

 ORIGINAL ARTICLE

## First Danish experience with ex vivo lung perfusion of donor lungs before transplantation

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### INTRODUCTION

The number of lung transplantations is limited by a general lack of donor organs. Ex vivo lung perfusion (EVLP) is a novel method to optimise and evaluate marginal donor lungs prior to transplantation. We describe our experiences with EVLP in Denmark during the first year after its introduction.

### MATERIAL AND METHODS

Prospective registration of donor offers and lung transplantations in Denmark 1 May 2012-30 April 2013. Donor lungs without any contraindications were transplanted traditionally. Taken for EVLP were donor lungs otherwise considered transplantable, but without the usual criteria due to possible contusions or because they were from donors with sepsis or unable to pass the oxygenation test.

### RESULTS

Seven of 33 Danish lung transplantations were made possible due to EVLP. One patient died of non-EVLP-related causes; other recipients were alive with normal graft function. All lungs showed an improved PaO<sub>2</sub>/FiO<sub>2</sub> ratio from a median 23.1 kPa (8.8-38.9) within the donor to 58.8 kPa (34.9-76.5) (FiO<sub>2</sub> = 1.0) after EVLP, corresponding to a 155% improved oxygenation. The median time to extubation, time in ICU and the admission period were 1, 7 and 39 days.

### CONCLUSION

In the first year after the introduction of EVLP in Denmark, seven pairs of donor lungs that previously would have been rejected have been transplanted as a result of their improved function. EVLP seems to be a safe way to increase the use of marginal donor lungs.

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 ORIGINAL ARTICLE

## Admissions to emergency department may be classified into specific complaint categories

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### INTRODUCTION

In the Emergency Departments (ED), a heterogeneous mix of patients is seen. The aim of this study was to establish a limited number of categories of complaints and symptoms covering the majority of admissions in a Danish ED and to quantify the volume of cases in each category.

### MATERIAL AND METHODS

This was a cross-sectional study of all acute patients admitted to a Danish ED in 2010. Information was collected from electronic screens where the ED nurses registered the presenting symptoms or complaints according to the referring doctor or patient. A list of complaint categories covering all patient complaints was produced. Presumptive diagnoses and categories with frequencies less than 1% were pooled with other groups, unless keeping them was clinically relevant.

### RESULTS

Among the 9,863 patients, 49% were medical, 31% surgical, 15% orthopaedic and 5% vascular surgical patients. In 35% of cases, the patients were referred with a presumptive diagnosis, in 65% with a complaint or a symptom; and 11,031 complaints were placed in 13 main categories, 77 subcategories and 44 presumptive diagnoses. This aggregation resulted in 99 groups holding less than 1% of the patients' complaints. Further aggregation resulted in 31 categories covering 93% of the complaints. Of the complaints not covered, the largest groups were patients with postoperative complications and special examination for various diseases (5%).

### CONCLUSION

We have presented a first suggestion for complaint categories and distribution among admitted patients in a Danish ED setting. Further studies from other EDs are required.

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