

# NRDR<sup>®</sup>

NATIONAL RADIOLOGY DATA  
REGISTRY

AMERICAN COLLEGE OF RADIOLOGY

## BENCHMARK YOUR PERFORMANCE QUALITY



# PRACTICE QUALITY IMPROVEMENT



- 1 NRDR overview
- 2 Facility benefits
- 4 Meeting MIPS requirements with the NRDR QCDCR
- 5 How NRDR works
- 6 NRDR fees
- 7 CDS Registry
- 8 Lung Cancer Screening Registry
- 9 National Mammography Database
- 10 Dose Index Registry
- 12 CT Colonography Registry
- 12 General Radiology Improvement Database

The ACR® National Radiology Data Registry (NRDR®) helps facilities measure progress, document quality of service, enhance strengths and identify opportunities for improvement by providing objective measures of practice patterns.

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## NRDR overview

The **ACR National Radiology Data Registry (NRDR®)** leads the effort in developing benchmarks and comparisons to help imaging facilities and radiologists improve quality of patient care with its collection of registries related to a range of radiological procedures. NRDR participants receive access to accurate and objective measures regarding the quality of facility processes and outcomes in comparison to peers nationwide.

### Benefits of participation

#### Radiologists

- National benchmarks and comparisons provide objective assessment of your performance
- All NRDR registries are certified as PQI projects for Part 4 Credit toward MOC
- Eligible clinicians can meet Centers for Medicare and Medicaid Services (CMS) Merit-Based Incentive Payment System (MIPS) requirements based on satisfactory participation in NRDR, a Qualified Clinical Data Registry (QCDR). To learn more, see next page and visit [acr.org/qcdr](https://www.acr.org/qcdr)
- May allow you to achieve base score points for the Specialized Registry Reporting measure for the Promoting Interoperability category under MIPS

#### Physicists

- The Dose Index Registry (DIR) provides tools to support protocol review at your facility

#### Technologists

- DIR data provide tools to assess performance and deliver optimal care to patients
- The General Radiology Improvement Database (GRID) provides valuable patient-care metrics such as turnaround time and wait time

#### Radiology administrators/business managers

- National benchmarks identify areas of opportunity for quality improvement
- Customizable marketing toolkit helps demonstrate excellence to stakeholders
- Feedback reports document performance and value for use in contracting

#### Hospital administrators

- NRDR reports and customizable marketing toolkit help document and advertise excellence
- Participation fee discounts are available for ACR Diagnostic Imaging Centers of Excellence™ and Breast Imaging Centers of Excellence

## Facility benefits

**Feedback:** Quarterly benchmarking reports facilitate comparison of facility performance to similar facilities regionally and nationwide.

**Data privacy:** NRDR protects patient, physician and institutional privacy. Patient data are anonymized, security standards are implemented for data transmission and storage, and for comparative performance data, only aggregated statistics are presented to protect facility privacy.

**Standardization:** Use of industry-standard data formats and defined data elements offer meaningful comparison and evaluation of processes and outcomes.

**Meaningful comparisons:** Registry participation includes a diverse range of facilities, allowing for comparisons between similar facilities — academic and community, hospital and freestanding, urban and rural — all over the country.

**Interoperability and minimal interruption to workflow:** NRDR aims to minimize participant data collection and submission efforts by supporting various automated data upload and transmission mechanisms. The ACR provides free software for the DIR Registry. We have a growing list of vendor and third-party software partners.

**Personalized assistance:** As a NRDR participant, you will receive personalized assistance as needed. Please contact us at **1-800-227-5463, ext. 3535** or complete a new support ticket at **[nrdrsupport.acr.org](http://nrdrsupport.acr.org)**.



**Learning communities:** Frequent webinars and NRDR User Group meetings facilitate learning from other facilities as participants share success stories and opportunities.

**Customizable marketing tools:** As a NRDR participant, you will receive an online NRDR marketing kit which includes customizable press releases and ads, as well as a special seal identifying you as a NRDR participant. Place this seal in a visible area of your practice and use these tools to document the quality of your services and demonstrate your facility's credentials as a quality leader.



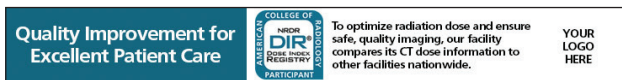
Customizable half-page ad



Customizable table top sign



Customizable small web banner ad



Customizable web banner ad

**Fulfills requirements:** DIR participation may help facilities meet various regulatory requirements, such as The Joint Commission requirement for dose monitoring and analysis, and submitting data to the CMS-approved Lung Cancer Screening Registry fulfills registry reporting requirements for Medicare low-dose CT lung cancer screening reimbursement.

**Improve Patient Care:** Improving quality of patient care and developing quality management programs are your goals — and ours. With NRDR, you can achieve these goals by benchmarking outcomes and process-of-care measures and targeting specific areas for improvement.

Sign up to participate today at [acr.org/nrdr](http://acr.org/nrdr) and receive critical measurement tools and important feedback you can't get anywhere else!

## Meeting MIPS requirements with the NRDR QCDR

The ACR NRDR is approved as a Qualified Clinical Data Registry (QCDR) by CMS. Under CMS regulations, eligible clinicians can meet MIPS quality reporting requirements by participating in a QCDR.

By using a QCDR to report on the required number of MIPS measures, physicians and group practices can potentially be better placed to obtain a positive adjustment and also avoid negative payment adjustments, which can result from nonreporting or underreporting.

### What are the benefits of using a QCDR?

- Supports both individual physicians and physician group practices in meeting MIPS requirements
- Manages submission of MIPS (claims-based) and NRDR (registry-based) QCDR measures to CMS
- Utilizes NRDR QCDR measures developed by the ACR, which may be more applicable to the care radiologists provide
- Provides direct assistance with compiling the needed data for quality improvement
- Provides feedback to registry participants at least quarterly
- Allows physicians to review and select measures to report prior to submission to CMS

### How to get started using NRDR as a QCDR

**Step 1:** Consider measures you could report to reach the required number of measures for eligible clinicians or physician group practices. Registry participants can report a combination of NRDR measures and MIPS measures for successful participation. To learn more about QCDR measures and reporting, visit [acr.org/qcdr](https://www.acr.org/qcdr).

**Step 2:** If you are interested in using any of the NRDR measures but are NOT currently submitting data to NRDR, register at [acr.org/nrdrr](https://www.acr.org/nrdrr) to start that process now.

If you or a facility at which you practice are currently submitting data to NRDR, monitor your data submission and select any additional registries for reporting MIPS measures.

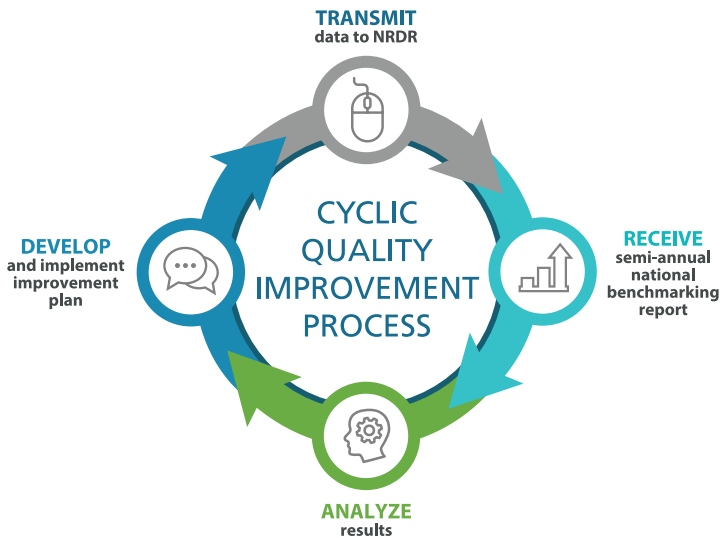
**Step 3:** Learn more about registration, data submission and report generation by viewing **How to Participate** at [acr.org/qcdr](https://www.acr.org/qcdr) or visiting [nrdrrsupport.acr.org](https://www.nrdrrsupport.acr.org) for detailed articles on NRDR and QCDR participation.



## How NRDR works

### Cyclic, data-driven improvement process

- Facility and physicians submit data
- Facility receives periodic national benchmarking reports
- Facility analyzes results
- Facility develops and implements improvement plan



### Getting started

To enroll, follow these four steps in order (visit [nrdrsupport.acr.org](http://nrdrsupport.acr.org) for more information).

1. Complete a New Facility Registration form
2. Submit a signed NRDR Participation Agreement
3. Submit payment
4. Submit data to selected databases

After completing the enrollment process, you will receive a confirmation email providing all the information needed to gain access to the registry (**for details on each registry, see pp. 7–13**).

### Compliance with HIPAA

To participate in NRDR, your facility must complete a participation agreement and submit a signed Business Associate Agreement, which provides assurance that protected health information will be appropriately safeguarded. The agreement is integrated into the online NRDR application process.

## NRDR fees

- Participating facilities pay a one-time registration fee of \$500
- Annual participation fees are scaled to the number of imaging physicians and sites
  - Number of imaging physicians is a proxy for practice size (see tables below)
  - Registration is required for each site of a multilocation facility
  - Fees cover participation in all registries described in this brochure
- NRDR annual fees for CMS MIPS reporting per physician/clinician: ACR members, \$199; nonmembers, \$1,299; other clinician, \$199; non-radiologist physician, \$550.

### Annual participation fee for facilities with five or fewer sites\*

Number of imaging physicians	1–5 sites
1–5	\$500
6–15	\$750
16–25	\$1,000
26–35	\$1,250
36–45	\$1,500
46–55	\$1,750
> 55	\$2,000

### Annual participation fee for facilities with six or more sites\*

Number of imaging physicians	Number of distinct sites or locations					
	6–15 sites	16–25 sites	26–35 sites	36–45 sites	46–55 sites	>55 sites
1–5	\$1,000	\$2,500	\$4,000	\$5,500	\$7,000	\$8,500
6–15	\$1,250	\$2,750	\$4,250	\$5,750	\$7,250	\$8,750
16–25	\$1,500	\$3,000	\$4,500	\$6,000	\$7,500	\$9,000
26–35	\$1,750	\$3,250	\$4,750	\$6,250	\$7,750	\$9,250
36–45	\$2,000	\$3,500	\$5,000	\$6,500	\$8,000	\$9,500
46–55	\$2,250	\$3,750	\$5,250	\$6,750	\$8,250	\$9,750
> 55	\$2,500	\$4,000	\$5,500	\$7,000	\$8,500	\$10,000

\*Annual participation fees are determined by the number of physical sites and contributing physicians. Participation in DIR and GRID provides **full registry access** to all NRDR registries at no additional cost. If you are not participating in either DIR or GRID, you can receive **limited single database access** for CTC, LCSR or NMD. To choose the most cost-effective solution, watch for fee calculations displayed during the application process.



### Fee waivers for DICOE facilities

Diagnostic Imaging Centers of Excellence (DICOE) participating in **any** registry receive a 3-year fee waiver.

To claim the fee waiver, apply your DICOE coupon during the NRDR application process. You will receive the coupon upon achieving ACR Accreditation.

Learn more at [acraccrreditation.org](http://acraccrreditation.org).





## CDS Registry (CDSR)

Use the CDS Registry to access image-ordering clinical decision support (CDS) data that correspond to Choosing Wisely® imaging recommendations, CMS Priority Clinical Areas and other imaging areas. Pinpoint areas in need of improvement, confirm best practices and identify ordering patterns for common exams.

### Benefits of CDSR

- Review an interactive report that offers filtering and drill-down functionality by a variety of attributes, including the imaging area, clinical indications as well as ordering department, practice and group, to help draw insights from the data
- Assess image-ordering adherence to ACR Appropriateness Criteria® — both facility-wide and by service line
- Gain insight into trends in imaging exam volume for a specific date range and over time
- Use the report to conduct an R-SCAN practice quality improvement project with referring colleagues



### CDSR performance measures, national benchmarks and comparisons reports

#### Data transmission

- Currently, CDSR participation is available for facilities that have CareSelect™ Imaging provided by the National Decision Support Company (NDSC)
- After registration and submission of the NRDR Participation Agreement and an NDSC data transfer authorization form, CDS transactional data stored in the NDSC database are transmitted to the ACR using an NDSC-developed web service. No additional IT support is required.

For more information about the CDS Registry, visit [acr.org/CDS-Registry](https://www.acr.org/CDS-Registry).



## Lung Cancer Screening Registry (LCSR)

Meet quality reporting requirements and receive Medicare CT lung cancer screening reimbursement with the CMS-approved ACR LCSR.

With a registry structure based on Lung-RADS®, LCSR collects data on patients, physicians and outcomes of screening. Data elements are available online at [acr.org/LCSRregistry](http://acr.org/LCSRregistry).

### Benefits of LCSR

- Monitor and demonstrate the quality of CT lung cancer screening in your practice through periodic feedback reports
- Compile quality information to help improve and refine lung cancer screening care over time at the national level
- Quickly and efficiently meet Medicare reporting requirements to receive Medicare CT lung cancer screening payment

### Data transmission

To submit your LCSR data, choose one of the following options:

1. Manual data entry form online
2. Flat file upload (simultaneous, multiple exams)
3. Direct from your software vendor or IT department via web-based data transmission (saves time and reduces the risk of errors)

For more information about each method, visit [ndrsupport.acr.org](http://ndrsupport.acr.org).

Measure	2016								
	Your Facility (999999)		All LCSR						
	Rate	Num-Den	Rate	Num-Den	Rate				
All Exams	14413	14413							
Appropriateness of screening by USPSTF criteria	89.86	(12952 / 14413)							
Smoking cessation offered	75.02	(10812 / 14413)							
Smoking cessation offered among current smokers	83.28	(7002 / 8408)							
Radiation exposure 1	Mean CTDIvol - Overall	3.25	(NA / 14413)						
	Mean CTDIvol - underweight (BMI <18.5)	2.32	(NA / 401)						
	Mean CTDIvol - normal (BMI of 18.5-24.9)	2.73	(NA / 3687)						
	Mean CTDIvol - overweight (BMI of 25-29.9)	3.02	(NA / 4995)						
	Mean CTDIvol - obese (BMI of 30 or greater)	3.94	(NA / 5166)						
Radiation exposure 2	Mean DLP - Overall	95.66	(NA / 14413)						
	Mean DLP - underweight (BMI <18.5)	74.26	(NA / 401)						
	Mean DLP - normal (BMI of 18.5-24.9)	82.39	(NA / 3687)						
	Mean DLP - overweight (BMI of 25-29.9)	93.54	(NA / 4995)						
	Mean DLP - obese (BMI of 30 or greater)	108.79	(NA / 5166)						
Measure	2015								
	Your Facility (999999)		Rural		Community		East North Central Division		
	Rate	Num-Den	Rate	Num-Den	Rate	Num-Den	Rate	Num-Den	
All Exams	8913	8913	13400	13400	24166	24166	13646	13646	
Appropriateness of screening by USPSTF criteria	88.13	(7855 / 8913)	88.19	(11817 / 13400)	88.92	(21489 / 24166)	87.85	(11988 / 13646)	
Smoking cessation offered	68.87	(6138 / 8913)	65.29	(8749 / 13400)	65.92	(15931 / 24166)	72.21	(9854 / 13646)	
Smoking cessation offered among current smokers	77.96	(3926 / 5036)	74.44	(5671 / 7618)	76.51	(10653 / 13924)	81.32	(6316 / 7767)	
Radiation exposure 1	Mean CTDIvol - Overall	3.39	(NA / 8913)	3.70	(NA / 13400)	3.56	(NA / 24166)	3.27	(NA / 13646)
	Mean CTDIvol - underweight (BMI <18.5)	2.57	(NA / 239)	2.37	(NA / 356)	2.81	(NA / 703)	2.38	(NA / 347)
	Mean CTDIvol - normal (BMI of 18.5-24.9)	2.88	(NA / 2351)	3.14	(NA / 3507)	2.93	(NA / 6261)	2.85	(NA / 3586)
	Mean CTDIvol - overweight (BMI of 25-29.9)	3.19	(NA / 2968)	3.30	(NA / 4452)	3.20	(NA / 7866)	3.10	(NA / 4626)



## National Mammography Database (NMD)

NMD is a quality improvement tool that leverages the data already collected under Mammography Quality Standards Act federal mandate and generates reports that exceed the FDA's audit data collection requirements.

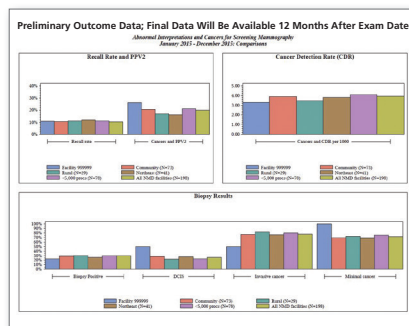
NMD 3.0 is now available based on the *ACR BI-RADS® Atlas* (5th edition). For NMD-Certified™ Software Partners, visit [acr.org/nmd](http://acr.org/nmd).

### Benefits of NMD

- Semiannual audit data at the facility and physician level, accompanied by benchmarks and comparisons to peer facilities
- Preliminary reports on exams with less than 365 days of follow-up to facilitate timely corrections and modifications (see sample reports below)
- Certified as a PQI project for ABR MOC programs

### NMD Star Status Program

The NMD Star Status Program rewards NMD participants based on three tiers of screening exam data. Gain recognition for completion of facility reporting outcome data and receive a financial incentive toward your NRDR annual participation fee. Access your NMD Star Status evaluation in the annual Q3 NMD Feedback Report.



### Data transmission

After registration and submission of the participation agreement:

- Ask your mammography reporting software vendor for an NMD-certified version of your software. If you have a proprietary software tool, contact us to get certified.
- Designate a staff person to periodically upload data to the registry using the one-click upload functionality.

### web-based data submission now available



## Dose Index Registry (DIR)

Monitor CT and fluoroscopy dose index levels by comparing your dose indices to similar facilities regionally and nationwide.

### Benefits of DIR

- Size-specific dose index measures for fair and meaningful comparison
- Quarterly DIR reports to support protocol review (see sample reports below)
- Identification of protocols that may need analysis or modification
- Facility reports at any time to identify trends and outliers
- Satisfies upcoming Joint Commission requirements for radiation dose monitoring
- Fulfill MIPS reporting requirements and possibly complete ABR PQI project
- Use DIR Leapfrog interactive report to assist when reporting to Leapfrog



### DIR Interactive Reports

Analyze DIR measure data using customized criteria with the new DIR Interactive Reports. These reports allow you to identify outliers, find missing data and gaps in data transmissions, and highlight other patterns for further investigation.

### Data transmission

- After registration and submission of the participation agreement, download the free software tool to automatically receive, anonymize and securely transfer dose index data to the registry (beyond this initial setup, only a small amount of manual intervention is required)
- Data may be sent from new and old scanners as well as PACS
- Send dose information and localizer images to DIR to facilitate size adjustment of dose indices
- Contact ACR support staff to guide you through the software installation process
- After data transmission, map procedure names to a standard lexicon using an online interface

### DIR-certified software partners

An alternative to sending data directly from the scanner or PACS is to use a DIR-certified software partner. For a current list of certified partners, visit [acr.org/DIR](https://www.acr.org/DIR).

**NEW** Pilot Program

NRDR is now accepting digital radiography (DR) and nuclear medicine (NM) exams as part of a pilot effort within the Dose Index Registry (DIR-DR/NM). This program will allow sites to compare their site-specific dose indices for DR/NM exams to regional and national values. Sites that wish to participate in the pilot may register for the DIR in the NRDR portal. Once registered, data will be collected, masked and transmitted to the ACR through the common TRIAD® application provided to sites by ACR for all DIR modules. Facilities will eventually receive quarterly feedback reports and have access to on-line interactive reports comparing their DR/NM dose indices to registry standards. These reports are currently in development with a targeted time frame for release at the end of 2020.





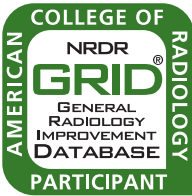
## CT Colonography Registry (CTC)

CTC allows your facility to benchmark its performance against peers for quality improvement in three process measures and three outcome measures, including:

- Rate of adequacy of diagnostic and screening CTC examination
- Rate of colonic perforation
- True positive rate

### Benefits of CTC

- Semiannual reports to document data-driven quality improvement
- Meets the criteria of a certified PQI project for ABR MOC programs
- Web-based data transmission now available



## General Radiology Improvement Database (GRID)

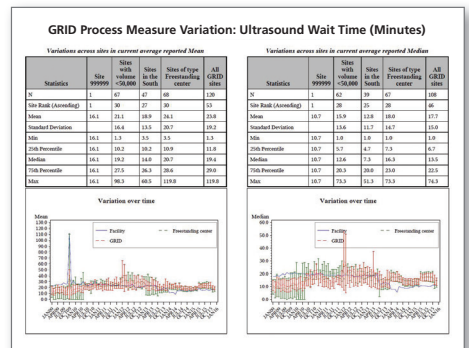
GRID can help your facility establish benchmarks for quality improvement by collecting general practice radiology measures and comparing them to similar facilities.

### Benefits of GRID

- Semiannual comparison reports on turnaround times, patient wait times, incident rates, and many other process and outcome measures
- Certified as a PQI project for ABR MOC programs
- Documents quality of performance to competitors in similar markets for contract negotiations (see sample reports below)
- Fulfill MIPS reporting requirements using exam-level data

**GRID Outcome Measures and Incident Rates Summary**  
(FOR GOLD LEVEL PARTICIPANTS ONLY)

Measure	Site 99999	Sites with volume >50,000	Sites in the South	Sites of type Free-standing center	AB GRD sites
Non-diagnostic liver biopsy (Percent)	0.0	0.0	0.0	0.0	0.0
Non-diagnostic lung biopsy (Percent)	0.0	0.0	0.0	0.0	0.0
Lung biopsies resulting in pneumothorax requiring chest tube (Percent)	0.0	2.5	15.1	0.0	0.0
Extravasations - IOPCM (percent)	0.0	0.0	0.0	0.0	0.0
Extravasations - LOCM (percent)	0.1	0.0	0.0	0.0	0.1
Non-concordant findings - stereotactic breast biopsy (Percent)**	0.0	0.0	0.0	0.0	0.0
Magnet incidents per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Cases of NSF per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Non-NSF GI reaction per 100,000 exams	21.1	0.0	0.0	0.0	0.0
Reactions for patients with implanted devices per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Attended falls in radiology department per 100,000 exams	1.7	0.0	0.0	0.0	0.1
Unattended falls in radiology department per 100,000 exams	1.3	0.0	0.0	0.0	0.0
Deaths in the radiology department per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Cath Meas in radiology department per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Nonocclusal infections in radiology department per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Wrong exams per 100,000 exams	1.0	0.0	0.0	0.0	0.0
Exams on wrong patients per 100,000 exams	0.0	0.0	0.0	0.0	0.0
Exams on wrong sites per 100,000 exams	0.0	0.0	0.0	0.0	0.0



## Data transmission

- Submit facility and physician data to GRID via manual data entry or data file upload. Or submit exam-level data via web-based data transmission.
- After registration and submission of the NRDR Participation Agreement, designate a person in your practice to enter data into forms or create data files that meet the specifications of electronic upload
- Work with your radiology information system, reporting or workflow tool vendors to generate queries on data at your facility
- For more information, visit the NRDR Solution Center at [nrdrsupport.acr.org](http://nrdrsupport.acr.org)

### GRID 2.0

GRID 2.0 introduces 11 new measures which will collect data based on rich clinical information in the radiology report. Many of these measures may potentially be reportable for the CMS Quality Payment Program (QPP) in 2020.

- Use of Structured Reporting in Prostate MRI
- Follow-up Recommendations for Incidental Findings of Simple-Appearing Cystic Renal Masses
- Surveillance Imaging for Liver Nodules < 10 mm in Patients at Risk for Hepatocellular Carcinoma (HCC)
- Use of Quantitative Criteria for Oncologic FDG PET Imaging
- Use of Low Dose Cranial CT or MRI Examinations for Patients with Ventricular Shunts
- Use of Low Dose CT Studies for Adults with Suspicion of Urolithiasis or Nephrolithiasis
- Recommended Follow-up for Imaging Findings
- Appropriateness: Follow-up Computed Tomography (CT) Imaging for Incidentally-Detected Pulmonary Nodules According to Recommended Guidelines
- Appropriate Follow-up Imaging for Benign Adrenal Masses
- Interpretation of CT Pulmonary Angiography (CTPA) for Pulmonary Embolism (PE)
- Incidental Coronary Artery Calcification Reported on Chest CT

Measure data is exam level, and transmission will be the same as for the report turnaround time measures, i.g. flat file upload or via web-based data transmission.

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