BACKGROUND AND AIM
Kaiser Permanente (KP) is an integrated care delivery system that provides clinical services to over 9 million members in nine of the US states and the District of Columbia. Our mission is to provide high-quality and affordable health care to our patients. Over the last decade, rapid adoption of new imaging technology has resulted in an increased detection of incidentalomas and made transparent a variation in the diagnosis, reporting, diagnostic workup and follow-up of incidentalomas. The sudden discovery of incidentalomas often generates both patient and clinician concerns. In order to reduce patient anxiety and reduce potential liability, clinicians frequently order inappropriate and unnecessary workups that result in an overdiagnosis of incidentalomas. Kaiser Permanente’s goal is to develop and implement new evidence-based recommendations to guide clinicians in the appropriate diagnosis, workup and follow-up of incidentalomas.

METHOD
In 2012, KP program wide clinicians undertook a multi-year improvement initiative to develop and implement evidence-based recommendations for the diagnosis, reporting, and workup of incidental findings. KP’s clinical experts developed evidence based imaging recommendations, and structured reports for the workup of pancreas, lung, renal, adrenal, ovarian, and thyroid incidental findings. The group collaborated with our information technology experts to augment existing tools that are incorporated in KP’s electronic medical records (KP Health Connect®) and radiology information systems. Continuing medical education was developed and offered to clinicians. In addition, regions initiated implementation of reliable methods to track patients who require ongoing surveillance.

An example of regional improvement is the implementation of Bosniak Renal Cyst Imaging Guideline in KP Georgia Region. Regional clinicians and performance improvement experts designed interventions to address wide variations in follow-up care and inappropriate utilization of imaging and other diagnostic procedures that can potentially be harmful. The KP experts defined a performance measure for utilization of Bosniak renal cyst incidence classification and workup of renal cyst. The goal was established to improve an average Bosniak guideline’s utilization rate from 48% to 100%. Interventions included: 1) Continuing medical education, 2) Standardization of reporting lexicon, terminology and frequency of required follow-up, 3) Reporting and communicating the Bosniak guideline’s utilization rate at the individual physician level, 4) Evaluation of results and discussion at the department meetings, 5) Coaching and providing personalized instruction to physicians.

RESULTS AND CONCLUSION
At the regional level, KP Georgia results indicate a 60% - 100% utilization of appropriate structured reports and adherence to imaging recommendations. These results suggest that an organized and systematic approach to development and implementation of evidence based guidelines and tools improve physicians’ adoption of scientific evidence. Adoption of evidence based guideline leads to considerable improvement of patient safety and reduction of hazardous and inappropriate diagnostic testing.

Composite Department Bosniak Use

<table>
<thead>
<tr>
<th>Month</th>
<th>Dec 11</th>
<th>Jan 12</th>
<th>Feb 12</th>
<th>Mar 12</th>
<th>Apr 12</th>
<th>May 12</th>
<th>Jun 12</th>
<th>Jul 12</th>
<th>Aug 12</th>
<th>Sep 12</th>
<th>Oct 12</th>
<th>Nov 12</th>
<th>Dec 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Patients Using Bosniak</td>
<td>40%</td>
<td>45%</td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
<td>95%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Driver Diagram

- CLINICIANS NOT FAMILIAR WITH BOSNIAK RENAL CYST CLASSIFICATION
- DIFFICULT TO USE CONSISTENT REPORTING
- INTEGRATED IN THE WORK FLOW
- CONSISTENT REPORTING LOW PRIORITY
- TURN AROUND TIME INCREASES REPORT

LACK OF AWARENESS OF UNINTENDED CONSEQUENCES

1. Offers no patient benefits and may not be appropriate for all patients. Physicians in the department maintain the right to modify the reporting guidelines and management recommendations based on individual clinical circumstances.