STROBE Checklist v4.0 - Completed for Manuscript: Clinical outcomes and treatment strategies in Catastrophic High-risk Pulmonary Embolism

STROBE Item	Manuscript Reference
Title and Abstract	The title clearly identifies the study as a retrospective analysis. The abstract summarizes objectives, methods, results, and conclusions.
Background/Rationale	The introduction provides background on high-risk PE and the rationale for distinguishing catastrophic PE.
Objectives	The study aims to compare clinical characteristics, management strategies, and outcomes between catastrophic and non-catastrophic high-risk PE.
Study Design	A retrospective cohort design is described in the methods section.
Setting	The study was conducted at a single tertiary center from 2018 to 2024.
Participants	Inclusion criteria are patients diagnosed with high-risk PE. Catastrophic PE is defined using specific clinical criteria.
Variables	Variables include clinical characteristics, treatments, and outcomes. Definitions for catastrophic PE and major bleeding are provided.
Data Sources/Measurement	Data were collected from hospital records. Imaging and laboratory tests are described.
Bias	Potential bias due to single-center design and retrospective nature is acknowledged in the limitations.
Study Size	The study includes 79 patients.
Quantitative Variables	Continuous variables are analyzed using Mann-Whitney U test. Categorical variables use chi-squared or Fisher's exact tests.
Statistical Methods	Kaplan-Meier survival analysis and p-values are reported. Statistical significance is defined as $p<0.05$.
Participants (Results)	Flow and characteristics of participants are described in the results section.
Descriptive Data	Baseline characteristics are presented in Table 1 and Supplementary Table 1.
Outcome Data	Mortality rates and complications are reported for both groups.

Main Results	Differences in clinical presentation, treatment, and outcomes between groups are statistically analyzed.
Other Analyses	Subgroup comparisons between catastrophic and non-catastrophic PE are included.
Key Results	Catastrophic PE is associated with worse outcomes and higher treatment intensity.
Limitations	Limitations include retrospective design, single-center setting, and small sample size.
Interpretation	Findings are interpreted in the context of existing literature and clinical implications.
Generalisability	Generalizability is limited due to single-center design.
Funding	No external funding was received.
Ethics Approval	Approved by the Institutional Review Board of Hospital Clínic de Barcelona (HCB/2025/0169).