



# Change of Hand Flora During the Shift in Emergency Service Staff

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## Objective

This study aims to reveal if there will be any change in hand flora before and after shift of emergency service staff or pathogen microorganism on our hands during the shift and to know if there is any contribution to the hospital infection.

#### Methods

Our study was planned to evaluate the change of the hand floor of 40 employees such as doctors, nurses, emergency medical technicians, transportation and cleaning personel in the emergency medicine clinic of Cumhuriyet University during the shift and the micro-organisms of air samples from special intervention areas (Resuscitation, red area) as well as general use areas of the emergency department.

### Methods

For this, we got the cultures from both hands before and after the shift of the emergency service staff.

#### Results

- ➤ When comparing pre-contact and post-contact hand washing status, the difference was statistically significant (p < 0.05).
- ➤ The difference was found to be significant when comparing the samples taken before the right hand and left hand seizure in terms of the microorganism seen. (t=7,48; p=0,001; p<0,05).
- The difference of the after shift in the right side of the right hand and the left side of the left hand was found to be significant (t = 7.82, p = 0.001, p < 0.05).

#### Results

- Although our research also knew the hand hygiene indications of emergency service workers, their harmony was found to be low, consistent with many studies in the literature.
- It has been observed that the habit of using gloves and hand disinfectant is low.

#### Conclusions

- When the results obtained are evaluated, it is thought that immunosuppressive patients should be careful not to care in green and yellow areas because of the more proliferation in these areas.
- It has also been observed that most of the microorganisms found as temporary flora in health workers' hands have become permanent flora and they are very diverse but that the resistant microorganisms which causing hospital infection were rarely encountered.

#### Conclusions

It has been revealed that training of personnel, control of compliance and feedback should be effective in eliminating the problems related to hand washing behavior.