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Survival and quality of life after early discharge in low-risk pulmonary embolism

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The results of the complete primary outcome analysis of the HoT-PE study, as well as long-term mortality and quality-of-life data, support early discharge and ambulatory oral anticoagulation with rivaroxaban for selected patients with acute low-risk PE <https://bit.ly/32qX0mu>

Cite this article as: Barco S, Schmidtman I, Ageno W, *et al.* Survival and quality of life after early discharge in low-risk pulmonary embolism. *Eur Respir J* 2021; 57: 2002368 [<https://doi.org/10.1183/13993003.02368-2020>].

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ABSTRACT

Introduction: Early discharge of patients with acute low-risk pulmonary embolism requires validation by prospective trials with clinical and quality-of-life outcomes.

Methods: The multinational Home Treatment of Patients with Low-Risk Pulmonary Embolism with the Oral Factor Xa Inhibitor Rivaroxaban (HoT-PE) single-arm management trial investigated early discharge followed by ambulatory treatment with rivaroxaban. The study was stopped for efficacy after the positive results of the predefined interim analysis at 50% of the planned population. The present analysis includes the entire trial population (576 patients). In addition to 3-month recurrence (primary outcome) and 1-year overall mortality, we analysed self-reported disease-specific (Pulmonary Embolism Quality of Life (PEmb-QoL) questionnaire) and generic (five-level five-dimension EuroQoL (EQ-5D-5L) scale) quality of life as well as treatment satisfaction (Anti-Clot Treatment Scale (ACTS)) after pulmonary embolism.

Results: The primary efficacy outcome occurred in three (0.5%, one-sided upper 95% CI 1.3%) patients. The 1-year mortality was 2.4%. The mean \pm SD PEmb-QoL decreased from 28.9 \pm 20.6% at 3 weeks to 19.9 \pm 15.4% at 3 months, a mean change (improvement) of -9.1% ($p<0.0001$). Improvement was consistent across all PEmb-QoL dimensions. The EQ-5D-5L was 0.89 \pm 0.12 at 3 weeks after enrolment and improved to 0.91 \pm 0.12 at 3 months ($p<0.0001$). Female sex and cardiopulmonary disease were associated with poorer disease-specific and generic quality of life; older age was associated with faster worsening of generic quality of life. The ACTS burden score improved from 40.5 \pm 6.6 points at 3 weeks to 42.5 \pm 5.9 points at 3 months ($p<0.0001$).

Conclusions: Our results further support early discharge and ambulatory oral anticoagulation for selected patients with low-risk pulmonary embolism. Targeted strategies may be necessary to further improve quality of life in specific patient subgroups.