# THE COST-RELATED ADVANTAGES OF IMPLEMENTING SINGLE-USE BRONCHOSCOPES IN A BRONCHOSCOPY SUITE SETTING - A MICRO-COSTING EVALUATION

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## **OBJECTIVES**

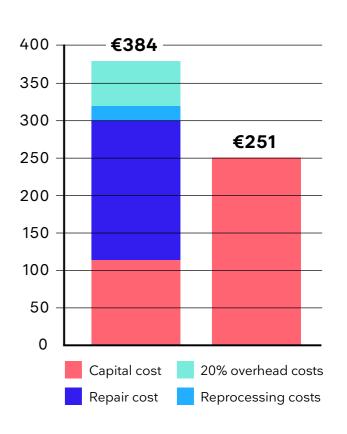
Bronchoscopy is recognized by specialists as a generally safe procedure. Trained specialists can use these instruments safely, when reprocessed according to guidelines to prevent cross-infection between patients. The reprocessing process can be a resource-intensive and costly task. With single-use flexible bronchoscopes (SFB) entering the market a cost-minimizing alternative may be present for various bronchoscopy settings. The aim of this investigation is to examine the procedure-cost related to reusable flexible bronchoscopes (RFB) in a bronchoscopy suite setting.

## **METHODS**

To investigate the incremental cost related to RFBs, all costs related to capital equipment, repairs, and reprocessing were collected in a major University Hospital in Denmark using a micro-costing approach. All costs were projected to 2020. In addition, RFBs were depreciated by five years and additional capital equipment by eight years. All capital equipment was divided by the annual procedure volume of 690 procedures in 2020. In comparison, the monitor related to the SFB solution was likewise depreciated over five years.

#### **RESULTS**

The cost per procedure using a RFB is €384 including capital equipment's of €117, repair costs of €184, and reprocessing costs of €18. The current cost of SFBs is €251 including the monitor. Therefore, the annual procedure saving by using SFB's will be €133, corresponding to €91.770 on an annual basis including 20% of overhead cost for this specific hospital and the given setting associated with reprocessing.



### **CONCLUSIONS**

Reusable flexible bronchoscopes have a high capital and repair cost, which are the main cost factors leading to a high per procedure cost. Therefore, SFB's seems to be the cost-minimizing solution in the bronchoscopy suite at a major University Hospital in Denmark.



