



## Feature

### Bedside Insertion of the IVC Filter

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**ABSTRACT** Pulmonary embolism (PE) remains a leading cause of death among hospitalized patients, and it is well accepted that fatal PE can be prevented by the placement of an inferior vena cava (IVC) filter. The progressive refinement of percutaneous insertion techniques for placement of IVC filters has led to a more widespread use of these devices, particularly in high-risk patients in whom other forms of prevention have been ineffective. Even percutaneous insertion, though, has required fluoroscopic guidance with the need for patients to be moved to an operating room or interventional suite. The transport of critically ill or multitrauma patients requires numerous ancillary staff, which is costly and may be hazardous. Advances in color-flow duplex ultrasound scanning have allowed routine imaging of the iliac veins, and the IVC and IVC filters can be visualized by duplex scan. This combined with the portability of modern ultrasound equipment allows bedside insertion of an IVC filter using ultrasound guidance alone. When technologically feasible, rapid, accurate placement of an IVC filter can be performed without moving the patient from the critical care environment. This strategy reduces the complexity of managing these patients and may also reduce the costs and the overall risks of the procedure. This discussion reviews the indications, technique, complications, and some early follow-up of duplex ultrasound-guided IVC filter insertion (DGFI).

**Keywords** Inferior vena cava filter, duplex, bedside insertion, trauma

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