

# THE CORRELATION BETWEEN PULMONARY EMBOLISM EARLY MORTALITY RISK AND ATRIAL FIBRILLATION RISKS

**Authors:** Dace Danberga<sup>1</sup>, Silva Smagare<sup>1</sup>

**Scientific research supervisor:** Prof. Oskars Kalējs<sup>2</sup>

<sup>1</sup> Rīga Stradins University, Faculty of Medicine, Latvia

<sup>2</sup> Pauls Stradiņš Clinical University Hospital, Latvia.

**Key words.** atrial fibrillation, pulmonary embolism, risk factors, early mortality risk.

**Introduction.** Pulmonary emboli usually arise from thrombi that originate in the deep venous system of the lower extremities, also the right heart chambers. Right intracardiac thrombosis is a potential cause of pulmonary embolism similar to that of stroke in left-sided intracardiac thrombosis. One of the main reasons for that is atrial fibrillation.

“2014 ESC Guidelines on the diagnosis and management of acute pulmonary embolism” aims that atrial arrhythmias, most frequently atrial fibrillation, may be associated with acute pulmonary embolism.

The incidental discovery of clinically unsuspected pulmonary embolism on computer tomography is an increasingly frequent problem, most often in patients with cancer, but also among those with atrial fibrillation.

**Aim.** To evaluate a correlation between early mortality risk of pulmonary embolism and atrial fibrillation risks using risk scores CHADVASC; HASBLED.

**Results.** In retrospective chart review in Pauls Stradiņš Clinical University Hospital, Latvia between January 1, 2014 and December 31, 2014, out of 97 patients (61.9% female and 38,1% male) with pulmonary embolism, atrial fibrillation was diagnosed in 26 cases (26,8%).

20 (20.6%) of them were permanent atrial fibrillation, 2 (2.1%) were persistent atrial fibrillation, 4 (4.1%) paroxysmal atrial fibrillation. 61.9% of them were women and 38.1% were men.

Out of 11 (11.3%) death cases in this period of time 6 (6.1%) patients were diagnosed with atrial fibrillation.

**Conclusion.** In this study at the time we can see correlation tendencies ( $p=0,078$ ) between risk score for major bleeding HASBLED and early death risk in patients of 32nd ward (cardiological) in Riga Stradiņš University with diagnosed pulmonary embolism. Further investigation is needed. The rest of the results will follow in RSU International Student Conference in Health and Social Sciences 2015.