

# Acute Stroke Primary Management

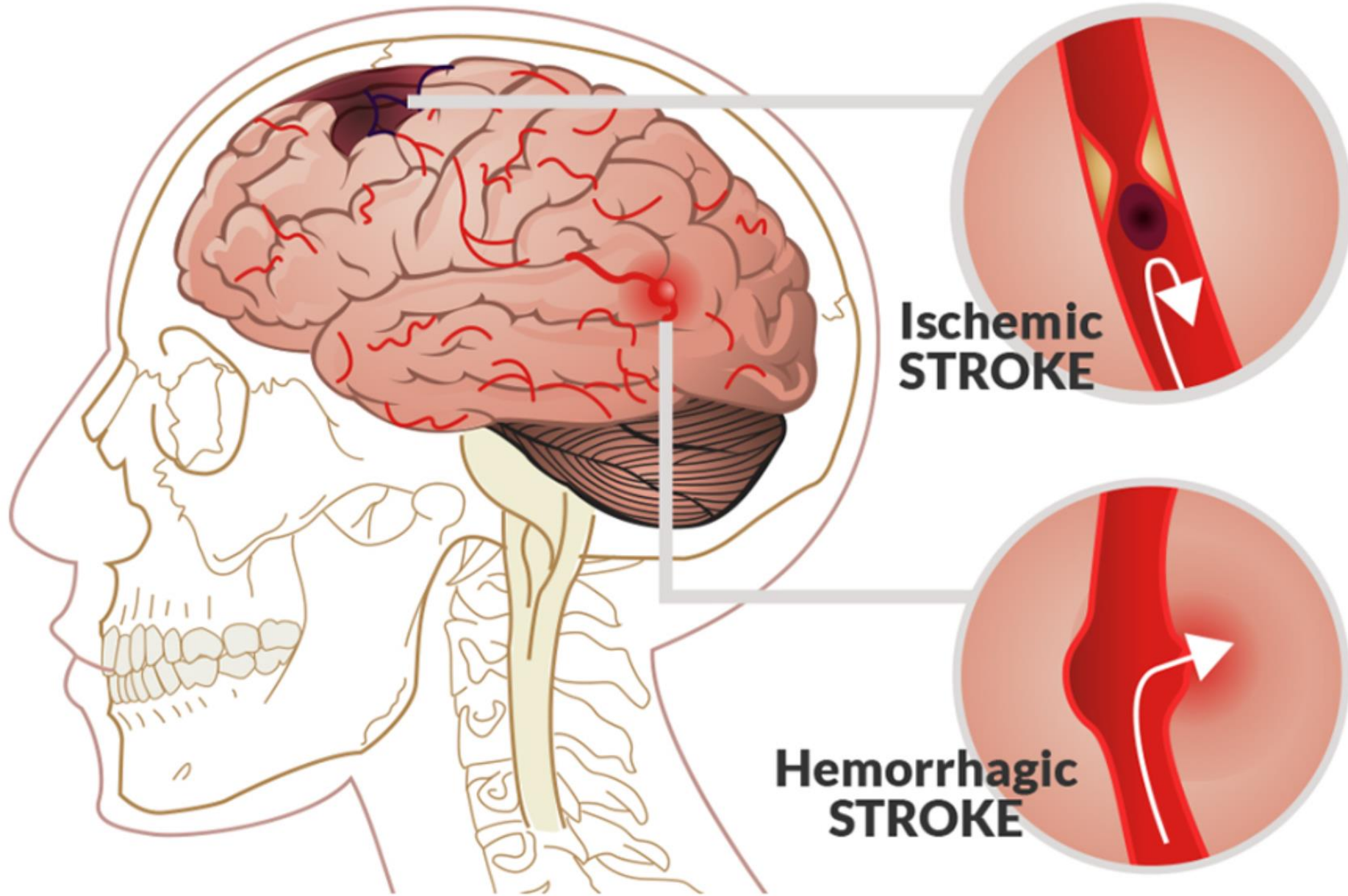
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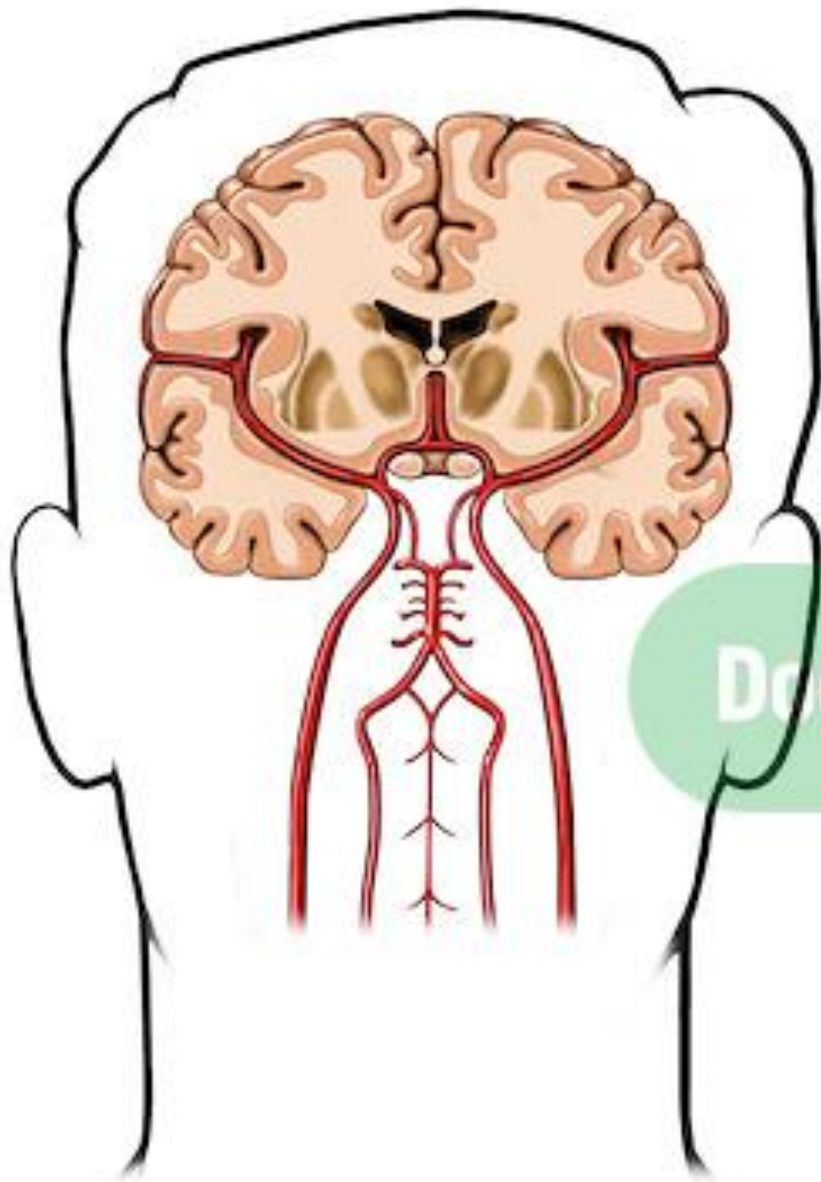
1. **Ischemic**
2. **Hemorrhagic**



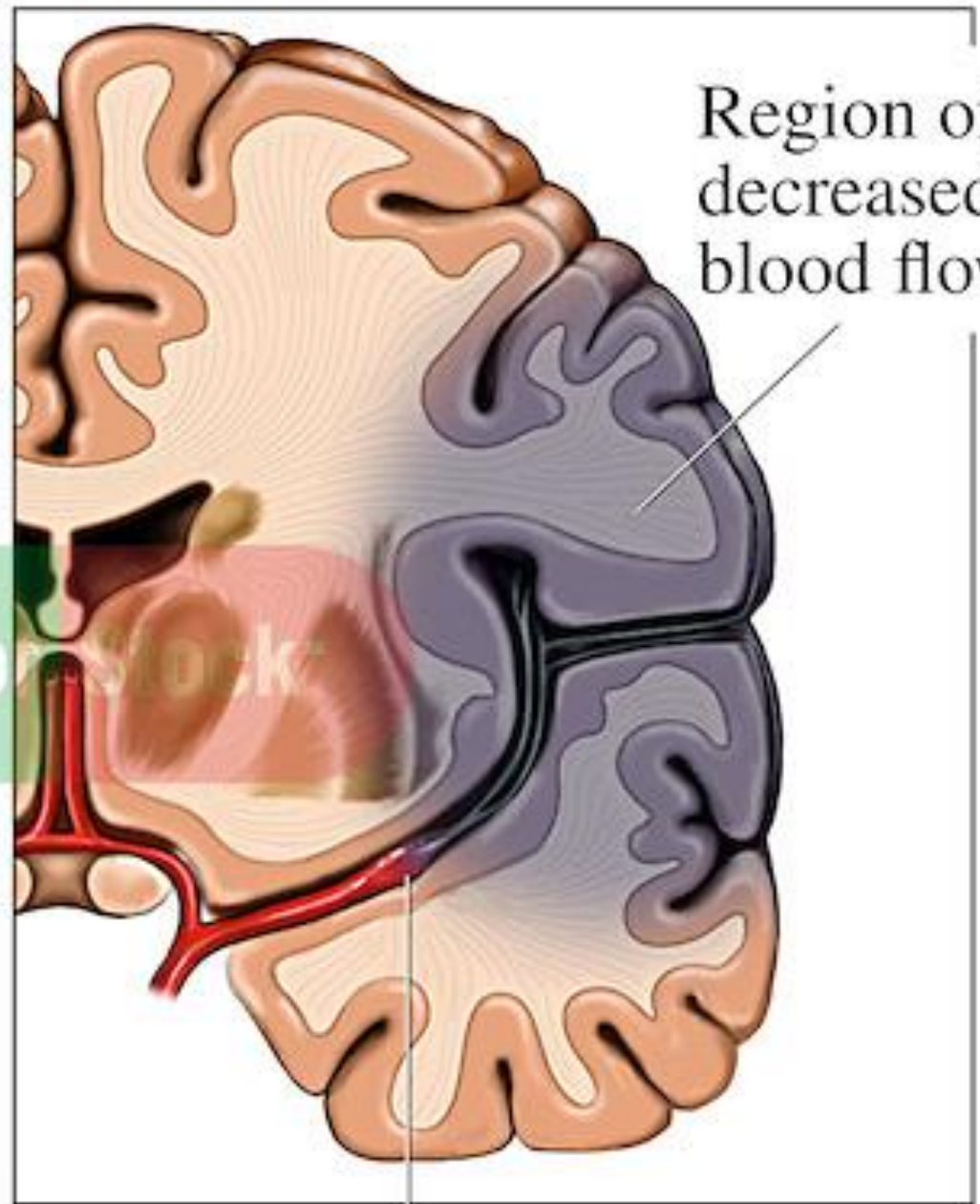
**Ischemic  
STROKE**

**Hemorrhagic  
STROKE**

# STROKE



Blood supply to the brain

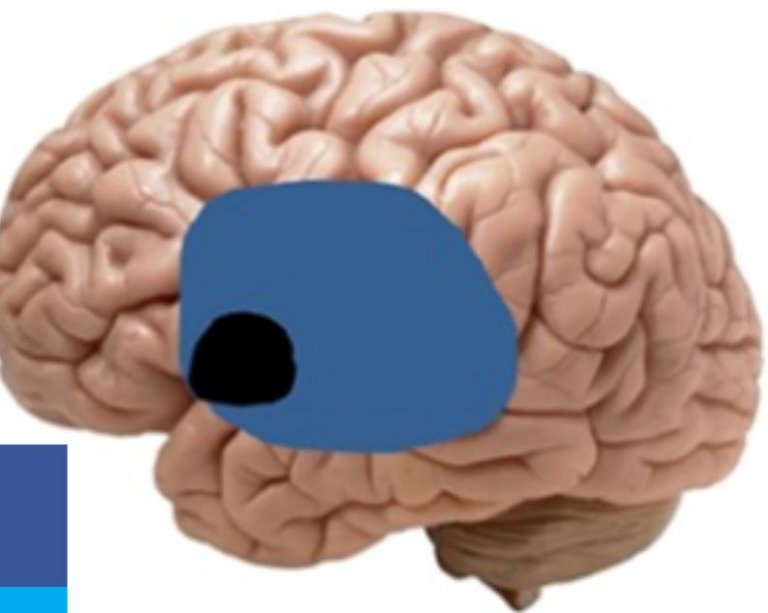


Region of decreased blood flow

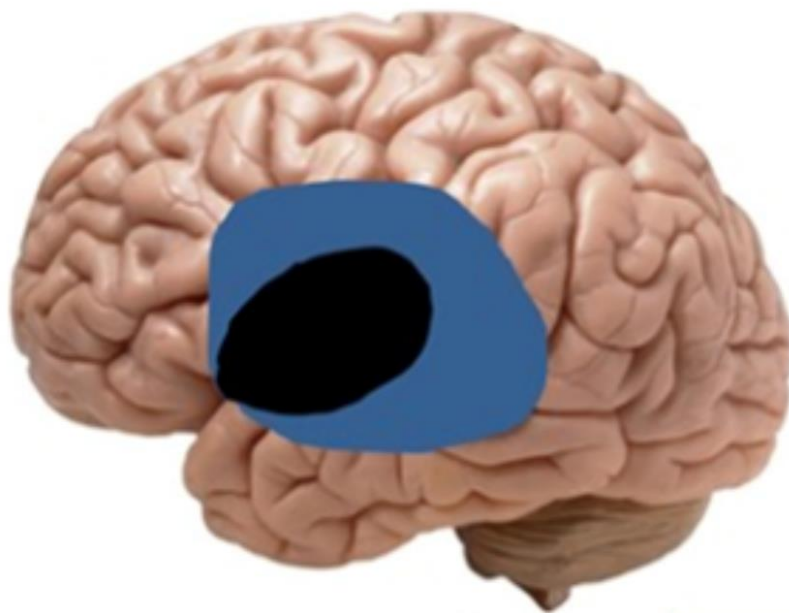
Interruption of blood supply

Doctor's work

30 min



2 hrs



12 hrs



Infarct core

Penumbra





**Time is Brain**



## Prehospital :

- ❑ call to dispatch
- ❑ dispatch to arrival at scene
- ❑ at scene
- ❑ scene departure to hospital
- ❑ Call to door(hospital)

## Hospital :

- ▶ Door to CT
- ▶ Door to Needle

# اهداف آموزش تیم اورژانس

- ▶ **identify stroke**
- ▶ **stabilise the patient**
- ▶ **collect relevant information**
- ▶ **take the patient to correct hospital**
- ▶ **Pre-notify the hospital and if possible:**
- ▶ **prepare the patient in terms of IV lines and blood tests**

# The goals of the emergency services are to

- **Improve the % of prenotifications**
- **Improve the accuracy of FAST**
- **Positive diagnosis**
- **Reduce the symptom to door time.**

## PRE-HOSPITAL

1. Diagnose stroke
2. Choose hospital
3. Emergency transport
4. Pre-notify team

## 1. Diagnosing stroke

# علايم به نفع سخته ايسكميك حاد مغزي

1. پارزي حاد اندامها
2. اختلال تکلم
3. سرگيجه وعدم تعادل حاد
4. دوبيني و تاري دید حاد
5. افت هوشیاری ناگهانی
6. گز گز ناگهانی اندامها
7. انحراف لب و عدم قرینگی صورت

# B

**Balance**



**B is for Balance:**  
Does the person have a sudden loss

# E

**Eyes**



**E is for Eye:**  
Has the person lost vision in one eyes?

# F

**Face**



**F is for Face:**  
Does the person's face look uneven?

# A

**Arms**



**A is for Arm:**  
Is one arm hanging down?

# S

**Speech**



**S is for Speech:**  
Is the person's speech slurred?  
Does the person have trouble speaking or seem confused?

# T

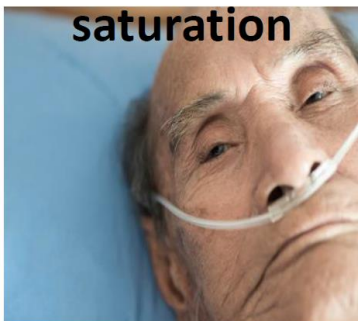
**Time**



**T is for Time:**  
Call 911 now!

# Do as much as possible before hospital arrival

Oxygen saturation



Blood pressure



IV access



Glucose test



Pre-admit patient



Leaving as little as possible to be done after hospital arrival



# Stroke chain-call to stroke unit

- ▶ EMS- call to dispatch
- ▶ Ambulance-dispatch to arrival at scene
- ▶ Ambulance-at scene
- ▶ Ambulance-scene departure to hospital
- ▶ Prehospital-call to hospital
- ▶ Hospital-hospital to thrombolysis
- ▶ Hospital-hospital to stroke unit



2014

تیم 115 به اورژانس



ویزیت پزشک اورژانس



ویزیت نورولوژیست



دستور سی تی



انتقال داخل بیمارستانی  
به سی تی



انتقال به بخش نورولوژی



**Thrombolysis**

تیم 115 به سی تی



×



×



×



ویزیت نورولوژیست در  
سی تی



**Thrombolysis**



انتقال به بخش نورولوژی

2017

# زمان و نحوه فعالسازی کد 724

# اهمیت نحوه فعالسازی کد 724

میزان مرگ سلولی در منطقه ایسکمی در هر دقیقه: **بیش از یک میلیون سلول**

**نتیجه** : افزایش معلولیت و مرگ ومیر

# Hyperacute phase

- ▶ **Time is Brain**: Focus on Recanalization
- ▶ Triage
- ▶ Door to CT time
- ▶ Treatment Pack

## To reduce the door to recanalization time:

- ▶ Pre-notification
- ▶ Take the patient to CT
- ▶ Treat the patient at the CT







## تعیین زمان دقیق از شروع علائم

- ❖ 4/5 - 6 ساعت
- ❖ در صورت **خواب بودن** بیمار: در گذشته آخرین باری که بیمار سالم دیده شده است اما اخیرا بر اساس ام آر ای تصمیمگیری می شود.



# مواردی که در رد اعلام کد 724 می باشد

- ▶ سابقه **خونریزی مغزی**
- ▶ علایم به نفع **ساب آراکنوئید هموراژی**
- ▶ **گلوکز** کمتر از 50
- ▶ سابقه مصرف **هیپارین** در 48 ساعت گذشته
- ▶ سابقه **استروک** یا **ضربه به سر شدید** در 3 ماه گذشته
- ▶ **آرتریوپانکچر** در مناطق غیر قابل فشار در یک هفته گذشته

# Assessment before IV Alteplase

- ▶ **Only** the assessment of **blood glucose** must precede the initiation of IV alteplase in all patients.
- ▶ **Baseline ECG** assessment is recommended in patients presenting with AIS, but **should not delay initiation** of IV alteplase.
- ▶ **Baseline troponin** assessment is recommended in patients presenting with AIS, but **should not delay initiation** of IV alteplase.
- ▶ Usefulness of **chest radiographs** in the hyperacute stroke setting in the absence of evidence of acute pulmonary, cardiac, or pulmonary vascular disease is unclear.

## در صورت فشار خون بالای بیمار:

▶ فشار بیشتر از

185/110

▶ شروع درمان با لابتالول

▶ Labetalol 10–20 mg IV over 1–2 min, may repeat 1 time

**During and After Infusion: Monitor BP** every 15 min for 2 h from the start of alteplase therapy, then every 30 min for 6 h, and then every hour for 16 h

▶ If systolic **BP >180–230** mm Hg or diastolic BP >105–120 mm Hg: **Labetalol** 10 mg IV followed by continuous IV infusion 2–8 mg/min;

▶ If BP **not controlled** or **diastolic BP >140** mm Hg, consider IV **sodium nitroprusside**

Stroke is a **Brain Attack**.  
Stroke hits FAST

