A Focused Follow Up Program to Increase the Retrieval Rate of Optional IVC Filters

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Purpose

• In the past decade, optional inferior vena cava filters have been introduced and become widely utilized
• Optional filters are designed to be either retrieved or left indwelling as permanent devices
Purpose

• Some optional filters have an inferior long term safety profile compared to permanent devices
• Complications such as filter migration, caval thrombosis, and filter fracture appear to be cumulative and increase over time
• Therefore, retrieval of optional filters is desirable
Purpose

• We performed a continuous quality improvement project to establish the baseline retrieval rate of optional IVC filters in our practice and determine if a focused intervention of patient follow up could increase the retrieval rate

Methods

• The electronic radiology report database was queried to identify all patients who received a retrievable IVC filter over a 5 month period
• The baseline retrieval rate was calculated
• Then, the patients and/or referring physicians were contacted and appropriate patients were seen in IR clinic
• If indicated, the filter was retrieved
### Results

<table>
<thead>
<tr>
<th>Month</th>
<th>Total No. of Filters Inserted</th>
<th>Baseline Retrieval</th>
<th>Follow-Up</th>
<th>Not Candidate for Retrieval</th>
<th>Additional F/U for Retrieval</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>September</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>October</td>
<td>11</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>November</td>
<td>14</td>
<td>1</td>
<td>10</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>December</td>
<td>35</td>
<td>5</td>
<td>26</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>13</td>
<td>61</td>
<td>46</td>
<td>15</td>
</tr>
</tbody>
</table>

- Baseline retrieval rate 16% (13/82)
- Fifteen (25% of the follow up cohort) patients were deemed candidates for filter retrieval and all had their filters removed
- Following our intervention, the retrieval rate was 34% (28/82)
Conclusion

• Direct and indirect patient follow up increased IVC filter retrieval rate
• In many cases, neither patients nor their referring physicians were aware that indwelling optional filter retrieval was indicated
• We have instituted a routine 3 month follow up IR clinic appointment for all patients
Patient information is entered and an appointment is automatically generated.