USING R-SCAN TO IMPROVE ADHERENCE TO CHOOSING WISELY RECOMMENDATIONS FOR SIMPLE ADNEXAL CYSTS
Background

• Feedback from our referring clinicians and radiologists indicated too many follow up scans for ovarian cysts

• Published guidelines available (Choosing Wisely) for follow up recommendations for simple adnexal cysts

• Our radiologists were not consistently following these guidelines
Goals

• Increase compliance among radiologists for adhering to Choosing Wisely recommendations
• Decrease number of unnecessary follow up exams
• Decrease patient anxiety – patients access reports via patient portal and are concerned when they have to come back for follow up.
• Decrease volume of patient returns improving access for those that truly need imaging
• Decrease unnecessary cost to the patient and the system
Method/Implementation

• Presented the concept and garnered support of radiologists, sonographers and management
• Collected baseline data for adherence to Choosing Wisely guidelines with Radiology Support, Communication and Alignment Network (R-SCAN) program.
• Created and distributed educational material to radiologists and ultrasound technologists
• Collected post-intervention data to assess appropriateness of follow-up recommendations based on Choosing Wisely
Engaging Technical Staff

• In most private practices, radiologists rarely perform ultrasound and rely heavily on technical staff
• In our group, radiologist reporting was heavily influenced by technologists’ findings and reporting
• We felt most inappropriate ordering was driven by technologist/radiologist reporting rather than referring providers
• We chose to educate the technical staff along with the radiologists for maximal compliance
Sample of Educational Materials

Simple

- Thin wall (<3mm)
- No calcification or septa
- Completely anechoic
- Through transmission
- No solid components

Complex

Cysts not meeting criteria for ‘simple cyst’ including septa, wall thickening, internal echoes, nodules
Sample of Educational Materials

Pre-Menopausal

Simple Cysts $\leq 3$ cm: no need to mention in report

Simple Cysts $> 3$ and $\leq 5$ cm: mention in report, include it is almost certainly benign

Post-Menopausal

Cysts $\leq 1$ cm: at the radiologist’s discretion if it is in the report
Sample of Educational Materials

**Pre-Menopausal**
- Cysts >5 and ≤7 cm: Describe in the report stating they are almost certainly benign
- Ultrasound follow-up in 12 months

**Post-Menopausal**
- Cysts >1 and ≤7 cm: Describe in the report stating they are almost certainly benign
- Ultrasound follow-up in 12 months
Sample of Educational Materials

Pre-Menopausal

Cysts >7 cm

MRI or Surgical Evaluation should be considered

Post-Menopausal

Cysts >7 cm

MRI or Surgical Evaluation should be considered
Results

Pre-Education Intervention

R-SCAN average appropriateness score of 6.69
(Based on ACR appropriateness criteria)

Department-wide appropriate follow up recommendation rate of 68.75%

Post-Education Intervention

R-SCAN average appropriateness score of 7.92
(Based on ACR appropriateness criteria)

Department-wide appropriate follow up recommendation rate of 85.71%
Results

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<th>Baseline</th>
<th>Post intervention</th>
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<td>Percent exam not usually appropriate</td>
<td>30%</td>
<td>10%</td>
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| Total Number of studies of the type selected during the period of interest | 64       |
| Average AC rating for study ordering during the period of interest        | 6.69     |
| Number of inappropriate studies ordered based on ACR criteria (Score of 6 or less) | 20 31.25% |
| Number of appropriate studies ordered based on ACR criteria (Score of 7-9)  | 44 68.75% |
| Total Number of studies of the type selected during the period of interest | 105      |
| Average AC rating for study ordering during the period of interest        | 7.92     |
| Number of inappropriate studies ordered based on ACR criteria (Score of 6 or less) | 15 14.28% |
| Number of appropriate studies ordered based on ACR criteria (Score of 7-9)  | 90 85.72% |
## Conclusions

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<thead>
<tr>
<th>Category</th>
<th>Points</th>
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<tr>
<td><strong>Education</strong></td>
<td>With simple education, standardized and evidence-based reporting can be implemented</td>
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<td><strong>Engagement</strong></td>
<td>For sonography it is important to engage the technical staff since it is a user-dependent modality and radiologists rely heavily on their judgement</td>
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<td><strong>Reporting</strong></td>
<td>Standardized evidence-based guidelines such as <em>Choosing Wisely</em> provide a safe haven for radiologists from liability which enhances compliance and reduces defensive reporting</td>
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<td><strong>R-SCAN</strong></td>
<td>The R-SCAN tool through the ACR is a powerful and convenient tool for practices of any size to complete meaningful QI projects with minimal effort</td>
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- Anne Finfrock, R.T.
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- Sharadyn Ciota, B.S.
  - Assistant