

Improving handhygiene after implementing a multimodal intervention programme



Authors: Bergen L K¹, Amtsbiller H², Anhøj J¹
¹Rigshospitalet, Copenhagen, ² Statens Serum Institut, Copenhagen, Denmark

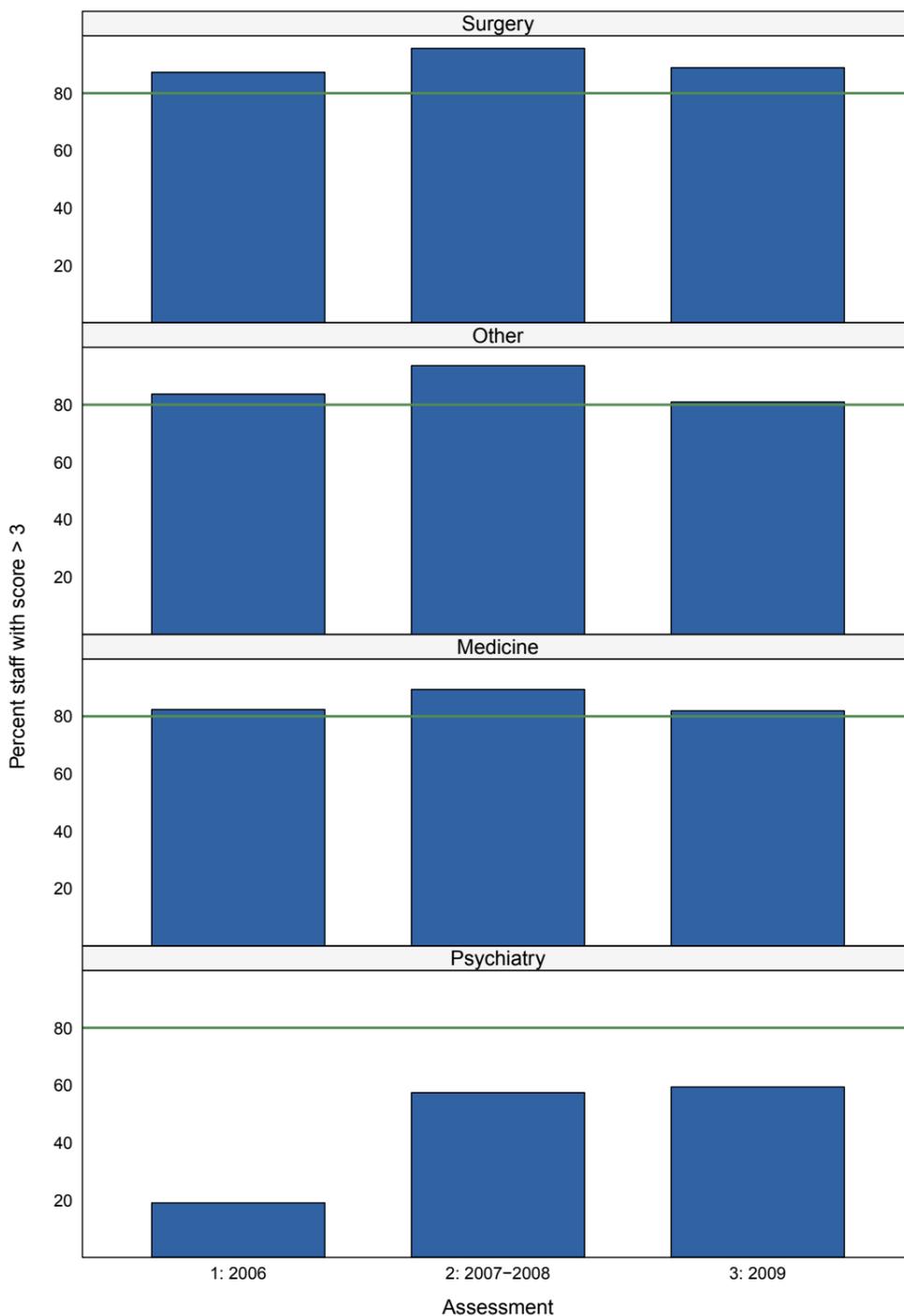
Introduction

The purpose of this study was to improve handhygiene technique and compliance with jewellery and short-sleeve policy at Amager Hospital, Copenhagen. A three year study with interventions after each assessment.

Results

We found that years of experience and speciality psychiatry were negatively associated with acceptable score. Furthermore, there was an interaction suggesting that the intervention had significant effect only on HCW from psychiatry.

Score: OK = Combined hand hygiene and policy compliance score ≥ 4
 Sample: 1 = before intervention, 2 -3 = after intervention



Assessment score

| Handdisinfection quality | Points given | Points |
|--|--------------|------------|
| All areas including the distal wrists covered | 2 | 0-2 |
| Palms covered but areas at the dorsal side of the hands missed | 1 | |
| Areas on the palms were missed | 0 | |
| Jewellery | | |
| No rings | 1 | 1 |
| No watches or bracelets | 1 | 1 |
| Short sleeves | 1 | 1 |
| Total Score | | 0-5 |

Methods

Infection Preventionists assessed 1205 healthcare workers (HCW) at work during three periods between 2006 and 2009.

HCW's handhygiene technique was assessed using fluorescent hand rub.

- Neglected areas were identified with a UV-light box
- Policy compliance was also assessed
- A combined score from zero-five was given. Scores of four or five were deemed acceptable.
- Interventions were introduced between period one and two at units that had less than 80% HCW with a score \geq four points

The intervention included

- Information
- Training and personal feed-back

Further data collected

- Profession
- Type of unit
- Years of experience
- Manager/non-manager
- Gender

A generalised linear model describing HCW with acceptable score was developed using stepwise backwards elimination of non-significant variables from an initial model including all variables.

Conclusions

Multimodal intervention programme showed:

- Psychiatry had significant lower compliance at baseline.
- There was a marked improvement in psychiatry after intervention.
- Experience and psychiatry was found to be negatively associated with score.
- The method was inexpensive and could screen HCW's hand disinfection technique at a large scale with a minimum of time spent.
- We could give feedback at all levels, plan educational strategies and follow results over time.

