# Attempted Retrieval of Temporary IVC Filters

**Descriptor:**

To assess the proportion of patients that undergo attempted retrieval of temporary IVC filters as planned at the time of insertion and the success rates of retrieval.

**Background:**

Retrievable IVC filters are used in patients with short-term contra-indications to anti-coagulation. Following a defined period of time, the temporary filter should be removed in order to prevent long-term complications including caval occlusion, recurrent deep vein thrombosis, IVC penetration and filter migration.  Each department should ensure that a strategy for removing the inferior vena caval filter at the earliest possible opportunity is planned and documented when the filter is placed, and that the strategy is reviewed regularly [1]. A number of manufacturers recommend retrieval up to 2 weeks post insertion, although most retrievable filters can be removed at up to 3 months post insertion and modern designs at 6 months or later.

## The Cycle

**The standard:**

At the time of placement a decision should be made as to whether removal is indicated and the report should indicate whether filter removal is planned. Once the risk has passed, the filter should be removed as soon as possible. Patients whose clinical circumstances change such that removal is subsequently contra-indicated following insertion of the retrievable filter, should be excluded from the audit.

Retrieval success rates should be in line with appropriate published studies (> 80 % in UK) [2].

**Target:**

100% of patients should have attempted retrieval of temporary IVC filter as planned when inserted. Retrieval success rate of 80% (this target may require adjustment depending on local factors).

## Assess local practice

**Indicators:**

Percentage of patients who undergo attempted removal of retrievable IVC filters within an appropriate time period post-insertion.

**Data items to be collected:**

For each patient in whom retrievable IVC filter is inserted:

1. Date of insertion

2. Whether there was documentation of a plan for retrieval in the patient’s medical notes or in the radiology report

3. Date of attempted retrieval

4. Outcome of attempted retrieval - i.e. successful, or were there complications?

5. For the patients in whom retrieval was not attempted, the clinical notes should be interrogated to see if a valid clinical reason for not attempting removal is recorded.

**Suggested number:**

All patients who have insertion of IVC filter over the course of 1 year.

**Suggestions for change if target not met:**

1. Develop a dedicated ‘IVC filter proforma’ that includes a mandatory section for removal plan

2. Set up a local database to track all patients with retrievable IVC filters

3. Educate referring clinicians and interventional radiologists on the need for removal

**Resources:**

Radiology Information Systems search

Clinical notes search on a defined subset of patients

**References:**

1. Venous thromboembolic diseases: diagnosis, management and thrombophilia testing.  Clinical guideline [CG144] Published date: June 2012  Last updated: November 2015. <https://www.nice.org.uk/guidance/cg144>
2. Uberoi R, Tapping C, Chalmers N, Allgar V. British Society of Interventional Radiology (BSIR) Inferior Vena Cava (IVC) Filter Registry. Cardiovasc Intervent Radiol (2013) 36:1548-1561

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