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The Joint Department of Medical Imaging (JDMI)

- **Largest** MI program in Canada
- 695,000+ exams annually
- **700+** staff, **85+** sub-specialized radiologists
- **110** trainees annually

Multi-site, Multi-organization department spanning six teaching hospitals

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Peer Review: Definition & Principles

- Radiologist peer review is an important quality assurance tool involving the assessment of diagnostic accuracy between peers through educational mechanisms
- Through the promotion of peer education and learning in medical imaging practice, radiologists are able to identify opportunities for additional education and self-improvement

**Program Principles**

- **Non-punitive**, ongoing learning focus
- **Second radiologist** reviews original clinical interpretation of case
- **Random selection** of studies for review on a regular scheduled basis
- **Retrospective**, within days of original report verification
- Exams and procedures representative of the **actual clinical practice** of each radiologist
- **Anonymous review** allowing for unbiased review from the perspective of both diagnosis and relationship with the reporter.
- Classification of peer review findings (**4-point scoring scale**) *
- Defined **policies and procedures** for action taken in the event of a significantly discrepant finding
- Clearly defined **data security** practices

*Based on the American College of Radiology (ACR) and Canadian Association of Radiologists (CAR) guidelines and recommendations for Peer Review in Radiology
JDMI’s Approach to Peer Review: Key Steps

Review
- Radiologist performs peer reviews
- Anonymized, randomly selected
- Fair, unbiased

Educate
- Radiologist Quality Leads select cases with most learnings
- Non-punitive, ongoing learning focus
- Translates learnings into future practice
- Promotes practice-based learning
- Alignment with Information Protection Regulations*

Improve
- Quality rounds are conducted
- Culture of continuous improvement
- Key learnings, program outcomes reported
- Improves quality of patient care

*Ontario adheres to the Quality of Care Information Protection Act (QCIPA)

Coral Review Implementations

2013
- Implemented September 2013
- Five hospital sites
- 85+ radiologists

2014
- Implemented September 2014
- Three hospital sites
- 30+ radiologists

2015
- Implemented July 2015
- Six hospital sites
- 20+ radiologists

2016
- Implemented October 2016
- 20+ radiologists

2017
- Implemented August 2017
- Engaging 30+ radiologists

Community and academic settings
Specialist and generalized radiologists
Radiologist and technologist peer review
Key Features: Coral Review

- Developed in-house by JDMI IT team
- RIS Integration
- Peer Review notification directly to users’ email
- 4 point score submission
- Image, indication and relevant prior viewing
- Data analytics interface

Coral Review Successes

Radiologist survey conducted at Trillium Health partners:
- 55% learned new information to incorporate into their own practice
- 55% selected Quality Rounds to be the most valuable aspect
- 55% develop more comprehensive reports

Leadership Recognition of Coral Review

Survey conducted in 2015 at Trillium Health Partners; N = 11
Future Initiatives Related to Peer Review

Expansion of the Radiologist Peer Review program across Ontario

Development of Image Quality Criteria for the Purpose of Technologist Peer Review
- Collaboration with 5 Ontario Hospital sites across 6 modalities: General Radiography, CT, MRI, Ultrasound, Nuclear Medicine and Mammography

Implementation of Technologist Peer Review program across modalities

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