Rapid for Angio

Quantified CT perfusion imaging for the angiography suite

The Siemens Heathineers ARTIS icono with the Rapid for Angio Mismatch map.

RAPIDAI

"In our acute stroke experience, direct in-angio suite use of Rapid on the Siemens Healthineers ARTIS icono is a game changing approach to reduce time to reperfusion and improve clinical outcomes."

PD Dr. Pasquale Mordasini MD, MSc
Institute of Diagnostic and Interventional Neuroradiology University Hospital Bern (Inselspital Bern)

Thrombectomy-enabled centers frequently re-image ischemic stroke transfer patients prior to intervention to ensure that the patient remains a candidate for intervention, adding an additional step in the time to treatment.

Some comprehensive stroke centers (CSC) skip imaging in CT/MR and take all suspected large vessel occlusion (LVO) patients directly to the angio suite, and they require perfusion imaging to confirm intervention decisions.

Whether re-imaging in the angio suite or opting to go direct to angio, clinicians require fast and precise neuroimaging tools to enable quicker time to treatment—minimizing door-to-reperfusion times, and optimizing patient outcomes.

One stop stroke management with Rapid for Angio

Rapid for Angio is a quantified CT perfusion imaging solution for the angio suite that has optimized RapidAI perfusion software to be compatible with the Siemens Healthineers ARTIS icono angiography system and the *syngo* DynaCT Multiphase interventional cone beam CT.

This solution allows real-time brain images to be viewed directly in the angiography suite leading to faster stroke treatment decisions.

Clinicians can view the areas of reduced blood flow and delay in contrast arrival, identifying the volume of infarcted and salvageable tissue as well as the status of the collateral vessels.

Clear, easy-to-interpret perfusion maps are delivered seconds after imaging, helping clinicians by identifying:

- Irreversibly damaged brain core and salvageable areas (penumbra)

- Hypoperfusion intensity ratio (HIR) and cerebral blood volume (CBV) indices for the assessment of collateral blood flow (CBF) and rate of infarct growth
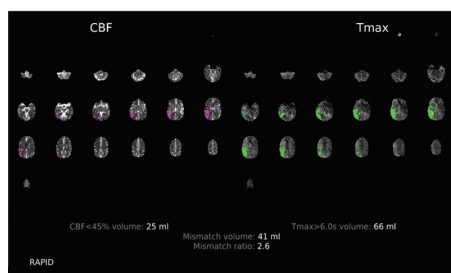
Solution Partner

Dynamic perfusion imaging

SIEMENS Healthineers

Rapid for Angio

Quantified CT perfusion imaging for the angiography suite
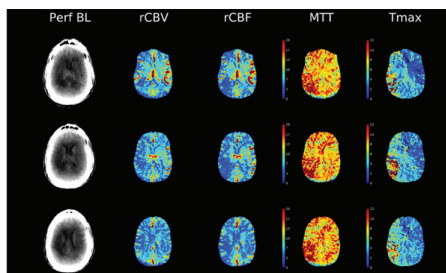
Example output from Rapid for Angio
(Mismatch map)

CBF/Mismatch
The mismatch map provides a comparison between brain regions with substantial reductions in cerebral blood flow (CBF) in pink and regions with significant hypoperfusion in green as reflected by delays in contrast arrival times (Tmax delays).

Example output from Rapid for Angio
(subset of Image Column)

CT Image Columns
This map offers a co-registered view of the CT scan with the CT perfusion maps. No thresholds are applied and no volumes are calculated on this map. It provides a comparison between CT findings and the perfusion images.
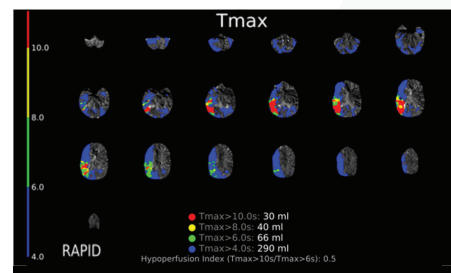
Example output from Rapid for Angio
(subset of Four-threshold Tmax map)

Tmax Hypoperfusion
This map shows the severity of the delays in contrast arrival times (Tmax), the volume of tissue with delays, and the Hypoperfusion Intensity Ration (HIR) which is automatically calculated.

Images courtesy of PD Dr. Pasquale Mordasini, MD MSc, Institute of Diagnostic and Interventional Neuroradiology, Inselspital, University of Bern, Switzerland

Rapid for Angio features:

Rapid CTP

Rapid CTP, the module optimized and validated for the Rapid for Angio product, is the only clinically validated software with an FDA indication to aid in the selection of patients for an acute stroke therapy. It enables physicians to assess salvageable brain tissue through the delivery of quantified and color-coded CT perfusion maps that identify brain regions with reduced cerebral blood flow, volume, density, and transit time that exceed pre-specified thresholds correlating to core and penumbra.

Siemens ARTIS icono with *syngo* DynaCT Multiphase

The ARTIS icono angiography system is the ideal solution for a wide range of interventional therapies. Neuro procedures – and particularly stroke treatment – benefit from *syngo* DynaCT Multiphase. Clinicians can visualize collateral vessels at 10 different time points.

About RapidAI

RapidAI is the worldwide leader in advanced imaging for stroke. Based on intelligence gained over 1,000,000 scans from more than 1,600 hospitals in over 50 countries, the Rapid® platform uses artificial intelligence to create high quality, advanced images from non-contrast CT, CT angiography, CT perfusion, and MRI diffusion and perfusion scans. The Rapid imaging platform includes Rapid ICH, Rapid ASPECTS, Rapid CTA, Rapid LVO, Rapid CTP, and Rapid MRI. RapidAI also offers SurgicalPreview®, a comprehensive aneurysm management platform.

RapidAI empowers clinicians to make faster, more accurate diagnostic and treatment decisions for stroke and aneurysm patients using clinically-proven, data-driven technology. With our validated, trusted products developed by medical experts, clinicians worldwide are improving patient care and outcomes every day. For more information, visit RapidAI.com.

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rapidai.com | info@rapidai.com | +1 650.388.9767