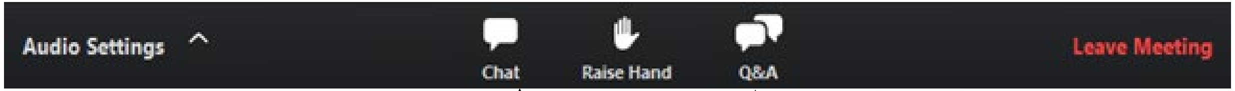
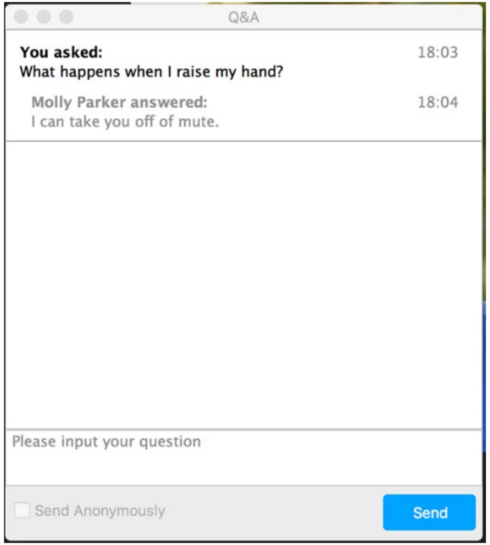
Welcome to the meeting. We will begin shortly.


Audio Settings
Chat
Raise Hand
Q&A
Leave Meeting

Type a comment/question in Q&A (only seen by organizers)

Type a comment/question in the chat (can be seen by all)



You asked: 18:03
What happens when I raise my hand?

Molly Parker answered: 18:04
I can take you off of mute.

Please input your question

☐ Send Anonymously

Questions and comments can be entered in the Q&A field

CTC Training Webinar Series

Part 1: How to Benchmark Your Practice and Help Advance the Field

NRDR
CTC™
CT COLONOGRAPHY REGISTRY
AMERICAN COLLEGE OF RADIOLOGY

Learning Objectives

1. Determine how participating in the CTC registry helps the radiology community learn from each other, benchmark our practices, and collect data for advocacy.
2. Identify key data elements and how they populate CTC reports and quality measures.
3. Recall knowledge from a case example to begin to operationalize CTC registry participation at your institution.

Moderator

Zach Smith

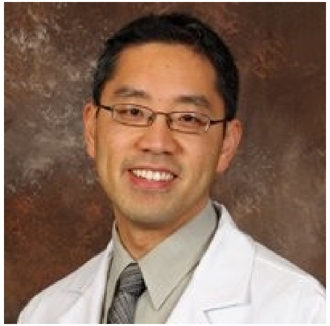
Sr. Quality Programs Assistant, ACR

Speakers

Courtney C. Moreno, MD

Chair, CTC Registry Committee

Associate Professor of Radiology, Emory University School of Medicine



Kevin Chang, MD, FACR, FSAR

Director of MRI, Dept. of Radiology, Boston University Medical Center

Associate Professor of Radiology, Boston University School of Medicine

Adj. Associate Professor of Diagnostic Imaging, The Warren Alpert Medical School of Brown University

Speakers

Vasantha Vasan, MD

Associate Professor of Radiology, Abdominal Imaging Division, UT Southwestern Medical Center

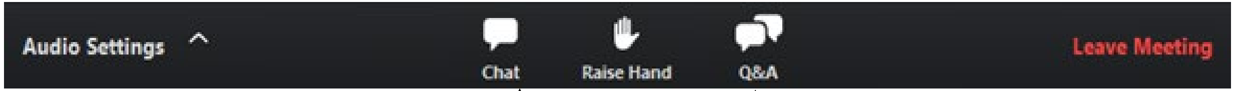
Thomas Law, RN

Patient Navigator, UT Southwestern Medical Center

Disclosures

- None

Welcome to the meeting. We will begin shortly.


Audio Settings
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Q&A
Leave Meeting

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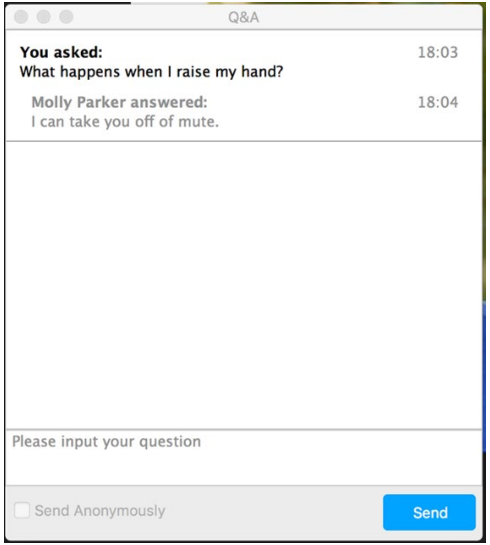
Type a comment/question in the chat (can be seen by all)



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What happens when I raise my hand?

Molly Parker answered: 18:04
I can take you off of mute.

Please input your question

☐ Send Anonymously

Questions and comments can be entered in the Q&A field

Attendee Demographics – Poll 1

What is your role at your institution?

A. Radiologist
B. Physician
C. Technologist
D. Administrator
E. Other

Attendee Demographics – Poll 2

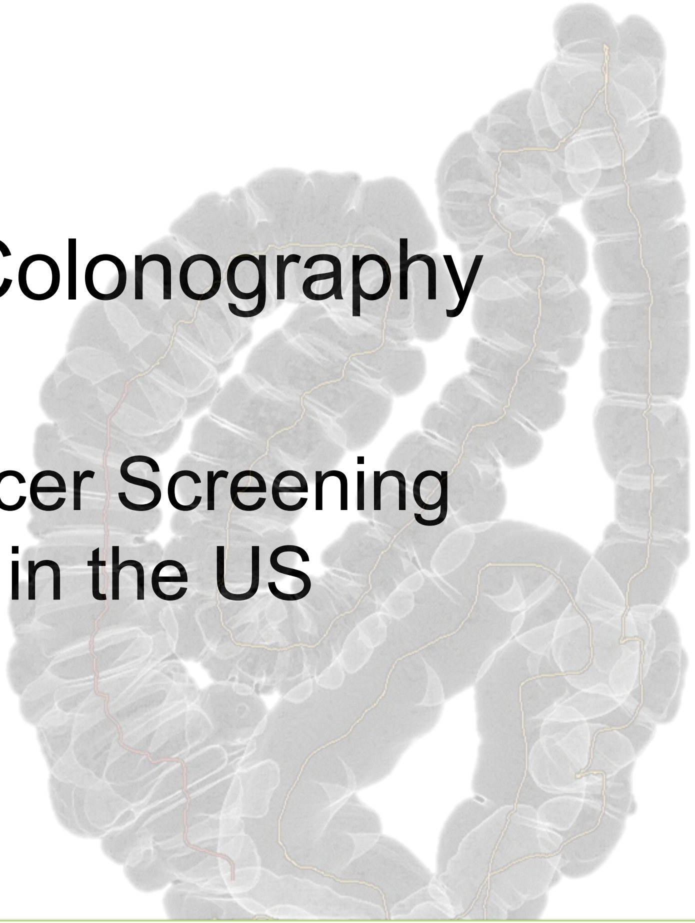
What practice setting do you work in?

A. Private practice

B. Academic institution

C. Community hospital

D. Other



Current State of CT Colonography

Current Colorectal Cancer Screening Recommendations in the US

American Cancer Society 2018 Recommended Screening Options

Average risk individuals should be screened from age 45 to 75-85.

Prevention Tests:
detect polyps & cancer

- colonoscopy every 10 years (OC)
- CT colonography every 5 years (CTC)
- flexible sigmoidoscopy every 5 years
- ~~double contrast barium enema every 5 years~~

Detection Tests:
detect cancer

- fecal occult blood test (gFOBT) every year
- fecal immunochemical test (FIT) every year
- stool DNA test (sDNA), every 3 years

USPSTF 2016 Screening Strategies

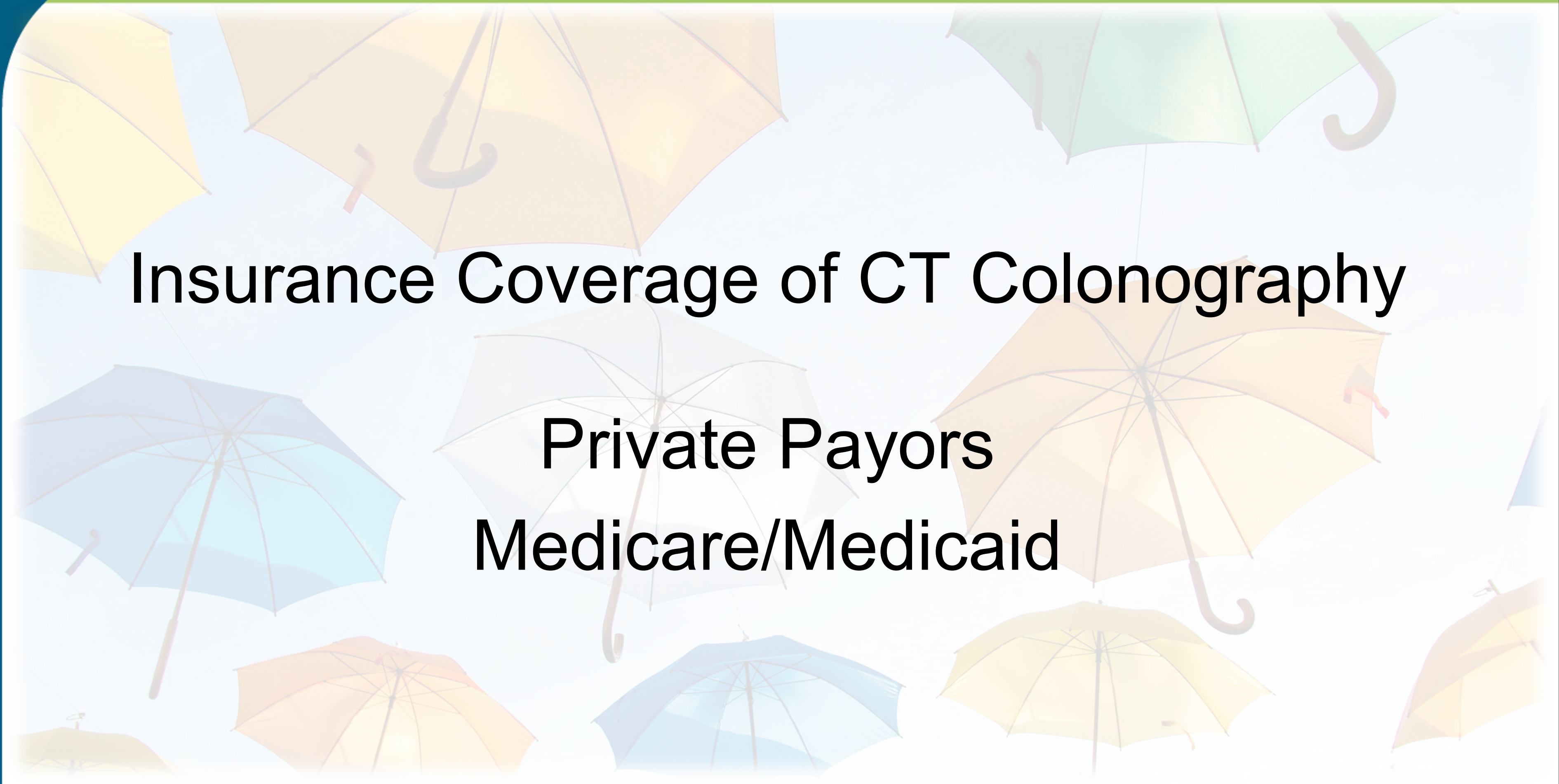
Screening Method	**Frequency**
Stool-Based Tests	
gFOBT	Every year
FIT	Every year
FIT-DNA	Every 1 or 3 y
Direct Visualization Tests	
Colonoscopy	Every 10 y
CT Colonography	Every 5 y
Flexible sigmoidoscopy	Every 5 y
Flexible sigmoidoscopy with FIT	Flex sig every 10 y plus FIT every y

USPSTF 2016 Final Recommendation

Population	Recommendation	Grade
Adults aged **50 to 75 years**	The USPSTF recommends screening for colorectal cancer starting at age 50 years and continuing until age 75 years. The risks and benefits of different screening methods vary. See the Clinical Considerations section and the Table for details about screening strategies.	A
Adults aged **76 to 85 years**	The decision to screen for colorectal cancer in adults aged 76 to 85 years should be an individual one, taking into account the patient's overall health and prior screening history. •Adults in this age group who have never been screened for colorectal cancer are more likely to benefit. •Screening would be most appropriate among adults who 1) are healthy enough to undergo treatment if colorectal cancer is detected and 2) do not have comorbid conditions that would significantly limit their life expectancy.	C

USPSTF 2020 Draft Recommendation

Population	Recommendation	Grade
Adults aged **50 to 75 years**	The USPSTF recommends screening for colorectal cancer in all adults ages 50 to 75 years. See the "Practice Considerations" section and Table 1 for details about screening strategies.	A
Adults ages **45 to 49 years**	The USPSTF recommends screening for colorectal cancer in adults ages 45 to 49 years. See the "Practice Considerations" section and Table 1 for details about screening strategies.	B
Adults aged **76 to 85 years**	The USPSTF recommends that clinicians selectively offer screening for colorectal cancer in adults ages 76 to 85 years. Evidence indicates that the net benefit of screening all persons in this age group is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the patient's overall health and prior screening history.	C



Insurance Coverage of CT Colonography

Private Payors

Medicare/Medicaid

Private Payor Covered Indications

- Screening
    - Affordable Care Act (ACA) requires private insurers to fully cover USPSTF-recommended screening options including CT Colonography
    - Most payors covered screening even prior to ACA including the top 5: United, Anthem, Aetna, Cigna, most BCBS
- Incomplete colonoscopy
- Contraindication to colonoscopy

Medicare/Medicaid Covered Indications

- Incomplete colonoscopy:
  - Can be performed on the same day for any reason except *inadequate prep*
- Contraindication to colonoscopy
  - Anticoagulation
  - Difficulty with prior colonoscopy
  - Difficulty with or high risk for sedation

ACR Practice Parameters for CTC

- Technical Guidelines
  - Colonic Preparation and Tagging preferred
  - Colonic Insufflation (CO_2 or Room Air)
  - Low Radiation Dose 16+ slice MDCT ($CTDI_{vol}$ < 5mGy)
  - At least 2 patient positions (each segment distended in at least 1 position)
  - Full colonic coverage
- Interpretation
  - 2D & 3D workstation recons
  - C-RADS (Colonic & Extracolonic Findings)

Registry Participation – Poll 1

What is your current participation with the CTC?

A. Enrolled and submitting data
B. Enrolled, but never started submitting data
C. Enrolled and previously submitted data, but stopped
D. Not enrolled

Registry Participation – Poll 2

Which other NRDR registries does your institution participate in?

A. General Radiology Improvement Database (GRID)
B. National Mammography Database (NMD)
C. Dose Index Registry (DIR)
D. Lung Cancer Screening Registry (LCSR)
E. I don’t participate in any other registries

Data Collected

Simplified December 2020

- Demographic information
  - Age, gender, race, ethnicity
- Exam-related
  - Screening or diagnostic?
  - Incomplete colonoscopy?
  - Supine, prone, and/or decubitus?

Polyp Data

Simplified December 2020

- At least one polyp ≥ 10 mm?
- Was polyp confirmed at optical colonoscopy or surgery?
- Option to indicate that colonoscopy not performed or unknown (outside referral)
- Indicate histology of confirmed polyp(s)

Outcome Measures

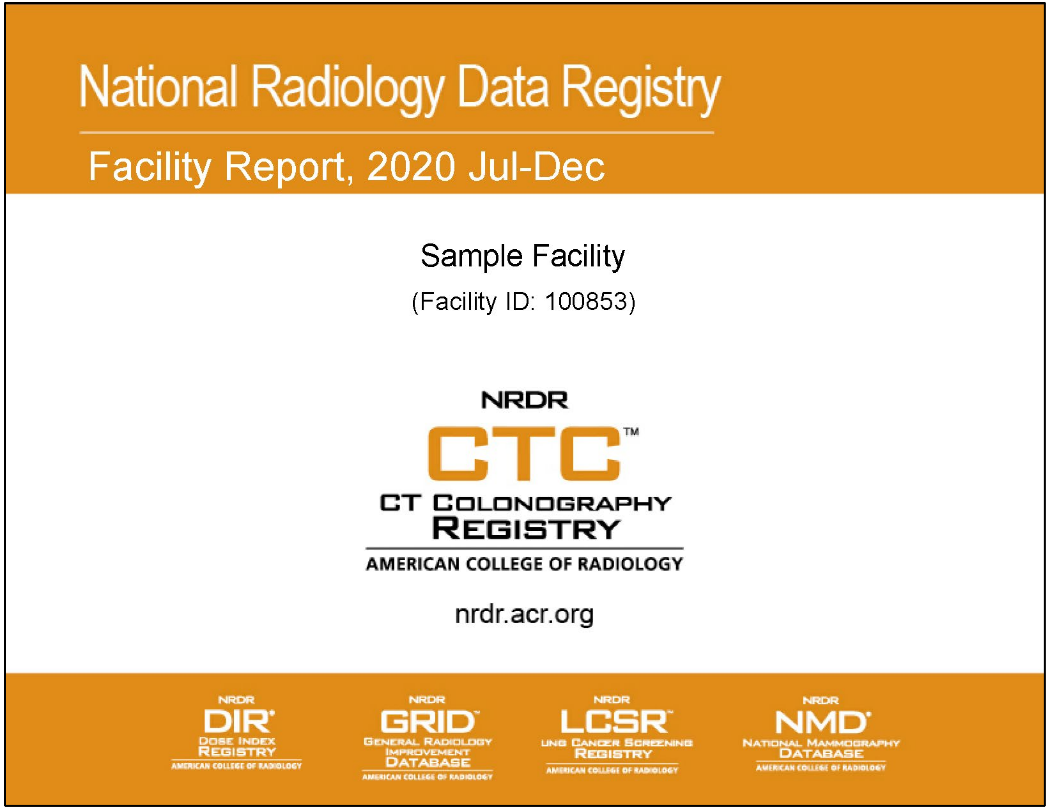
Tabulated by ACR & Reported to You

- Rate of colonic perforation
- True positive rate
- Clinically significant extracolonic findings

Benefits of Participation

- Semi-annual reports from ACR
- Free access to registry data & ACR analyst
- Satisfies ABR MOC part 4 requirement
- Marketing toolkit

Semi-Annual Reports



National Radiology Data Registry

Facility Report, 2020 Jul-Dec

Sample Facility

(Facility ID: 100853)

NRDR
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NRDR DIR® Dose Index Registry AMERICAN COLLEGE OF RADIOLOGY

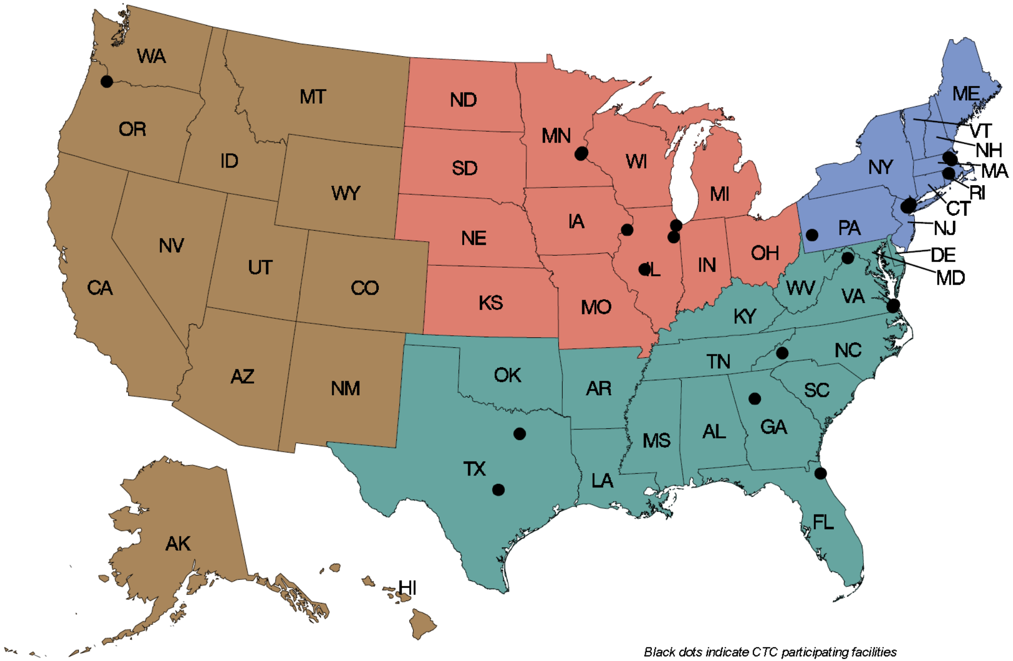
NRDR GRID™ General Radiology Improvement Database AMERICAN COLLEGE OF RADIOLOGY

NRDR LCSR™ UNG Cancer Screening Registry AMERICAN COLLEGE OF RADIOLOGY

NRDR NMD® National Mammography Database AMERICAN COLLEGE OF RADIOLOGY

Semi-Annual Reports

CT Colonography Registry
Jul 2020 - Dec 2020


WA
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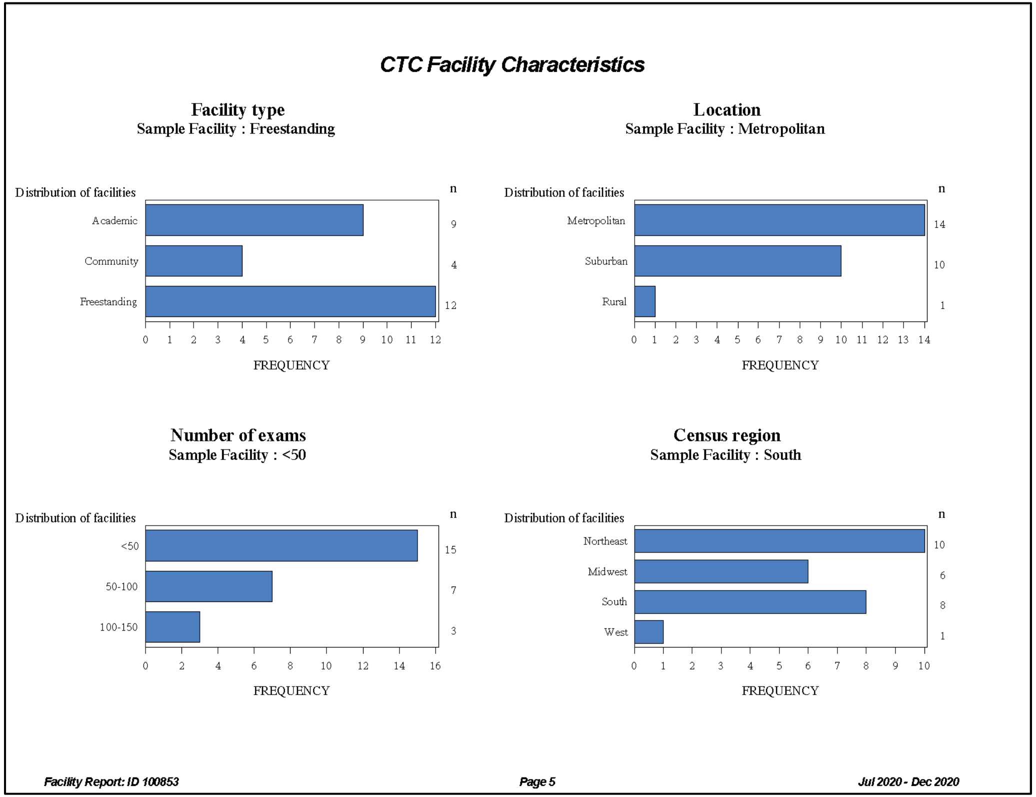
IN
OH
OK
TX
AR
LA
MS
AL
TN
KY
GA
FL
SC
NC
VA
WV
PA
NY
ME
VT
NH
MA
RI
CT
NJ
DE
MD

Black dots indicate CTC participating facilities

Census Region 🟦 Northeast 🟥 Midwest 🟩 South 🟫 West

Semi-Annual Reports



CTC Facility Characteristics

Facility type
Sample Facility : Freestanding

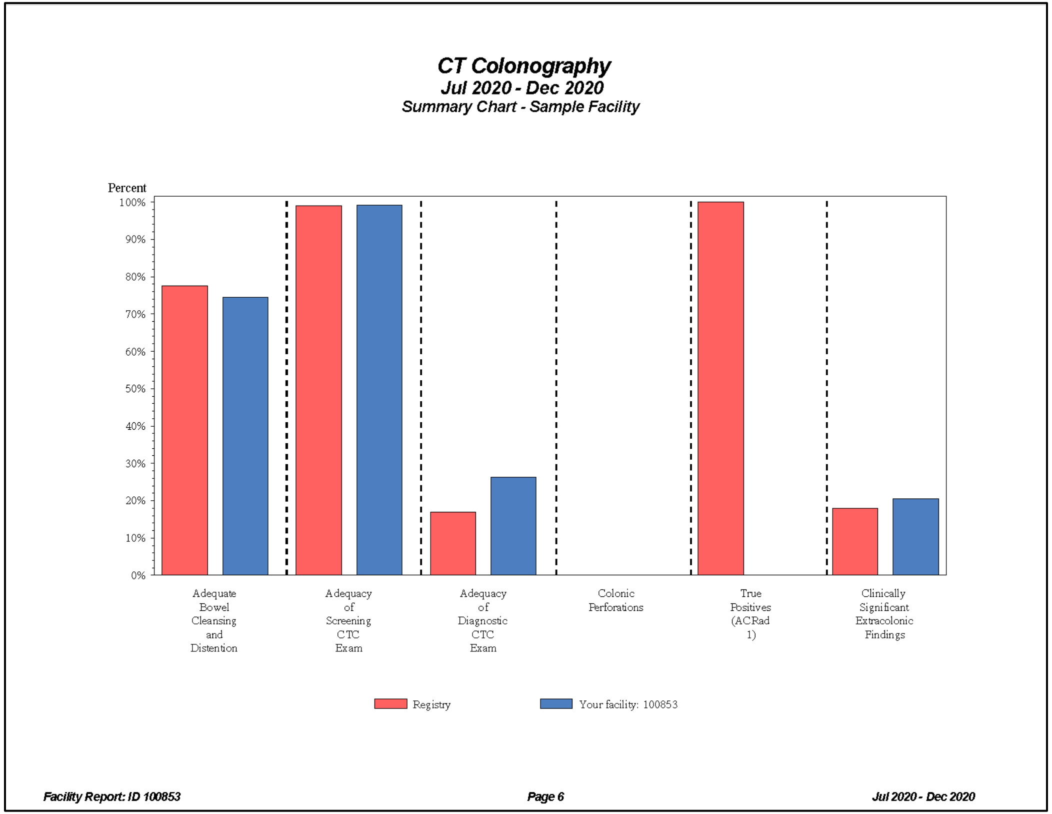
Location
Sample Facility : Metropolitan

Number of exams
Sample Facility : <50

Census region
Sample Facility : South

Facility Report: ID 100853 *Page 5* *Jul 2020 - Dec 2020*

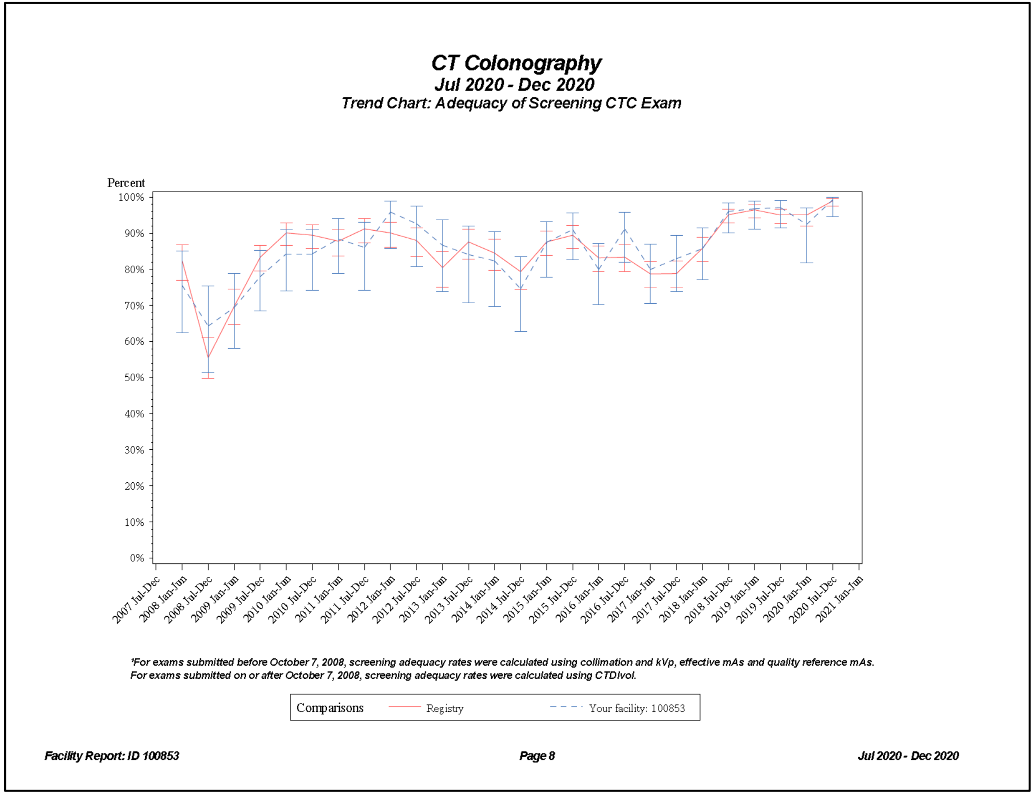
Semi-Annual Reports



CT Colonography
Jul 2020 - Dec 2020
Summary Chart - Sample Facility

Facility Report: ID 100853 **Page 6** **Jul 2020 - Dec 2020**

Semi-Annual Reports



CT Colonography

Jul 2020 - Dec 2020

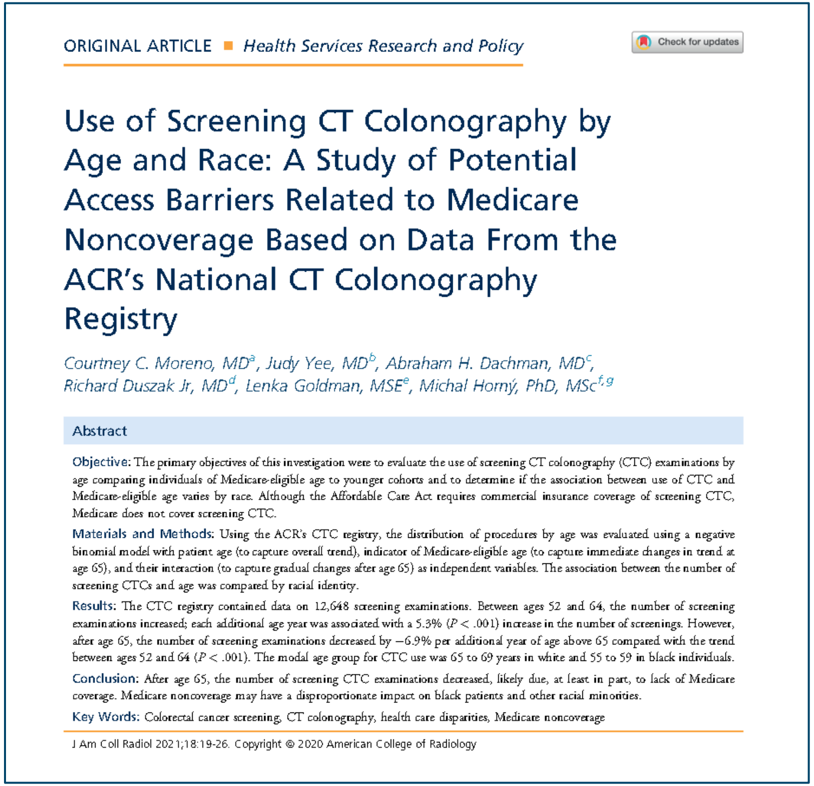
Trend Chart: Adequacy of Screening CTC Exam

[1] For exams submitted before October 7, 2008, screening adequacy rates were calculated using collimation and kVp, effective mAs and quality reference mAs. For exams submitted on or after October 7, 2008, screening adequacy rates were calculated using CTDIvol.

Comparisons	Registry	Your facility: 100853

Facility Report: ID 100853 ***Page 8*** ***Jul 2020 - Dec 2020***

FREE Access to Registry Data, ACR Analyst



ORIGINAL ARTICLE ■ *Health Services Research and Policy*

Check for updates

Use of Screening CT Colonography by Age and Race: A Study of Potential Access Barriers Related to Medicare Noncoverage Based on Data From the ACR's National CT Colonography Registry

Courtney C. Moreno, MD[a], Judy Yee, MD[b], Abraham H. Dachman, MD[c], Richard Duszak Jr, MD[d], Lenka Goldman, MSE[e], Michal Horný, PhD, MSc[f,g]

Abstract

Objective: The primary objectives of this investigation were to evaluate the use of screening CT colonography (CTC) examinations by age comparing individuals of Medicare-eligible age to younger cohorts and to determine if the association between use of CTC and Medicare-eligible age varies by race. Although the Affordable Care Act requires commercial insurance coverage of screening CTC, Medicare does not cover screening CTC.

Materials and Methods: Using the ACR's CTC registry, the distribution of procedures by age was evaluated using a negative binomial model with patient age (to capture overall trend), indicator of Medicare-eligible age (to capture immediate changes in trend at age 65), and their interaction (to capture gradual changes after age 65) as independent variables. The association between the number of screening CTCs and age was compared by racial identity.

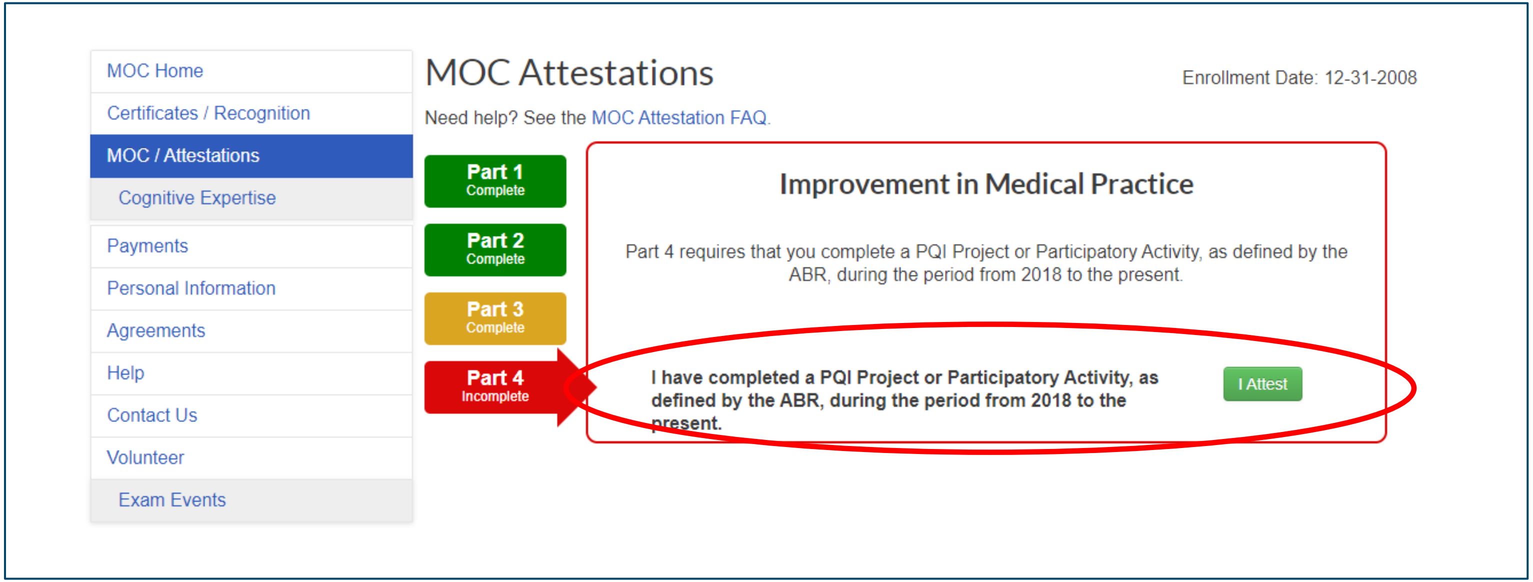
Results: The CTC registry contained data on 12,648 screening examinations. Between ages 52 and 64, the number of screening examinations increased; each additional age year was associated with a 5.3% ($P < .001$) increase in the number of screenings. However, after age 65, the number of screening examinations decreased by −6.9% per additional year of age above 65 compared with the trend between ages 52 and 64 ($P < .001$). The modal age group for CTC use was 65 to 69 years in white and 55 to 59 in black individuals.

Conclusion: After age 65, the number of screening CTC examinations decreased, likely due, at least in part, to lack of Medicare coverage. Medicare noncoverage may have a disproportionate impact on black patients and other racial minorities.

Key Words: Colorectal cancer screening, CT colonography, health care disparities, Medicare noncoverage

J Am Coll Radiol 2021;18:19-26. Copyright © 2020 American College of Radiology

Satisfies ABR MOC Part 4 Requirement



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MOC Attestations

Enrollment Date: 12-31-2008

Need help? See the MOC Attestation FAQ.

Part 1
Complete
Part 2
Complete
Part 3
Complete
Part 4
Incomplete

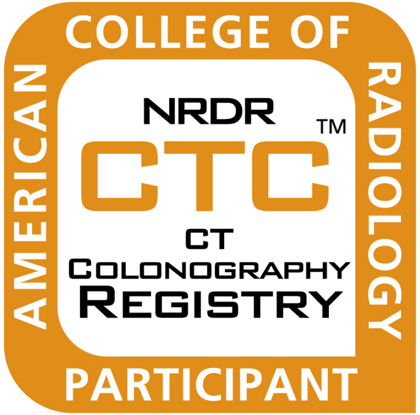
Improvement in Medical Practice

Part 4 requires that you complete a PQI Project or Participatory Activity, as defined by the ABR, during the period from 2018 to the present.

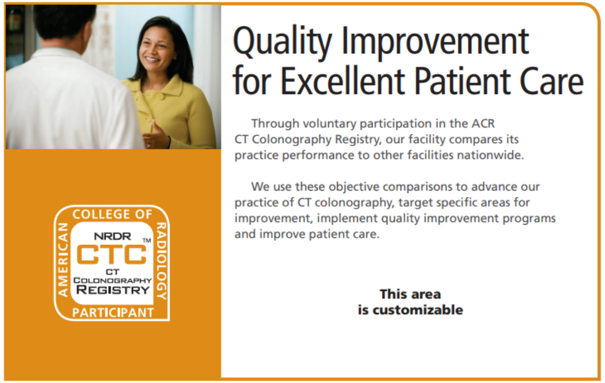
I have completed a PQI Project or Participatory Activity, as defined by the ABR, during the period from 2018 to the present.

Source: theabr.org

Marketing Toolkit



Participant seal files for use on reports, bills, letterhead, website, etc.

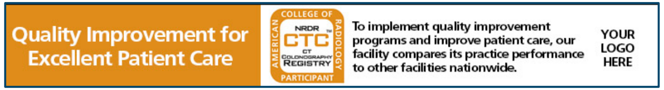


Quality Improvement for Excellent Patient Care

Through voluntary participation in the ACR CT Colonography Registry, our facility compares its practice performance to other facilities nationwide.

We use these objective comparisons to advance our practice of CT colonography, target specific areas for improvement, implement quality improvement programs and improve patient care.

This area is customizable

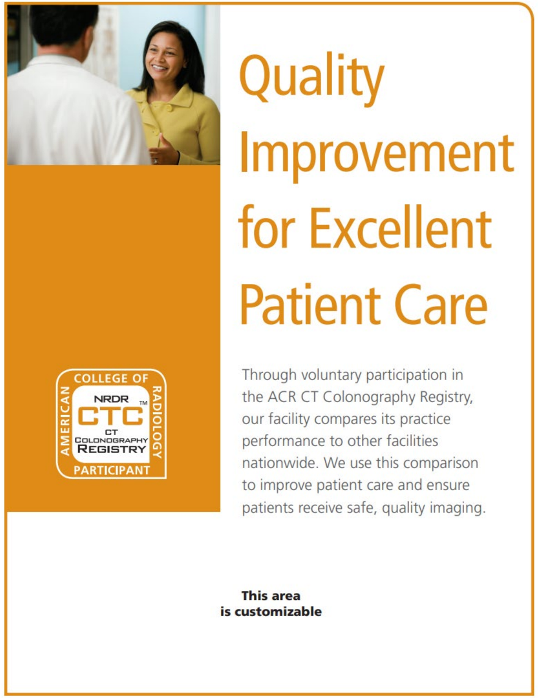


Quality Improvement for Excellent Patient Care

To implement quality improvement programs and improve patient care, our facility compares its practice performance to other facilities nationwide.

YOUR LOGO HERE

Customizable ad templates



Quality Improvement for Excellent Patient Care

Through voluntary participation in the ACR CT Colonography Registry, our facility compares its practice performance to other facilities nationwide. We use this comparison to improve patient care and ensure patients receive safe, quality imaging.

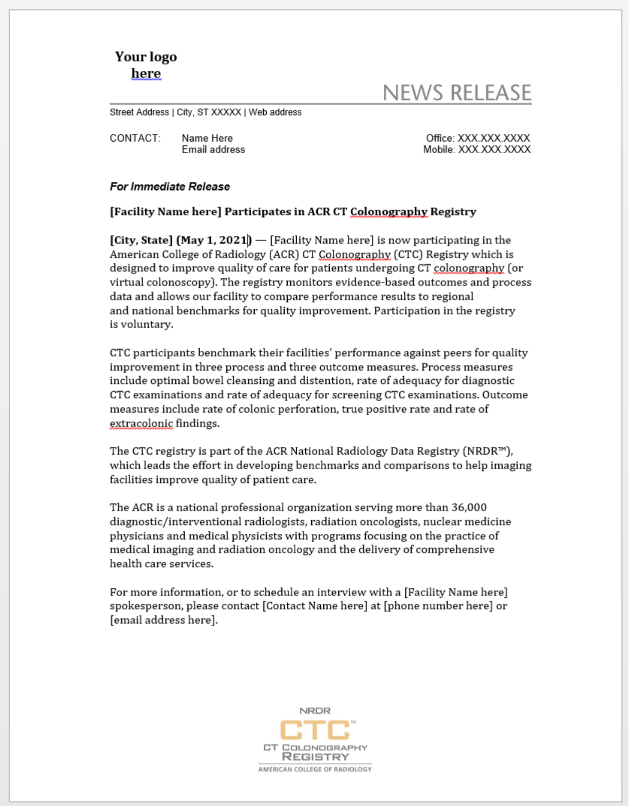
This area is customizable

Customizable table top signs

Source: acr.org/CTCtoolkit

Marketing Toolkit

Customizable press release



Your logo here

NEWS RELEASE

Street Address | City, ST XXXXX | Web address

CONTACT: Name Here
Email address
Office: XXX.XXX.XXXX
Mobile: XXX.XXX.XXXX

For Immediate Release

[Facility Name here] Participates in ACR CT Colonography Registry

[City, State] (May 1, 2021) — [Facility Name here] is now participating in the American College of Radiology (ACR) CT Colonography (CTC) Registry which is designed to improve quality of care for patients undergoing CT colonography (or virtual colonoscopy). The registry monitors evidence-based outcomes and process data and allows our facility to compare performance results to regional and national benchmarks for quality improvement. Participation in the registry is voluntary.

CTC participants benchmark their facilities' performance against peers for quality improvement in three process and three outcome measures. Process measures include optimal bowel cleansing and distention, rate of adequacy for diagnostic CTC examinations and rate of adequacy for screening CTC examinations. Outcome measures include rate of colonic perforation, true positive rate and rate of extracolonic findings.

The CTC registry is part of the ACR National Radiology Data Registry (NRDR™), which leads the effort in developing benchmarks and comparisons to help imaging facilities improve quality of patient care.

The ACR is a national professional organization serving more than 36,000 diagnostic/interventional radiologists, radiation oncologists, nuclear medicine physicians and medical physicists with programs focusing on the practice of medical imaging and radiation oncology and the delivery of comprehensive health care services.

For more information, or to schedule an interview with a [Facility Name here] spokesperson, please contact [Contact Name here] at [phone number here] or [email address here].

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Source: acr.org/CTCtoolkit

Participation Cost

- FREE if your site participates in ACR's Dose Index Registry (DIR) or General Radiology Improvement Database (GRID)
- A la carte pricing based on # of submitting radiologists & sites
  - $500 per year 1-5 radiologists, 1-5 sites

CTC practice at UT Southwestern

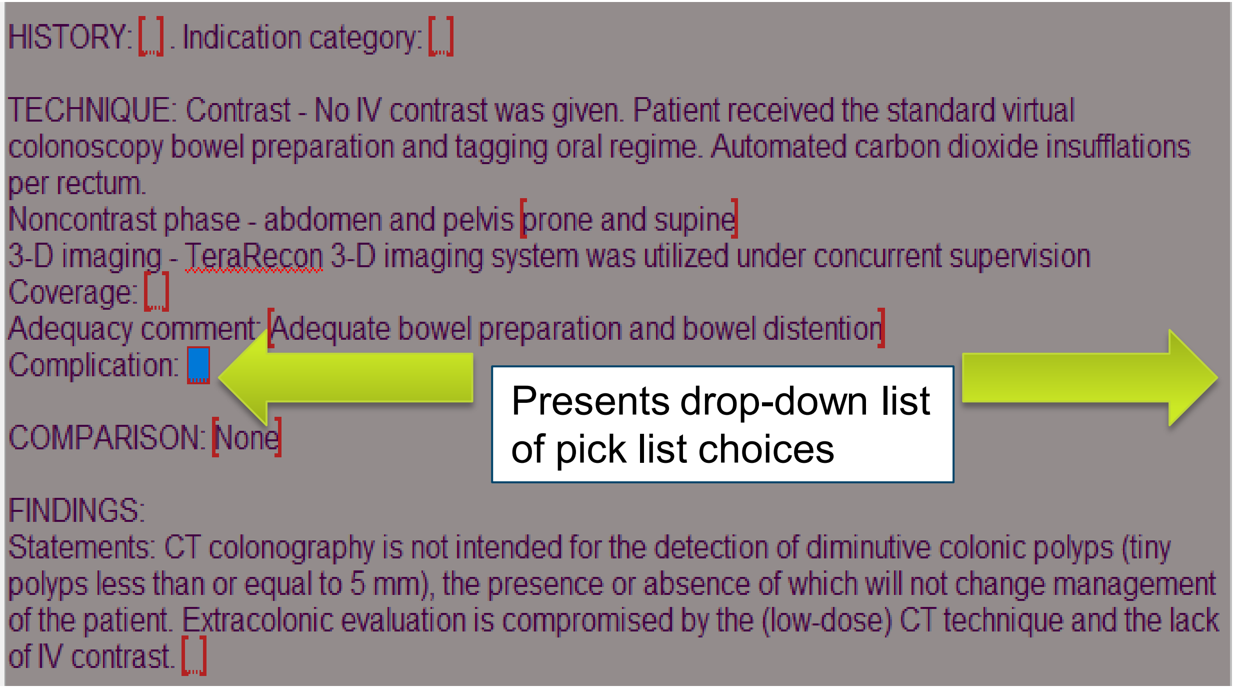
- Clements University Hospital is an academic health center in Dallas, Texas
- Wide range of cases from screening to complex inpatient cases awaiting transplant
- Volume is approx. 2 to 3 cases/week
- 4 radiologists trained to read CTC

Team Approach

- Partnered with our gastroenterologists
- Share a nurse navigator who helps scheduling and educating patients on bowel preps for both traditional colonoscopy and CTC
- Nurse navigator enters CTC data into the NRDR

CTC Report Template

- Standardizes the report
- Simplifies data extraction



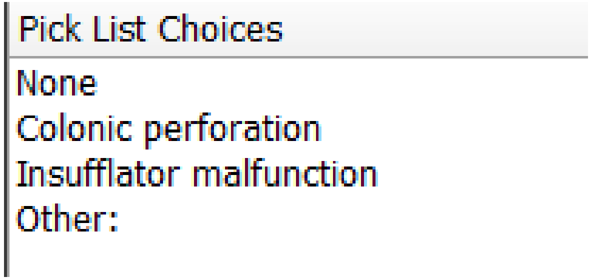
HISTORY: [...] . Indication category: [...]

TECHNIQUE: Contrast - No IV contrast was given. Patient received the standard virtual colonoscopy bowel preparation and tagging oral regime. Automated carbon dioxide insufflations per rectum.
Noncontrast phase - abdomen and pelvis [prone and supine]
3-D imaging - TeraRecon 3-D imaging system was utilized under concurrent supervision
Coverage: [...]
Adequacy comment: [Adequate bowel preparation and bowel distention]
Complication: [...]

COMPARISON: [None]

FINDINGS:
Statements: CT colonography is not intended for the detection of diminutive colonic polyps (tiny polyps less than or equal to 5 mm), the presence or absence of which will not change management of the patient. Extracolonic evaluation is compromised by the (low-dose) CT technique and the lack of IV contrast. [...]

Presents drop-down list of pick list choices

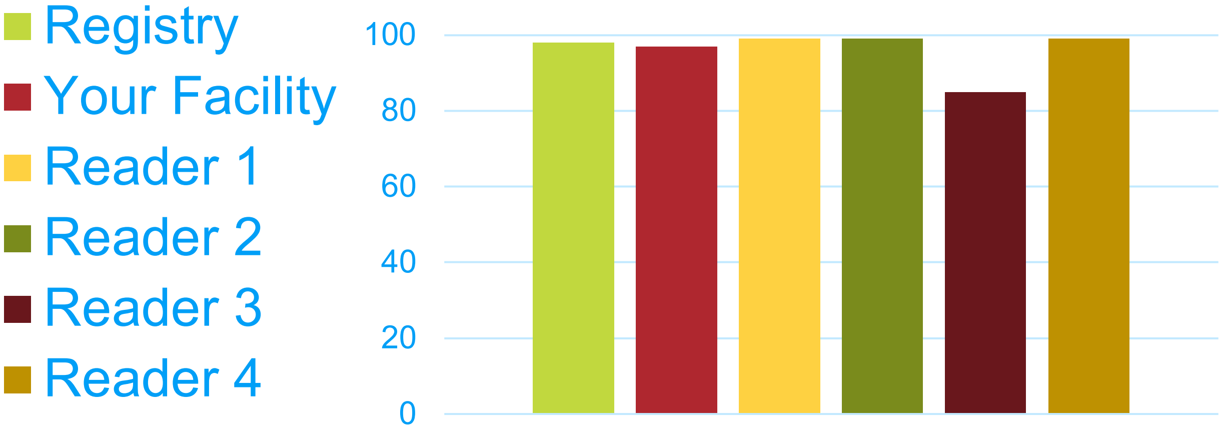


Pick List Choices

None
Colonic perforation
Insufflator malfunction
Other:

Quality Assessment

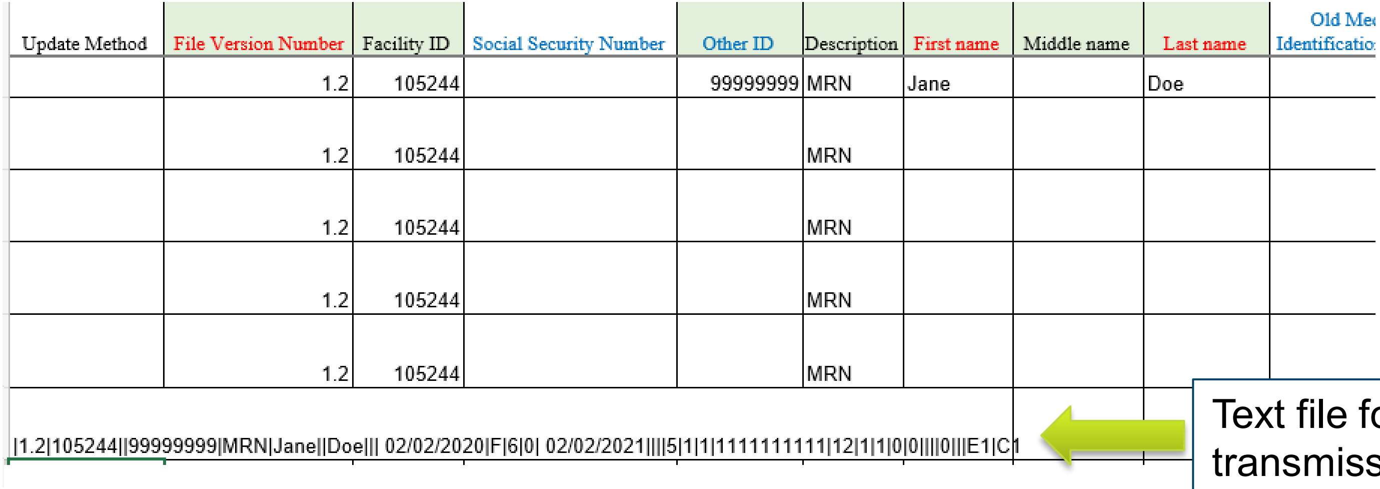
- Benchmarking our practice to NRDR
- Data provided quarterly



CT Colonography
Jul 2020 – Dec 2020
Adequacy of Screening CTC Exam

Data Submission

- Submitted by our Colon Cancer Screening Patient Navigator as reports become available from Radiologist
- Manually loaded from EMR to Excel spreadsheet
- Create the file to transmit to NRDR



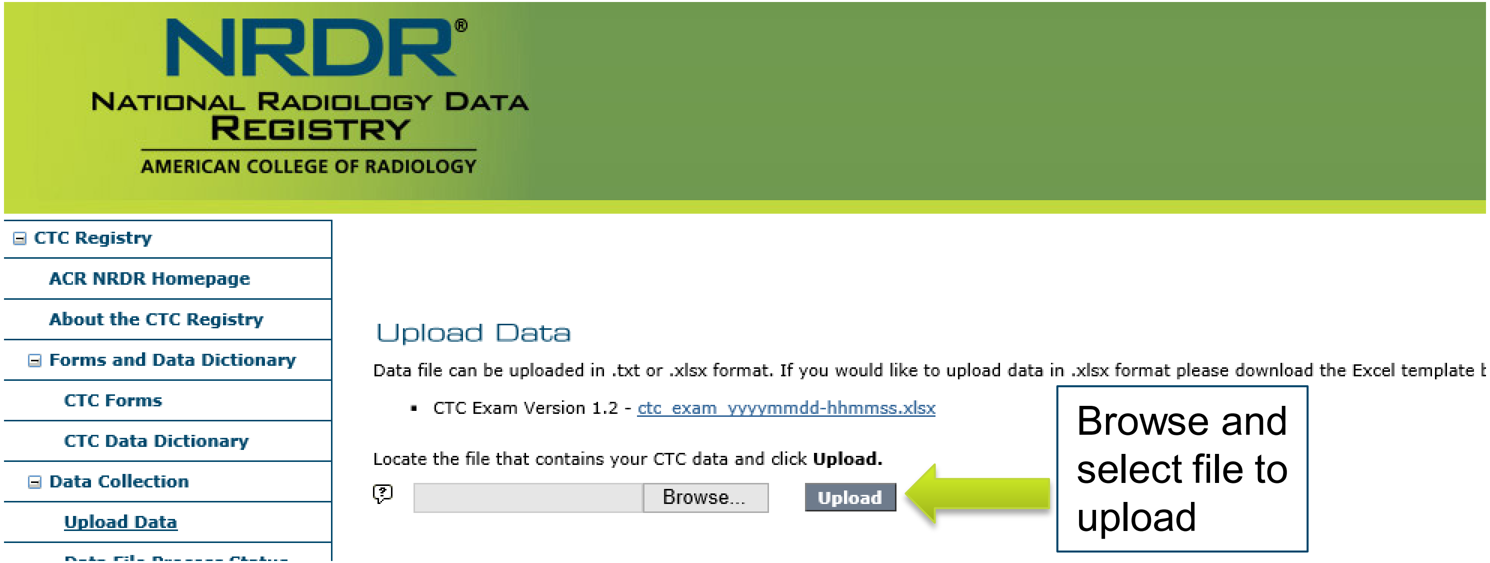
Update Method	File Version Number	Facility ID	Social Security Number	Other ID	Description	First name	Middle name	Last name	Old Me Identificatio
	1.2	105244		99999999	MRN	Jane		Doe	
	1.2	105244			MRN				
	1.2	105244			MRN				
	1.2	105244			MRN				
	1.2	105244			MRN				

```
|1.2|105244||99999999|MRN|Jane||Doe||| 02/02/2020|F|6|0| 02/02/2021||||5|1|1|1111111111|12|1|1|0|0||||0|||E1|C1
```

Text file format for transmission to NRDR

Data Submission, Cont'd

- Data is manually converted from Excel Spreadsheet to Text tab delimited file to upload to the NRDR website
- Data can be updated as needed via the website



NRDR®
NATIONAL RADIOLOGY DATA REGISTRY
AMERICAN COLLEGE OF RADIOLOGY

- ⊟ CTC Registry
  - ACR NRDR Homepage
  - About the CTC Registry
  - ⊟ Forms and Data Dictionary
    - CTC Forms
    - CTC Data Dictionary
  - ⊟ Data Collection
    - Upload Data
    - Data File Process Status

Upload Data

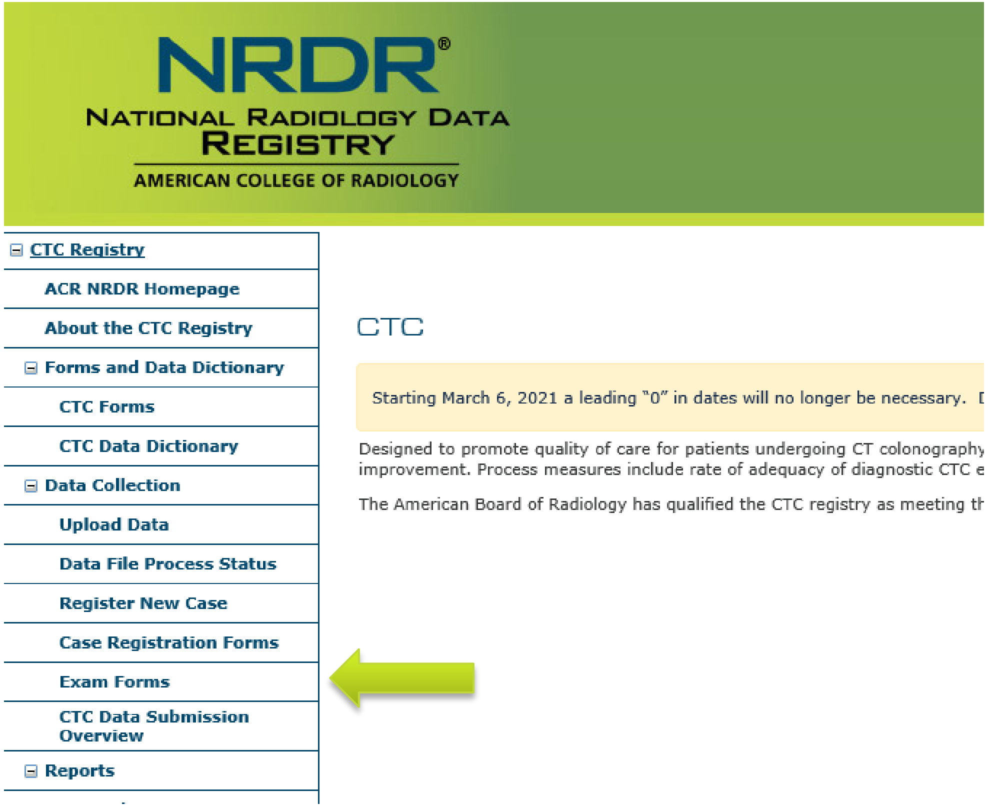
Data file can be uploaded in .txt or .xlsx format. If you would like to upload data in .xlsx format please download the Excel template

- CTC Exam Version 1.2 - ctc_exam_yyyymmdd-hhmmss.xlsx

Locate the file that contains your CTC data and click **Upload.**

Browse and select file to upload

Data Submission, Cont'd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National Radiology Data Registry
American College of Radiology
CTC Registry
ACR NRDR Homepage
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Forms and Data Dictionary
CTC Forms
CTC Data Dictionary
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Upload Data
Data File Process Status
Register New Case
Case Registration Forms
Exam Forms
CTC Data Submission Overview
Reports
CTC

Starting March 6, 2021 a leading "0" in dates will no longer be necessary.

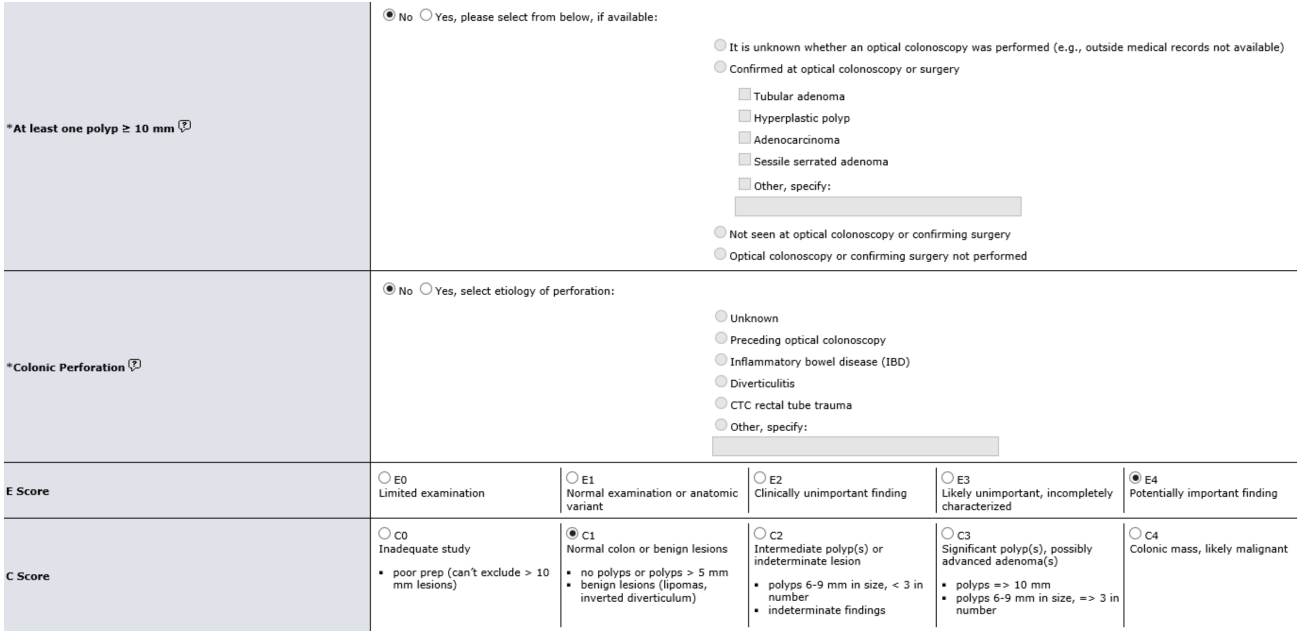
Designed to promote quality of care for patients undergoing CT colonography
improvement. Process measures include rate of adequacy of diagnostic CTC e

The American Board of Radiology has qualified the CTC registry as meeting th

- Submission of follow-up data for positive cases is completed on the NRDR website in patient's exam form

Data Submission, Cont'd

- Follow up for positive cases occurs twice a month (C-3/C4) or based on ordering provider's recommendations.



***At least one polyp ≥ 10 mm**

● No ○ Yes, please select from below, if available:

○ It is unknown whether an optical colonoscopy was performed (e.g., outside medical records not available)
○ Confirmed at optical colonoscopy or surgery
  ☐ Tubular adenoma
  ☐ Hyperplastic polyp
  ☐ Adenocarcinoma
  ☐ Sessile serrated adenoma
  ☐ Other, specify:
○ Not seen at optical colonoscopy or confirming surgery
○ Optical colonoscopy or confirming surgery not performed

***Colonic Perforation**

● No ○ Yes, select etiology of perforation:

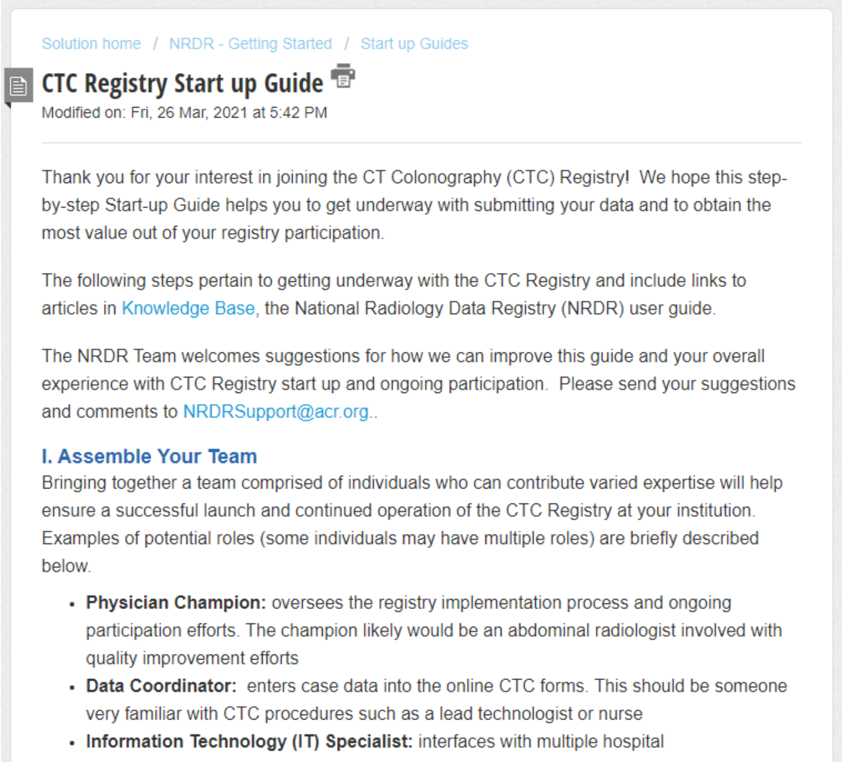
○ Unknown
○ Preceding optical colonoscopy
○ Inflammatory bowel disease (IBD)
○ Diverticulitis
○ CTC rectal tube trauma
○ Other, specify:

E Score	○ E0 Limited examination	○ E1 Normal examination or anatomic variant	○ E2 Clinically unimportant finding	○ E3 Likely unimportant, incompletely characterized	● E4 Potentially important finding
C Score	○ C0 Inadequate study ▪ poor prep (can't exclude > 10 mm lesions)	● C1 Normal colon or benign lesions ▪ no polyps or polyps > 5 mm ▪ benign lesions (lipomas, inverted diverticulum)	○ C2 Intermediate polyp(s) or indeterminate lesion ▪ polyps 6-9 mm in size, < 3 in number ▪ indeterminate findings	○ C3 Significant polyp(s), possibly advanced adenoma(s) ▪ polyps => 10 mm ▪ polyps 6-9 mm in size, => 3 in number	○ C4 Colonic mass, likely malignant

- No specific time frame for final data submission as each case is subject to patient needs.

Registry Start-up Guide

- This guide includes step-by-step instructions for preparing for and beginning participation with the CTC and includes links to articles in the NRDR Knowledge Base.



CTC Registry Start up Guide

Modified on: Fri, 26 Mar, 2021 at 5:42 PM

Thank you for your interest in joining the CT Colonography (CTC) Registry! We hope this step-by-step Start-up Guide helps you to get underway with submitting your data and to obtain the most value out of your registry participation.

The following steps pertain to getting underway with the CTC Registry and include links to articles in Knowledge Base, the National Radiology Data Registry (NRDR) user guide.

The NRDR Team welcomes suggestions for how we can improve this guide and your overall experience with CTC Registry start up and ongoing participation. Please send your suggestions and comments to NRDRSupport@acr.org..

I. Assemble Your Team

Bringing together a team comprised of individuals who can contribute varied expertise will help ensure a successful launch and continued operation of the CTC Registry at your institution. Examples of potential roles (some individuals may have multiple roles) are briefly described below.

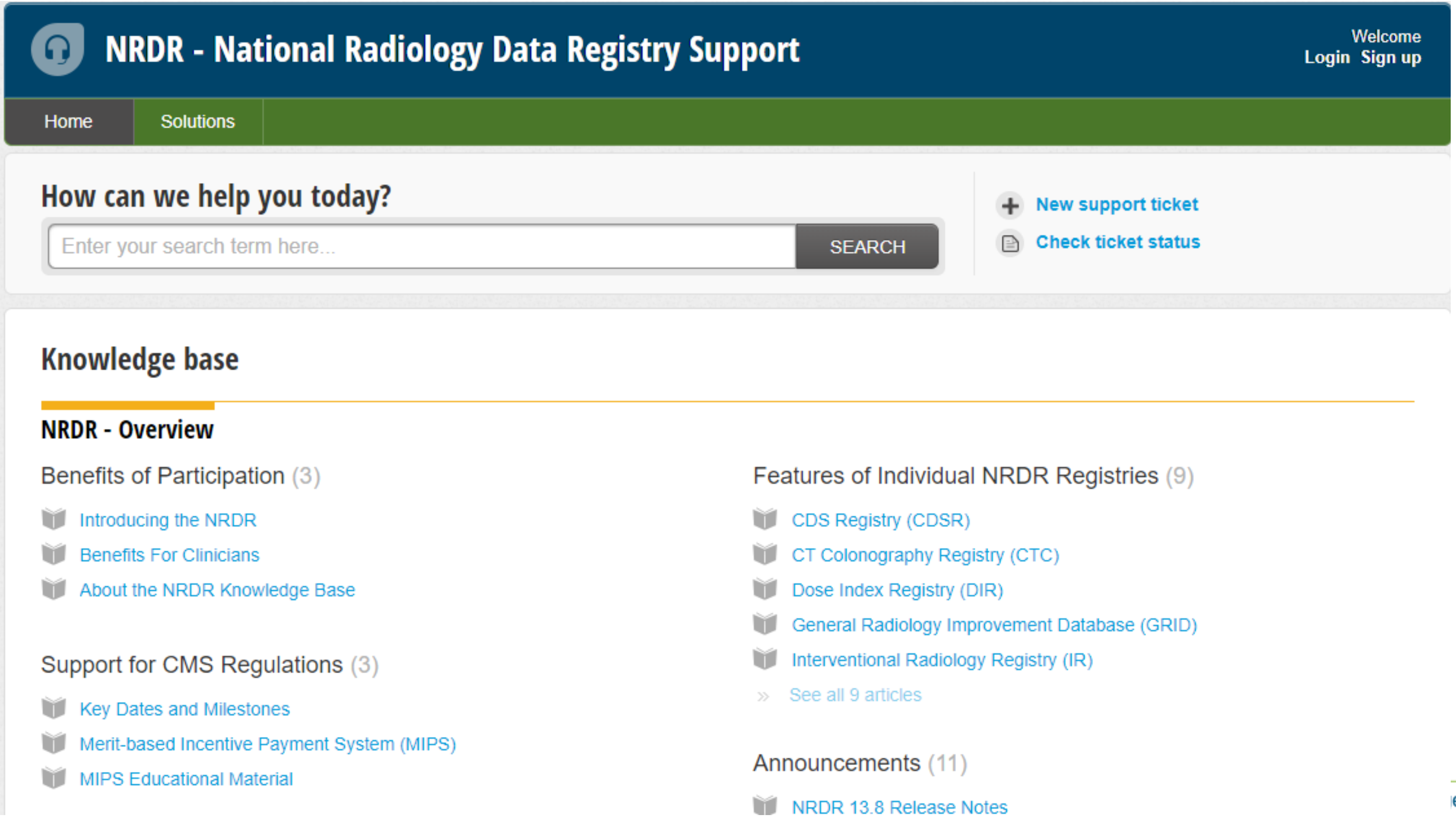
- **Physician Champion:** oversees the registry implementation process and ongoing participation efforts. The champion likely would be an abdominal radiologist involved with quality improvement efforts
- **Data Coordinator:** enters case data into the online CTC forms. This should be someone very familiar with CTC procedures such as a lead technologist or nurse
- **Information Technology (IT) Specialist:** interfaces with multiple hospital

Registry Participation – Poll 3

If you are not currently enrolled in or not submitting data to the CTC Registry, how likely is your facility to participate within the next year?

- Very likely
- Likely
- Not sure
- Unlikely
- Very unlikely

NRDR Knowledge Base nrdrsupport.acr.org



NRDR - National Radiology Data Registry Support

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Knowledge base

NRDR - Overview

Benefits of Participation (3)

- Introducing the NRDR
- Benefits For Clinicians
- About the NRDR Knowledge Base

Support for CMS Regulations (3)

- Key Dates and Milestones
- Merit-based Incentive Payment System (MIPS)
- MIPS Educational Material

Features of Individual NRDR Registries (9)

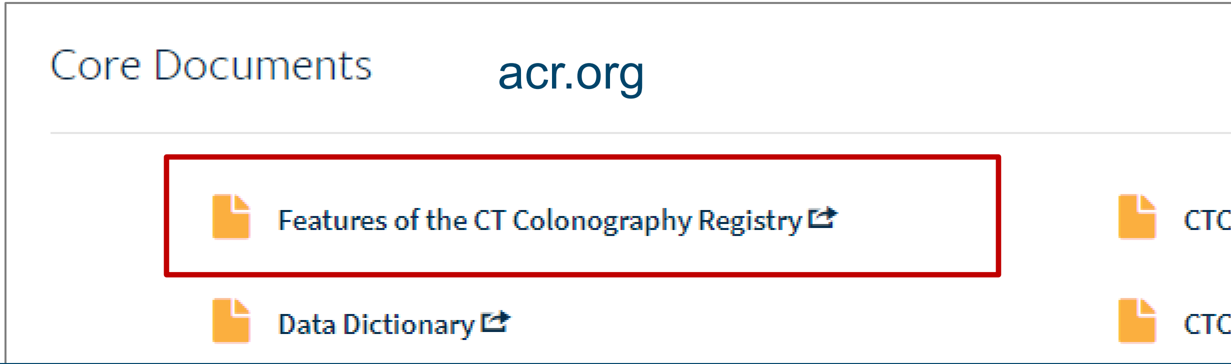
- CDS Registry (CDSR)
- CT Colonography Registry (CTC)
- Dose Index Registry (DIR)
- General Radiology Improvement Database (GRID)
- Interventional Radiology Registry (IR)
- » See all 9 articles

Announcements (11)

- NRDR 13.8 Release Notes

NRDR Knowledge Base

acr.org



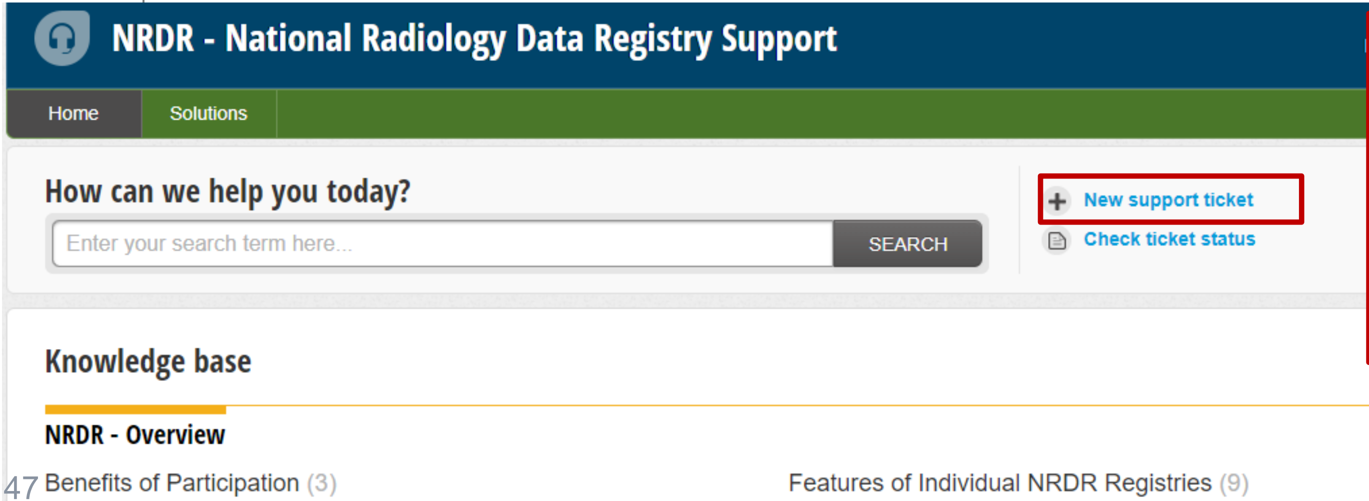
Core Documents

Features of the CT Colonography Registry

Data Dictionary

CTC

CTC



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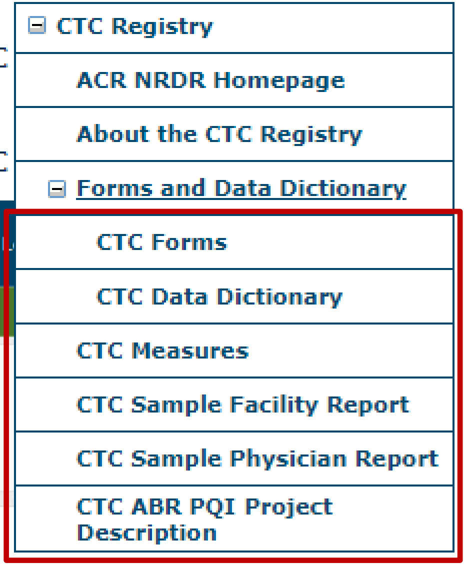

- ⊟ CTC Registry
  - ACR NRDR Homepage
  - About the CTC Registry
  - ⊟ Forms and Data Dictionary
    - CTC Forms
    - CTC Data Dictionary
  - CTC Measures
  - CTC Sample Facility Report
  - CTC Sample Physician Report
  - CTC ABR PQI Project Description

Q&A

Engaging with CTC

- NRDR Knowledge Base
  - https://nrdrsupport.acr.org/support/home
  - FAQ of questions from today will be sent after webinar
- Provide CTC feedback through our survey!
  - https://app.smartsheet.com/b/form/7613389ae5d947b2a2ae0c9877980e7f
- Join us for **Part 2: Getting Started with the CTC Registry: From Enrollment to Data Entry in** May 2021

CE Credit Claiming

CE Credit claiming instructions will be sent to you via email from alacount@acr.org following the activity, by Friday, April 9, 2021. Please click on the link and follow the instructions in the email to claim your credit, complete the activity evaluation, and receive your certificate. All evaluations and credit claiming requests must be completed no later than **11:59 EDT, Wednesday, June 30, 2021**.

For questions regarding the credit claiming of this activity, please contact Alexis LaCount: alacount@acr.org.