

CBCT PERFUSION

Bringing Advanced Perfusion
Imaging Into the Angio Suite.



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. 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

CBCT PERFUSION IN THE ANGIO SUITE

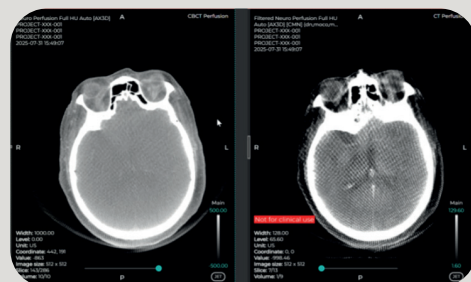
CBCT Perfusion delivers CT-quality perfusion maps directly in the angio suite, using standard C-arm systems. For the first time, clinicians can access advanced tissue insights without interrupting care or delaying treatment.

CLINICAL USE CASES

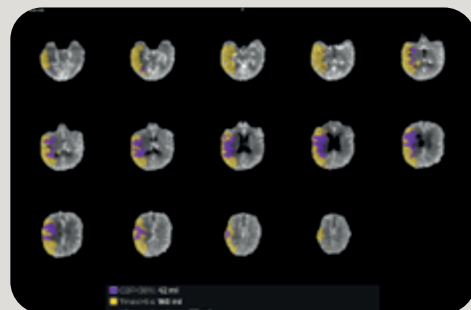
- Assess outcomes post-intervention: detect missed stenoses, distal occlusions, or microvascular disturbances.
- Guide complementary therapies on the spot based on perfusion status.
- May detect the no-reflow phenomenon — providing insight into cases where recovery may fail despite successful thrombectomy.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

TECHNICAL HIGHLIGHTS

- Full set of perfusion markers: CBF, CBV, MTT.
- Advanced oxygen metabolism imaging: OEF, CMRO₂.
- Reliable results with as few as 5 CBCT acquisitions (bolus injection timing protocol very important).
- Integrated with Siemens and Philips systems; GE/Canon under evaluation.



Side-by-side comparison: The left-hand side is the raw CBCT data, while the right-hand side panel is the pre-processed data.



Using CMN software in the angio suite delivers results comparable to conventional CT/MR perfusion.

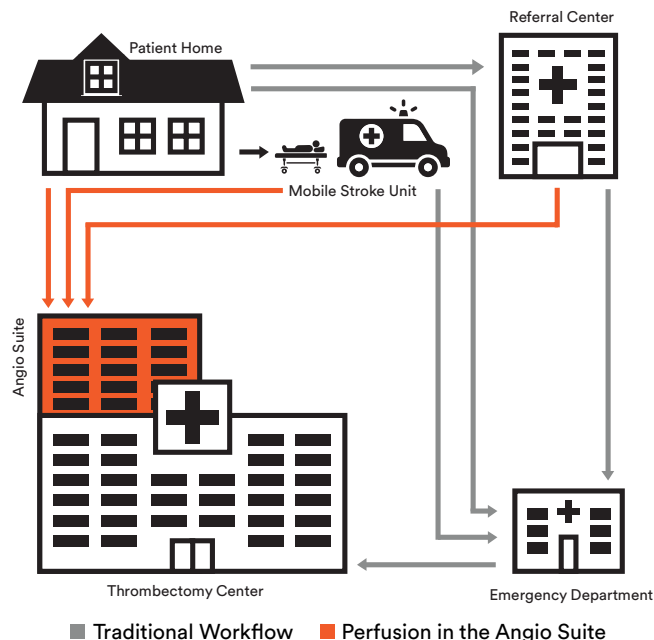
CURRENT WORKFLOW. CURRENT DELAYS. **EVERY MINUTE COUNTS**

Today's stroke workflow still reflects a pre-thrombectomy era:

- > Stabilization and initial imaging in the emergency department
- > CT or MRI perfusion performed away from the angio suite
- > Transfer to angiography for thrombectomy

This process typically delays treatment by 30–60 minutes — precious time when every minute means lost brain tissue. Even after thrombectomy, hidden challenges may remain: missed distal occlusions, microvascular issues, or incomplete reperfusion.

> **STROKE CARE NEEDS PERFUSION INSIDE THE ANGIO SUITE**



YOU CAN ONLY TREAT **WHAT YOU CAN SEE**

From Imaging Biomarkers to Actionable Treatment

Cercare CBCT Perfusion transforms raw imaging data into meaningful clinical guidance — directly in the angio suite. By converting biomarkers such as blood flow, blood volume, and oxygen metabolism into clear, actionable maps, it empowers **faster, evidence-based decisions at the point of care.**

For **clinicians**, this means reliable perfusion data during interventions - helping to confirm success or guide additional treatment. For **patients**, it potentially translates into faster therapy and a lower risk of distal occlusions remaining undiagnosed, thereby ensuring timely administration of adjuvant therapies and improving overall recovery prospects. And for **hospitals**, the benefits extend to lower rehabilitation costs, higher efficiency, and the prestige of being at the forefront of stroke care innovation.

WORKFLOW AT A GLANCE



"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

SHAPE THE FUTURE OF STROKE CARE

From Research License to Clinical Standard

VALUE FOR CLINICIANS, PATIENTS, AND HOSPITALS

- **Interventional Neuroradiologists** gain real-time insight into tissue viability, reducing uncertainty during complex procedures.
- **Stroke Neurologists** benefit from improved triage decisions without losing time to transfers or additional scans.
- **Hospital Administrators** see the downstream advantages of cost savings, resource efficiency, and improved patient outcomes.

REGULATORY STATUS

CBCT Perfusion is now available under research license within the Cercare Medical Neurosuite.

- CE Mark expected 2025
- FDA clearance expected 2026

Early adopters gain unique influence on shaping future clinical guidelines.

