

Performing a baseline measurement and developing an e-learning based on a newly developed simplified protocol for hand hygiene observations in the operating room

M.D. van Dijk<sup>1</sup>, C.M. Waltmans-den Breejen<sup>1</sup>, J.M.J.J. Vermeeren<sup>2</sup>, S. van den Berg<sup>3</sup> and M.C. Vos<sup>1</sup> - on behalf of the cooperating Rijnmond Hospitals (SRZ)

- <sup>1</sup> Department of Medical Microbiology and Infectious Diseases, Erasmus MC University Medical Centre Rotterdam, The Netherlands.
- <sup>2</sup> Department of Quality and Patient Care, Erasmus MC University Medical Centre Rotterdam, The Netherlands.
- <sup>3</sup> Department of Anesthesiology, Ikazia Hospital Rotterdam, The Netherlands.





### **OBJECTIVES**

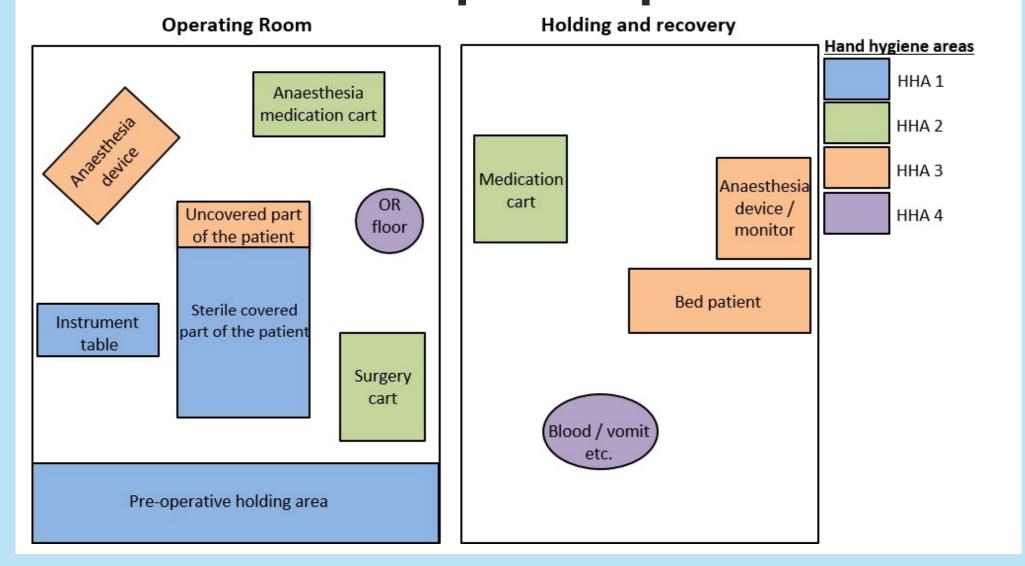
- 1. To develop, test and implement a protocol with simplified moments of hand hygiene for personnel that are not sterile in the operating room.
- 2. To develop a training for all the personnel that are not sterile in the operating room based on the newly developed protocol.

#### SUMMARY / CONCLUSION

- Hand hygiene observations in the OR can now be performed in a uniform manner in all hospitals in the Rotterdam-region.
- It is now possible to compare hand hygiene results, as well as creating friendly competition between hospitals.
- Hand hygiene compliance in the OR is in general low, differences are seen between hospitals and specialisms. This needs attention.

#### RESULTS

## Phase 1: Development protocol

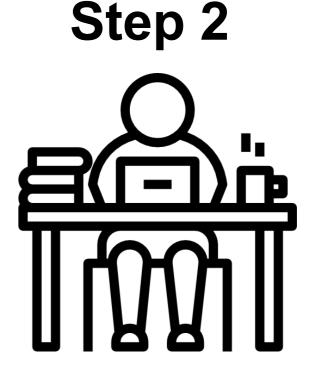


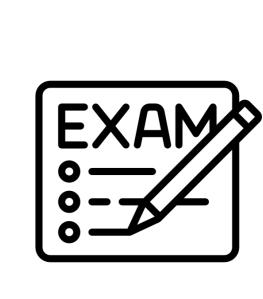
## Phase 2: Baseline measurement

- 20 operations
- 861 hand hygiene opportunities (HHO)
- Median of 126 HHO (range: 114-211)
- 48.0% average hand hygiene compliance (range: 23.1%-76.7%)
- 57.4% OR-assistants (305 HHO), 48.8% nurse anesthetists (289 HHO), 41.2% Surgeons (131 HHO), 31.6% Anesthetists (136 HHO)

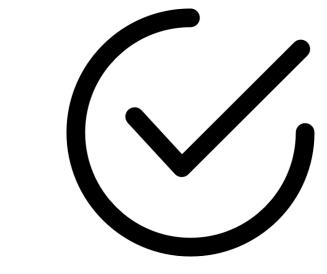
### **Phase 3: Intervention**

Step 1





Step 3



Watch video explaining the protocol

Self study the protocol

Take online exam

OR personnel is sufficiently trained

#### MATERIAL & METHODS

Phase 2: Baseline measurement

exam

January 2020 – February 2020

## Phase 1: Development protocol

May 2019 – August 2019



Protocol



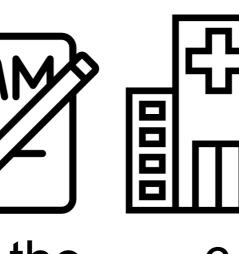


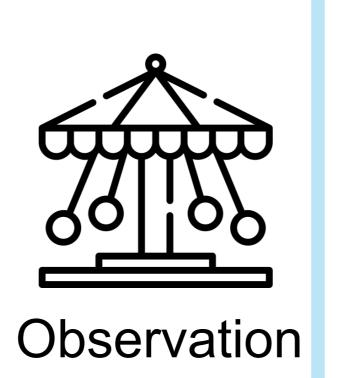
Scoring tool Pilot testing

EXAM/>

Pass the Sample size

calculation

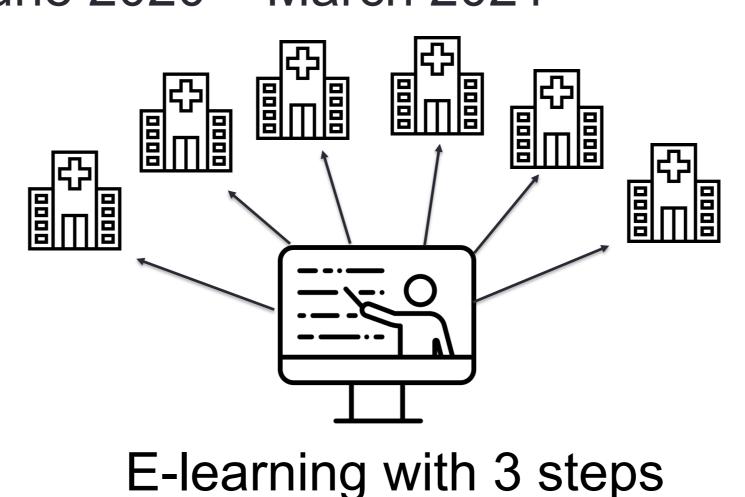




carousel

# **Phase 3: Intervention**

June 2020 - March 2021



### **Future research**

- Perform a post-intervention observation, to investigate whether hand hygiene compliance in the OR has increased and use this information to measure the effect of the implementation of the protocol.
- Establishing a system where ORs get observed on a frequent basis.
- Identifying hospitals that often have low hand hygiene compliance scores in the OR and investigate how we can support or facilitate them to perform better.