

Advances in stroke treatment

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Outline....

- Stroke subtypes
- Importance of time
- Stroke symptoms (FAST)
- Stroke code (كد سما) / 724 hospitals
- Guideline based IV thrombolysis and thrombectomy



1
in
6

people
worldwide
will have a
stroke
in their
lifetime.

IT COULD BE YOU!



World Stroke Day 2010
October 29, 2010

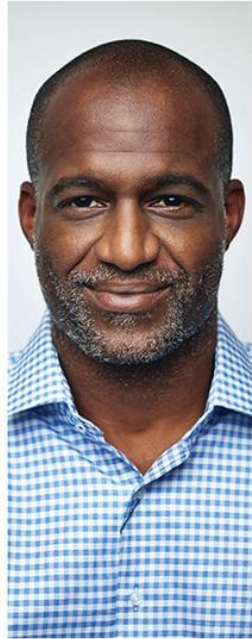


JOIN THE CAMPAIGN TO PREVENT STROKE NOW:
WWW.WORLDSTROKECAMPAIGN.ORG

ESQ APSSO

Mitsubishi Tanabe Pharma Corporation

ALLERGAN



1 in 4 of us will have a stroke.

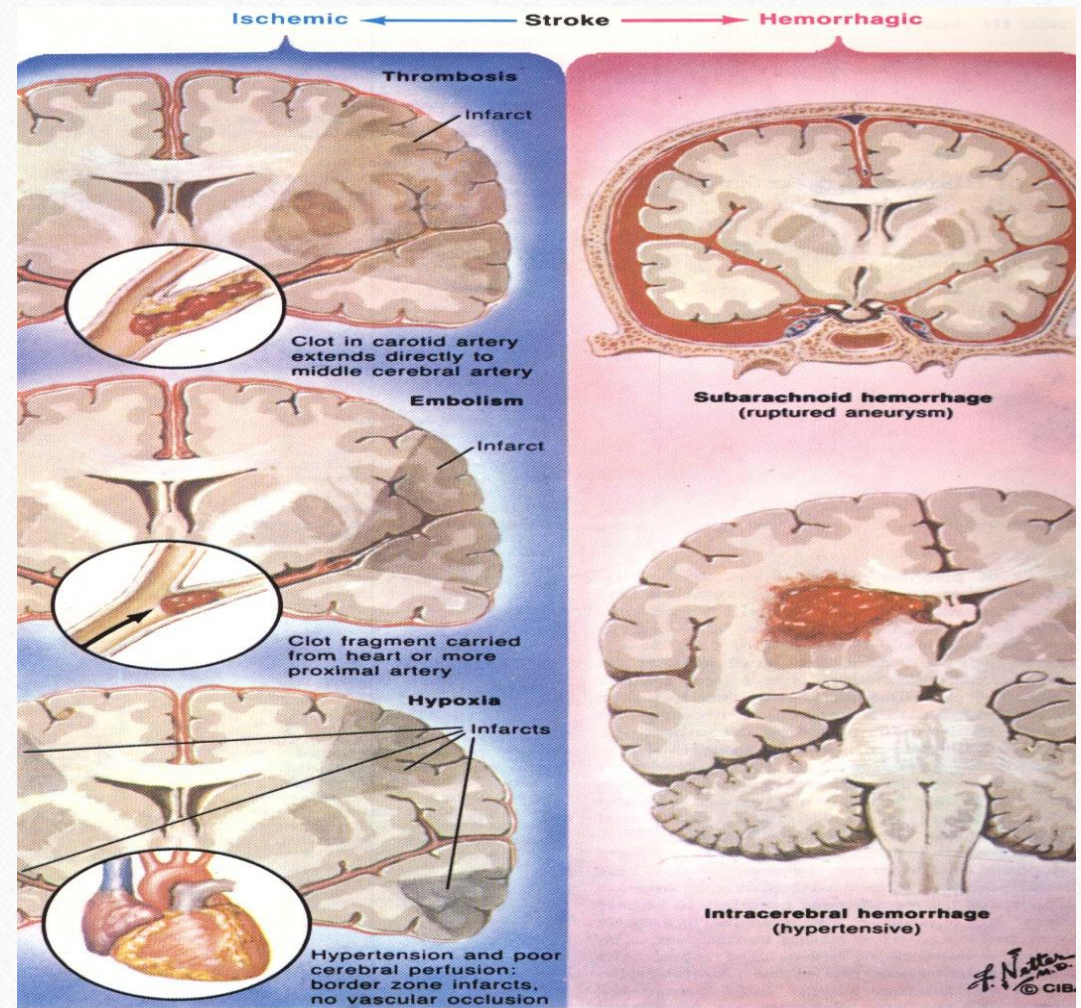
**DON'T BE
THE ONE**



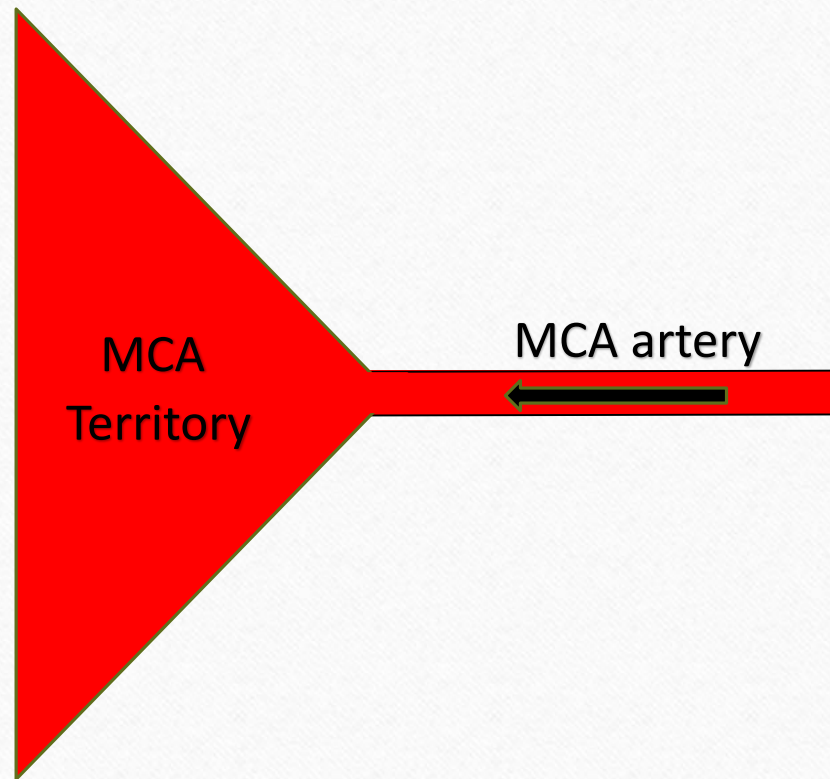
World Stroke Day: October 29th

Stroke subtypes

1. Ischemic (Ischemic stroke, TIA)
2. Hemorrhagic stroke (ICH, SAH)



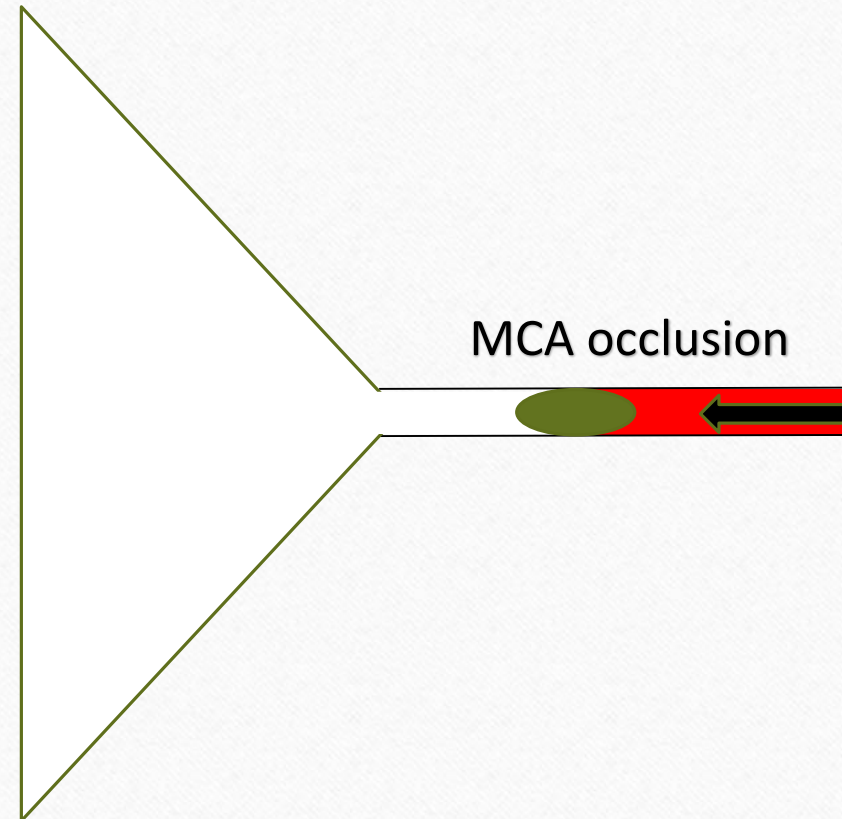
Importance of time (time is brain)



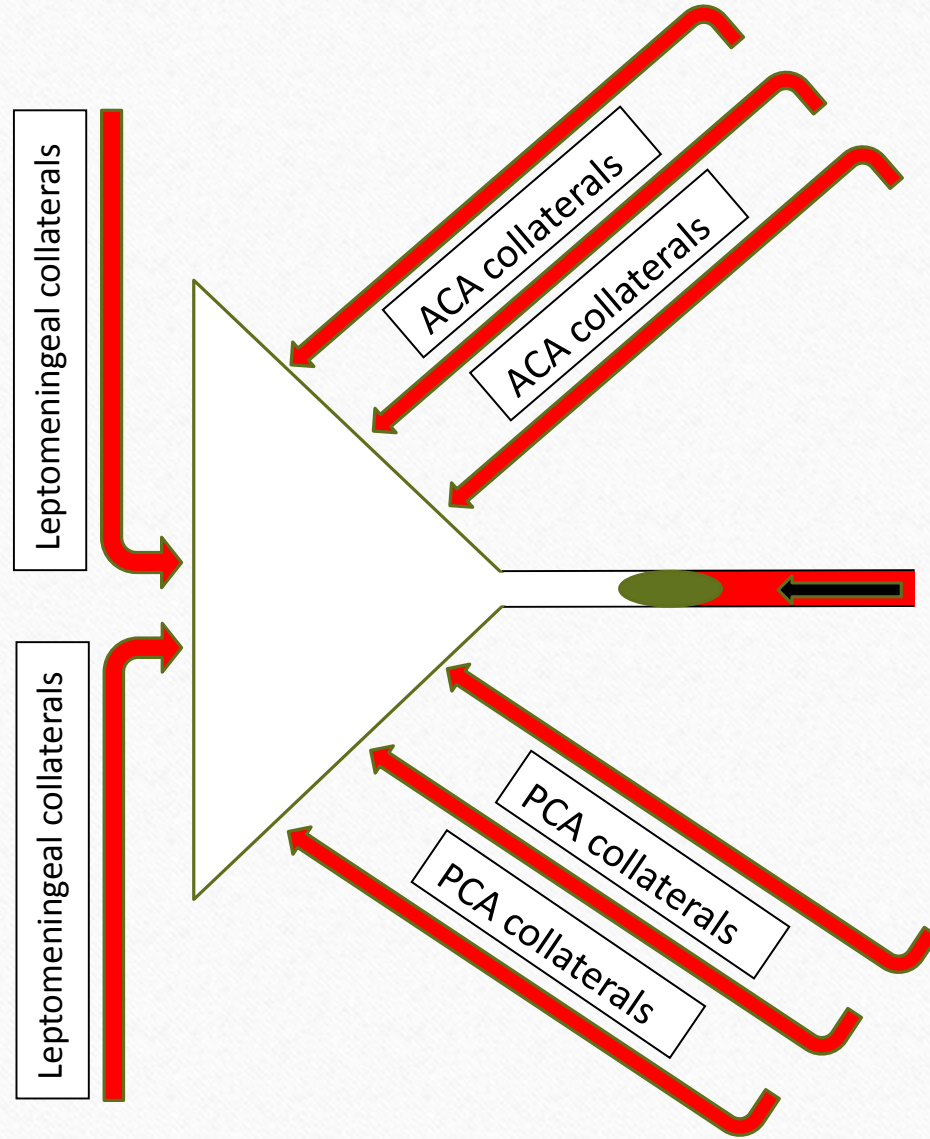
Importance of time (time is brain)

Q1: Neuronal dysfunction begins after 6 seconds and neuronal death begins after 6 mins, so how can golden time be as long as 4.5 hours?

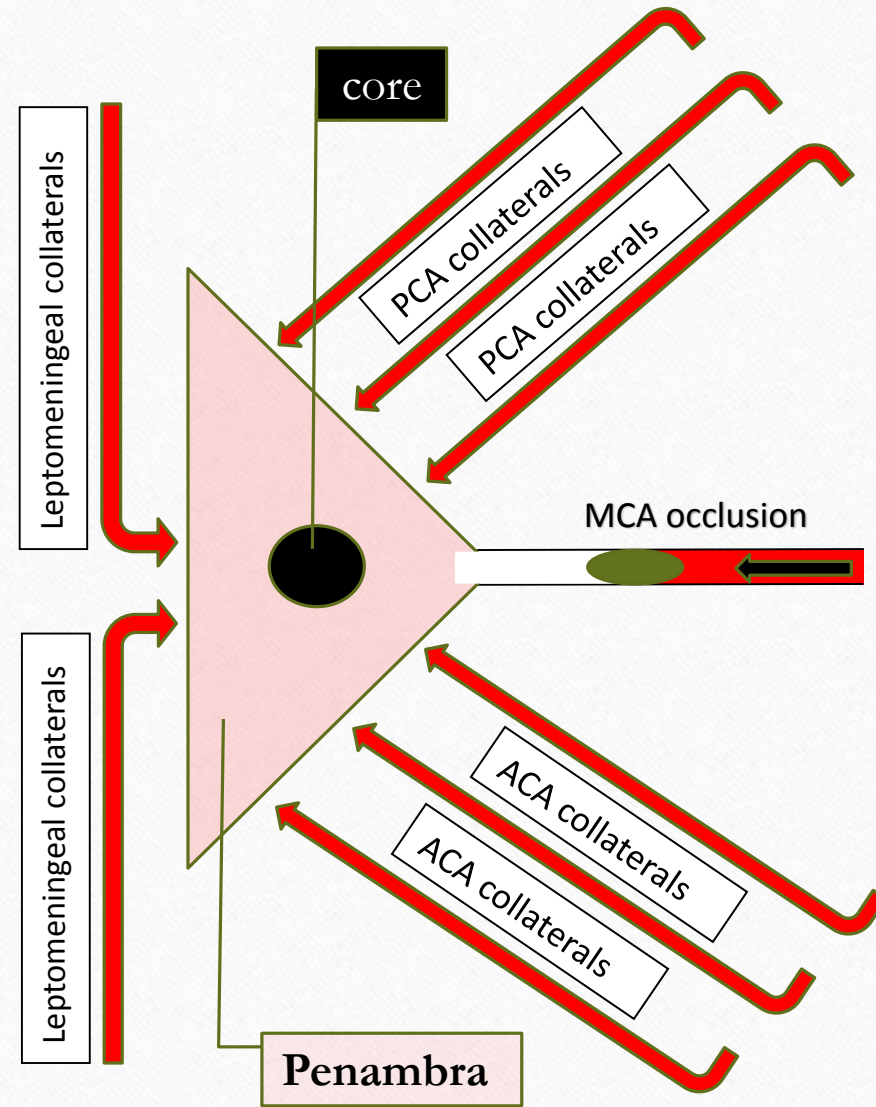
Q2: if golden time is 4.5 hours for brain, why we continue CPR just for 30 mins?



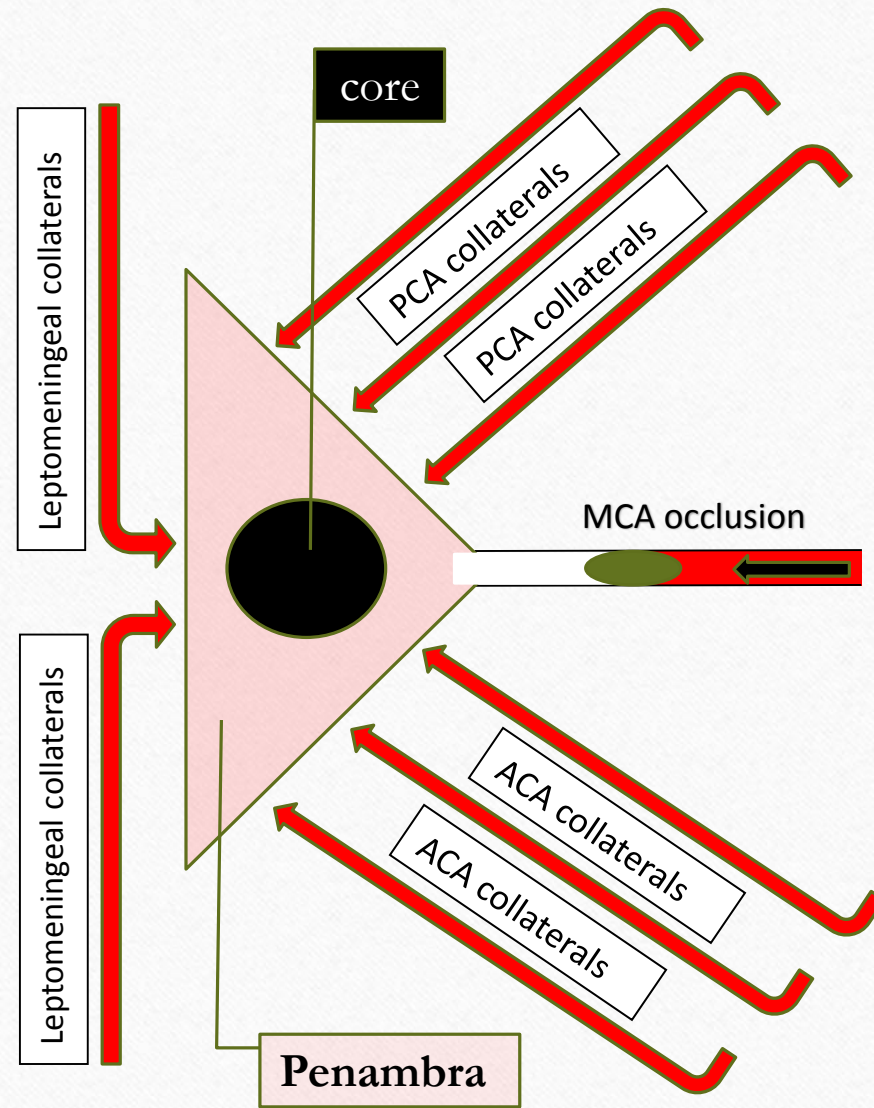
Collateral pathways
help for circulation



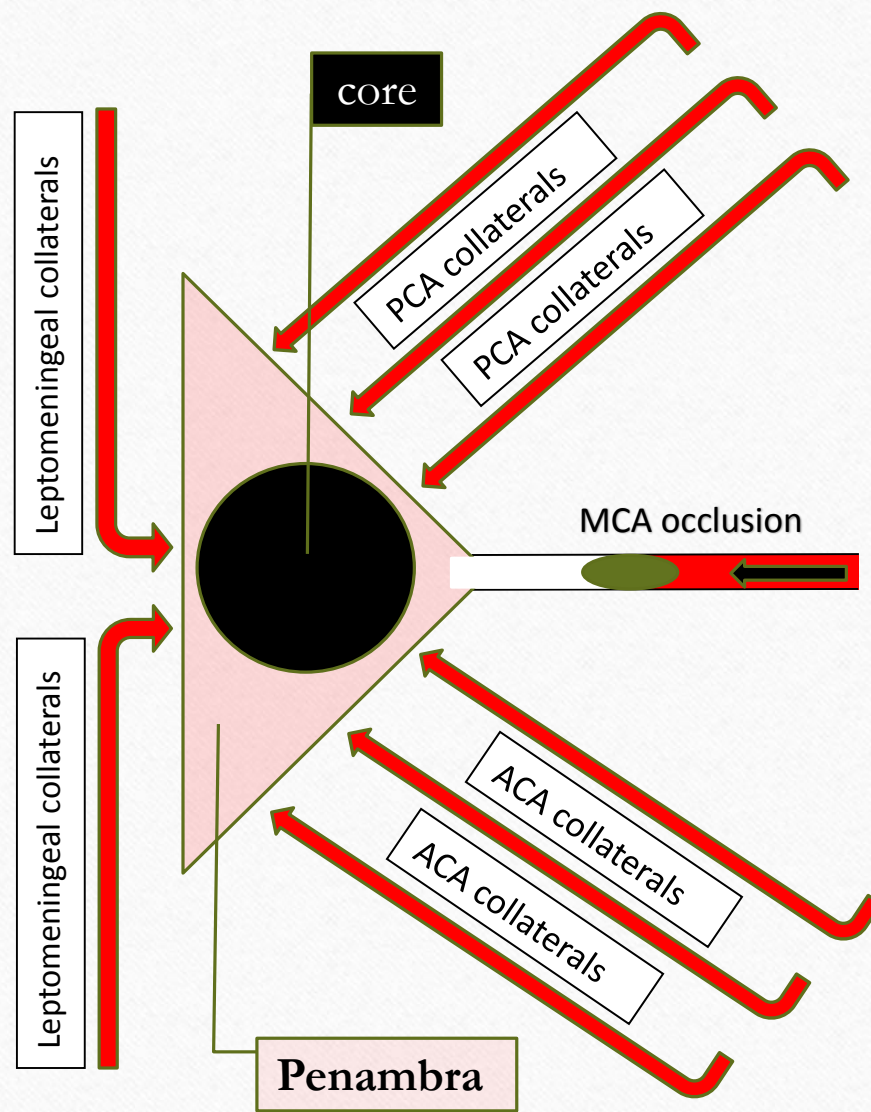
After one hour



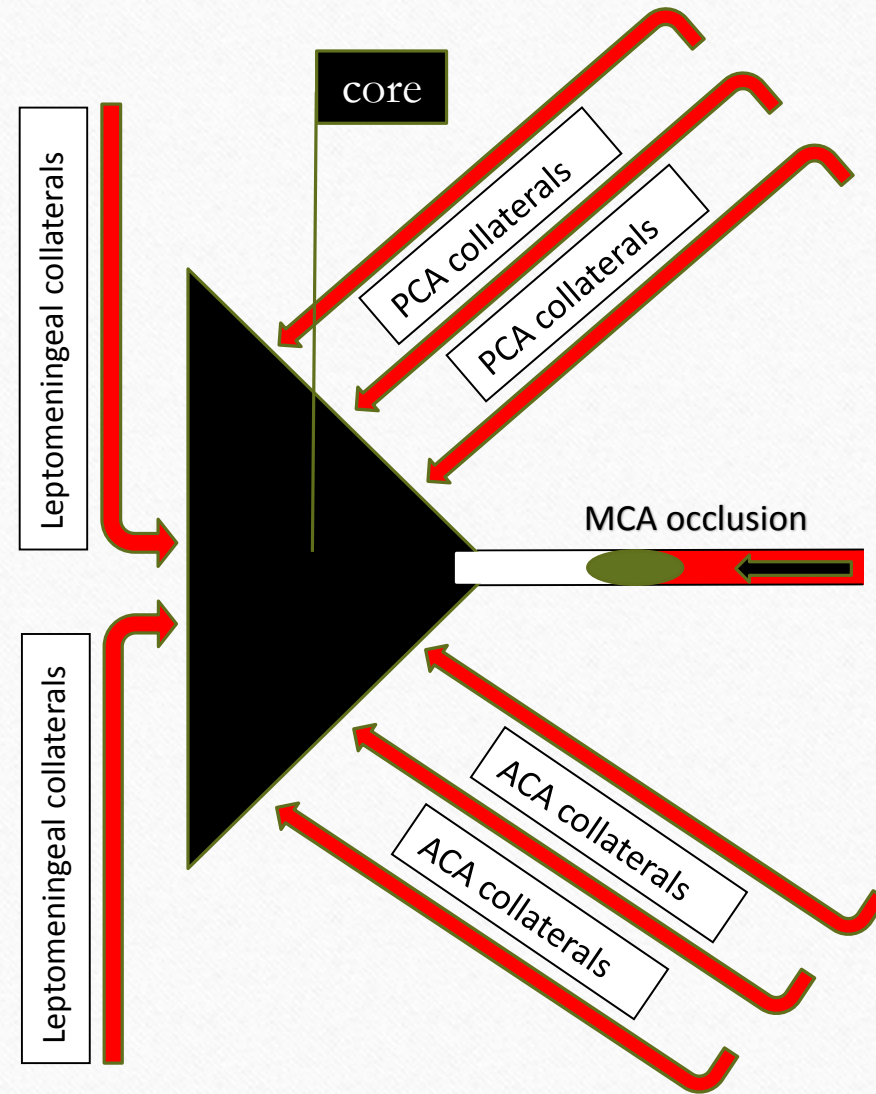
After two hours



After three hours



Finally after golden time
(collateral exhaustion)



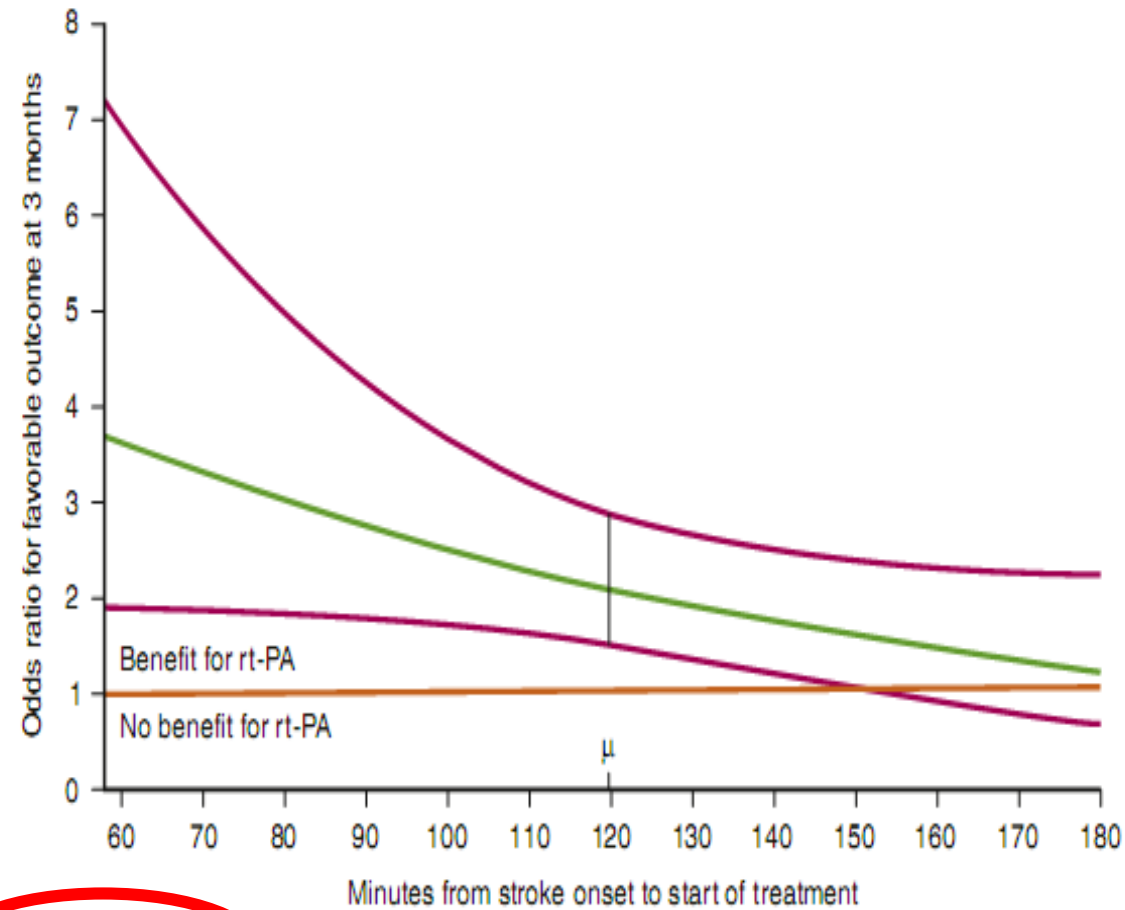


Figure 49-10 Time to treatment effect: This figure shows that t-PA benefit disappears as the time from onset to t-PA treatment approaches 3 hours. (From Meurer J, Tilley B, Lu M, et al: Early stroke treatment associated with better outcome: The NINDS rt-PA Stroke Study. *Neurology* 55:1649-1655, 2000.)

Stroke symptoms (FAST)

F



FACE

ONE SIDE OF THE
FACE IS DROOPING

A



ARMS

ARM
WEAKNESS

S



SPEECH

SPEECH
DIFFICULTY

T



TIME

TIME TO CALL
FOR AMBULANCE

Stroke symptoms (FAST)



F

Face:
SMILE

Is one side
droopy?



A

Arms:
**RAISE
BOTH ARMS**

Is one side weak?



S

Speech:
**SPEAK A SIMPLE
SENTENCE**

Slurred? Unable to?



T

TIME:
Lost time
could be
lost brain

What to do next?

If your not in the hospital then

Call 115

But if you are a treating physician in an ED
then ...

کد سما (سکتہ مغزی اور ژانس)

بیمارستان مبدا
(FAST)

بیمارستان
۷۲۴

۷ روز ہفتہ و ۲۴ ساعتہ

8 am



10 am



2 pm



8 pm

مرکز بهداشت (پزشک عمومی)

سیه رود

بیمارستان (متخصص داخلی)

هادی شهر

بیمارستان (متخصص نورولوژی و سی تی اسکن)

مرند

بیمارستان ۷۲۴ (متخصص نورولوژی و سی تی اسکن و تزریق tpa)

تبریز

آمبولانس بین بیمارستانی

کد سما چگونه فعال می شود؟

تماس با مرکز رصد سلامت: (۱۱۷)

- پایش فعالیتهای ۱۰۰ مرکز آموزشی درمانی و بیمارستان دانشگاهی استانهای آذربایجان شرقی - اردبیل - آذربایجان غربی - و دانشکده علوم پزشکی مراغه، در تمام ساعات شبانه روز بصورت ۲۴ ساعته، توسط مرکز رصد سلامت دانشگاه علوم پزشکی تبریز خبر داد.
- تمامی مکالمات ضبط و قابل پیگیری است



پروتکل درمان

بیماران سکته مغزی حاد در اورژانس و بخش SCU

بیمارستان امام رضا (ع) تبریز

تابستان ۹۸



شناسنامه استاندارد خدمات

مدیریت درمان سکته حاد مغزی

تهیه شده در کارگروه تخصصی مدیریت درمان سکته حاد مغزی

مدیریت بیماریهای معاونت درمان

وزارت بهداشت درمان و آموزش پزشکی

بهار ۹۷

3.5. IV Alteplase

3.5.2. Time Windows	COR	LOE
1. IV alteplase (0.9 mg/kg, maximum dose 90 mg over 60 minutes with initial 10% of dose given as bolus over 1 minute) is recommended for selected patients who can be treated within 3 hours of ischemic stroke symptom onset or patient last known well or at baseline state. Physicians should review the criteria outlined in Table 8 to determine patient eligibility.	I	A
3.5.2. Time Windows (Continued)	COR	LOE
2. IV alteplase (0.9 mg/kg, maximum dose 90 mg over 60 minutes with initial 10% of dose given as bolus over 1 minute) is also recommended for selected patients who can be treated within 3 and 4.5 hours of ischemic stroke symptom onset or patient last known well or at baseline state. Physicians should review the criteria outlined in Table 8 to determine patient eligibility.	I	B-R

3.7. Mechanical Thrombectomy

3.7.2. 0 to 6 Hours From Onset	COR	LOE
1. Patients should receive mechanical thrombectomy with a stent retriever if they meet all the following criteria: (1) prestroke mRS score of 0 to 1; (2) causative occlusion of the internal carotid artery or MCA segment 1 (M1); (3) age ≥ 18 years; (4) NIHSS score of ≥ 6 ; (5) ASPECTS of ≥ 6 ; and (6) treatment can be initiated (groin puncture) within 6 hours of symptom onset.	I	A
3.7.3. 6 to 24 Hours From Onset	COR	LOE
1. 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.	I	A
2. In selected patients with AIS within 16 to 24 hours of last known normal who have LVO in the anterior circulation and meet other DAWN eligibility criteria, mechanical thrombectomy is reasonable.	IIa	B-R

Condition of IV thrombolytic therapy in Tabriz UMS?

- More than 1000 cases treated (the most between large universities)
- Very good cooperation with EMS, ED (emergency department), Radiology department, lab and stroke care unit (SCU)

Condition of mechanical thrombectomy Tabriz UMS?

- Not available yet (angio machine, interventionist but no devices, no anesthesia coverage)

بَا تَشْكُرِ فِرَاوَان