

### Background

- The Pulmonary Embolism Response Team (PERT) model stands as the cornerstone for optimizing the management of acute pulmonary embolism (PE), especially in cases of more severe disease<sup>1</sup>.
- Despite advancements in novel catheter-endovascular technologies, a significant number of PE patients continue to be managed through traditional workflows, even with available PERTs when centralized CTPA reporting is absent<sup>2</sup>.
- This often leads to subpar outcomes for intermediate-high and high-risk PE patient subgroups.

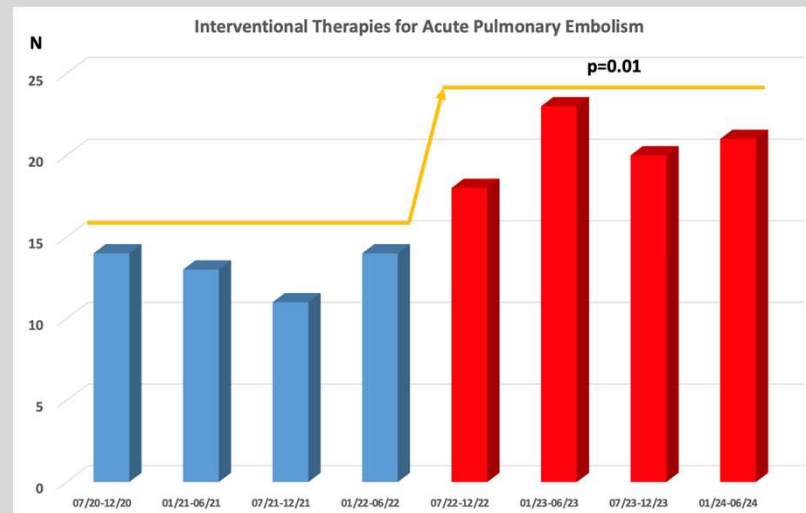
### Aim

- Our objective was to evaluate the change in the number of PE patients referred for catheter-directed therapies by the PERT after the integration of artificial intelligence (AI) into the PERT workflow during long-term follow-up.

### Methods

- The AI workflow (Aidoc) has been operational since July 2022.
- We collected the number of PE patients referred by the PERT for catheter-directed therapies in six-month blocks over two years following the integration of Aidoc.
- This was compared against the six-month blocks from two years prior to Aidoc integration.

### Figure



### Results

- The volume of patients with intermediate-high and high-risk PE referred for endovascular intervention was **52** between July 2020 and June 2022.
  - Range of **11** to **14** patients in the six-month intervals.
- Following the implementation of the Aidoc system, the number of patients referred for interventional therapies increased to **82** between July 2022 and June 2024.
  - Range of **18** to **23** patients in the six-month intervals.
- This indicates a sustained 58% (p=0.01) overall increase compared to the period before AI implementation, evidence in each six-month block of follow-up.
- The implementation of AI was identified as the sole factors driving the increase in volume.

### Conclusions

- The implementation of AI results increases the number of patients with PE who are managed by the PERT.
- This rise is sustained during long-term follow-up, promoting a more appropriate management of patients with intermediate-high and high-risk PE undergoing treatment.

### References

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### Disclosure

- The authors have nothing to disclose.