Improving health care through accreditation®

IAC Accreditation: A Mechanism to Assess and Improve Quality

Mary Lally, MS, CAE
IAC CEO
Outline

• IAC History/Structure
• Accreditation Overview
• Data
• QI Tool
Who is the IAC?

Intersocietal Accreditation Commission

What is the IAC’s mission?

Improving health care through accreditation®
Overview

- Non profit, 501 (c)(6)
- Over 27 years of accreditation experience
- Board of Directors are specialists in various medical fields
- 14,000 accredited sites
- Recognized by CMS as an Accrediting Organization
- ISO certification

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Improving health care through accreditation®
ENSURE THAT PATIENTS WITH THE SAME CLINICAL PRESENTATION ARE IMAGED THE SAME WAY, REGARDLESS OF WHERE THEY PRESENT FOR CARE
• Standardization of processes
• Peer review
• Education
• Risk mitigation
• Better patient care
Standardization

- protocol optimization
- eliminate unwarranted variations
- reduce redundant and discordant protocols
- reduced the total number protocols by nearly one-third
DATA
Nationwide Laboratory Adherence to MPI Radiation Dose Reduction Practices: A Report from the IAC Data Repository

Cumulative Distribution of Patient-Specific Median Effective Dose Across IAC Participating Laboratories (n=1,074)

- 9.6% of Laboratories with a Median Dose >20 mSv
- 1.5% of Laboratories with a Median Dose ≤9 mSv

CT Radiation Dose Awareness & Reduction: A Survey to Assess The Effect of Accreditation

The Effect of Accreditation on CT Facility Radiation Dose and QI Activities

- Prior to IAC Accreditation
- After IAC Accreditation

- Protocols and Radiation Doses Reviewed Annually: 78.9% (75.7%) - 100%
- Regularly Participated in QI Activities: 77.3%

A Survey of IAC-Accredited MRI Facility Safety Practices

A. MRI Safety Practices Prior to Accreditation

- Facility Evaluated MRI Safety: Yes 68.8%, No 31.2%
- Facility Regularly Conducted MRI Safety: Yes 72.3%, No 27.7%
- Facility Had Meetings to Review Quality: Yes 55.9%, No 44.1%
- Facility Had Institutionalized Policy: Yes 92.2%, No 7.8%
- Facility Had Contractual Policy: Yes 89.8%, No 10.2%

B. Increased Awareness of MRI Safety Practices After Accreditation

- Agreed: 84.7%
- Disagreed: 15.3%
Initial Applications for IAC Vein Center Accreditation: Findings

Percentage of Facilities with Issues Identified During the Site Visit:

- Safety issues: 51%
- Incomplete Procedure Documentation: 48%
- Incomplete History/Physical Documentation: 36%
- Inadequate Patient Consent: 26%
- Suboptimal Venous Imaging: 25%
- Lack of Quality Improvement Activity: 22%
- Inadequate Staff Qualifications: 22%
- Failure to Track Outcomes: 21%
- Incomplete Protocols: 12%

Percentage of Facilities to Address Issues Within 60 Days And Earn IAC Accreditation: 81%

N = 300 facilities.
Echo Lab Accreditation and the Quality of Imaging and Reporting

A. Quality of 2D Imaging

B. Quality of Color Doppler Imaging

C. Quality of Spectral Doppler Imaging


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Impact of Accreditation on Quality in Pediatric Echocardiograms: A Quantitative Approach

Improvement in Median Score Before and After Accreditation

- **Study Comprehensiveness**
  - Before Accreditation: 56.8
  - After Accreditation: 78.4

- **Report Completeness**
  - Before Accreditation: 87.0
  - After Accreditation: 95.5

Figure reprinted by permission of Elsevier, Inc.
Improved Compliance with Nuclear Cardiology Reporting Standards: A Retrospective Analysis

Severity of Reporting Errors (2008 vs. 2014)

- 2008:
  - High Severity Errors: 35.0%
  - Moderate Severity Errors: 19.6%
  - Low Severity Errors: 40.4%
  - No Errors (Compliant Reports): 5.3%

- 2014:
  - High Severity Errors: 57.1%
  - Moderate Severity Errors: 11.8%
  - Low Severity Errors: 30.4%
  - No Errors (Compliant Reports): 1.2%

*p < 0.001 for all changes
Areas Identified for Improvement: Vascular Testing Facilities Applying for IAC Accreditation

Percentage of Vascular Testing Facilities with Issues

- Incomplete Reports: 73.5%
- Discongruent Impression/Findings: 55.7%
- Suboptimal Image Quality: 35.8%
- Discordance Between Impression and Diagnostic Criteria: 29.2%
- Missed Clinical Findings: 26.2%
- Incomplete Protocols: 15.4%

Percentage of Facilities to Address Issues Within 90 Days and Earn IAC Accreditation: 82.2%

N = 544 facilities.


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How Do Noninvasive Imaging Facilities Perceive the Accreditation Process? Results of an IAC Survey


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The IAC Quality Improvement tool allows facilities to assess the quality of their work against IAC quality metrics:

- Appropriate Use
- Technical Quality Review
- Interpretive Quality Review
- Report Completeness and Timeliness
- Certain modalities possess a fifth metric
QI Tool History

• Launched as a voluntary self-assessment March 2016
• Launched as mid cycle audit May 2016
Purpose

• Provide a mechanism for facilities to document:
  – the quality of their case studies
  – report completeness/timeliness
  – interpretive accuracy

• Provide a tool for trending and analysis of their assessments
## QI Cases Reviewed

<table>
<thead>
<tr>
<th>Modality</th>
<th>Cases</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular</td>
<td>25439</td>
<td>48%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>13485</td>
<td>25%</td>
</tr>
<tr>
<td>Echo</td>
<td>9134</td>
<td>17%</td>
</tr>
<tr>
<td>MR</td>
<td>2097</td>
<td>3.9%</td>
</tr>
<tr>
<td>Pediatric Echo</td>
<td>1369</td>
<td>2.6%</td>
</tr>
<tr>
<td>CT</td>
<td>1107</td>
<td>2.1%</td>
</tr>
<tr>
<td>Vein Center</td>
<td>542</td>
<td>1.0%</td>
</tr>
<tr>
<td>Cardiac Electrophysiology</td>
<td>120</td>
<td>0.22%</td>
</tr>
<tr>
<td>CT-Dental</td>
<td>63</td>
<td>0.12%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53356</td>
<td></td>
</tr>
</tbody>
</table>

Data from March 2016 to May 2018
Self-Assessment Scoring

Each analysis report also includes a graphical representation of quality and staff agreement across all cases in the assessment.
Example #1 - Bar Graph
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Data from March 2016 to May 2018
Increased utilization IAC Quality Improvement Self-assessment Tool

Since its introduction in May 2016, the number of facilities using the QI Self-assessment Tool has rapidly increased.
Example #2 - Multi-Year Line Graph
Example #3 - Frequency Distribution

Your score: 84%
Mean score for all facilities: 77%
Survey Design

Total of 18 questions

Questions 1-11
- Specific to the value and use of the tool

• Questions 12 -14
- Assesses operational aspects of the tool such as ease of use; functionality; how to improve the tool

• Questions 15 -18
- Demographics such as case type; facility (hospital vs non); staff providing comments and staff involved in the assessment
IAC Quality Improvement Self-assessment Tool Value

IAC accredited facilities find value in the IAC Quality Improvement Self-Assessment Tool base is encouraged critical thinking about their work. Facilities believed the QI Tool was easy to use and the process was worthwhile.
Completing the QI Self-Assessment process encourages staff to think critically about their work.

- 236 respondents strongly agree
- 274 respondents agree
- 9 respondents disagree
- 89 respondents strongly disagree

609 respondents
During the QI Self-Assessment, we identified ways to improve the quality of our work in the following areas (check all that apply):

- Technical Quality: 405
- Report Completeness: 306
- Report Timeliness: 209
- Interpretive Accuracy (or Interobserver Variability): 213
- We did not identify ways to improve the quality of our work: 72
- Other (please specify): 37

609 respondents
Completing the QI Self-Assessment process encourages staff to think critically about their work.

- Strongly Agree: 236
- Agree: 274
- Disagree: 9
- Strongly Disagree: 89

609 respondents
Q4

Do you plan to review the results of the self-assessment at your next Quality Improvement Meeting?

97.86% Yes

2.14% No

609 respondents
Q11

The Self-Assessment tool was easy to use.

598 respondents

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ASSISTING YOUR FACILITY WITH COMPLYING WITH
MACRA
IN TODAY'S HEALTH CARE ENVIRONMENT

IAC IS HERE TO HELP.
Complying with MACRA

• Physicians who participate in a traditional Medicare fee-for-service will earn a performance-based payment adjustment to their Medicare payment through the Merit-Based Incentive Payment System (MIPS)

• Participants in MIPS will earn a Medicare payment adjustment based on practice-specific quality data for providing high-quality, efficient care through success in four performance categories
IAC Accreditation Can Fulfill Portions of MIPS Performance Measures

<table>
<thead>
<tr>
<th></th>
<th>Quality [Replaces the Physician Quality Reporting System (PQRS)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>II.</td>
<td>Advancing Care Information (Replaces the Medicare EHR Incentive Program, also known as Meaningful Use)</td>
</tr>
<tr>
<td>III.</td>
<td>Improvement Activities [Often referred to as Clinical Practice Improvement Activities (CPIA) (New category)]</td>
</tr>
<tr>
<td></td>
<td>In this new performance category for 2017, clinicians are rewarded for care focused on care coordination, beneficiary engagement, and patient safety.</td>
</tr>
<tr>
<td></td>
<td>The IAC QI Self-Assessment Tool or the IAC QI MOC Activity satisfy the requirements of this category.</td>
</tr>
<tr>
<td>IV.</td>
<td>Cost (Replaces Value-Based Modifier)</td>
</tr>
</tbody>
</table>
MIPS Data Submission Options

- For both individual and group reporting, attestation is one method of data submission to CMS for the Improvement Activities category.
- QI meeting minutes must document that 90 days of the quality improvement methods/processes/activities implemented have occurred to receive credit for this activity.
- IAC will serve as the repository for this data and will provide information about the attestation submission to CMS once this information becomes available.
CT increased radiation dose awareness and reduced radiation dose

IAC facilities believe the accreditation process has a positive effect on their awareness of and reduction of radiation dose, as associated with CT scans.

Farrell et al. 2017 *Radiol Technol*
Accredited nuclear cardiology labs have less downstream resource utilization

IAC nuclear cardiology accreditation is associated with lower rates of downstream cardiac catheterization and revascularization within 90 days of imaging as compared to non-IAC accredited facilities. In addition, the study found that among patients not sent for catheterization, IAC accreditation was associated with lower one year mortality and a trend toward fewer myocardial infarctions.

Murthy et al. 2017 J Nucl Cardiol
Improvement in echocardiography image quality and reporting

Patients undergoing echocardiography services in accredited echocardiography facilities received more complete and diagnostic quality 2D, color Doppler and spectral Doppler exams versus those who undergo studies in non-accredited facilities. Also, IAC accredited facility echocardiographic reports are more complete.

Thaden et al. 2017 *Circ Cardiovasc Imaging*
More comprehensive echocardiography studies and reporting

Echocardiograms performed at IAC accredited facilities are more comprehensive and reports are more complete.

Tacy & Behera  2017 J Am Soc Echocardiogr
CT increased radiation dose awareness and reduced radiation dose

IAC facilities believe the accreditation process has a positive effect on their awareness of and reduction of radiation dose, as associated with CT scans.

Farrell et al. 2017 *Radiol Technol*

*Improving health care through accreditation®*
Revisions to nuclear cardiology standards to mandate reduced radiation dose

Based on the results of study IAC Nuclear/PET standards were revised to mandate specific dose ranges to decrease radiation exposure while maintaining image quality. This action has the potential to significantly decrease radiation dose in 10% of the labs with doses > 20 mSv down to 2.7% of accredited facilities. Reducing population exposure by targeting high effective dose cases in this manner would lower radiation exposure ~ two-fold and improve the safety of more than 100,000 patients undergoing myocardial perfusion imaging each year in the US.

Jerome et al. 2015 J Am Coll Cardiol Img

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Nuclear Cardiology improved reporting

IAC nuclear cardiology facility reporting of diagnostic imaging results improved over successive accreditation cycles with a significant decrease in the number of errors and a decrease in the severity of reporting issues. In addition, the percent of facilities with compliant reports increased.

Maddux et al. 2016 J Nucl Cardiol

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Increased MRI Facility Safety Awareness

MRI accredited facilities believe the IAC Standards and the accreditation process led to an increased awareness and scrutiny of MRI safety practices. Facilities without MRI safety policies or facilities that did not assess safety practices prior to accreditation are now MRI assessing safety regularly.

Farrell et al. J Neuroimaging pending

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THANK YOU!