CONE-BEAM CT PERFUSION

Bringing Advanced Perfusion
Imaging Into the Angio Suite.



Cercare Medical

CONE-BEAM CT PERFUSION

A NEW ERA FOR STROKE TREATMENT

Acute Stroke Imaging in the Angio Suite
Thrombectomy has transformed acute stroke care. Yet, in some patients, microvascular obstruction—known as the no-reflow phenomenon—prevents full reperfusion, limiting recovery despite technically successful procedures. Detecting this phenomenon can provide crucial insights into treatment outcomes. The missing link is the ability to see beyond the vessel — to assess tissue health and viability in real time.

Cercare Medical builds on decades of expertise in perfusion imaging, from **Leif Østergaard's pioneering work at Harvard University in the 1990s** to the advanced **Cercare Medical Neurosuite (CMN) perfusion engine** used worldwide today.

Cercare Medical uniquely provides maps of oxygen availability alongside blood flow and volume using CTH, OEF, and $CMRO_2$ to assess microvascular conditions and support precise clinical interpretation. Now, this heritage powers a breakthrough: **Cone-Beam CT (CBCT) Perfusion**.

By enabling perfusion imaging directly in the angio suite, CBCT perfusion helps clinicians see what matters, when it matters — and act immediately.

PERFUSION WHERE IT MATTERS
FROM CONTRAST TO OXYGEN METABOLISM

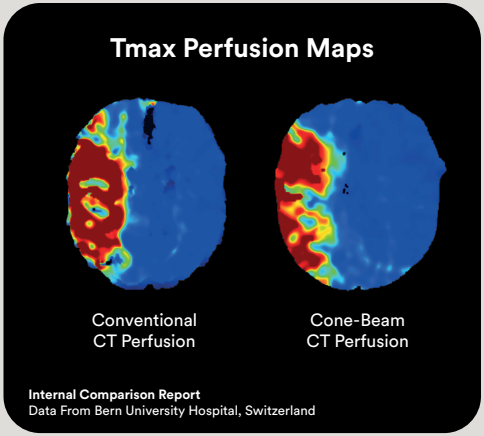
Cone-Beam CT Perfusion delivers conventional CT perfusion-quality maps in the angio suite, using standard C-arm systems.

CLINICAL USE CASES

- Directly impacts the patient treatment pathway, both intra- and post-intervention.
- Assess outcomes post-intervention: detect missed stenoses, distal occlusions, or microvascular disturbances.
- Guide complementary therapies on the spot based on perfusion status.
- May detect the no-reflow phenomenon — providing insight into cases where recovery may fail despite successful thrombectomy.
- Potentially enables direct-to-angio workflows.

TECHNICAL HIGHLIGHTS

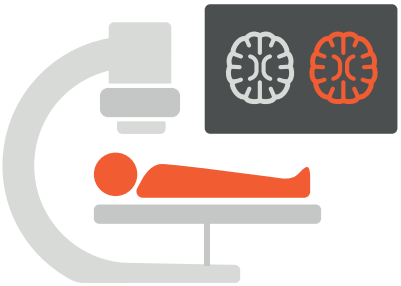
- Full set of conventional biomarkers: CBF, CBV, MTT.
- Advanced metabolic biomarkers: OEF, $CMRO_2$, CTH.
- Supports *syngo* DynaCT Multiphase Data.



The maps available on CTP are now all available on CBCT.

CONE-BEAM CT PERFUSION

BRINGING ADVANCED PERFUSION IMAGING INTO THE ANGIO SUITE



THE PROBLEM

What We Face Today

Even after Thrombectomy

- Reperfusion May Be Incomplete
- Distal Occlusions May Be Missed
- Microvascular Dysfunction May Be Undetected

THE SOLUTION

Oxygen Metabolism Biomarkers

In the Angio Suite

- Intraprocedural Real-Time Tissue Assessment
- Clinically Validated Biomarkers
- Zero-Click Workflow

"You can only treat what you can see. CBCT perfusion delivers crucial insights when standard imaging is not immediately available — right in the angio suite!"

Prof. Johannes Kaesmacher,
Inselspital,
Bern University Hospital,
Switzerland

FROM IMAGING BIOMARKERS TO ACTIONABLE TREATMENT

Cercare CBCT Perfusion brings intraprocedural perfusion imaging into the angio suite, turning cerebral blood flow, blood volume, and oxygen metabolism into intuitive maps at the point of care. Assessed before and after thrombectomy, these maps reveal the physiological impact of treatment in real time—beyond angiographic vessel reopening—for faster, more informed decisions.

CLINICAL WORKFLOW

Contrast Injection » **CBCT Acquisition** » **Automated Generation Of Perfusion Maps** » **Direct Display on Angio Suite Monitors For Immediate Presentation**

Cercare Medical
Metabolic Perfusion Imaging.

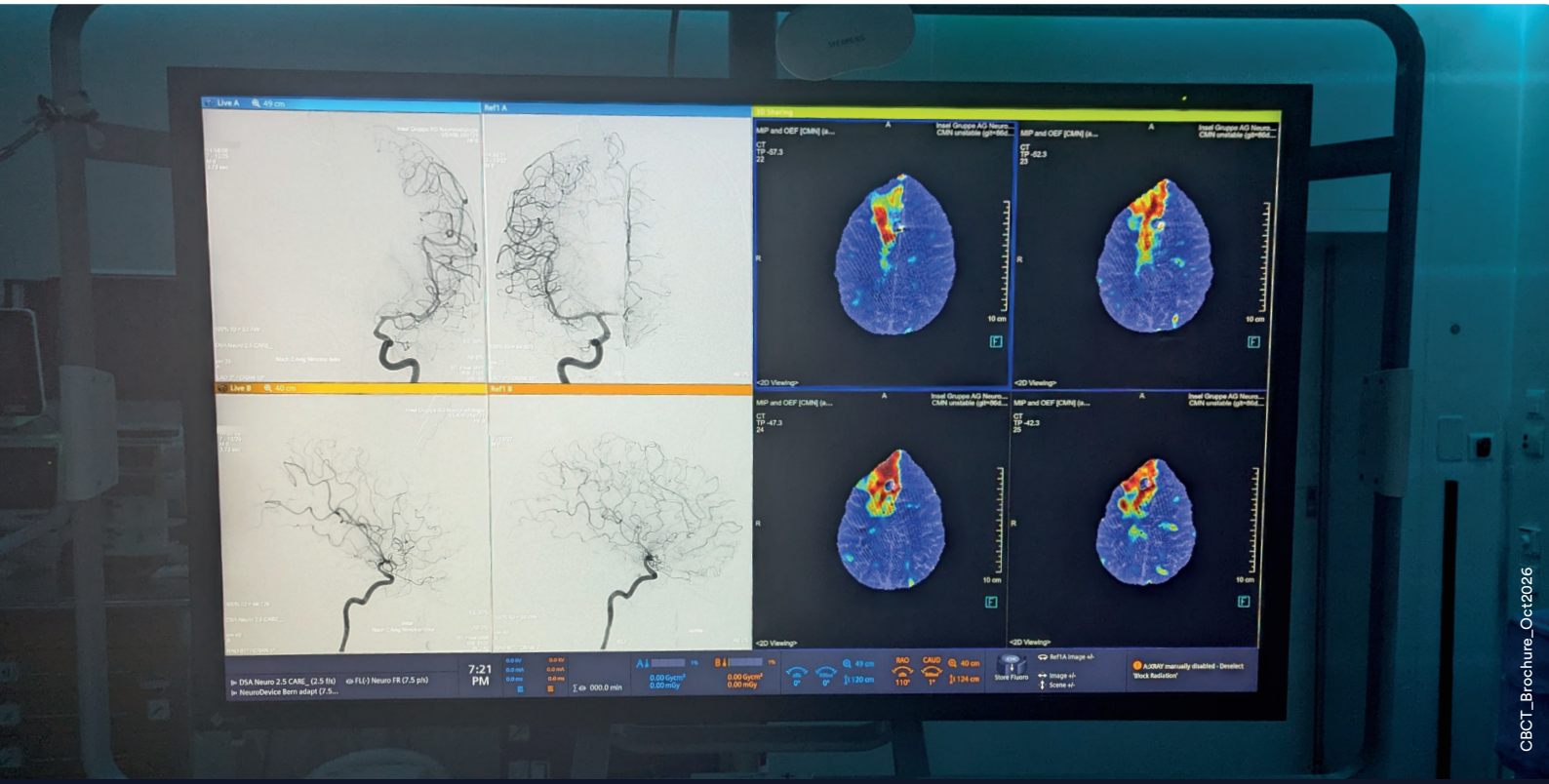
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DELIVERING VALUE

- **Interventional Neuroradiologists** gain real-time insight into tissue viability, reducing uncertainty during complex procedures.
- **Stroke Neurologists** benefit from reliable triage decision support without losing time to transfers or additional scans.
- **Hospital Administrators** see the downstream advantages of cost savings and resource efficiency.
- **Patients** may ultimately benefit, as ongoing clinical trials* test whether this translates into faster therapy and a lower risk of residual occlusions remaining undiagnosed.

*PeRfusiOn Post tHrombEcTomy (PROPHET) A Prospective Observational Cohort Study – Kaesmacher, et al., 2024

Cercare Medical's Cone-Beam CT Solution is FDA Cleared and CE Marked According to the European Medical Device Regulation 2017/745.



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WWW.CERCARE-MEDICAL.COM
Request a demo and explore how Cercare Medical Neurosuite supports both research and clinical applications.