



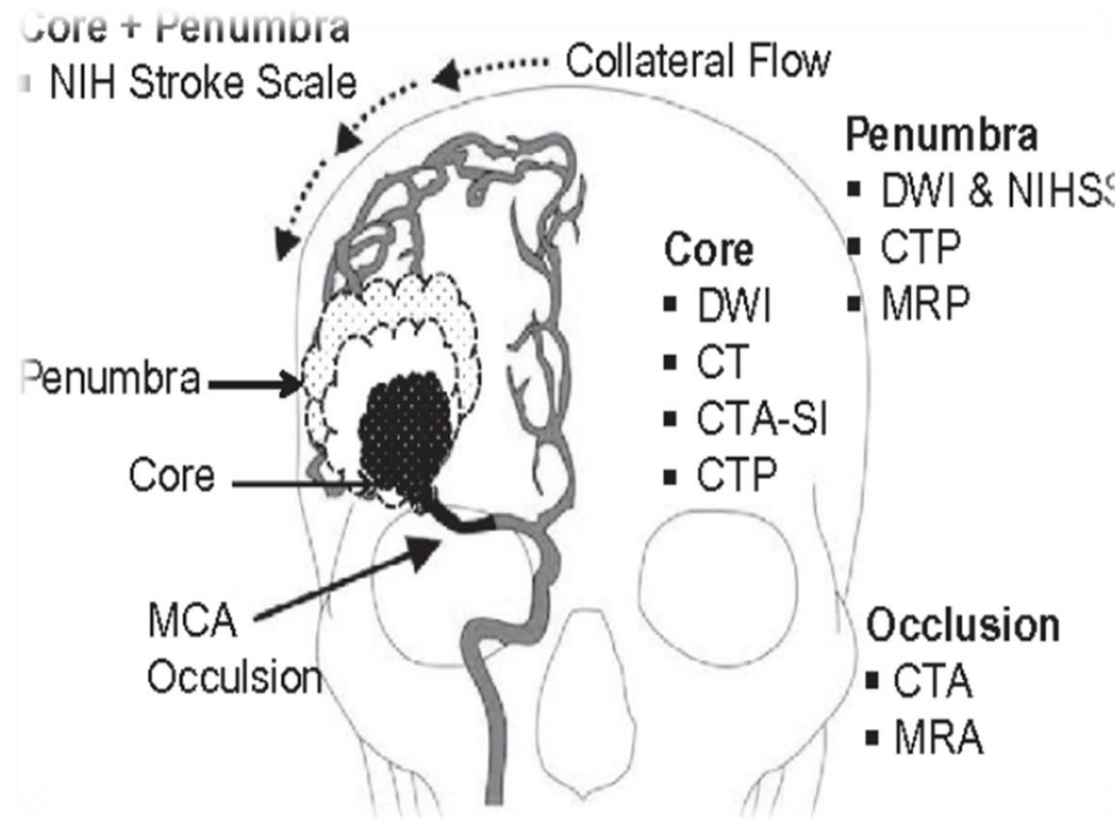
New Year's Eve 2020

PARTY



WHAT'S NEW IN NEUROLOGY

Nguyen Duy Duan, MD, MSc



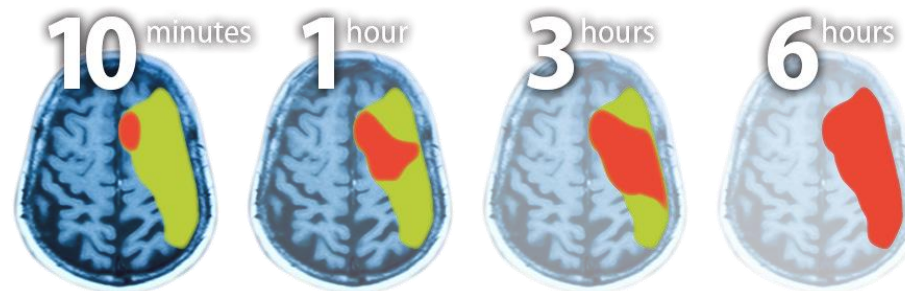
CORE

- Death neurons
- Incurable if reperfusion

PENUMBRA

- Ischemic neurons
- Loss of function
- Salvagable if reperfusion

Thrombectomy
(blood clot removal)



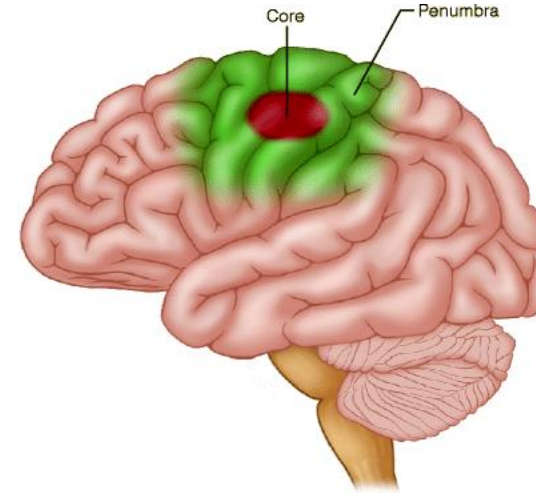
Key question: Is the Penumbra big enough to be rescued?

Time Clock VS. Tissue Clock



ASA 2015 Restricted to Time

4. When treatment is initiated **beyond 6 hours** from symptom onset, the effectiveness of endovascular therapy is uncertain for patients with acute ischemic stroke who have causative occlusion of the ICA or proximal MCA (M1) (Class IIb; Level of Evidence C).



ASA 2018 Restricted to the presence of penumbral tissue

7. In selected patients with AIS within **6 to 16 hours** of last known normal who have LVO in the anterior circulation and meet other DAWN or DEFUSE 3 eligibility criteria, mechanical thrombectomy is recommended.

8. In selected patients with AIS within **6 to 24 hours** of last known normal who have LVO in the anterior circulation and meet other DAWN eligibility criteria, mechanical thrombectomy is reasonable.

I
IIa

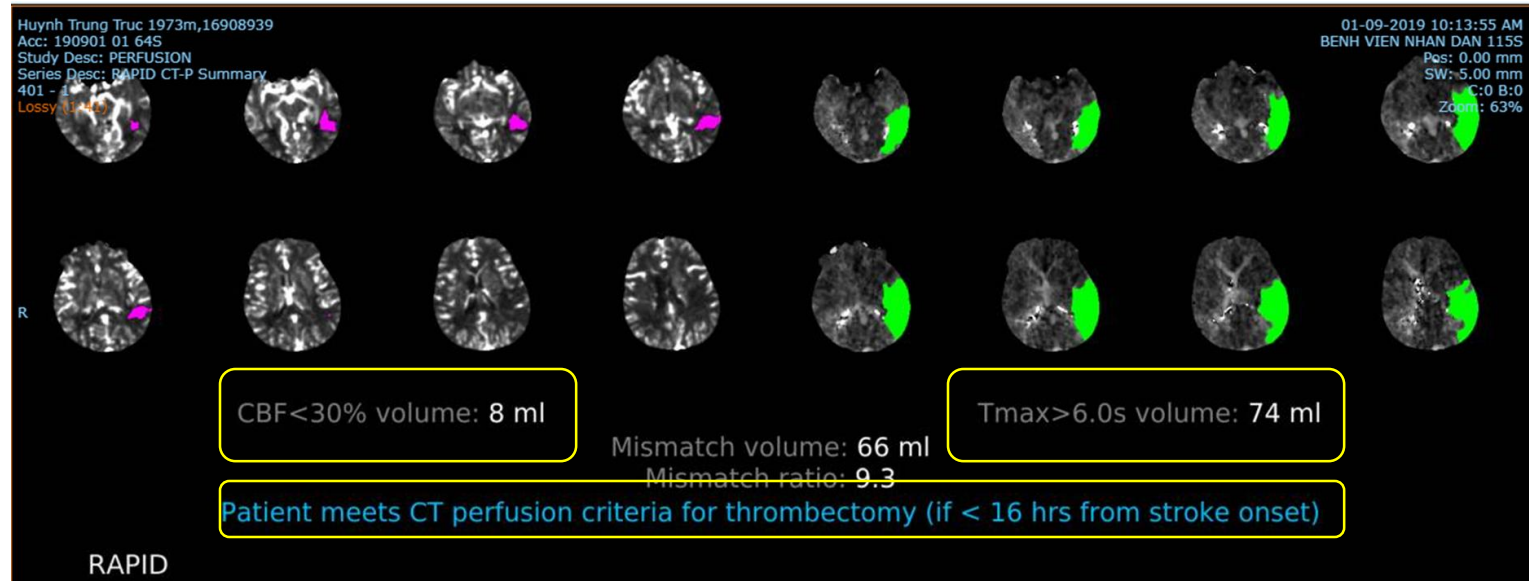
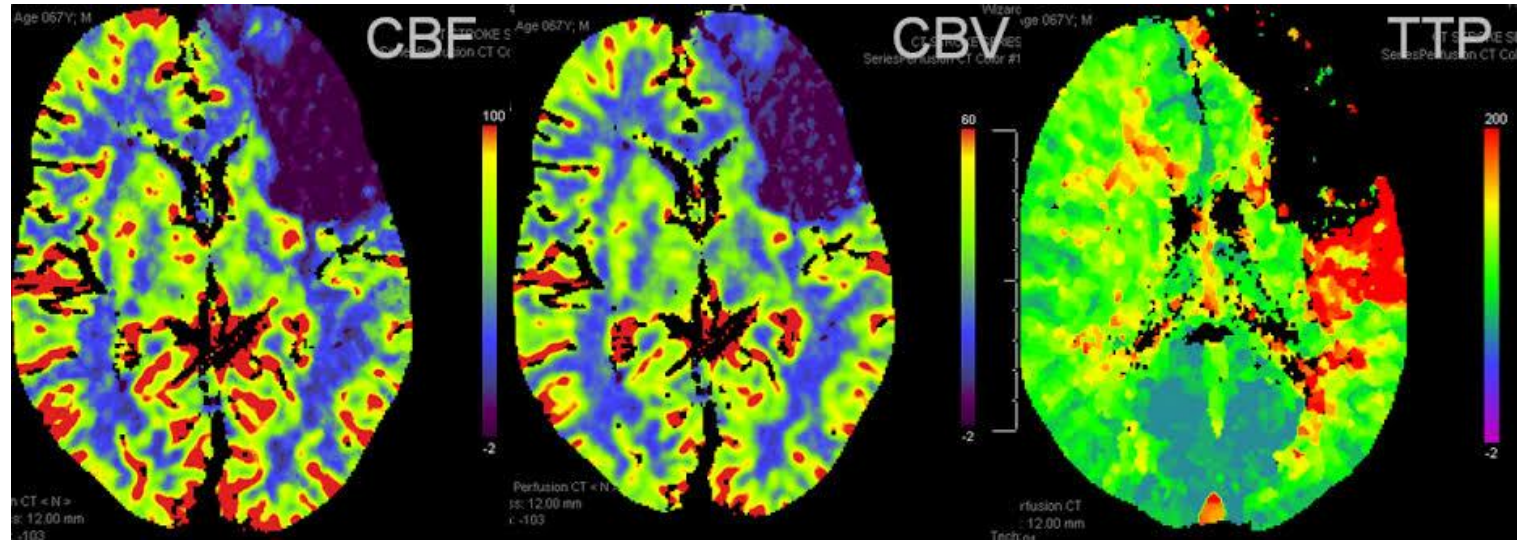
Perfusion Images

with many variables but did not prove benefits in clinical trials



RAPID

estimates the CORE and PENUMBRA using Artificial Intelligence combines more variables and self-training



2019 RAPID: Revolutionary Stroke Scan Software

RAPID.

45+ COUNTRIES | 400,000 SCANS PER YEAR | 1,400+ HOSPITALS



**TIME IS
ON YOUR SIDE APPROVED
WITH RAPID.**

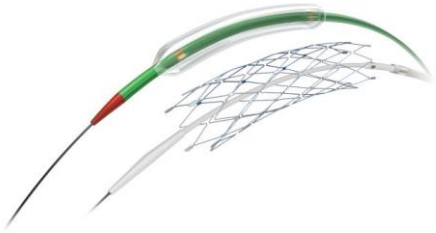
THE MOST ADVANCED CEREBROVASCULAR
IMAGING PLATFORM AVAILABLE

RAPID response time, RAPID results, with custom notifications, on
any mobile device. Easy, fast, secure.

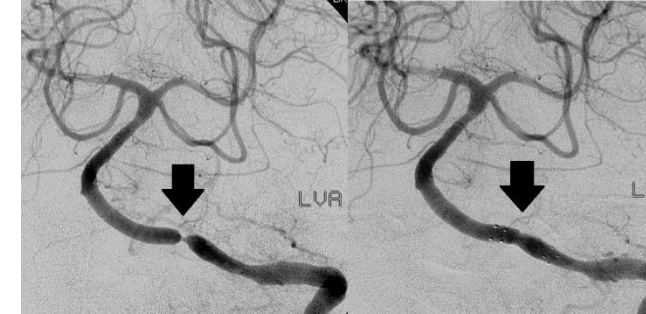


Every Patient Has a Different Time
Clock for Cerebrovascular Disorders.
RAPID Times Every Brain.

Wingspan Stent



WEAVE Trial Final Results in 152 On-Label Patients



Michael J. Alexander, MD; Alois Zauner, MD; John C. Chaloupka, MD; Blaise Baxter, MD;
Richard C. Callison, MD; Rishi Gupta, MD; Shlee S. Song, MD; Wengui Yu, MD;
on behalf of the WEAVE Trial Investigators

Enrollment criteria:


- Age 18 to 80 years
- mRS score ≤ 3
- $\geq 50\%$ intracranial atherosclerotic artery stenosis
- presented with a stroke and had recurrent symptoms while on medical therapy
- >7 days after their stroke

Results:

With experienced interventionalists, and proper patient selection following the on-label usage guidelines, the use of the Wingspan stent for intracranial atherosclerotic disease demonstrated a low periprocedural complication rate (2.6%) and excellent safety profile.

Monoclonal Antibodies

LONG-TERM SAFETY AND EFFICACY OF ECULIZUMAB IN GENERALIZED MYASTHENIA GRAVIS

SRIKANTH MUPPIDI, MD,¹ KIMIYUKI UTSUGISAWA, MD, PhD,² MICHAEL BENATAR, MD, PhD,³ HIROYUKI MURAI, MD, PhD,⁴ RICHARD J. BAROHN, MD,⁵ ISABEL ILLA, MD, PhD,^{6,7} SAIJU JACOB, MD, DPhil,⁸ JOHN VISSING, MD, DMSci,⁹ TED M. BURNS, MD,¹⁰ JOHN T. KISSEL, MD,¹¹ RICHARD J. NOWAK, MD,¹² HENNING ANDERSEN, MD, DMSci, PhD,¹³ CARLOS CASASNOVAS, MD, PhD,^{7,14} JAN L. DE BLEECKER, MD, PhD,¹⁵ TUAN H. VU, MD,¹⁶ RENATO MANTEGAZZA, MD,¹⁷ FANNY L. O'BRIEN, PhD,¹⁸ JING JING WANG, MD,¹⁸ KENJI P. FUJITA, MD,¹⁸ JAMES F. HOWARD Jr MD ,¹⁹ and
for the REGAIN STUDY GROUP

Inebilizumab for the treatment of neuromyelitis optica spectrum disorder (N-MOmentum): a double-blind, randomised placebo-controlled phase 2/3 trial

*Bruce A C Cree, Jeffrey L Bennett, Ho Jin Kim, Brian G Weinshenker, Sean J Pittock, Dean M Wingerchuk, Kazuo Fujihara, Friedemann Paul, Gary R Cutter, Romain Marignier, Ari J Green, Orhan Aktas, Hans-Peter Hartung, Fred D Lublin, Jorn Drappa, Gerard Barron, Soraya Madani, John N Ratchford, Dewei She, Daniel Cimbara, Eliezer Katz, on behalf of the N-MOmentum study investigators**

ORIGINAL ARTICLE [FREE PREVIEW](#)

C5 monoclonal antibody

B cell depleting monoclonal antibody

anti-IL-6 receptor monoclonal antibody

Trial of Satralizumab in Neuromyelitis Optica Spectrum Disorder

Takashi Yamamura, M.D., Ph.D., Ingo Kleiter, M.D., Kazuo Fujihara, M.D., Ph.D., Jacqueline Palace, D.M., Benjamin Greenberg, M.D., Beata Zakrzewska-Pniewska, M.D., Ph.D., Francesco Patti, M.D., Ching-Piao Tsai, M.D., Albert Saiz, M.D., Ph.D., Hayato Yamazaki, M.D., Ph.D., Yuichi Kawata, Ph.D., Pdraig Wright, M.D., Ph.D., [et al.](#)

In short,...

- The implementation of AI in Stroke (RAPID software) enable physicians to expand the time window for selected patients until 24 hours (DEFUSE 3 and DAWN trial)
- Other than medical prevention of recurrent cerebral ischemic events, intracranial stenting has proved the safety and the efficacy (WEAVE trial)
- Novel targeted therapies have shown the safety profile and benefits in autoimmune/inflammatory disease (REGAIN in Myasthenia Gravis and N-MOmentum in NMO)