

Parkview Health

Parkview Health Research Repository

Parkview Heart Institute

Parkview Research Center

10-2017

One Hospital's Path to Develop an IVC Filter Registry

Emily Keltner BS, MA

T. Eric White MD

Lisa Hollister

Denise Milestone RN

Follow this and additional works at: <https://researchrepository.parkviewhealth.org/cardiol>



Part of the [Cardiology Commons](#)

Background

Inferior Vena Cava (IVC) filters are small cage like devices placed percutaneously into the inferior vena cava to prevent propagation of thrombus into the pulmonary arteries. Currently there are two available types of filters, permanent filters and retrievable filters.

In 2014 the FDA initiated a comprehensive analysis of filter placement and issued a statement recommending implanting physicians and clinicians responsible for the ongoing care of patients with retrievable IVC filters consider removing the filter as soon as protection from pulmonary embolism is no longer needed. Prior to the hospital's structured system, there was a low rate of follow-up. The hospital had three separate databases involving two different implanting groups. Therefore, Parkview Health felt it was imperative to develop a comprehensive approach to IVC filter placement and follow-up to ensure good patient outcomes and comply with FDA recommendations.

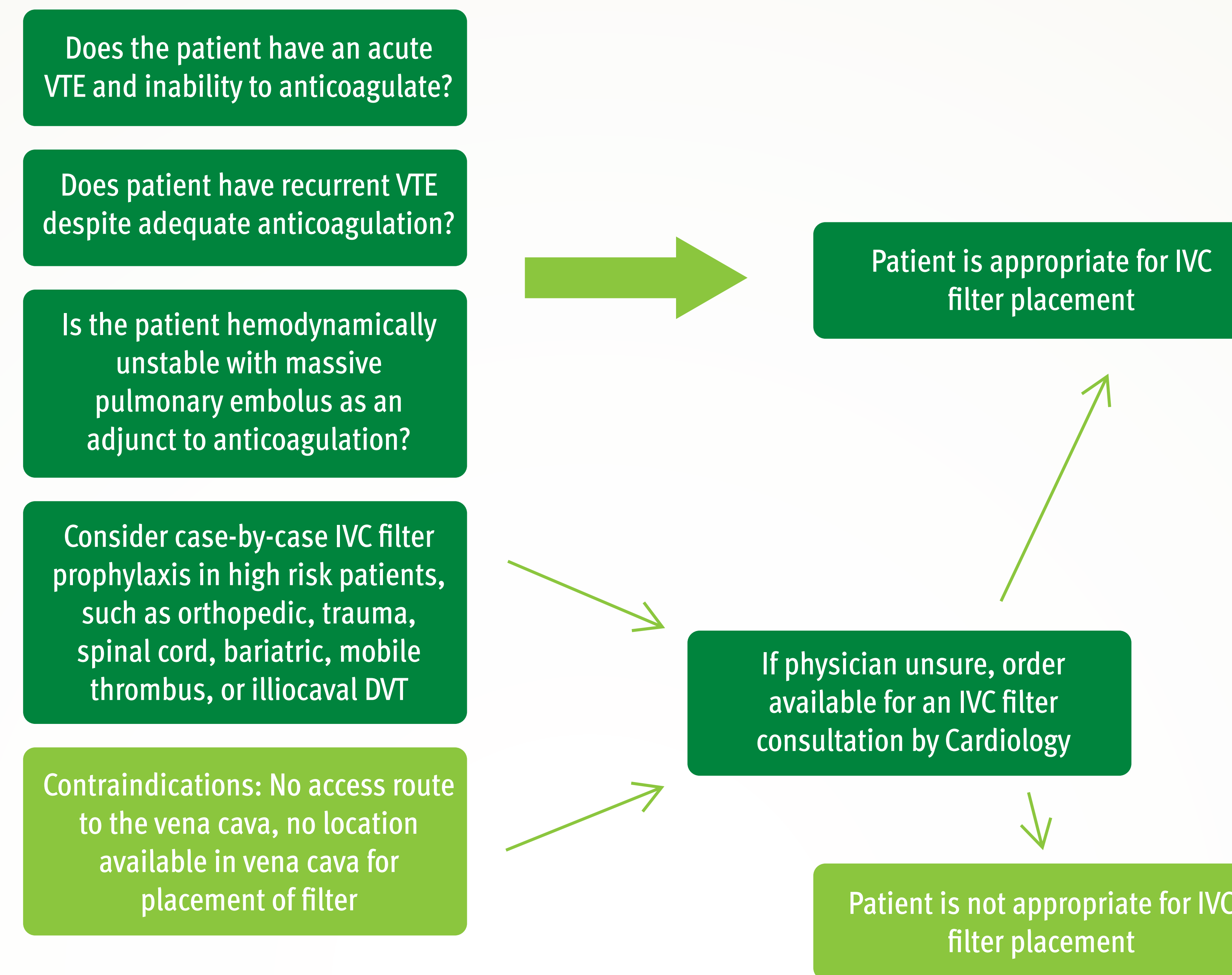
Objective

Develop a single hospital process for following IVC filter patients to ensure proper indication for procedure order, short term, long term follow-up, and outcomes of IVC filters implantation and removal.

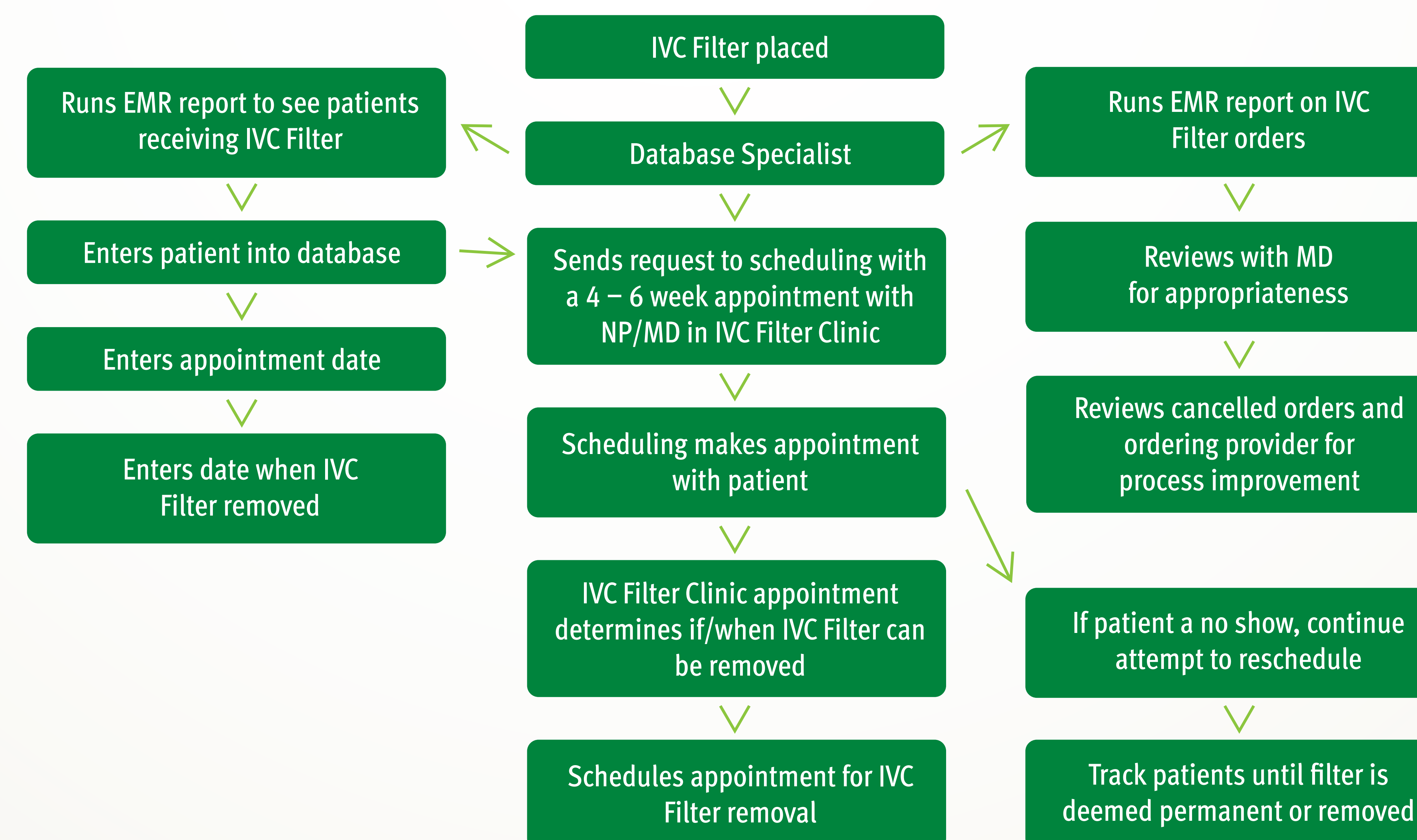
Methods

First we had to determine who was ordering the implantation and removal of the filters. A team was established among Cardiology, Trauma, Radiology, Hospitalists and Intensivists to combine efforts to ensure IVC filter patients were appropriately managed and monitored. The team developed an IVC Filter Protocol, IVC Filter Registry and IVC Filter Clinic. The IVC Filter Registry was built within Office 365-Sharepoint®. An additional Interventional Cardiology Nurse Practitioner was hired and trained to coordinate the IVC Filter Clinic.

Indications for Placement



Hospital Flow for IVC Filter Placement



Results

The team developed a hospital wide IVC filter protocol agreed to by the two implanting physician groups. An IVC filter registry was developed with the use of an EPIC® Crystal Report to identify patients receiving and removal of IVC filters. The registry administrator facilitates a follow-up appointment in the newly developed IVC Filter Clinic where an NP or MD will determine if and when removal is appropriate. Radiology agreed to have Cardiology follow their patients. The IVC Filter Clinic started July 2017. In the first three months, the clinic saw nine patients with four patients scheduled to come back for reassessment. Our IVC Filter Clinic has also received a call from a Primary Care Physician to follow a patient that presumably had an IVC Filter placed elsewhere. We have a 100% follow-up on patients receiving an IVC filter since the start of the registry and clinic.

Conclusions

The policy and processes implemented will ensure Parkview Health is compliant with the FDA recommendations for IVC Filter insertion and removal and patients will avoid complications with IVC filters being left in longer than appropriate. Parkview Health will also be able to monitor short term and long term outcomes along with procedural indications. The IVC Filter Clinic will also provide a specialized service for this specific set of patients.

References

Food and Drug Administration. Removing Retrievable Inferior Vena Cava Filters: FDA Safety Communication. Posted online May 6, 2014. Available at: <https://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm396377.htm>

Patel, G., Panikkath, R., Fanire, M., Gadwala, S., & Nugent, K. (2015). Indications and appropriateness of inferior vena cava filter placement. *The American Journal of the Medical Sciences*, 349(3), 212-216.