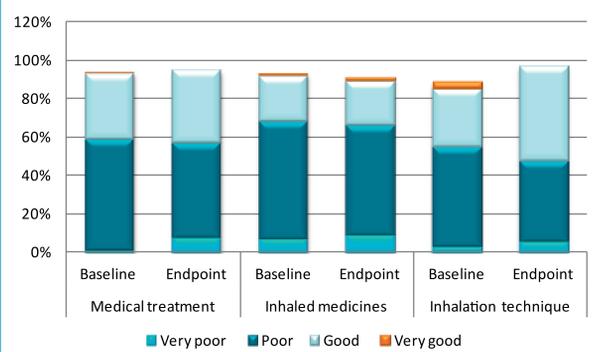


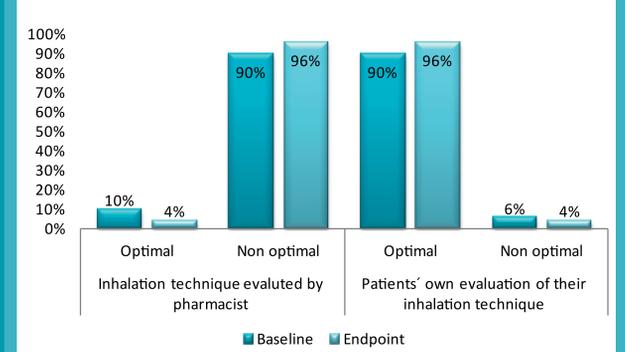
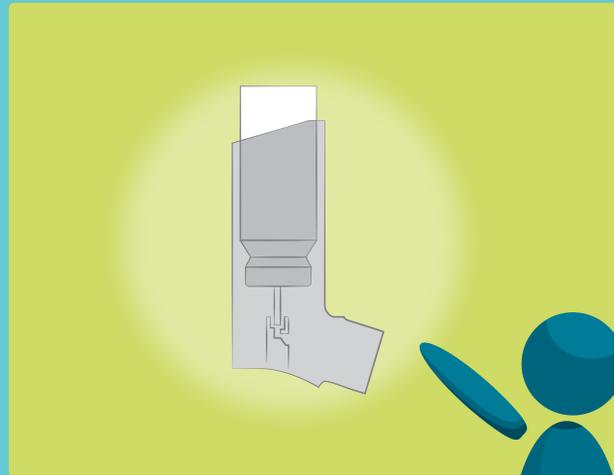
# INCREASED FOCUS ON INHALATION TECHNIQUE AFTER IMPROVEMENT OF NURSING STAFF QUALIFICATIONS

## BEFORE/AFTER STUDY AT AALBORG UNIVERSITY HOSPITAL

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**Figure 1.** Nursing staff's knowledge about medical treatment of asthma/chronic obstructive pulmonary disease, inhaled medicines and inhalation technique.



**Figure 2.** Quality of inhalation technique before and after the intervention assessed by the clinical pharmacist and the patients, respectively.

## Background

Correct inhalation technique is crucial for obtaining optimal effect of drug and disease control of asthma/chronic obstructive pulmonary disease. Eighty percent of patients using inhaled medicines do not use correct inhalation technique.

## Objectives

The aim of this study was to evaluate a skills dissemination model of inhalation technique for nursing staff and patients by a clinical pharmacist at three hospitals wards.

## Methods

The intervention consisted of two hours of hands-on training in inhalation technique for selected nursing staff, super users, provided by pharmacist. The task of the super users was to train the remaining nursing staff in the acquired inhalation technique. Thereafter, the nursing staff evaluated patients' inhalation technique. To assess their knowledge and focus on inhalation technique, questionnaires were provided to nursing staff at the selected wards before and after the intervention.

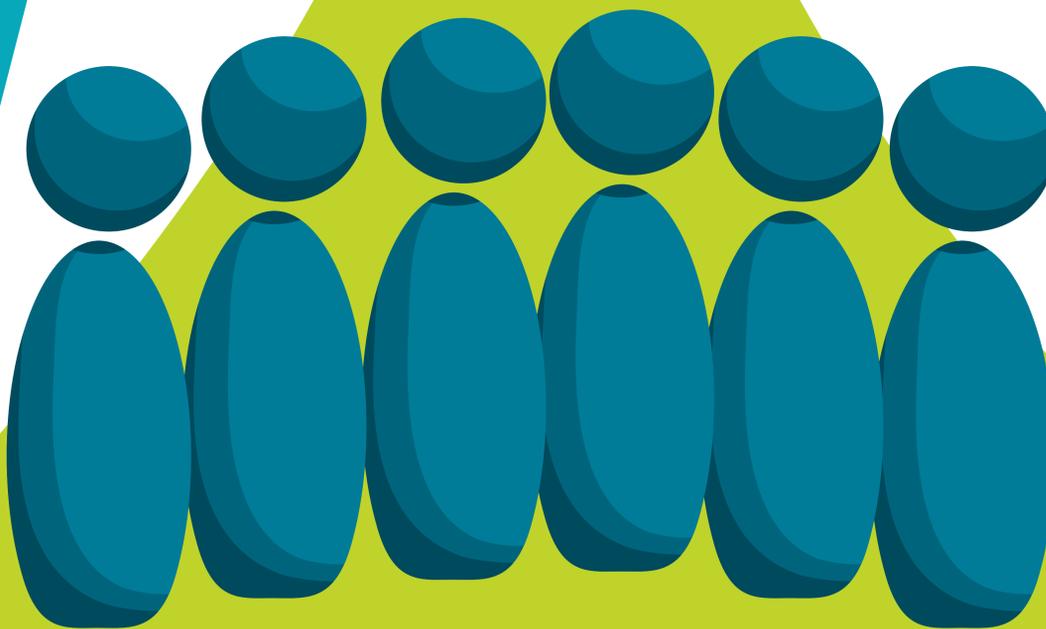
Patients admitted to selected wards aged  $\geq 18$  years, taking  $\geq 1$  inhaled medicines and suitable for evaluation of their inhalation technique were eligible for inclusion. Patients were interviewed and evaluated on their inhalation technique by pharmacist before and after the intervention.

## Results

120 questionnaires were filled in by nursing staff; 67 before and 53 after the intervention. Results showed that nursing staff had poor knowledge about inhalation technique (Figure 1). The intervention significantly improved super users' knowledge and focus on inhaled medicines and inhalation technique. The focus and knowledge regarding inhalation technique among the nursing staff did not change during the study. Ninety percent of the 54 patients evaluated by the pharmacist did not use correct inhalation technique (Figure 2).

## Conclusion

Super users' knowledge about inhaled medicines and inhalation technique did improve significantly when compared to the remaining nursing staff. This indicates that the model was unsuccessful in achieving its goal, and that all nursing staff needs thorough training provided by pharmacist to ensure optimal inhalation technique for patients.



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