

# USING VQI AS A TOOL TO DRIVE IMPROVEMENT IN IVC FILTER FOLLOW-UP AND RETRIEVAL

Robin Acino, MPH; Julie Mason, RVT; Andrew Seiwert, MD; Fedor Lurie, MD, PhD; Babatunde Oriowo, MD

## PROBLEM STATEMENT

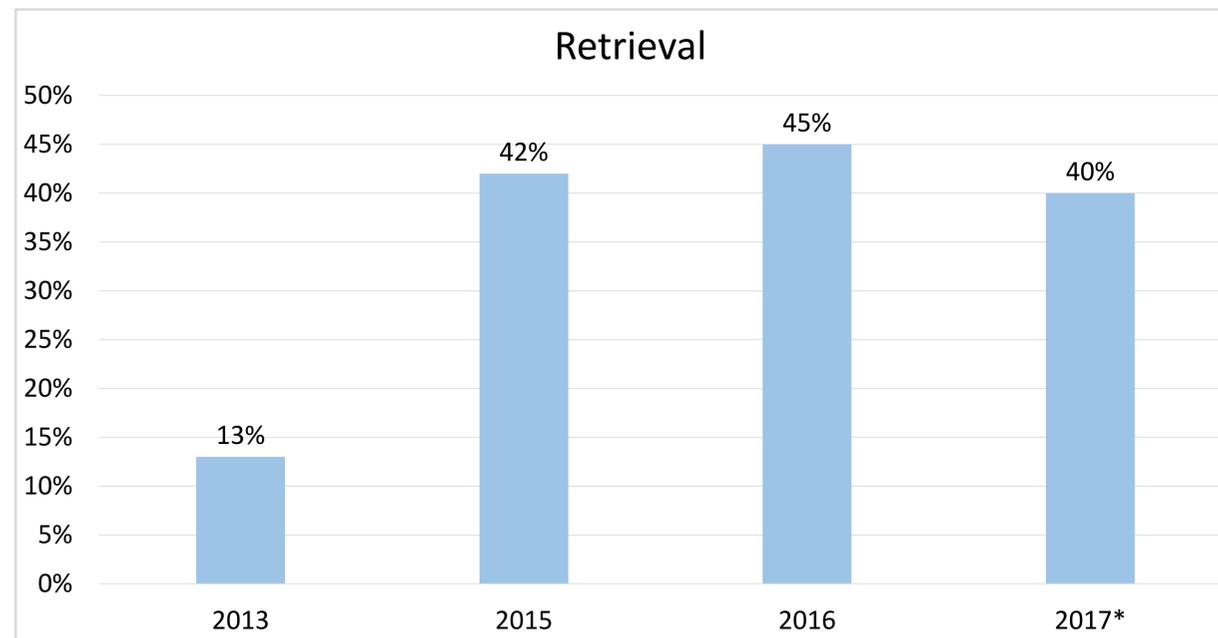
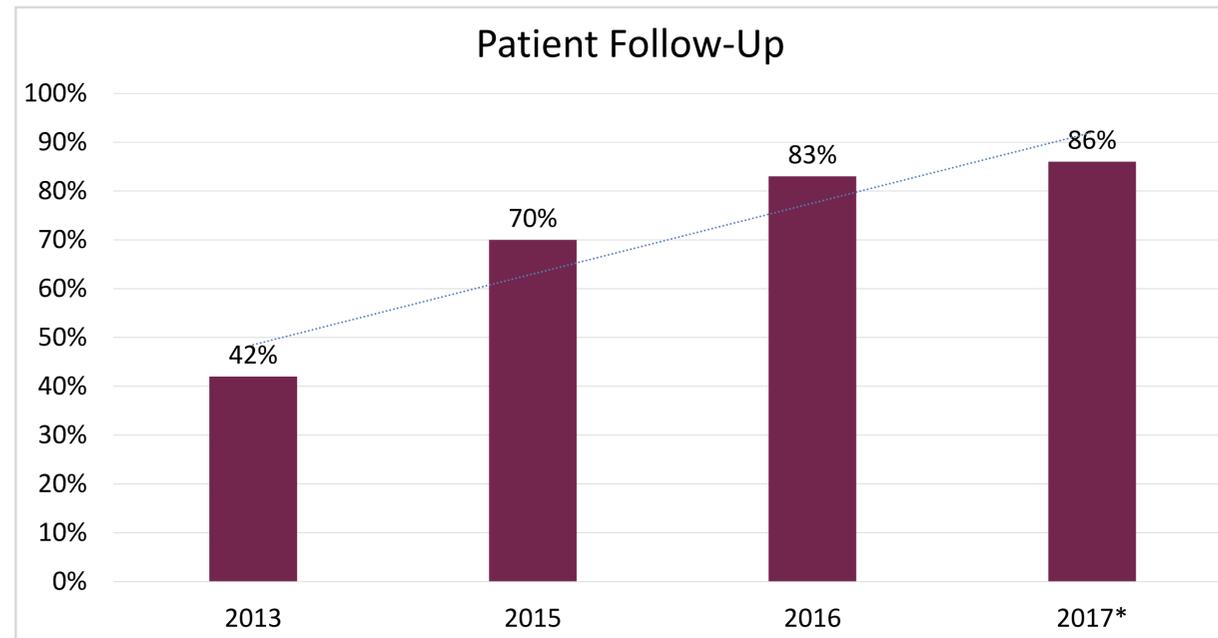
Prior to ProMedica's participation in VQI, patient follow-up and retrieval of temporary filters were recognized as areas with great opportunity for improvement. The filter retrieval rate was a dismal 13% and only 40% of patients with a retrievable filter had a follow-up visit post filter placement.

## GOAL

Use VQI's platform and reporting tools to improve patient care post IVC filter placement. Key goals of the project were to use data and analytic reports to increase the number of patients seen for follow-up filter care, minimize the number lost to follow-up, and increase the number of filter retrievals with temporary indication.

## IMPROVEMENT STRATEGIES

Using VQI as our management tool for historical and real-time data, process initiatives were developed to address the following areas: patient education, discharge instructions, follow-up visit scheduling, and clinical office communication. Details included enhanced patient education materials and discharge instructions, implementation of follow-up appointment scheduling completed prior to hospital discharge, data sharing between quality personnel and clinical office staff for patients due for follow-up, and collaboration between providers (*Interventional Radiology, Vascular Medicine & Vascular Surgery*) for clinical decision making on appropriate retrieval timing.



## RESULTS

ProMedica began participating in the IVC Filter Registry in 2015, and in 2016, Jobst Vascular Institute developed a Quality Improvement (QI) team focused solely on IVC filters. This multidisciplinary team was successful in identifying system process issues where patient education and discharge instructions were weak, clinical office follow-up was inconsistent, and patients were being lost to follow-up. New processes hardwired into care have improved follow-up and retrieval rates. Patient follow-up has doubled to over 80% and retrieval rates (including failed retrieval) have increased from 36%\* to 45% over the past three years. (\*2017 patients are still in follow-up and currently have a 40% retrieval/attempted retrieval rate).

## CHALLENGES/LESSONS LEARNED

While progress has been made, challenges still exist. The most difficult patient populations are those who simply choose not to return and those who have challenges with co-morbidities and living situations (such as long-term care) that make follow-up visits difficult. In addition, extension of the follow-up window to extend beyond 21 months may improve rates allowing the capture of very late filter retrieval.

## SUCCESS FACTORS

The commitment and leadership of clinical staff including vascular surgeons, interventional radiologists, quality team members, radiology technicians, clinical affiliates and clinical office staff are key to this project. Furthermore, the continual monitoring and reporting established as part of this QI project team has continued to be an essential part of maintaining success.