

The Next Chapter in Pulmonary Embolism care: Optimising long-term outcomes through dedicated follow up

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Introduction

A Pulmonary Embolism (PE) can be life-altering with an array of potential outcomes. Whilst structured management protocols exist for the acute PE, follow-up of these patients remains novel. Dedicated follow-up allows for standardized management and comprehensive long-term analysis.

Aims

This audit aims to evaluate the follow-up and sequelae of 250 patients with Pulmonary Embolisms through the implementation of a dedicated pulmonary vascular clinic.

Methods

We performed a retrospective audit of 250 patients with a diagnosis of PE from 1st January 2023 until 31st December 2023, identified from electronic medical records. These patients were risk stratified into low, intermediate-low, intermediate-high or high risk in accordance with their sPESI score and the European Society of Cardiology (ESC) guidelines for acute pulmonary embolisms¹. Clinical records and imaging of all patients were reviewed to establish outcomes, follow-up and diagnosis of post PE syndromes.

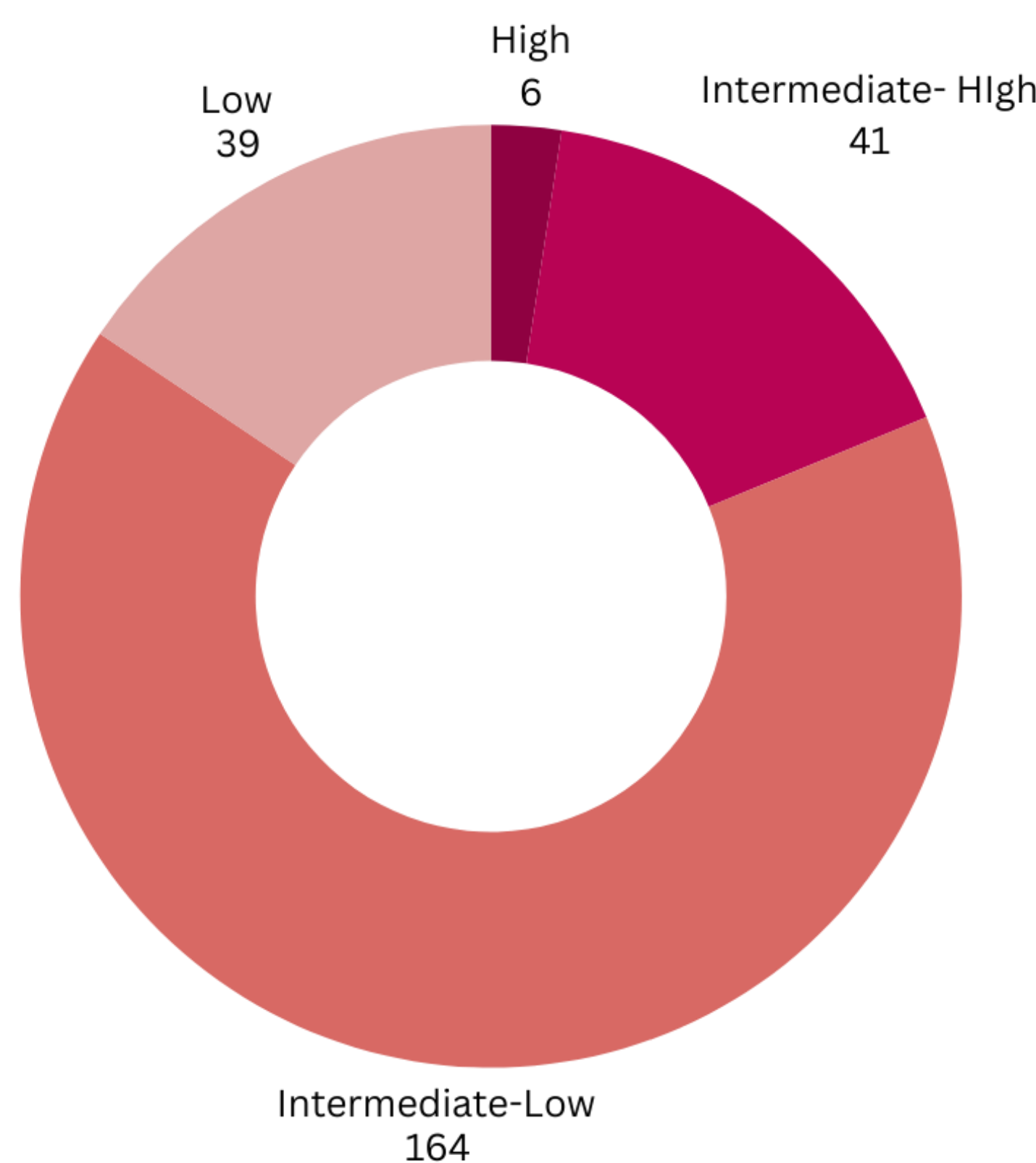


Image 1: Division of 250 Pulmonary Embolisms according to risk stratification for 2023 year

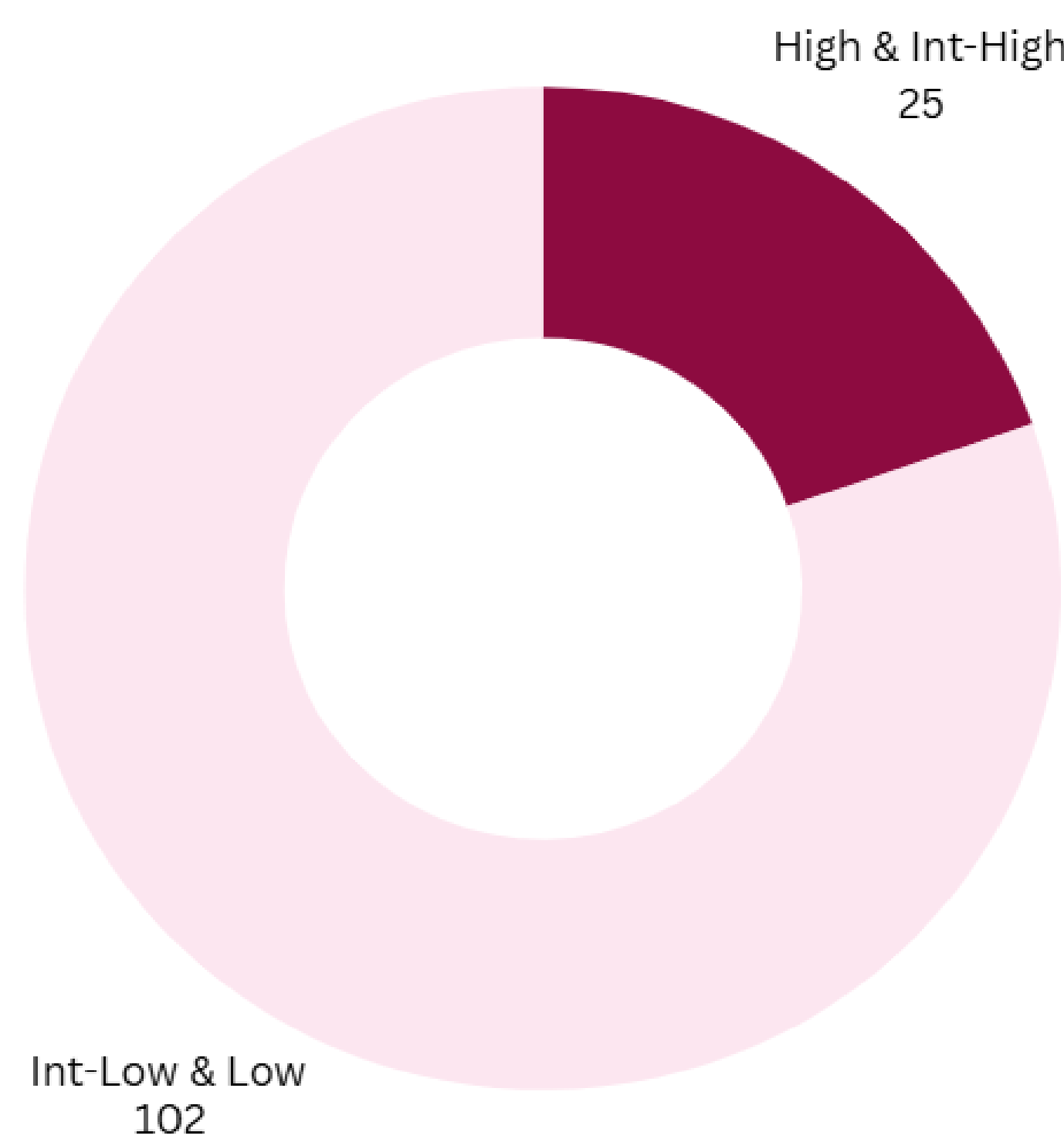


Figure 1: Pulmonary Embolisms numbers post exclusion criteria

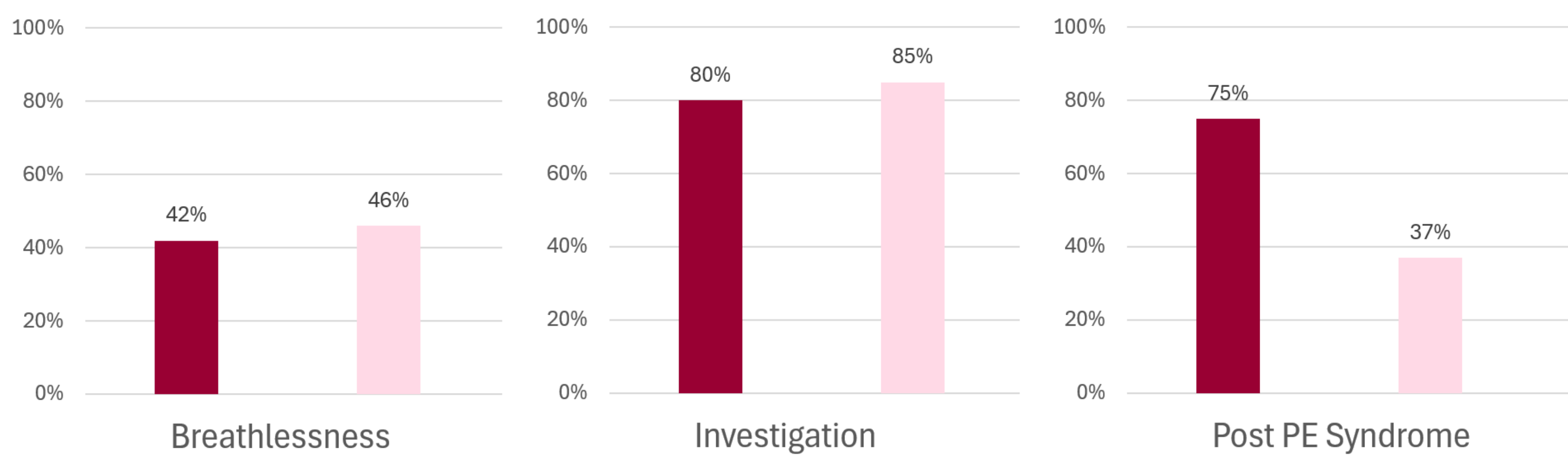


Figure 2: Proportion of patients breathless according to risk stratification
Figure 3: Proportion of breathless patients investigated through dedicated follow up
Figure 4: Diagnosis of post PE syndrome separated by risk stratification

Results

Of the 250 patients with confirmed PE, 47 were identified as intermediate-high or high risk and 203 were low or intermediate-low risk. Mortality was 6% of the whole inpatient cohort. 99% of patients were followed up between 3-6 months post PE (excluding patients who died or lost to follow up). Within the low/intermediate-low risk cohort, 8% 30-day mortality was identified compared with 23% 30-day mortality of the intermediate high and high-risk contingent. 46% of patients with a low or intermediate low risk PE reported breathlessness at their first review. 42% of the intermediate-high and high-risk group reported breathlessness persisting at their first review. 37% of the low or intermediate-low risk patients developed a post PE syndrome, whilst this occurred in 75% of the intermediate-high or high-risk group.

Discussion

Dedicated follow-up post Pulmonary Embolism is vital for capturing those who develop complications. This audit demonstrates the value of our pulmonary vascular clinic in identification of such patients and proposes the development of structured post PE follow-up, which should feature in the long-term treatment armamentarium.

REFERENCES
1. Konstantinides S et al. Guidelines on Acute Pulmonary Embolism (Diagnosis and Management of) ESC Clinical Practice Guidelines. *European Heart Journal*, Volume 41, Issue 4, 21 January 2020, Pages 543–603. <https://doi.org/10.1093/eurheartj/ehz405> 31 Aug 2019