## **European Respiratory Society Annual Congress 2013**

**Abstract Number: 316** 

**Publication Number:** P1267

Abstract Group: 9.1. Respiratory Function Technologists/Scientists

Keyword 1: Lung function testing Keyword 2: Surgery Keyword 3: No keyword

**Title:** Evaluating lung function in patients being considered for resectional surgery

Dr. Stefan 1212 Wesolowski s.wesolowski@igichp.edu.pl MD <sup>1</sup>, Dr. Piotr 1213 Boros p.boros@igichp.edu.pl MD <sup>1</sup>, Prof. Tadeusz 1214 Orlowski t.orlowski@igichp.edu.pl MD <sup>2</sup> and Prof. Philip 1215 Quanjer pquanjer@gmail.com MD <sup>3</sup>. <sup>1</sup> Lung Function Lab, National Research Institute of TB & Lung Diseases, Warsaw, Poland ; <sup>2</sup> Department of Thoracic Surgery, National Research Institute of TB & Lung Diseases, Warsaw, Poland and <sup>3</sup> Department of Pulmonary Diseases and Sophia Children's Hospital, Erasmus Medical Centre, Erasmus University, Rotterdam, Netherlands .

**Body:** Objectives: Pulmonary function tests are important in assessing eligibility for lung resection surgery. The aim of the study was to assess the prevalence and type of pulmonary dysfunction in patients referred for lung resection. We also studied how the limit of normal (80%predicted versus lower limit of normal (LLN) as -1.645SD) affected the incidence of functional disorders. Methods and material: Retrospective analysis of lung function tests, spirometry, lung volumes, transfer factor for CO (TL,CO) in 493 consecutive patients referred for resectional surgery. Results: Spirometry was within the normal range in 255 (51.7%) patients. Airway obstruction was diagnosed in 210 (42.6%), and a restrictive pattern in 28 (5.7%) patients. FEV1 <LLN occurred in 154 (31%), and FEV1<80%pred. in 223 (45%) patients. In 275 (56.6%) cases TL,CO was <LLN, and in 350 (72%) patients <80%pred. In 151 (31%) cases with FEV1 within the normal range TL,CO was reduced. FEV1 or TL,CO was <LLN in 302 (62%) patients, and <80%pred. in 371 (76%) patients, (p<0.0001). Conclusions: Lung functional disorders are common in candidates for lung resection. Using the true LLN diminishes the incidence of disorders by 14% comparing to a lower limit at 80% of predicted; this reduces the number of additional diagnostic tests, the duration and the cost of hospitalization.