Diagnostic imaging is an integral component of our health care system utilized by all physician specialties for timely accurate diagnosis and treatment of health care recipients. CareCore National, LLC (CareCore) recognizes the importance of quality imaging and the objective professional and technical standards that advance quality care. In alignment with Health Care Reform, and the Affordable Care Act of 2010, CareCore National LLC, (CareCore) has developed a comprehensive compendium of objective professional and technical quality standards to enhance the quality of care provided to our health plan members. Our quality standards reference peer review literature, national medical specialty organizations’ quality standards, accrediting bodies, continuing medical education requirements and the most current evidence based medical research.

The CareCore National Quality Standards are subject to review at least annually and may change as appropriate. Compliance with these Standards is monitored through the Professional Provider/Physician Practice Assessment (PPPA) form, the facility review process and the image review process. Facility review is conducted at a minimum of once every three (3) years and includes a comprehensive on-site review as well as a concurrent image review. Facility reviews may be conducted more frequently. All image review is conducted online and facilities must be able to upload images to a designated URL, when requested.

CareCore assesses practices based on the CareCore National Quality Standards when making decisions to contract with a practice for its network, or to make contracting recommendations to its health plan clients. Other factors, including whether a practice is a multi-modality practice\(^1\), are also considered in CareCore contracting/recommendation determinations. In addition, CareCore contracted practices that fall below the required standards for particular services or equipment will not be eligible for reimbursement for services that fall below the requirements set forth in these standards.

All quality standards are subject to review and modification by CareCore’s Medical Advisory Committee (MAC). Modifications are communicated to network providers by the individual health plan and/or CareCore, as required by law or contract.

CareCore National Quality Standards are comprised of practice, physician, technologist, and equipment standards. As stated above, compliance with the standards is assessed using the

\(^1\) Multi-modality practices can offer continuity of care, which CareCore believes benefits patients. CareCore considers a practice to be multi-modality if it includes minimum 4 of the following service [and the full range of exams within the respective modalities]: CT, MRI, Nuclear Medicine, Ultrasound, Mammography, Bone Densitometry or PET/CT.
CareCore Professional Physician/Practice Assessment (PPPA) tool. All practices and personnel must meet all local, state and federal requirements. CareCore National requirements incorporate standards and requirements from the following societies, agencies and boards:

**Physician Certification**
- American Board of Radiology (ABR)
- American Osteopathic Board of Radiology (AOBR)
- American Osteopathic Board of Nuclear Medicine (AOBNM)
- American Board of Internal Medicine (ABIM) – Cardiovascular Disease
- American Board of Nuclear Medicine (ABNM)

**Technologist Certification**
- American Registry of Diagnostic Medical Sonography (ARDMS) including subspecialty certifications as appropriate:
  - Registered Diagnostic Medical Sonographer (RDMS)
    - Abdomen (AB)
    - Breast (BR)
    - Fetal Echocardiography (FE)
    - Obstetrics and Gynecology (OB/GYN)
  - Registered Diagnostic Cardiac Sonographer (RDCS)
    - Adult Echocardiography (AE)
    - Fetal Echocardiography (FE)
    - Pediatric Echocardiography (PE)
  - Registered Vascular Technologist (RVT)
    - Vascular Technology (VT)
  - Registered in Musculoskeletal (RMSK)
- American Registry of MRI Technologists (ARMRIT)
- American Registry of Radiologic Technologists (ARRT)
  - Radiography
  - Nuclear Medicine
  - MRI
  - Mammography
  - CT
  - Sonography
    - Vascular Sonography
    - Breast Sonography
- Nuclear Medicine Technology Certification Board (NMTCB)
- Cardiovascular Credentialing International (CC)
  - Registered Cardiac Sonographer (RCS)
  - Registered Vascular Sonographer (RVS)

**Accreditation**
- American College of Radiology (ACR)
- American College of Cardiology (ACC)
PRACTICE/SITE/TECHNOLOGIST REQUIREMENT

PRACTICE REQUIREMENTS
A Professional Physician/Practice Assessment form must be completed on initial application and every three years thereafter or whenever there is a change in ownership, TIN, NPI, physician or technologist staff, address, equipment or services provided. The form may be completed and submitted online at the CareCore National website (www.carecorenational.com).

- Equipment that has been determined “end of life” and is not currently supported by the manufacturer does not meet CareCore quality standards.
- All CT, MRI, Ultrasound, Nuclear Medicine and PET/CT scanners must be accredited for all applicable accreditation modules by either the American College of Radiology (ACR), the American Institute of Ultrasound in Medicine (AIUM), the Intersocietal Accreditation Commission (IAC) or the American Society of Breast Surgeons (ASBS).
  If a radiology site performs echocardiography, accreditation by The Intersocietal Commission of Echocardiography Laboratories (ICAEL) is required. Accreditation must include the appropriate modules for exams being performed. The modules available by accrediting organization are listed in the table below.
<table>
<thead>
<tr>
<th></th>
<th>ACR</th>
<th>IAC</th>
<th>AIUM</th>
<th>ASBS</th>
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<td>- MRA</td>
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<td>- Spine</td>
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<td>-Musculoskeletal</td>
<td>- Breast</td>
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<td>- Cardiovascular</td>
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<td></td>
<td>- Body</td>
<td>-MRA</td>
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<td></td>
<td>- Magnetic Resonance</td>
<td>- Sinus and Temporal Bone</td>
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<td>Angiography (MRA)</td>
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<td>- Breast</td>
<td>-Vascular/Other</td>
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<td></td>
<td>- Cardiac</td>
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<td>CT</td>
<td>- Head and Neck</td>
<td>- Coronary CTA</td>
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<td>- Chest</td>
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<td></td>
<td>- Abdomen</td>
<td>- Sinus and Temporal Bone</td>
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<td>- Cardiac</td>
<td>- Body</td>
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<td>-Vascular/Other</td>
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<td>- Oncology</td>
<td>- Oncologic Imaging</td>
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<td>- Brain</td>
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<td>- Cardiac</td>
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<td>- SPECT</td>
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<td>- Nuclear Cardiology Imaging</td>
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<td>- Peripheral arterial</td>
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<td>-Peripheral venous</td>
<td>- Dedicated MSK</td>
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<td>- Gynecological</td>
<td>- Visceral vascular</td>
<td>- Dedicated Thyroid/Parathyroid</td>
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<td>- Breast Ultrasound</td>
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<td>- Breast Ultrasound with Biopsy</td>
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<td>- Pediatric</td>
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*Any accreditation body or/state approved as an accrediting agency by the U.S. Food and Drug Administration (FDA) to administer requirements of the Mammography Quality Standards Act (MQSA).

Routine Appointment Scheduling Standards

<table>
<thead>
<tr>
<th>Modality</th>
<th>MRI</th>
<th>CT</th>
<th>PET</th>
<th>Nuclear Medicine</th>
<th>Ultrasound</th>
<th>Mammography Diagnostic</th>
<th>Mammography Screening</th>
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<td>5</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>100</td>
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- New equipment (not previously sold by manufacturer and not more than 14 months old) must have an application submitted to the ACR or IAC for accreditation within three (3) months of first clinical use. Newly installed used equipment is required to have all applicable accreditations for reimbursement.
- Each practice must show evidence of an ongoing Practice Quality Improvement Project and such projects should be consistent with the maintenance of certification requirements set forth by the specialty boards identified above as applicable.
- Practices utilizing ionizing radiation are required to be participants in the Image Gently and Image Wisely programs. Compliance with these programs must be maintained and a medical physicist statement of compliance with these programs is required.
- All practices must have the ability to submit images electronically for quality evaluation, when requested (the ability to create (“burn”) CDs and have Internet access).
- The Practice Guidelines and Technical Standards published by the accrediting organizations must be met at all times as applicable.
- Practices must have a formal physician peer review program. The results of this program must be available to CareCore on request.
- Imaging reports must be consistent with the ACR’s Practice Guideline for the Communication of Diagnostic Imaging Findings.
- Breast imaging reports must use the ACR’s BIRADS lexicon for mammography, breast ultrasound and breast MRI.
- Any practice performing breast MRI must also perform mammography, breast ultrasound services and MRI breast guided biopsy.
- All MRI reports must use the terminology defined in the ACR’s Glossary of MRI Terms. The glossary is available on the ACR’s website at: http://www.acr.org/~/media/ACR/Documents/PDF/QualitySafety/Resources/GlossaryOfMRTerms.pdf
- 80% of non-emergent and non-expedited cases (except screening mammography) must be interpreted and reports transmitted to referring physicians within 1 business day of the procedure being completed. However all studies must be
reviewed by a board certified radiologist the day of completion to be sure that there are no unexpected findings that require immediate attention and communication to the referring provider. Screening mammography must be interpreted and reports transmitted to referring providers within 10 business days.

- Each of the practice’s sites must be staffed by a board certified radiologist for all hours of operation either in person or by teleradiology.
- A physician with training and knowledge in the treatment of contrast reactions and, at least one member of staff with current Basic Life Support (BLS) Advanced Cardiac Life Support (ACLS) or Advanced Radiology Life Support (ARLS) must be onsite whenever contrast is administered.
- Each site of service providing general radiography and fluoroscopy services must employ only technologists who are certified in Radiography (RT) by the American Registry of Radiologic Technologists (ARRT).
- Each site of service providing ultrasound must employ technologists who are certified by the American Registry of Diagnostic Medical Sonographers (ARDMS), or the ARRT in Sonography (S) or Cardiovascular Credentialing International (CCI) as a Registered Cardiac Sonographer (RCS) or a Registered Vascular Sonographer (RVS). There must be at least one sonographer certified in each ultrasound specialty area performed at the site (see grid below for all sonography specialty areas). (For example, if vascular ultrasound is performed at a site, at least one of the sonographers at that site must be certified in vascular ultrasound.)
- Each site of service providing CT services must have at least one technologist with current ARRT certification in Computed Tomography (CT) by January 3, 2014.
- Each site of service providing MRI services must have at least one technologist with current ARRT certification in Magnetic Resonance Imaging (MR) or the American Registry of Magnetic Resonance Imaging Technologists (ARMRIT) by January 3, 2014.
- Each site of service providing Nuclear Medicine services must have at least one technologist with current ARRT certification in Nuclear Medicine (N) or be certified by the Nuclear Medicine Technology Certification Board (NBTCB) by January 3, 2014.
- Each site of service providing PET services must have at least one technologist with current certification in PET from the Nuclear Medicine Technology Certification Board (NMTCB-PET) or have ARRT Nuclear Medicine (N) certification by January 3, 2014.
- Each site of service providing DXA services must have at least one technologist with current certification from the ARRT (ARRT-R, ARRT-BD or ARRT-N), International Society for Clinical Densitometry – Certified Bone Density Technologist (ISCD – CDBT) or the Nuclear Medicine Technology Certification Board (NMTCB-N) by January 3, 2014 or the DXA exams must be performed by a radiologist.
• For practices providing mammography services all technologists must have current certification in mammography from the ARRT (ARRT-M).

<table>
<thead>
<tr>
<th>MODALITY</th>
<th>ARRT</th>
<th>ARMRIT</th>
<th>NMTCB</th>
<th>ARDMS</th>
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<tr>
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<td>US</td>
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<tr>
<td>Breast US</td>
<td>ARRT – breast sonography</td>
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<td>Echocardiography</td>
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<td>ARRT-R</td>
<td>ARRT-BD</td>
<td>ARRT-N</td>
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</tbody>
</table>

• The following policies must be available upon request when applicable to the site:
  - Emergency cart
  - Incident reporting
  - Fire and disaster
  - Drug and patient reactions
  - Complaints
  - Chemical hazards safety plan
  - Quality control policies and procedures
  - Blood borne pathogen compliance policies and procedures
  - Image labeling policies
  - Film processor, printer and/or PACs maintenance policies
  - Physician Site Coverage Policy
  - Medical Records Policy
  - Radiation safety
  - Nuclear Medicine Spills Policy
Contrast Media/Radiopharmaceutical Policy/ Conscious sedation/analgesia/ Results Reporting
- The Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- MRI Safety (including specifications of safety zones)
- MRI Patient Screening

**PHYSICIAN AND RADIOLOGY ASSISTANT REQUIREMENTS**

Physicians must meet the following:

Board certification in radiology or diagnostic radiology, nuclear radiology, or nuclear medicine by:

- American Board of Radiology,
- American Board of Nuclear Medicine,
- American Osteopathic Board of Radiology,
- American Osteopathic Board of Nuclear Medicine,
- American Board of Internal Medicine – Cardiovascular Disease,
- Royal College of Physicians and Surgeons of Canada, or
- Le College des Medicins du Quebec

Note: American Board of Radiology criteria for ‘board eligible’ status have been revised as of January 1, 2012. The new policy has a transitional phase-in period. Phase-in timing commences with the completion of diagnostic radiology residency training. Termination of board eligibility is as follows:

- 2004 or before: December 31, 2014
- 2005: December 31, 2015
- 2011 and after: 6 full calendar years from end of training

- Each physician must provide a copy of a current board certification certificate to CareCore National along with the Professional Physician Practice Assessment form. Board recertification is required for those with time limited certificates. These documents must be available upon request.

- All physicians must be able to document at least 50 hours of continuing medical education (CME) hours, at least 25 of which must be Category 1, that are approved by the Accreditation Council for Continuing Medical Education (ACCME) annually or 100 hours every 2 years or 150 hours every 3 years. Certificates documenting these CME activities must be available if requested. For those with fellowship training, it is recommended that at least half of those hours must be in their sub specialty area.

- All radiologists interpreting breast imaging must meet the requirements of MQSA.
• All radiologists performing CT Colonography (CTC) must be able to document the following training and experience:
  o CME training course to include a minimum of 75 proven cases
  o Mentoring of a minimum of 50 cases post initial training and prior to independent interpretation
  o Interpret or co-interpret a minimum of 50 cases per year to meet CareCore National standards
  o If a physician cannot document 50 cases per year beginning January 2009 then he/she will be required to document evidence of at least 15 hours of CME training in virtual colonoscopy every three years.
  o An annual medical audit of all CT colonography cases must be maintained

Recommendations:

• CareCore National encourages each radiology practice to have available at least one fellowship trained physician within each subspecialty area the practice performs (e.g. neuroradiology, breast imaging, musculoskeletal radiology, pediatric radiology, nuclear radiology, vascular and interventional radiology or abdominal radiology).
• All fellowship trained physicians must submit written documentation of completion of the fellowship

RADIOLOGY ASSISTANTS

• CareCore National requires that all Radiology Assistants (R.A.) be certified by the American Registry of Radiologic Technologists (RT), maintain current registration and have at least 50 hours of appropriate continuing education (CE) every 2 years. Documentation of CE must be available upon request.
EQUIPMENT STANDARDS
CareCore’s equipment and accreditation standards must be met at all times in order to be reimbursed for services.

All MRI, CT, PET/CT, nuclear medicine, ultrasound and x-ray devices must be DICOM compatible.

MAGNETIC RESONANCE IMAGING (MRI)

Devices with field strength greater than 3.0T, and for which ACR and IAC accreditation is not yet available, will be accepted pending the availability of accreditation.

MRI EQUIPMENT:

- All MRI scanners must be capable of performing Diffusion Weighted Imaging (DWI)
- A minimum field strength of 0.3T is required
- Scanners with field strengths <1.0 T will be limited to performing examinations of the brain, spine, knees and extremities. If these scanners have gradient strengths of at least 20mT/meter and slew rates of at least 45T/meter/sec, a site may submit additional studies to demonstrate their ability to perform these tests with acceptable quality, as determined by CareCore.
- Scanners with field strengths of ≥1.0 T will be permitted to perform all examinations (other than Breast and Cardiac MRI), as long as all other CareCore quality standards are met. In order to perform Breast or Cardiac MRI, additional equipment standards must be met (see those modality-specific standards below).

MRI Quality Control and Preventative Maintenance

- Quality Control testing in accordance with the requirements of the ACR or IAC Accreditation Programs is required.
  - Performance/Quality Control testing report to include:
    - equipment is functioning per manufacturer’s specifications and meets all applicable accreditation standards
    - weekly technologist testing as required per the ACR Guidelines

- The following documentation must be available for inspection onsite at all times:
  - Preventive maintenance records:
    - maintenance of hardware to original specifications, at a minimum
    - all major software upgrades, if available, must be not more than five (5) years old
  - Log of all service records
  - Records of initial acceptance testing for units installed within the last year
Records of initial acceptance testing for units installed within the last year
All MR scanners must have an annual medical physicist report (signed and
dated by the qualified medical physicist performing the tests)
demonstrating compliance with ACR or IAC program requirements and
that the scanner is functioning according to the manufacturer’s
specifications. Medical physicist reports must be reviewed by the director
of radiology at each site. The director’s signature and the date of the
physician review must be included in the report.

• MR equipment must meet all state and federal performance requirements,
  including those for:
  o Maximum static magnetic field strength
  o maximum rate of change of magnetic field strength (dB/dt)
  o maximum radiofrequency power deposition (specific absorption rate)
  o maximum auditory noise levels

**BREAST MAGNETIC RESONANCE IMAGING**

• Facilities performing breast MRI must have the equipment and expertise to
  perform mammographic correlation, directed breast ultrasound, and MRI-guided
  intervention within the practice.

**BREAST MRI EQUIPMENT:** All standards for MRI must be met in addition to the following
standards for Breast MR Imaging:

• Any device used for breast MRI must:
  ▪ have a dedicated bilateral breast coil
  ▪ be capable of simultaneous, bilateral imaging
  ▪ produce images with slice thicknesses ≤3mm and in-planar pixel resolution
    ≤1mm
  ▪ utilize fat suppression or image subtraction processing on all contrast enhanced
    sequences
  ▪ have the ability to perform MRI-guided biopsy intervention within the practice.

• Quality Assurance:
  ▪ Facilities must establish and maintain a medical outcomes audit program to
    follow up positive and negative results and to correlate those results with the
    interpreting physician’s findings.
  ▪ Facilities must use the Breast Imaging Reporting and Data System (BI-RADS) final
    assessment codes and terminology for reporting and tracking outcomes.

**CARDIAC MAGNETIC RESONANCE IMAGING**
CARDIAC MRI EQUIPMENT: All standards for MRI must be met in addition to the following standards for Cardiac MR Imaging:

- All devices used for cardiac MR Imaging must be 1.5T or greater with a slew rate of at least 70mT/meter/sec.
- Any device used for cardiac work must be capable of electrocardiographic (EKG) gating, including prospective, retrospective and triggered retrogating. New scanners must have vectorcardiographic gating.
- All devices must have an MRI-compatible power injector.
- MRI used for cardiac imaging must have FDA-approved processing software for calculation of ejection fraction and reformatting the angiographic data.

COMPUTED TOMOGRAPHY (CT)

CT EQUIPMENT:

- If Computed Tomographic Angiography (CTA) is performed the scanner must be capable of obtaining a minimum of sixteen (16) slices per rotation.
- For Cardiac CTA the scanner must be capable of obtaining a minimum of sixty four (64) slices per rotation.
- If CTA is not done at the site the scanner must be capable of obtaining a minimum of four (4) slices per rotation.
- See CareCore Equipment Standard for Cardiac CT and Coronary CT Angiography below.

CT Quality Control and Preventative Maintenance

- Quality Control testing in accordance with the requirements of the ACR or IAC Accreditation Programs is required.
- The following documentation must be available for inspection at the site at any time. The documents must be signed and dated by the qualified medical physicist performing the tests.
  - Preventive maintenance records
  - Log of all service records
  - All CT scanners must have an annual medical physicist report demonstrating compliance with the ACR or IAC program requirements and that the scanner is functioning according to the manufacturer’s specifications. Medical physicist reports must be examined by the director of radiology at each site. The director’s signature and the date of the physician review must be placed on the report.
  - Records of initial acceptance testing for units installed within the last year
CARDIAC CT AND CORONARY CT ANGIOGRAPHY (CCT and CCTA)

CCT and CCTA EQUIPMENT:

- A multi-detector CT scanner capable of creating a minimum of sixty four (64) slices per gantry rotation is required.
- Complete gantry rotation should take no longer than 0.42 seconds.
- Tube heat capacity must allow for a single <20 second acquisition.
- Minimum section thickness should be not be >1.0 mm.
- The CT scanner used for CCTA must allow display and interpretation of the full 12 bits (from - 1000 to 3095 Hounsfield Units) of attenuation information.
- The display field of view must be sufficient to allow an assessment of the vasculature of interest, the end-organ, and adjacent tissues.
- For cardiac and ascending aortic CTA, an ECG-gated acquisition should be performed that allows retrospective reconstruction of the scan volume at multiple phases through the cardiac cycle.
- A dual-headed power injector that can be programmed for both volume and flow rate must be used for CCTA examinations.
- An independent workstation capable of creating volume rendered or shaded-surface displays, maximal intensity projections (MIP), and multi-planar reconstructions must be available for CCT or CCTA analysis.
- The workstation should also allow direct measurement of vascular dimensions and, when appropriate, path lengths and angles.

CT Colonography (CTC or VC)

CT SCANNER:

- Sixteen (16) slice or greater multi-detector computed tomography (MDCT) is required.
- Must be able to scan entire abdomen and pelvis in a single breath hold with a slice thickness of ≤2.5mm.
- Images must be reconstructed at a slice thickness of ≤1.5 mm.

WORK STATION:

- Work station must have specific CT colonography software.
- The software must be capable of simultaneously integrating 2D and 3D images of the colon.

TRAINING AND EXPERIENCE:

Physician:

- Minimum of fifty (50) cases per year to maintain CareCore National accreditation
• If a physician cannot document twenty five (25) cases per year then he/she will be required to document evidence of at least fifteen (15) hours of CME training in virtual colonoscopy every three (3) years.
• An annual medical audit must be maintained
• Initially, privileges to perform virtual colonoscopy can be obtained if the following requirements are met:
  o Meets the ACR minimum standards for a reader of CT studies
  o Fifteen (15) hours of CME in CT every three (3) years
  o Evidence of a training course in virtual colonoscopy to include a minimum of 50 proven cases in the last five (5) years
  o Mentoring of a minimum of fifty (50) cases post initial training and prior to independent interpretation
  o Evidence of primary reader of fifty (50) virtual colonoscopy studies in the last three (3) years

NUCLEAR MEDICINE

NUCLEAR MEDICINE EQUIPMENT:

• New service or requests for renewed service after service lapse must have single photon-emission positron computed tomography (SPECT) capability.
• For centers performing general SPECT studies, an existing single head camera is acceptable but for all new replacement equipment dual headed cameras are required.
• Collimator Requirements
  ▪ LEHR Low Energy – for high resolution studies
  ▪ Medium Energy – for indium and gallium studies
  ▪ High Energy - for centers performing iodine 131 whole body studies
• Quality Assurance Requirements
  ▪ Automatic integral & field uniformity must meet manufacturer specifications
  ▪ COR (Center of Rotation) is within manufacturer specifications
• See CareCore Equipment Standards for Cardiac Nuclear Medicine below

Nuclear Medicine Quality Control and Preventative Maintenance

• Quality Control testing must be in accordance with the requirements of the ACR or IAC Accreditation Programs

Note for SPECT systems Quality Control: for ACR and IAC Nuclear/PET accredited sites overall system performance testing with an approved phantom must be in accordance with the accrediting organizations standards.

• The following documentation must be available for inspection at the site at any time. The documents must be signed and dated by the individual performing the tests.
- Preventive maintenance records
- Log of all service records
- All Nuclear Medicine cameras must have annual physicist report (signed and dated by the qualified medical physicist performing the tests) demonstrating compliance with the ACR or IAC program requirements that the camera is functioning according to the manufacturer’s specifications. Medical physicist reports must be examined by the director of radiology at each site. The director’s signature and the date of the physician review must be placed on the report to reflect evidence of the review.
- Records of initial acceptance testing for units installed within the last year

CARDIAC NUCLEAR MEDICINE - All standards for Nuclear Medicine must be met in addition to the following standards for Cardiac Nuclear Medicine:

CARDIAC NUCLEAR MEDICINE EQUIPMENT:

- New single-photon emission computed tomography (SPECT) cameras must have dual detectors
- For centers performing cardiac nuclear imaging ONLY, single head detectors are acceptable
- Cardiac nuclear imaging equipment must have:
  - Quantitative analysis software
  - Cardiac gating
  - EF (Ejection Fraction) Calculation software
  - Motion correction, back filter projection reconstruction, or line spread function software.

POSITRON EMISSION TOMOGRAPHY (PET) and PET/COMPUTED TOMOGRAPHY (CT) PET/CT

PET EQUIPMENT:

- Sodium iodide detector systems are unacceptable regardless of configuration.
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PET/CT EQUIPMENT:

- Sodium iodide detector systems are unacceptable regardless of configuration.
- New requests to perform PET/CT utilizing scanners with less than a 4 slice CT are acceptable if the CT is NEVER utilized as a diagnostic CT scanner and there is an
additional qualifying CT scanner (minimum 4 slices per rotation) at the site if diagnostic CT scanning is performed.
• For current participating providers utilizing a PET only scanner, fusion software purchased or upgraded in the last five (5) years must be used on every case.
  o If purchasing new equipment, the PET/CT standard above must be met

PET Quality Control and Preventative Maintenance

• Quality Control testing in accordance with the requirements of the ACR or IAC accreditation programs is required
• Phantom testing to be performed quarterly with a phantom acceptable to the accrediting organization
• The following documentation must be available for inspection at the site at any time. The documents must be signed and dated by the individual performing the tests
  ▪ Preventive maintenance records
  ▪ Log of all service records
  ▪ All PET scanners must have an annual medical physicist report (signed and dated by the qualified medical physicist performing the tests) demonstrating compliance with the ACR or IAC program requirements and that the scanner is functioning according to the manufacturer’s specifications. This report should include that equipment is functioning per manufacturer’s specifications and meets all applicable accreditation standards. Medical physicist reports must be examined by the director of radiology at each site. The director’s signature and the date of the physician review must be placed on the report.
  ▪ Records of initial acceptance testing for all scanners installed within the last year

ULTRASOUND EXCEPT ECHOCARDIOGRAPHY

ULTRASOUND EQUIPMENT:
• Appropriate transducers to be available for examinations offered by the practice as follows:
  ▪ 3-5 MHz for abdominal, retroperitoneal, pelvic, and obstetrical examinations
  ▪ 2-2.25 MHZ should be available for use in obese patients
  ▪ Curved 7.0MHz pediatric abdomen, renal and pelvic examinations
  ▪ Linear 7.0 – 10.0 MHz vascular examinations
  ▪ Linear 12MHz minimum-breast, thyroid, testicular and small parts examinations
  ▪ 5-10 MHz endovaginal examinations
  ▪ 9.0 MHz endorectal examinations
  ▪ High frequency stick probe
  ▪ Cardiac
• For new applicants requesting a contract with CareCore National’s diagnostic imaging networks, units must be less than ten (10) years old.
• If equipment is more than ten (10) years old, there must be documentation on site that it conforms to all manufacturer specifications, meets all applicable accreditation standards, and has the most current software appropriate for the examinations performed at the site. This documentation must be performed annually. If the last major software upgrade is more than seven (7) years old, written confirmation is required from the service engineer confirming that the unit has the most up-to-date software upgrade available.

Ultrasound Quality Control and Preventative Maintenance

• Quality Control testing in accordance with the requirements of the ACR/IAC/AIUM/ASBS accreditation programs
• The following documentation must be available for inspection at the site at any time. The documents must be signed and dated by the individual performing the tests.
  ▪ Preventive maintenance records
  ▪ Log of all service records
  ▪ Documentation of routine Quality Control testing performed at least every six (6) months either by a medical physicist or service engineer.
    o Electrical and mechanical safety
    o Image uniformity
    o Sensitivity and penetration
    o Measurement of vertical and horizontal distance accuracy
    o Testing of all transducers

ECHOCARDIOGRAPHY: ADULT AND PEDIATRIC

Echocardiography Quality Control and Preventative Maintenance

• Quality Control testing in accordance with the requirements of the IAC Accreditation Program is required

The following documentation must be available for inspection at the site at any time. The documents must be signed and dated by the individual performing the tests.
• Preventive maintenance records
• Log of all service records
• Documentation of routine Quality Control testing performed at least every six (6) months either by a medical physicist or service engineer.
  o Electrical and mechanical safety
  o Image uniformity
  o Sensitivity and penetration
Measurement of vertical and horizontal distance accuracy
Testing of all transducers

BONE DENSITOMETRY
Dual Energy X-Ray Absorptiometry (DXA)

DXA EQUIPMENT:

- DXA equipment must be capable of performing lumbar spine, hip, and forearm studies.
- Only fan beam or pencil beam technology is acceptable. If pencil beam technology is used, the equipment must be manufactured after 2007. If new equipment is purchased by participating providers it must meet the same standards.
- All DXA scans must be performed by a radiologist, a certified ARRT-R, ARRT-BD, ARRT-N, ISCD-CBDT or NMTCB-N certified technologist.

DXA Preventative Maintenance and Quality Control

- The following documentation must be available for inspection at the site at any time. The documents must be signed and dated by the individual performing the tests.
  - Preventive maintenance records: Quality control procedures must be performed and recorded by a trained technologist at least three (3) days a week and always before the first patient measurement of the day.
  - Log of all service records
  - All bone densitometry scanners required to have an annual medical physicist report and performance testing. This report should include that equipment is functioning per manufacturer’s specifications and meets all applicable accreditation standards. Medical physicist reports must be examined by the director of radiology at each site. The director’s signature and the date of the physician review must be placed on the report.
  - Records of initial acceptance testing for units installed within the last year.

Radiography (including Fluoroscopy)

Radiography (including Fluoroscopy) Preventative Maintenance and Quality Control

- All radiography and fluoroscopy units are required to have an annual medical physicist report and performance testing. This report should include that the equipment is functioning according to manufacturer’s specifications. Medical physicist reports must be examined by the director of radiology at each site. The director’s signature and the date of the review must be placed on the report.