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Journal club

Outpatient management of pulmonary embolism

This multi-national, randomised trial compared outpatient versus inpatient care in patients with acute pulmonary embolism with a low risk of death (severity index category of I or II). Both groups were treated with enoxaparin (≥ 5 days) and oral anticoagulation (≥ 90 days).

One of the 171 outpatients and none of the 168 inpatients had recurrence of venous thromboembolism within 90 days, meeting the non-inferiority criteria ($<4\%$ between group difference). With respect to secondary outcomes, two outpatients and no inpatients had major bleeding (intramuscular haematomas) within 14 days. There was one death in each group, neither related to the trial. There was no statistically significant difference in use of medical resources between groups. However, the outpatients had non-significantly more home visits for enoxaparin injections.

The limitations of this trial include the fact that it was an open-label trial, although steps were taken to reduce bias. In addition, the enoxaparin regime used was 1 mg/kg twice a day as opposed to the usual 1.5 mg/kg every 24 h. This could have affected the venous thromboembolism recurrence rate.

This well-designed study suggests that outpatient treatment of acute pulmonary embolism can be safe, effective and efficient compared with inpatient treatment when the patient group is very carefully selected. However, the occurrence of potentially avoidable major bleeding and recurrence of venous thromboembolism even in this select group are causes for concern. Further studies are required before this treatment can be routinely recommended as standard practice.

► **Aujesky D**, Roy PM, Verschuren F, *et al.* Outpatient versus inpatient treatment for patients with acute pulmonary embolism: an international, open-label, randomised, non-inferiority trial. *Lancet* 2011;**378**:41–8.

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