


Name of Policy:	<u>Quality Control of MRI Equipment</u>	
Policy Number:	3364-135-145	
Department:	Radiology	
Approving Officer:	Chief Operating Officer - UTMC	
Responsible Agent:	Chairman & Professor, Radiology	
Scope:	Radiology	Effective Date: 12/1/2021 Initial Effective Date: 9/12/2014
<input type="checkbox"/> New policy proposal		<input type="checkbox"/> Minor/technical revision of existing policy
<input type="checkbox"/> Major revision of existing policy		<input checked="" type="checkbox"/> Reaffirmation of existing policy

(A) Policy Statement

Magnetic resonance imaging (MRI) scanners shall have routine quality control (QC) performed to include daily and/or weekly MRI technologist QC, an annual evaluation by a certified medical physicist, and routine preventative maintenance by a service provider.

(B) Purpose of Policy

To ensure the equipment is operating in a safe manner for both the patient and operator(s) and is producing high quality images.

(C) Procedure

- 1) QC by the MRI technologist will be performed in accordance with American College of Radiology (ACR) MRI Quality Control Manual.
- 2) An annual evaluation by a certified medical physicist will be performed in accordance with the ACR MRI Quality Control Manual and Joint Commission requirements. A report will be prepared to summarize the results of the evaluation and any corrective action needed. The evaluation will include at a minimum the following test:
 - a. Image uniformity for all clinically used volume RF coils
 - b. Signal-to-noise for all clinically used RF coils
 - c. Slice thickness accuracy
 - d. Slice positioning and alignment accuracy
 - e. High contrast resolution
 - f. Low contrast resolution
 - g. Geometric accuracy
 - h. Magnetic field homogeneity
 - i. Artifact evaluation
- 3) Regular preventative maintenance will be performed by Biomedical Engineering or a trained service provider.
- 4) Documentation of all QC activities will be maintained.

<p>Approved by:</p> <p><u>/s/</u> <u>12/20/2021</u> Haitham Elsamaloty, MD Chairman & Professor, Radiology Date</p> <p><u>/s/</u> <u>01/04/2022</u> Christine Stesney-Ridenour, FACHE Chief Operating Officer - UTM Date</p>	<p>Review/Revision Date:</p> <p>10/12/2015 10/1/2018 12/1/2021</p>
<p>Next Review Date: 12/1/2024</p>	
<p>Policies Superseded by This Policy:</p>	