

## Retrievable vena cava filters: a clinical review

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## Abstract

Venous thromboembolism (VTE), including deep vein thrombosis and pulmonary embolism (PE), is a major cause of morbidity and mortality. Parenteral anticoagulant treatment with full-dose unfractionated heparin, low-molecular-weight-heparin, or fondaparinux, followed by oral treatment with the vitamin K antagonists, is recommended for the majority of patients. However, in the presence of contraindications to anticoagulant treatment, bleeding complications during antithrombotic treatment, or VTE recurrences despite optimal anticoagulation, interruption of the inferior vena cava with a filter is a potential option aimed to prevent life-threatening PE. Currently, the vast majority of filters implanted worldwide are of the permanent type, but their use is associated with a number of long term complications. Non-permanent filters represent an important alternative, and in particular retrievable filters are an attractive option because they may be either left in place permanently or safely retrieved after a quite long period when they become unnecessary. In this review, we summarize the currently available literature regarding retrievable vena cava filters and we discuss current evidences on their efficacy and safety. Moreover, the appropriate indications for their use in daily clinical practice are reviewed.