1. **Your System Name**

   EU_OTHER_SIEMENS_AI-RadCompanion

2. **AI Algorithm Description**

   The Brain MR Triage algorithm flags studies with suspected conditions that would require the prompt attention from the clinician. Such conditions are intracranial hemorrhage, brain infarct, and mass effect (i.e., midline shift, herniation, 4th ventricle effacement).

   The algorithm requires T2-weighted FLAIR, diffusion with b-value=1000 s/mm2 and apparent diffusion coefficient brain MR series as input. If present, T2*-weighted (susceptibility weighted imaging or T2*-weighted gradient echo) and T2-weighted series will also be used.

   If any of the above conditions is suspected, the algorithm will flag the study for a prioritized review and will produce a secondary capture and a structured reports that can be stored in the PACS.

3. **DICOM IODs implemented**

   Input
   - a. Magnetic Resonance Image IOD

   Output
   - a. Comprehensive 3D SR IOD
   - b. Secondary Capture Image IOD (MR Image)

4. **Result primitives encoded in the AI Result SR**

   Qualitative findings

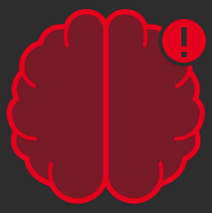
5. **If you encode measurements, indicate whether your measurements reflect a planar region of an image**

   No Measurements are documented in the SR, only findings type is documented . Hence Not Applicable

6. **If you encode regions, indicate whether they are contour-based regions**

   Not Applicable. Only SC will have the findings type.

AI-Rad Companion – Brain MR Triage



Suspected Conditions:
Acute Hemorrhage,
Acute Infarction.

Input Sequence Type: T2w FLAIR, ADC, TraceW, GRE, SWI

Suspected Conditions

- **Acute Hemorrhage**
  Priority 1
- **Acute Infarction**
  Priority 1
- **Mass Effect**
  Not Found

Caution

- Report is based on automated processing. Please review original images for diagnosis.
- Only listed findings are analyzed by the algorithm.
- Values for the DICOM tags Bvalue or Slice Thickness are missing. Hence the findings might be incorrect. Please check the validity of the results.

SIEMENS Healthineers

Patient:	GE Missing Bvalue (male, *1968-07-29, #MR_Neuro_Triage_BValue4)
Study:	2018: RM MRI BRAIN WITH WITHOUT CONTRAST (#1672571480)
Series:	AI-Rad Companion-SR (#7777)
Protocol:	3. BRAIN W/WO +SIMULATIO
Manufacturer:	Siemens Healthineers (AI-Rad Companion Brain MR Triage)
Preliminary Flag:	PRELIMINARY
Completion Flag:	COMPLETE
Verification Flag:	UNVERIFIED
Content Date/Time:	2022-08-17 05:34:40

Imaging Measurement Report

Imaging Measurements

Measurement Group

Observation Context: Tracking Identifier = "Acute Hemorrhage"
Observation Context: Tracking Unique Identifier = 1.3.12.2.1107.5.8.21.159905666170459050478631278114224328645

Finding:
Acute Hemorrhage (RID4700, RADLEX)

Results communicated:
Category 1 Actionable Finding (RID49481, RADLEX)

Concept Modifier: Finding site = Intracranial Structure (128319008, SCT)

Measurement Group

Observation Context: Tracking Identifier = "Acute Infarction"
Observation Context: Tracking Unique Identifier = 1.3.12.2.1107.5.8.21.41655453812969244935057861697041131050

Finding:
Acute Infarction (RID5172, RADLEX)

Results communicated:
Category 1 Actionable Finding (RID49480, RADLEX)

Concept Modifier: Finding site = Brain (12738006, SCT)

Measurement Group

Observation Context: Tracking Identifier = "Mass Effect"
Observation Context: Tracking Unique Identifier = 1.3.12.2.1107.5.8.21.23822057776879410242751454920714132 8653

Finding:
Mass Effect (BRAINMRNC001, RADLEX)

Results communicated:
Category 1 Actionable Finding (RID49481, 99SHSAIRC)

Concept Modifier: Finding site = Brain (12738006, SCT)

Observation Context: Observer Type = Device (121007, DCM)
Observation Context: Device Observer UID = 1.3.12.2.1107.5.8.21.52876728371435767898762934021923281931
Observation Context: Device Observer Manufacturer = "Siemens Healthineers"
Observation Context: Device Observer Model Name = "AI-Rad Companion Brain MR Triage"
Concept Modifier: Language of Content Item and Descendants [Annex 1]

Annex

Annex 1

Language of Content Item and Descendants: