MEET 2015 - Nice

Emergency Management: How to Handle Evolving Stroke

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Disclosure

Nothing to disclose in regard to this presentation

What happens in acute cerebral artery occlusion?

Normal blood supply

60ml/min/100g brain tissue

Loss of neurocyte function

20ml/min/100g brain tissue

Neurocyte death

12ml/min/100g brain tissue

What happens in acute cerebral artery occlusion?

2 Mill. neurocytes die per minute

Core of dead tissue usually dies within 30 min

Transitional area at risk - penumbra - survives for some hours

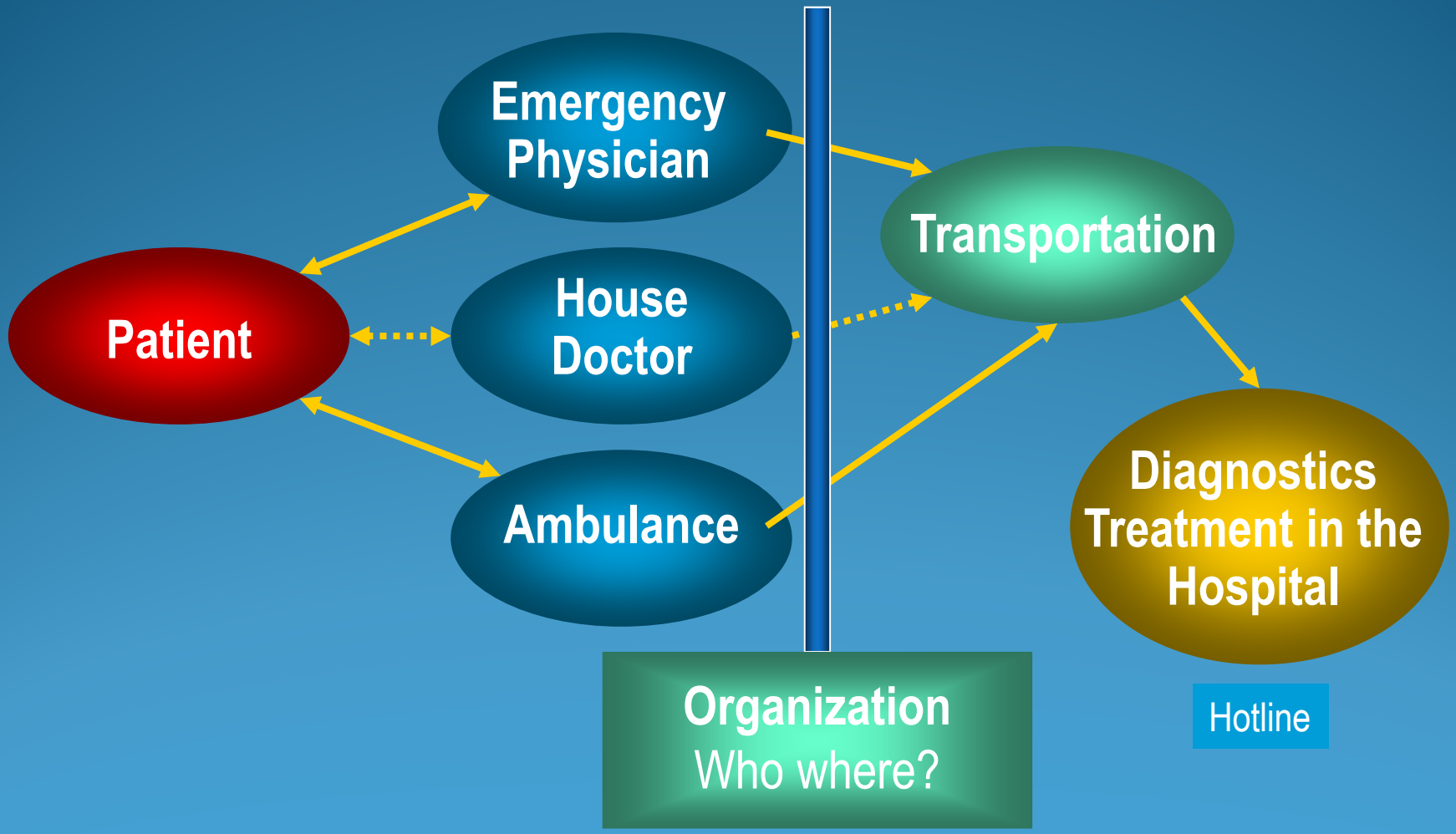
Collateral Flow

- Leptomenigeal arteries
- Cross perfusion from internal system
- Cross flow from opposite side
- Anterior/posterior circulation

Consequence ?

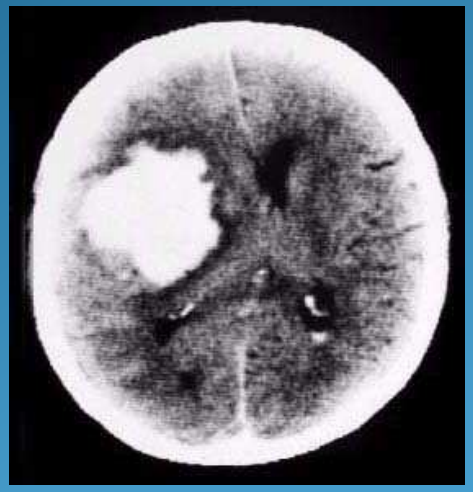
- Logistics
- Door to CT to needle time
- Bridging i.v. thrombolysis
- Thrombectomy

Logistics - SOP



There is more than one cause for stroke symptoms ...

Intracerebral hemorrhage



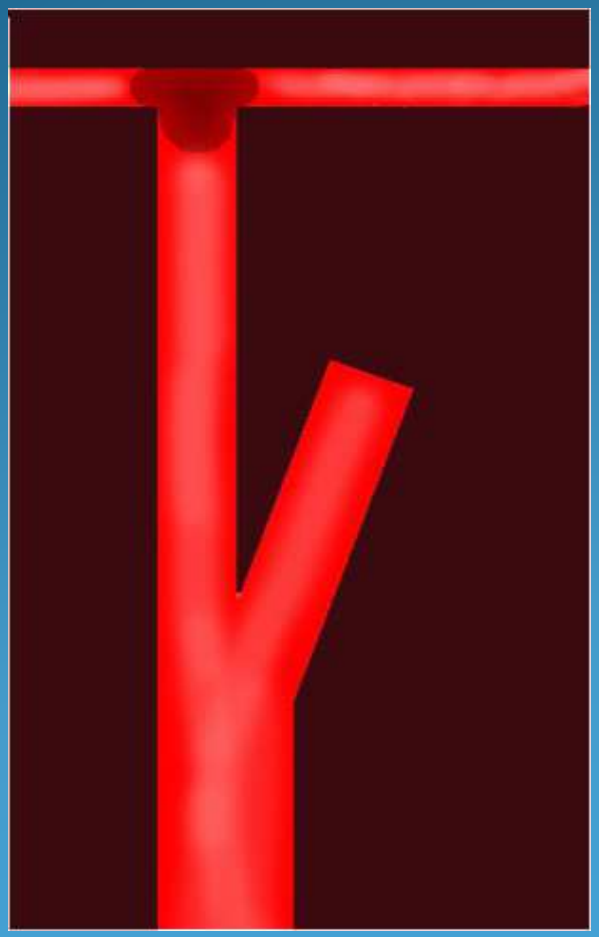
SAH

Ischemic stroke with hemorrhagic transituion

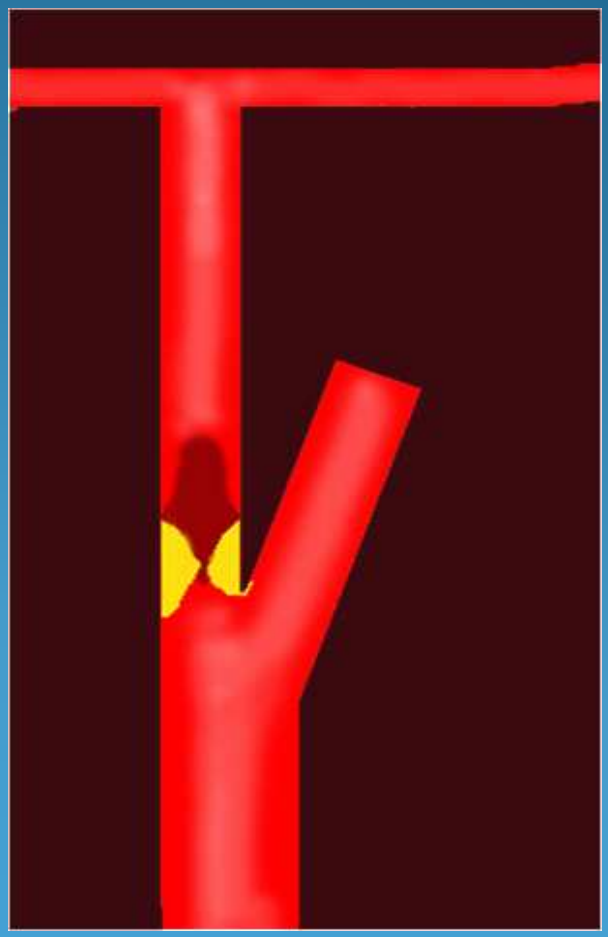
Subdural hematoma

Two Types of Occlusion

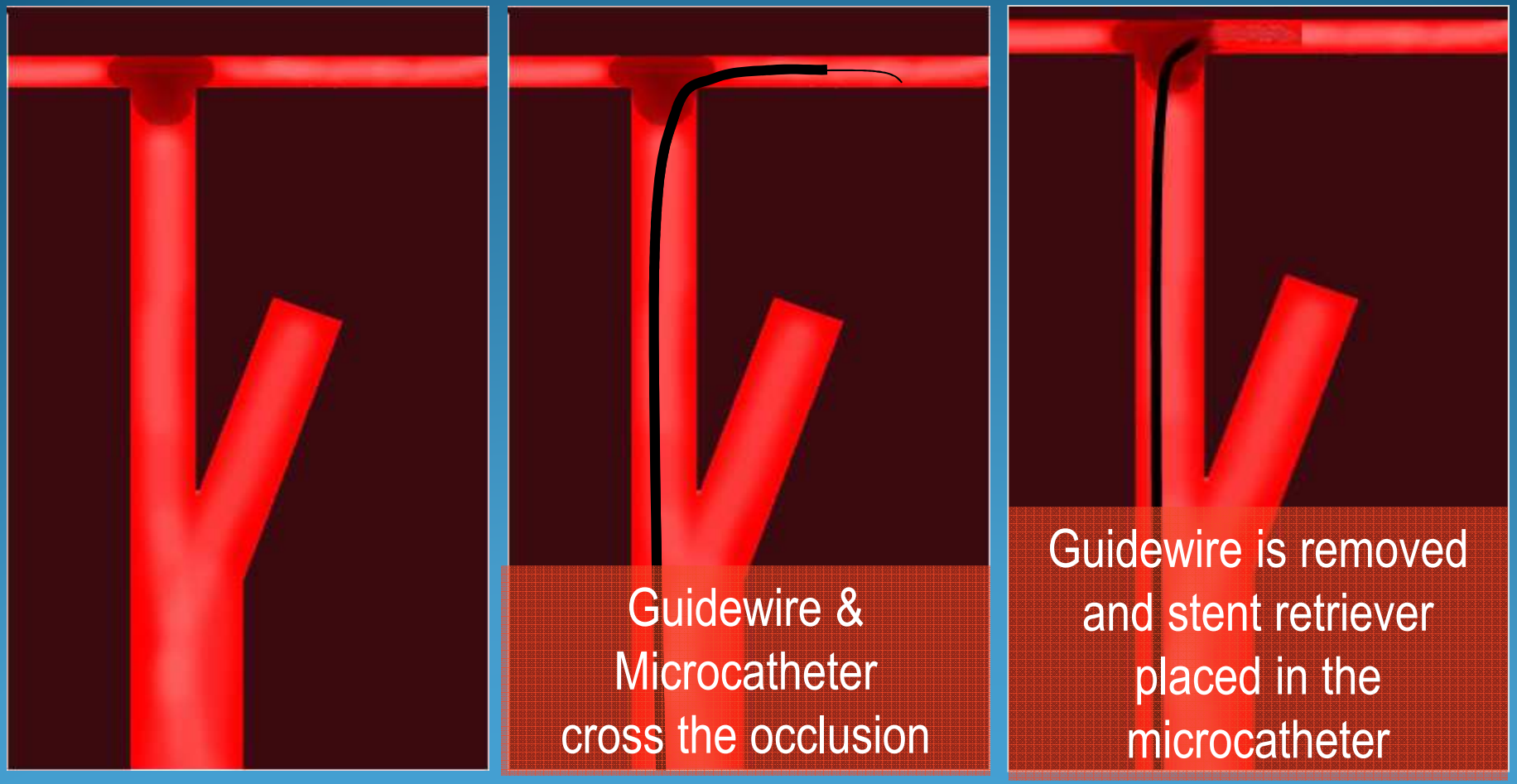
Carotid-T occlusion



Carotid bifurcation occlusion



Carotid-T Occlusion



Carotid-T Occlusion

J. B. m-52 Hemiplegic for 6 hrs Before and after TE

Acute Carotid Occlusion

CT-Angio 4w after CAS & TE

Outcome

- Technical success in 98% of studies
- Primary outcome in 96% of studies
- TIMI>2 in 77% (range 25-96%)

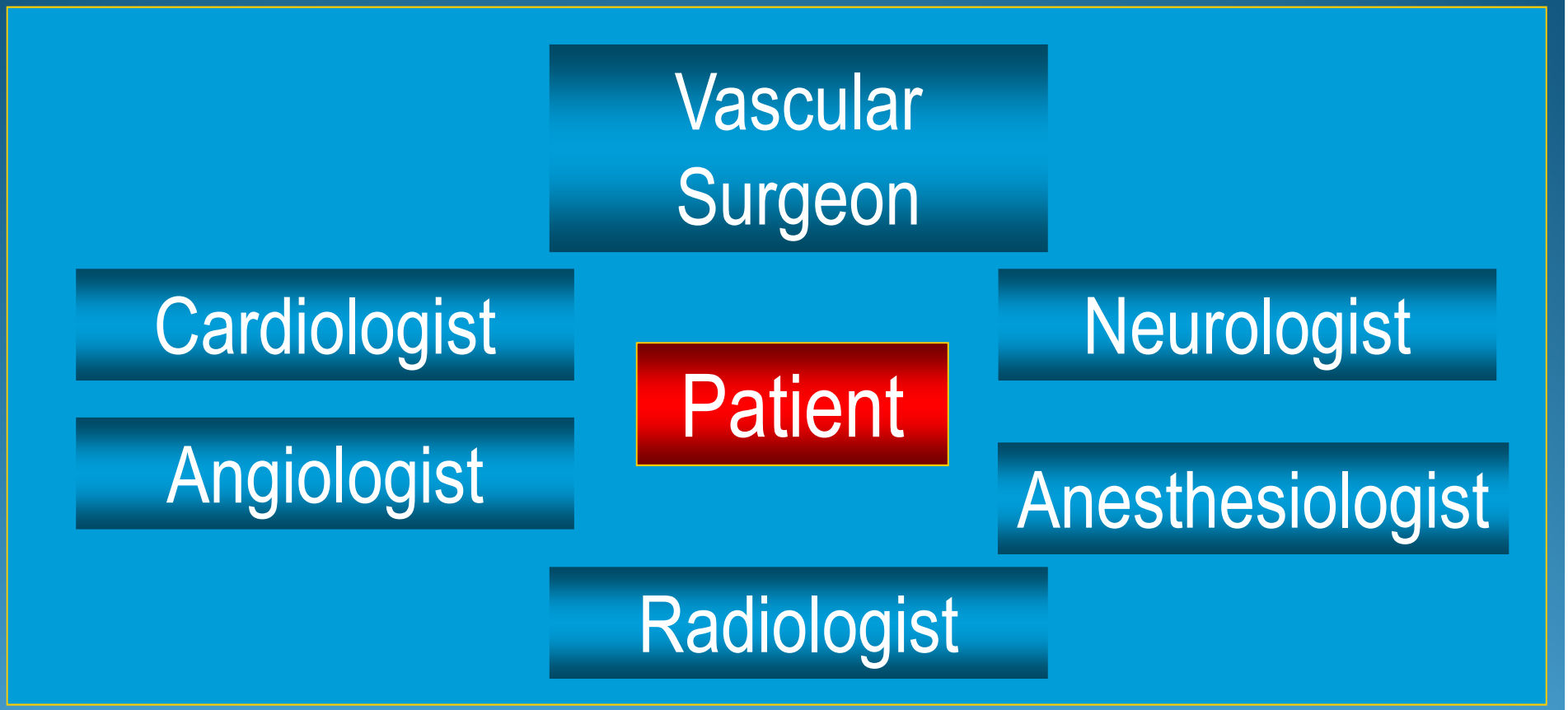
Stroke Severity

- Reported in 8281 pts.
- Mean NIHSS 17 (range 13-22)

Good Recovery

- Reported in 4490 pts.
- mRS at 90 d <2 in 44% (15-54%)

Team Approach



Conclusions

- early recanalization dramatically improves outcomes
- functional imaging more important than time window
- fast door to CT to Angio time must be achieved (< 1 h)
- invasive stroke tx can be increased from 5 to 20% of the patients !


HOSPITAL
GRUNDSCHULE
... we have to organize
the logistics!