

# Service Priorities and Programmes Electronic Presentations

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## A two-year review on day bronchoscopy service in Respiratory Medical Department, Kowloon Hospital

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#### **Keywords:**

A two-year period review day bronchoscopy service evaluate the effectiveness and safety of the day service

#### Introduction

Before 2008, patients of Respiratory Medical Department (RMD) planned for bronchoscopy were admitted one day before the procedure for blood tests, performing lung function test, ECG, chest X-ray and receiving educational talk. A day bronchoscopy service was commenced in RMD in January 2008. Preparation for bronchoscopy was done in SOPD. Patients were admitted on the day of bronchoscopy and aimed for same day discharge. A two-year period review from 1st April 2010 to 31st March 2012 was undertaken to evaluate the effectiveness and safety of the day service.

#### **Objectives**

To evaluate the effectiveness and safety of the day service.

### <u>Methodology</u>

Design: Retrospective, 2-year study Setting: Bronchoscopy unit in Respiratory Medical Department of Kowloon Hospital Subjects: 1191 patients underwent day bronchoscopic procedure from 01/04/2010 to 31/03/2012

#### Result

Within the review period, 1530 bronchoscopic procedures were arranged. It included 1318 (86.14%) day patients. Among them, 1213 patients (92.03%) turned up for investigation. 105 patients (7.97%) defaulted. For those who turned up, 1191 day bronchoscopy (98.19%) were done. 22 procedures (1.81%) were cancelled due to a variety of reason. e.g. SOB, desaturation, high BP, fever, etc. While 1191 (86%) day bronchoscopic procedures were done within the two year period, 194 (14%) bronchoscopic procedures were performed for in-patients. These inpatients were admitted urgently for treatment because of hemoptysis or pneumonia. Bronchoscopy was performed a few days after admission. 1116 patients (93.70%) were discharged on the same day after bronchoscopy. 75 patients (6.3%) were kept in ward after bronchoscopy, for treatment or observation of fever, hemoptysis or oxygen desaturation. Trend of day bronchoscopy The percentage of day bronchoscopy increased from 81.2% (529/651) in 2010/2011 to 90% (662/734) in 2011/2012

representing a 10.8% increase. Safety of day bronchoscopy There were two bronchoscopy-related severe incidents. One patient had hemoptysis of more than 50 ml of blood after transbronchial biopsy. The hemoptysis was stopped by 6 ml 1 in 10,000 intrabronchial adrenaline and 500 mg intravenous Transamin. Patient was discharged the next day after study. Another patient developed seizure followed by cardiac arrest in bronchoscopy room after local anesthetic was applied to his nasal cavity and before bronchoscopy. CPR was performed but failed to revive the patient. Postmortem was done and cerebral arterial dissection and thoracic aortic dissection leading to cardiac tamponade was found. The patient was normotensive before bronchoscopy. Conclusions An increase in percentage of day bronchoscopy is noted from 2011 to 2012 with 90% of bronchoscopy was performed as a day procedure in 2011/2012. A relatively high default rate (7.97%) was noted and measures should be explored and implemented to decrease default rate. Day bronchoscopy is a safe procedure with only two severe incidents occurring out of 1191 procedures, ie 0.17%. The cause of the only mortality is most likely not related to bronchoscopy.