# ACR Inspections

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AAPM Annual Meeting August 1, 2018



## Disclosures

- Chair, ACR CT Physics Subcommittee
- Senior Reviewer, ACR CT Accreditation Program
- Vice President, Medical Physicist, Alliance Medical Physics, LLC



## Outline

- Overview of the CT ACR Process
  - Accreditation Process
  - Options Following Failure and Timeframes
  - Common Reasons for Failure
- Walkthrough of ACR CT Site Surveys
  - Accreditation Consultation
  - Validation Site Survey



# Initial/Renewal Application Phase

- Facility Information
- Practice Setting Information
- Practice Site Accreditation Survey Agreement
- Peer Review Questions
- CT Unit Information
  - Basic CT Unit Info (Location, Make, Model, Year, SN, Survey Date)
  - Select exams to submit (Clinical)
- Personnel List
  - Radiologists
  - Physicists
  - Technologists
- Payment



# Testing Materials Phase

- Quality Assurance Questionnaire
  - Not scored but required
- Clinical Test Image Data Forms

• Phantom Site Scanning Data Form

• CTDI Calculation Forms

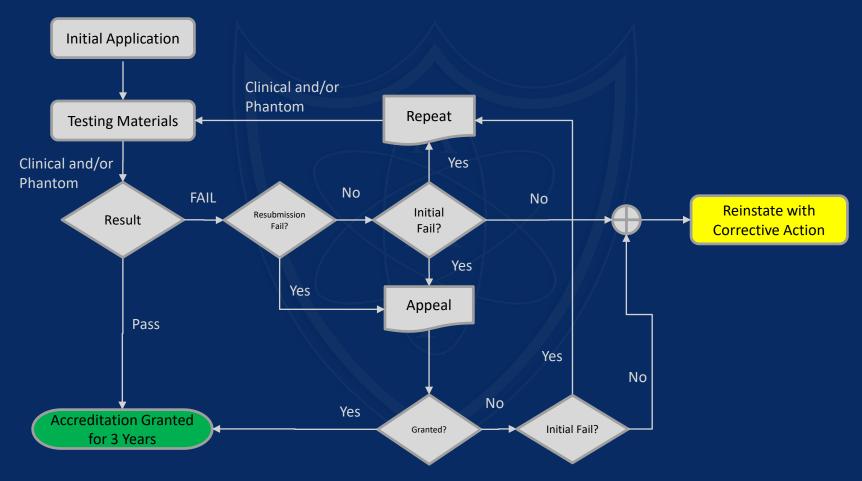


# Testing Materials Phase

- Upload (or mail until Jan 2019)
  - Annual Physicist Survey (within 14 months)
    - With summary form
  - Examination Protocols (one for each clinical)
  - Clinical and Phantom Images
- 45 Days to Submit
  - 30 Extension



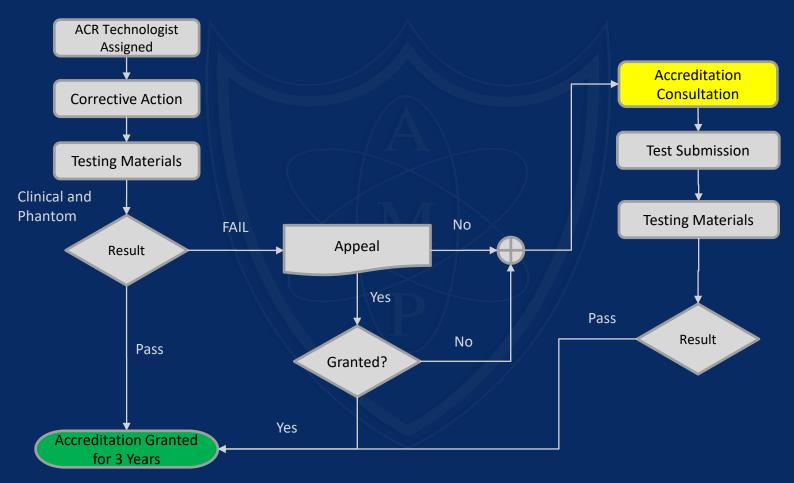
## Accreditation Process Overview



\*Can withdraw from the process after any failure



## Reinstate With Corrective Action



\*Can withdraw from the process after any failure



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## ACR Submission Results

- Pass
  - Accreditation granted for 3 years
  - Ongoing Validation Site Survey



## ACR Submission Results

- Initial Failure Options (Action required within 15 days)
  - Appeal
    - Appeal letter signed by Lead Interpreting Physician should be submitted with 15 days of the ACR final report.
    - No newly acquired images will be accepted for review.
  - Repeat (30 days to resubmit)
    - Clinical
      - Resubmit new exam for deficient category
      - Can appeal if resubmission fails
    - Phantom
      - Resubmit deficient all phantom and CTDI images and forms
      - Can appeal if resubmission fails
  - Withdraw
    - Unit Site can no longer use the unit
    - Module Site can no longer perform studies in the module



## Reinstate with Corrective Action

- ACR Technologist assigned
- Must submit and implement a detailed corrective action plan for those areas marked NOT ACCEPTABLE.
  - Site must review the final ACR report.
  - Must outline a plan to effectively correct NOT ACCEPTABLE areas.



## Reinstate with Corrective Action

- ACR reviews the submitted plan to determine if it adequately addresses the identified problems.
  - Site may implement plan after approval.
  - Must provide supporting documentation (e.g., training certificates, service tickets, etc.) to show implementation.
- Site will be reinstated and sent testing materials following approval.



## Reinstate with Corrective Action

- Submit all phantom and clinical images
  - All must be submitted regardless of what failed
- Reinstate with Corrective Action failure options
  - Appeal
  - Withdraw
  - No Repeat Option
  - ACR Accreditation Consultation



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## Common Reasons for Physics Failures

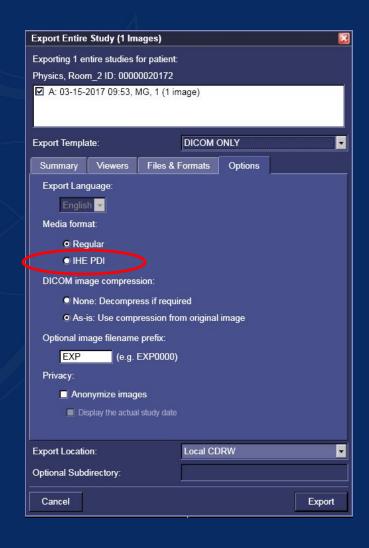
- Missing images
- Unable to open images
- Forms do not agree with images
  - Effective mAs (mAs per slice) vs mAs and mA
  - Inconsistent kVp and slice thickness
  - Typos
- Artifacts



# Tip: Unable to Open Images

Tip for McKesson PACS

 Select "IHE PDI" to burn images that will open with ClearCanvas





# Tip: Effective mAs

The terms Effective mAs, mAs/slice and mAs per slice are equivalent.

To calculate effective mAs:

$$effective mAs = \frac{mAs}{pitch}$$
 (Eq. 1)

#### To calculate mAs:

$$mAs = effective \ mAs \times pitch$$
 (Eq. 2)

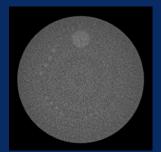
To calculate mA:

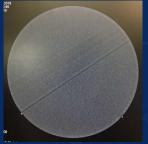
$$mA = \frac{effective \ mAs \times pitch}{time \ per \ rotation(sec)}$$
 (Eq. 3)



## Artifacts

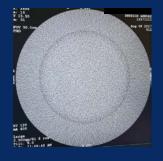
#### Major Deficiency:



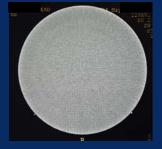


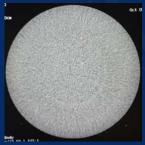




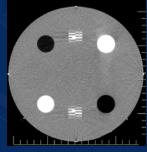


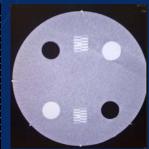
#### Minor Deficiency:

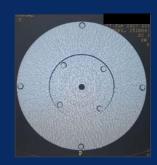




#### No Deficiency:

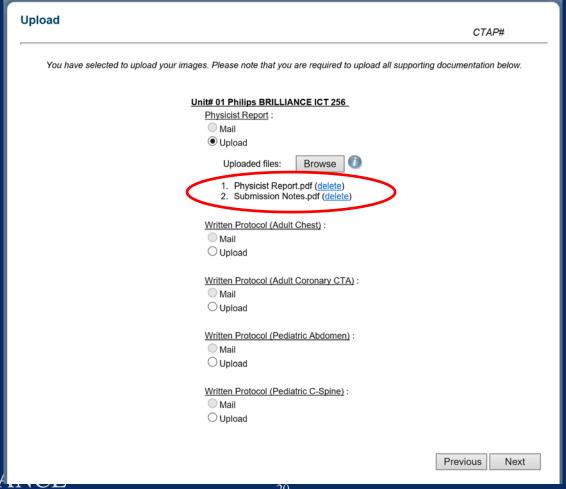








# Tip: Include Additional Documentation



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# Further Tips

- Don't submit excess images, i.e. all annual survey images.
- Fill out the Phantom Data Forms and CTDI Calculation forms, and upload images yourself.
- Double check that your Phantom Data Forms and CTDI forms match each other and images.
- CD Check to make sure images open with ClearCanvas and that they are actually on the CD.
- Upload View images in NIL viewer online.



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- Occurs following the Reinstate with Corrective Action failure.
- Both clinical and physics aspects are covered regardless of what failed.
- Plan for 4 hours.
- Site incurs costs of the onsite visit
- Attending Radiologist, Medical Physicist, and Technologist(s) can get CEUs.



- ACR Personnel
  - Radiologist (ACR Peer Reviewer)
  - Medical Physicist (ACR Peer Reviewer)
  - Technologist/Admin (ACR Staff)
- Recommended Site Personnel
  - Lead Interpreting Physician
  - Qualified Medical Physicist
  - Technologist(s)
  - Administrator (Director, Manager, etc)



- Radiologist (ACR Peer Reviewer)
  - Reviews randomly selected clinical images with the site's Lead Interpreting Physician
    - Technique Factors
    - Anatomic Coverage
    - Artifacts
    - Exam Identification Information
    - Contrast Usage
    - Areas for improvement
    - Examination Protocols
    - For CT, does NOT review physician's findings



- Medical Physicist (ACR Peer Reviewer)
  - Reviews:
    - Most recent Medical Physicist annual survey
    - Technologist quality control
  - Will perform full ACR phantom testing



- Technologist (ACR Staff)
  - Reviews the facility policies and procedures,
     specifically to as they pertain to CT
  - Assists the ACR Radiologist and ACR Medical Physicist



# Following the Accreditation Consultation Survey

- Exit interview with all involved site staff
- Test Submission
  - A mock submission is evaluated by the Radiologist and Medical Physicist who were on the site visit.
  - Feedback is provided to the site
- Reinstate application into normal ACR process following successful test submission



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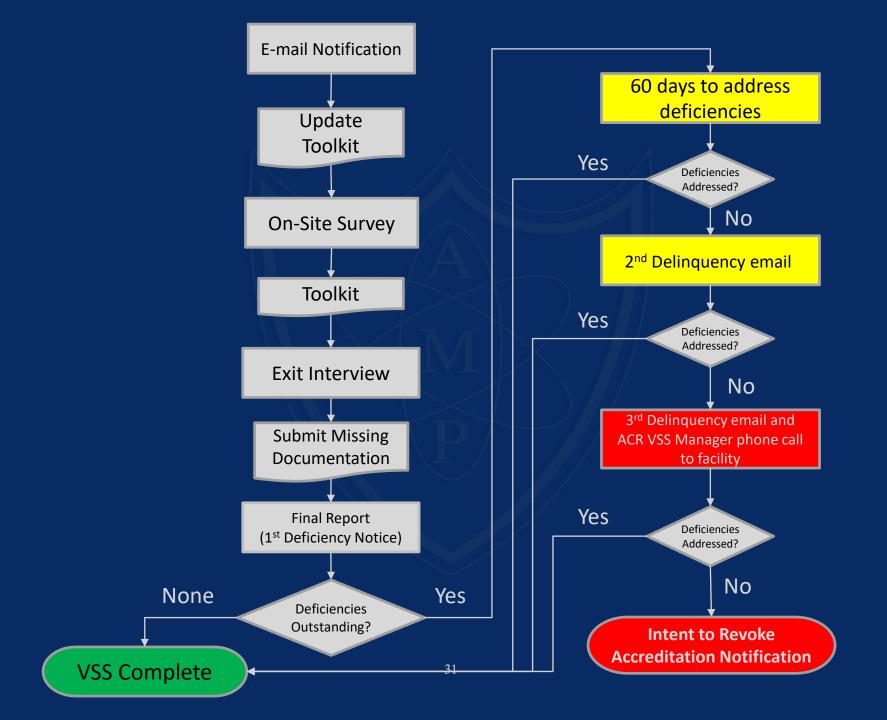


# Validation Site Survey

## Purpose

- "To verify that accredited facilities maintain consistent quality during the 3-year accreditation period, on-site surveys and mail-in film checks for each modality may also be performed at any time during the accreditation process."
- MIPPA Requires ACR to perform site surveys for providers that bill under Part B of the Medicare Physician Fee Schedule
- Non-MIPPA Validate compliance with accreditation criteria





# Validation Site Survey

- Three month window from when email is sent
- Unannounced site visit
- NM/PET and Mobile Units
  - Surveyor will follow up with the site for schedules
- Time Commitment
  - 1 Hour or less for small sites
  - 4-5 Hours for a large facility
- Ideally once every three years for MIPPA facilities
  - Priority is on sites that have not been surveyed
  - Non-MIPPA sites (i.e. hospitals) may be surveyed



# Validation Site Survey Notification

- E-mail indicates:
  - Surveyor Name
  - Unannounced visit to your facility with next 3 months
  - Recommends gathering Toolkit information
  - Most common items that are missing during survey
  - Contact ACR if:
    - Contact person or any other personnel changed
    - Facility is no longer open, the facility is responsible for updating their records.





#### **Validation Site Visit Introduction Letter**

<Date>

PRIVILEGED and CONFIDENTIAL 

PEER REVIEW

Code of Virginia 8.01-581.17

<Facility Supervising Physician>

<Facility Name>

< Facility Address>

<Facility Address>

<City, State, Zip>

Subject: Facility ID # <00000>, <Facility Name>

Dear Dr. <Supervising Physician>:

This letter will serve to introduce <ACR Surveyor> as representatives of the American College of Radiology. They will be performing the Validation Site Survey at your facility.

Please provide them with any assistance they may require. I would like to thank you again for your cooperation in this process.

Sincerely yours,

Anthony J. Scuderi, M.D., FACR

Chair, Committee on Accreditation

# Validation Site Survey Staff

- ACR Staff
  - ACR Surveyor
    - Registered technologist

- Site Staff Recommended
  - Director or Manager
  - Lead Technologist or Technologist



# Validation Site Survey Process

### Surveyor evaluates items in the Toolkit

- 1. Site Information
- 2. Personnel Documentation for Physicians
- 3. Personnel Documentation for Medical Physicists
- 4. Personnel Documentation for Technologists
- 5. Annual Physics Surveys/Technologist QC
- 6. Policy and Procedures review
- 7. Physician Peer Review Program Evaluation
- 8. Patient Report Evaluation
- 9. Image Labeling Evaluation



### Validation Site Survey Process

- Site Information
  - Facility
    - Name/Address
    - Practice Site ID
    - Supervising Physician
    - Administrator Name/Email
    - Accredited modality information



## Validation Site Survey Process Personnel Documentation

- Physician Documentation
  - Copy of State License
  - Copy of Board Certification
  - CME and CEs
    - Meeting Program Requirements

OR

• Meeting MOC requirements



## Validation Site Survey Process Personnel Documentation

- Medical Physicist Documentation
  - Board Cert. or Alternate Pathway Documentation
    - OR documentation for grandfathering
  - CEU/CME
    - 15 CEU/CME (1/2 Cat 1) in prior 36 months OR
    - Meeting MOC requirements
  - Continuing Experience
    - 2 CT unit surveys within 24 months



## Validation Site Survey Process Personnel Documentation

- Technologist Documentation
  - Documentation of ACR requirements met
    - If tech is not ARRT (CT) then documented training is needed.
  - Copy of Certification
  - Copy of State License (if applicable)
  - Copy BCLS/ACLS Certification (if applicable)
  - -CE
    - In compliance with certifying body OR
    - 24 hours every 2 years (including relevant to CT)



#### Validation Site Survey Process Personnel Documentation

- For Radiologists, Technologists, and Medical Physicists, if there are:
  - Five or less
    - Will review 2
  - More than five
    - Will review 25-30%
- Must verify not on OIG exclusion list upon employment.
  - Recommended annually
- Primary source verification checked



# Validation Site Survey Process Annual Physics Survey

- 1. Participation in review of clinical protocols with the CT protocol and management team
- 2. Scout prescription accuracy and alignment light accuracy
- 3. Table travel accuracy
- 4. Radiation beam width
- 5. Low-contrast performance
- 6. Spatial resolution
- 7. CT number accuracy
- 8. Artifact evaluation
- 9. Dosimetry
- 10. CT number uniformity
- 11. CT scanner display calibration
- 12. Review of technologist QC program



### Validation Site Survey Process Annual Physics Survey

- Two most recent annual physicist surveys
  - Corrective action documentation
- XR-29 Compliance Certification
  - Not accreditation requirement to be compliant
  - ACR must report to CMS
  - https://www.medicalimaging.org/policy-and-positions/mita-smart-dose/mita-smart-dose-ct/Quality Control



- https://acredit.acr.org
  - Mark in database
  - Upload XR-29 certificate
- Will start checking soon on VSS

```
User E-mail:
| My Testing Packages (0) | My Final Reports (0) | My Modalities (5) | My Profile | Logout
```



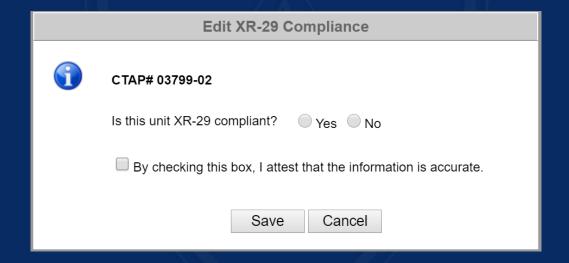
Modality Name	<u>Modality</u>	<u>Status</u>	Expiration Date	Action	Renewal/Reinstate
Facility Name	BMRAP# 12345	Approved	08/28/2020	Modality Details Units/Modules Personnel CMS Information	N/A
Facility Name	CTAP# 12345	Approved	12/11/2020	Modality Details Units/Modules Personnel CMS Information XR-29 Compliance	N/A



Modality#: CTAP#12345
Modality Name: Facility Name
Facility Location Address: Facility Address

Unit#	Unit Status	Expiration Date	Manufacturer/ Model	Serial Number	XR-29 Submission Date	XR-29 Submitted By	XR-29 Compliance	XR-29 Verification Status
Unit#02 Edit XR-29	Approved	12/11/2020	Siemens / SOMATOM SENSATION 64	505077	04/17/2018	(Facility User)	Yes	Complete
Unit#03 Edit XR-29	Approved	12/11/2020	Siemens / DEFINITION AS+	07331	04/17/2018	(Facility User)	Yes	Complete
Unit#01 Edit XR-29	Withdrawn	N/A	Siemens / SENSATION 16	50574	N/A	N/A	N/A	







# Validation Site Survey Process Technologist QC Survey

- 3 months reviewed
- Required QC Tests
  - Water CT number and SD (daily)
  - Artifact evaluation (daily)
  - Wet laser QC (weekly, if applicable)
  - Visual checklist (monthly)
  - Dry laser QC (monthly, if applicable)
  - Acquisition display QC (monthly)
- Corrective action documentation if test(s) fail



## Validation Site Survey Process Policies and Procedures

- Pregnancy
- Patient/Personnel Safety
- Verification of Personnel (CMS Sites)
- Disaster
- Contrast Administration per the ACR Manual on Contrast Media
- Orientation Program for Employees
- Adherence to ACR Practice Guideline for Communication of Diagnostic Findings



## Validation Site Survey Process Policies and Procedures

- CT Specific Policies and Procedures
  - Pediatric Patients
    - Facility tailors CT examinations to minimize exposure to pediatric patients
    - Specific pediatric examination protocols
    - Policies and procedures in accordance with ALARA specific to CT



## Validation Site Survey Process Policies and Procedures

- Lung Cancer Policies and Procedures
  - Smoking Cessation
    - Mechanism in place to refer patients for smoking cessation counseling or provide smoking cessation materials
  - Imaging Protocol
    - Specific protocols for lung cancer imaging that includes adjusting for patient size



### Validation Site Survey Process Physician Peer Review

#### • RADPEER<sup>TM</sup>

- Participates in RADPEER<sup>TM</sup> # \_\_\_ Average percentage of images reviewed per physician: \_\_\_
- Participates in alternative peer review program. Average percentage of images reviewed per physician:
- Last submitted data to the ACR in previous six months

#### • Alternative Physician Peer Review Program (alternative program must include the following)

- Double reading (2 MDs interpreting the same study) assessment
- Random selection of studies reviewed on a schedule basis
- Exams and procedures representative of the actual clinical practice of each physician
- Reviewer assessment of the agreement of the original report with subsequent review (or with surgical or pathological finding
- Classification of peer review findings with regard to level of quality concerns? (e.g.; 3-point scoring scale)
- Policies and procedures for action to be taken on significant discrepant peer review findings for the purposed of achieving quality outcomes improvement
- Summary statistics and comparisons generated for each physician by modality
- Summary data for each facility/practice by modality
- Documentation that peer review is performed.



### Validation Site Survey Process Patient Report Evaluation

- Demographics that should be included in report
  - Patient name and additional identifier such as medical record number or date of birth
  - Date of examination noted on reports
- Body of Report should include the following
  - A findings section that includes specific details
- Report Completion
  - Report should be signed by the interpreting physician
  - Date report is sent
  - If electronic or rubberstamp used, is access secured?
- Lung Cancer Screening Designation
  - Report includes management recommendations (Lung-RADS™)
  - Procedure for referring the patient to a qualified health care providers if abnormal findings for self-referred patients



### Validation Site Survey Process Image Labeling Evaluation

- Patient Demographics for all modalities:
  - Patient name (first and last)
  - Patient age or date of birth
  - Medical record number
  - Date/time of examination
  - Institution name

- CT Specific
  - Anatomic orientation label
  - mA/kV
  - Pitch
  - Rotation time
  - Reconstructed image thickness
  - Reconstructive filter/kernel
  - Display field of view (FOV)
  - Table position
  - Window level/Window width



### Validation Site Survey Process Image Labeling Evaluation

- Surveyor will ask staff to pull up images on either
  - -AWS
  - PACS



### Validation Site Survey Process

#### Other Items

- Will verify all equipment in the facility matches ACR accreditation information.
- Accreditation Certificates posted in a conspicuous area.
  - Accreditation labels no longer provided for nonmammography units
- Lung Screening Check for Chest Module
- Consumer Complaint Notice to Patients posted in a conspicuous area





#### **Notice to Patients**

This facility is accredited by the ACR for imaging services. You have the right to submit your concerns about this facility's radiology imaging and treatment services.

Most complaints are most effectively addressed directly with the facility performing the examination. Therefore, the ACR encourages you to address safety and quality of care concerns with the leaders of this accredited facility. You may directly contact the ACR to report a serious complaint if you feel that your concerns have not been adequately addressed by the facility. Complaints regarding personal disputes, billing and insurance issues or other criminal related activity should be reported to the appropriate local, state or federal authorities.

All serious complaints must be submitted to the ACR in writing and include the following information:

- Consumer's name, address and telephone number
- Consumer's signature (if reported by the consumer)
- Name and location of the ACR-accredited facility where the imaging exam was performed
- Description of the complaint

Please send complaints to:
American College of Radiology
Attn: Accreditation Program Patient Complaints
1891 Preston White Drive
Reston, VA 20191

#### Validation Site Survey Process

- Exit Report
  - Surveyor leaves a preliminary list of findings
    - May require additional submission of information to the ACR
    - Can e-mail documentation and facility ID to vss@acr.org
    - Do NOT submit any information with PHI on it!
    - Addressed deficiencies will be removed from final report
- Final Report Issued





#### Validation On-Site Survey Report

July 23, 2018

PRIVILEGED and CONFIDENTIAL • PEER REVIEW
Code of Virginia 8.01-581.17

- <Name>, M.D.
- <Facility Name>
- <Address1>
- <Address2>

SUBJECT: Facility ID# <00000>, <Facility Name>

Dear Dr. <Last Name>:

On <Date of Survey>, an American College of Radiology (ACR) surveyor conducted a Validation On-Site Survey at your facility. The ACR understands that an on-site survey may be disruptive to your facility so we attempt to review only that which is necessary. The ACR conducts validation site surveys of accredited facilities to monitor compliance with accreditation standards and as part of the Centers for Medicare and Medicaid Services (CMS) requirements under the Medicare Improvements for Patients and providers Act (MIPPA. In addition, the ACR uses this mechanism to provide assistance to your staff in areas where the facility may need help. In order to remain in good standing with the ACR Accreditation Programs and CMS, facilities must demonstrate their compliance with the appropriate accreditation requirements as relates to appropriate documentation of accreditation requirements, including a quality control program.

#### <If the facility passes – next paragraph>

The ACR is pleased to inform you that your accredited facility is in compliance with the standards of the ACR Accreditation Programs and remains in good standing. Congratulations for maintaining the high level of quality expected of all ACR-accredited facilities. While no further action is required at this time, ACR expects that you will continue to maintain this level of quality throughout your accreditation.

<If the facility has serious deficiencies – next paragraphs, table, and ACR address>

Currently, your facility is <u>not</u> in compliance with the standards of the ACR Accreditation Programs. In order to maintain your accreditation in good standing with the ACR and CMS, documentation addressing each of the deficiencies must be submitted to ACR within 60 days of the date appearing on this report. You must also address in your response any deficiency that you are not able to correct within the 60-day period. You may be provided a 30-day extension should you need additional time to make your corrective action.

Below is a summary of the deficiencies identified by the surveyor. Please review the report carefully and share pertinent aspects with all imaging physicians, technologists and medical physicists/MR scientists who work at your facility so that they may also benefit from this visit.

American College of Radiology Accreditation Programs
List of Deficiencies

Facility ID #: <00000> Survey Date: <Date>

Area of Deficiency	Deficiency
Audit review – Site information and equipment verification	
Personnel documentation for Physicians	
Personnel documentation for Medical Physicists/MR Scientists	
Personnel documentation for Technologists	
QA/QC evaluation	
Policy and procedures review	
Physician peer review program evaluation	
Patient report evaluation	
Image labeling evaluation	

#### Recommendations

Area for Recommendation	Recommendation

We do appreciate the time your staff devoted to spending with our surveyor. In order for the ACR to improve our service to accredited facilities, we would like to hear from you and your staff. Please take a few minutes to complete the enclosed evaluation form and return it at your earliest convenience. We recognize your ongoing commitment to providing quality services for the patients of your community and hope that this direct interaction between the ACR surveyor and your staff was helpful.

Finally, please be aware of the following requirements for facilities accredited with the ACR. As soon as possible, you must update your records on your accreditation home page if your facility:

- 1. Changes in supervising physician (i.e., lead interpreting physician), facility name, owner or address.
- 2. Changes (i.e., removes, adds or replaces) units so that we may advise you of the appropriate required testing to maintain accreditation.
- 3. Changes to your Medicare Enrollment number and/or National Provider Identifier (if applicable).
- 4. Is permanently closing.

Facility ID #: <00000> Survey Date: <Date>

Please call the ACR at (800) 770-0145 if you have any questions about your validation survey report. You may fax (703-880-0561), email (vss@acr.org) or mail the corrective action to the address below.

Sincerely,

Checkony f. Saulen, m. A. Anthony J. Scuderi, M.D.

Chair, Committee on Accreditation

### Validation Site Survey Site Response

- Submit missing documentation
- Corrective action plans examples
  - More than 14 months between physicist surveys
    - Policy stating surveys will be performed annually
  - Personnel have less than required CEUs
    - Personnel must complete and submit documentation with 60 days.
  - Checked on a future survey



#### Validation Site Survey Common Deficiencies

- Medical Physics
  - Physicist Surveys more than 14 months apart
  - No action limits on technologist QC forms
  - QC not being performed on required schedule

- CMEs for Physicians are not available
  - Meeting MOC requirements fulfills



#### Validation Site Survey Common Deficiencies

- Peer review Process Documentation
  - Document they are performing (recent 6 months)
  - Surveyor will review actual Radpeer Data or Alternate Program Data Report and the policy
  - No PHI data is needed
- Missing Policies (Required by CMS)
  - OIG Requirement
  - Primary Source Verification
  - Record Retention
  - Consumer Complaint

#### Summary

- ACR works extensively with sites to avoid Accreditation Consultations
- Site Validation Surveys
  - ACR is working with sites to comply with CMS
  - ACR provides ample assistance to complete VSS successfully.
  - Process is under revision



#### Acknowledgements

- Cynthia Davidson, RDMS, RVT, RT(R)
  - ACR Program Manager, CT/MR Accreditation
- Lavonne Robbins, BS, CNMT
  - ACR VSS Manager



#### Resources

ACR Toolkit Resources

https://www.acraccreditation.org/Resources/Validation-Site-Survey

ACR CT Program Requirements

https://www.acraccreditation.org/-/media/ACRAccreditation/Documents/CT/Requ irements.pdf?la=en

