

# Early discharge of ambulatory patients with acute pregnancy-associated pulmonary embolism

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## BACKGROUND

Low-risk, ambulatory, *non-gravid* patients with acute pulmonary embolism (PE) are treated safely and effectively with early discharge (<24h). Extension of this practice to those with pregnancy-associated PE (PAPE) is poorly understood.<sup>1</sup> We sought to address this knowledge gap.

## METHODS

**DESIGN, SETTING, AND SUBJECTS:** This retrospective cohort study was conducted across 21 U.S. community hospitals from 01/2017—12/2022, an interim analysis of 6 of 14 years of cases. We included ambulatory adults with explicit PE symptoms, known to be pregnant or postpartum within 6w, with a primary or principal PE diagnosis made in the emergency department (ED) or Labor and Delivery (L&D) by pulmonary vascular imaging.

**DATA COLLECTION:** Extraction of structured variables from electronic databases combined with manual chart review.

### OUTCOMES

1. Early discharge (<24h), directly from the ED or L&D or after transfer to an obs or inpatient unit (Figure, purple ovals).
2. 7d PE-related hospitalization and 90d all-cause mortality.

## RESULTS

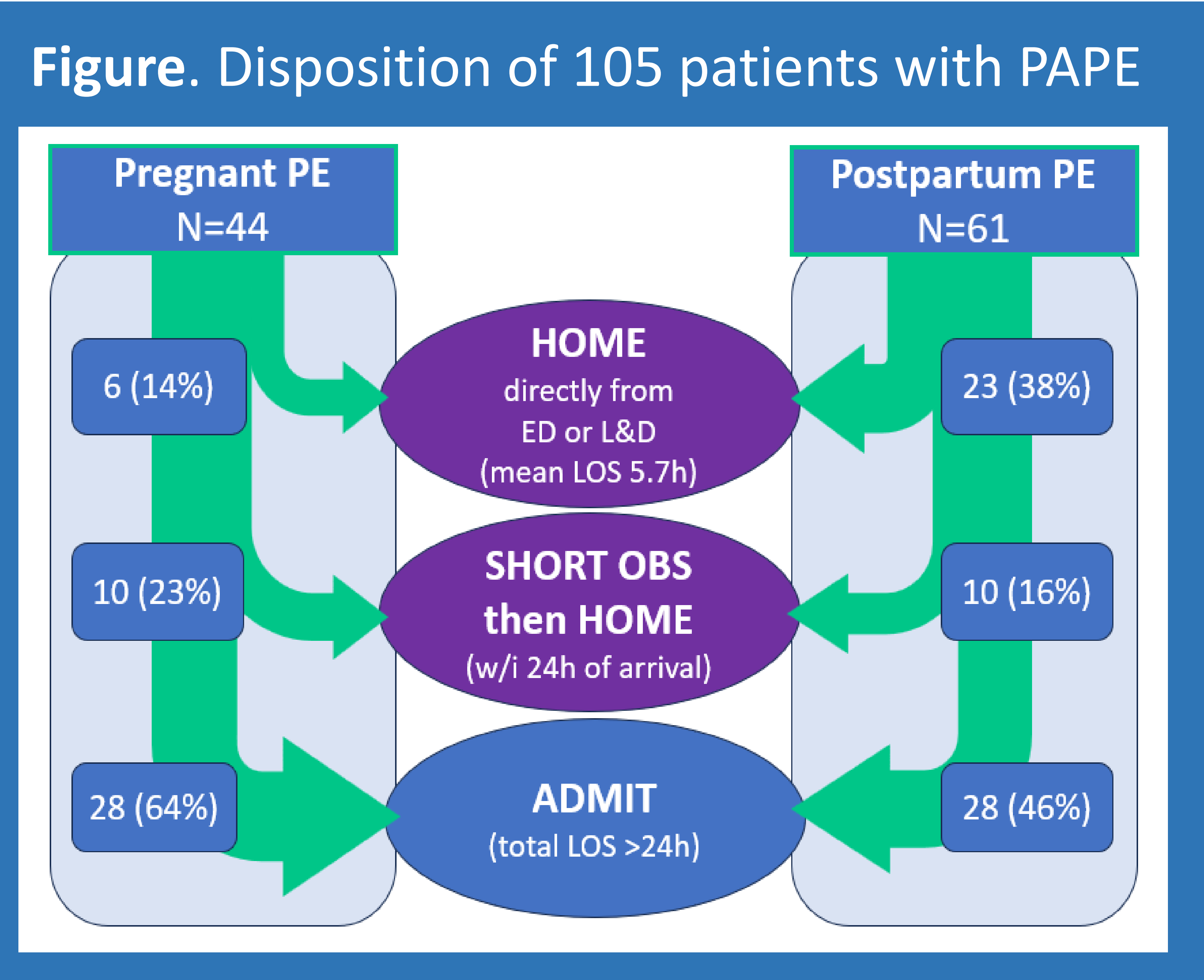
Of 105 PAPE patients, median age was 32.6 y; 44 were pregnant (13 in the third trimester) and 61 were post-partum (37 within 2w of pregnancy outcome). ED care was most common (n=102; 97%). Overall, 16 (36%) pregnant and 33 (54%) postpartum patients had an early discharge (Figure). We describe patient characteristics in the Table.

CONCLUSIONS

Early discharge (within 24h) of ambulatory patients with PAPE is common in this U.S. care setting, more so among postpartum than pregnant patients (54% v 36%; P<0.01).

Early-discharge patients with PAPE had low-risk characteristics, in terms of clot burden, vital signs at discharge, and 7d and 90d outcomes.

Studies from other settings are needed to help us better understand this under-described practice.



## RESULTS (CONT.)

Table. Characteristics and outcomes of early-discharge patients.<sup>2</sup>

Characteristics and Outcomes	Pregnant, N=16 n (%)	Postpartum, N=33 n (%)
Age, y, median (IQR)	28.0 (22.5-34.3)	34.2 (29.8-38.6)
Clot location, most proximal		
Saddle	0	0
Main	0	1 (3)
Lobar	1 (6)	8 (24)
Segmental	14 (88)	13 (39)
Subsegmental	1 (6)	11 (33)
Vital signs at discharge (MEWS <sup>3</sup> )		
Systolic blood pressure		
Normal	15 (94)	32 (97)
Abnormal	1 (6)	1 (3)
Heart rate		
Normal	15 (94)	31 (94)
Abnormal	1 (6)	2 (6)
Respiratory rate		
Normal	16 (100)	31 (94)
Abnormal	0	2 (6)
Oxygen saturation		
Normal	16 (100)	33 (100)
Follow-up within 10d of discharge	16 (100)	33 (100)
7d PE-related hospitalization	1 (6)	1 (3)
90d outcomes		
New or worsening VTE	0	1 (3)
Major hemorrhage	0	0
All-cause mortality	0	0

## FOOTNOTES

1. <https://doi.org/10.1093/ehjcr/ytae441>
  2. Full tables available via QR code →
  3. MEWS, the new Maternal Early Warning Score; described in full tables
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