

Correlates of diagnostic delay and length of hospital stay in acute pulmonary embolism: findings from the FOCUS study

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Background We examined diagnostic delay and length of hospital stay and their clinical correlates in patients with acute pulmonary embolism (PE).

Methods In the multicenter FOCUS study, multivariable logistic regression assessed diagnostic delay (>7 days after symptom onset; n=1,050). Log-linear regression assessed length of hospital stay (log[days+1]; n=1,098). Both models simultaneously included age, sex, chronic lung disease, heart failure, previous venous thromboembolism, chronic PE-related symptoms, the five presenting symptoms, and type of risk factor (major transient, minor transient, and persistent).

Results Dyspnoea, chest pain, cough, syncope, and hemoptysis occurred in 80.3%, 40.0%, 22.4%, 9.2%, and 4.2%, respectively; 46.4% had ≥ 2 symptoms. Median diagnostic interval was 4 days (interquartile range [IQR], 1–10); 30.9% exceeded seven days. Dyspnoea (adjusted odds ratio, 2.33; 95% confidence interval [CI], 1.54–3.52) and cough (2.51; 1.81–3.47) were associated with delay; chest pain (0.69; 0.52–0.93) and major transient provoking factors (0.48; 0.29–0.79) were associated with lower odds of delay. Median hospital stay was 6 days (IQR, 4–10). Older age, chronic lung disease, heart failure, dyspnoea, syncope, and major transient or persistent provoking factors were associated with longer stays (Figure); adjusted ratios for syncope and major transient factors were 1.33 (95% CI, 1.16–1.53) and 1.35 (1.17–1.55), respectively. Secondary analyses suggested an association of delay with chronic thromboembolic pulmonary hypertension (15 events), but not mortality or readmission.

Conclusions Clinical correlates differed between diagnostic delay and length of hospital stay. Major transient provoking factors were associated with lower odds of delay and longer stays.

Correlates of diagnostic delay and length of hospital stay in patients with pulmonary embolism from the FOCUS study

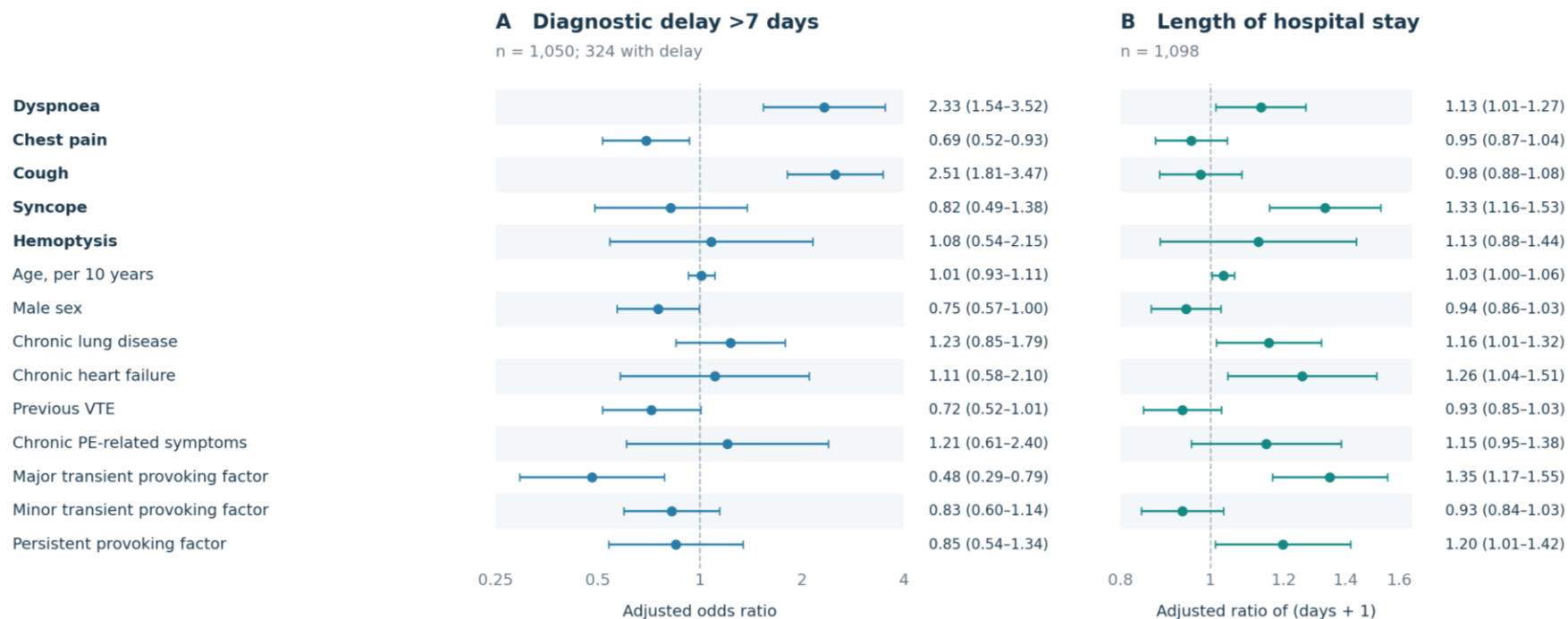


Figure. Mutually adjusted estimates and 95% confidence intervals. VTE = venous thromboembolism; PE = Pulmonary embolism. Hospital-stay ratios compare geometric means of length of stay plus one day.