An Audit to Evaluate the Documentation of Inferior Vena Cava (IVC) Filter Insertion and Retrieval via Clinical Management System (CMS)/ Electronic Patient Record (ePR) Alert System

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Introduction
Inferior vena cava (IVC) filter is indicated for patients with deep vein thrombosis who are at high risk for pulmonary embolism but contraindicated for anticoagulants. When patient is no longer at risk or can resume anticoagulants, it maybe removed. The longer duration the IVC filter is placed, the higher the risk of IVC wall injury or failure of retrieval upon filter removal. In view of this, our department recommends retrieval of IVC filter within a period of 4 weeks after insertion.

When an IVC filter is insitu, intravenous intervention or surgery should be cautious to prevent hampering of IVC filter and IVC injury. Therefore since 1st January 2017, a reminder will be inserted by interventional radiology (IR) colleagues into the CMS/ePR alert system after IVC filter insertion. After the retrieval of the IVC filter the reminder will be removed. The aim of the reminder serves to notify clinicians who have access to the patients’ information via ePR/CMS that there is an IVC filter insitu and that subsequent intravascular procedure or surgery should be dealt with care and consideration. The reminder will include date of IVC filter insertion and recommendation time (within 4 weeks from insertion) for its retrieval if necessary.

Objectives
The audit serves to assess if documentation of IVC filter insertion/retrieval is made via remainder alerts on CMS/ePR.

Methodology
Retrospective review of all the IVC filter insertion and retrieval procedures performed in Tuen Mun Hospital from 1/1/2017- 31/12/2017. Data are retrieved via Radiology Information System (RIS). Subsequent access via CMS/ePR system to verify if the reminder alerts has been inputted after insertion and deleted after retrieval.

Result
From 1 January 2017 to 31/12/2017, there were a total of 36 cases in total (IVC filter: 26 insertion, 10 retrieval). There are ~92% of cases documented via alert system in CMS/ePR.
Potential impact on clinical practice:
1. To improve documentation of IVC filter insertion and retrieval via CMS/ePR alert system
2. To document that IVC filter has been inserted and to serve as a reminder to clinicians for timely filter retrieval if necessary and for consideration during subsequent intravascular access/procedure