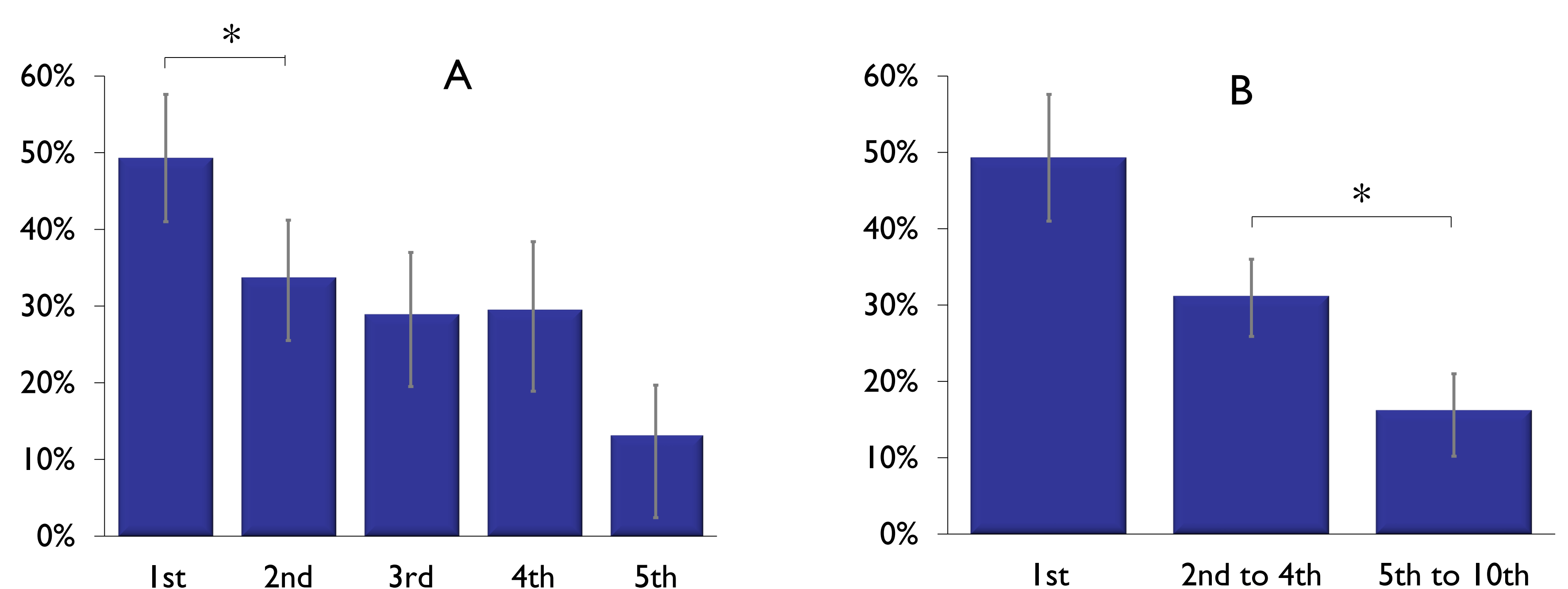
Conclusion

- **Direct feedback by the Hand-in-Scan device enables correcting wrong practices and eliminates erroneous habits**
- **During 3–4-week-long follow-up studies, the average number of missed spots reduced significantly at every site**
- **Electronic equipment is an efficient mean to improve hand hygiene performance**

Results

- **Average number of mistakes dropped significantly between the 1st and 2nd hand rubbing**
- **Significant improvement was detected comparing the outcome of 2nd – 4th occasions (clustered) with the 5th – 10th (clustered)**
- **The baseline value 1.5 average mistakes dropped to 0.35 after 5 hand rubbing events checked with Hand-in-Scan**

- Surface of hand was divided into 10 regions for clustered evaluation – based on previous studies.
- Number of missed spots in each region was compiled by an expert based on the recorded images (referred to as "mistakes").
- Performance was classified as correct or erroneous based on the total number of mistakes.



Rate of inadequate performances during the first 5 (a) and 10 (b) observations

Methods

- 9 wards from 3 Hungarian hospitals were involved
- Using the brand new Hand-in-Scan Medical Trainer device
- Equipment was present for 3-4 weeks
- Participants used the device once every day
- 572 measurements were performed involving 129 healthcare workers

Hand-in-Scan Medical Trainer



Hand-in-Scan assessment protocol:

- Login with unique identifier (RFID)
- Perform alcoholic hand disinfection (with UV-dyed ABHR)
- Insert hands for scanning, digital record
- Automatically performs the evaluation: highlights the missed areas during disinfection

Contact

www.handinscan.com
info@handinscan.com

