

STROKE FAST-TRACK:

« FROM HOME TO DIAGNOSIS »

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CONTEXT

- ▶ In Switzerland, stroke remains the 3rd cause of mortality
- ▶ 16 000 strokes per year i.e 1 stroke each 30 minutes
- ▶ 35% of patients will keep irreversible injuries and handicap
- ▶ In 2020, HUG have implemented a stroke code associated to a fast-track for stroke: what are the results for the patients ?

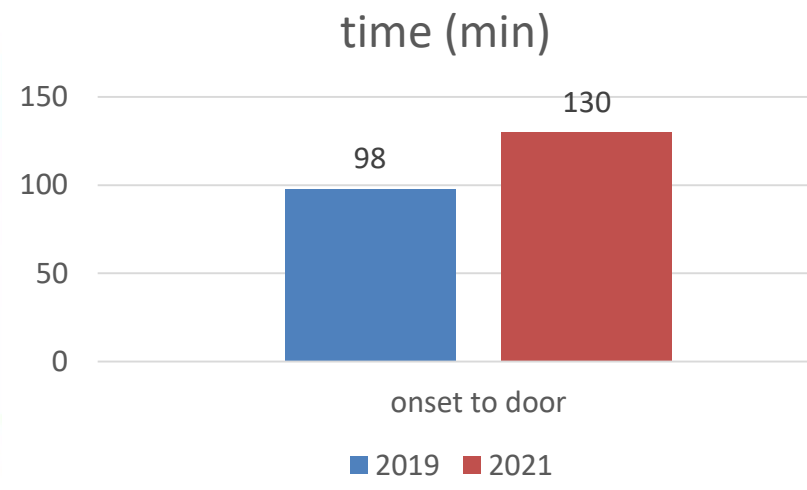


Stroke symptoms:

- Gaze
- Face
- Arm
- Speech

- Time (acute symptoms)

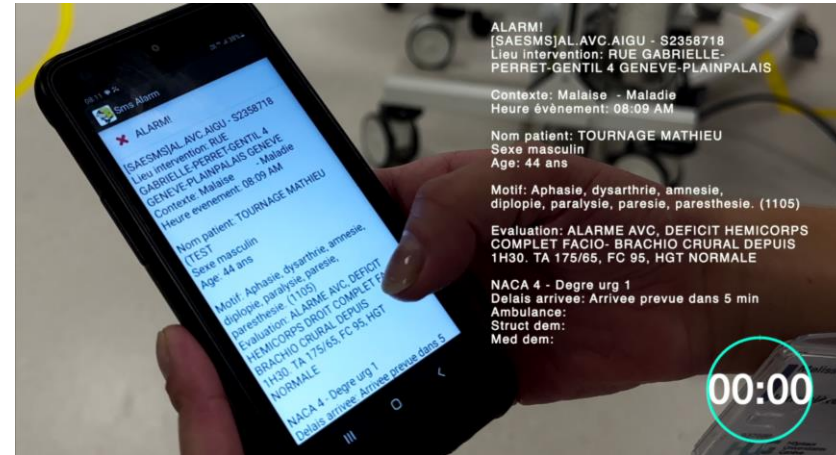
GFAST SCORE



PRE HOSPITAL NOTIFICATION

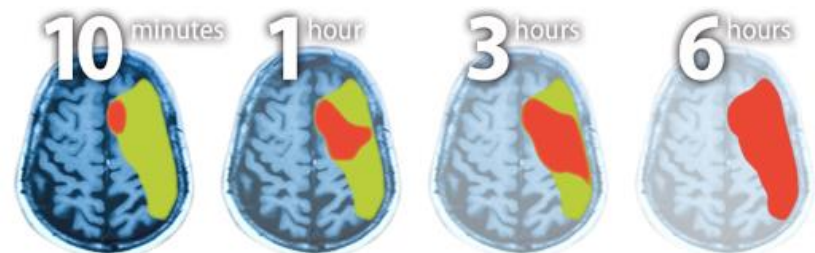
- ▶ 1100 notifications in 2021
- ▶ Inform and bring **stroke team** together

1. Prepare hospital to admit patient
2. As soon as possible: confirm ischemic stroke and reduce ischemia time by reperfusion therapy



Time is brain!

Every minute 2,000,000 brain cells die during stroke.



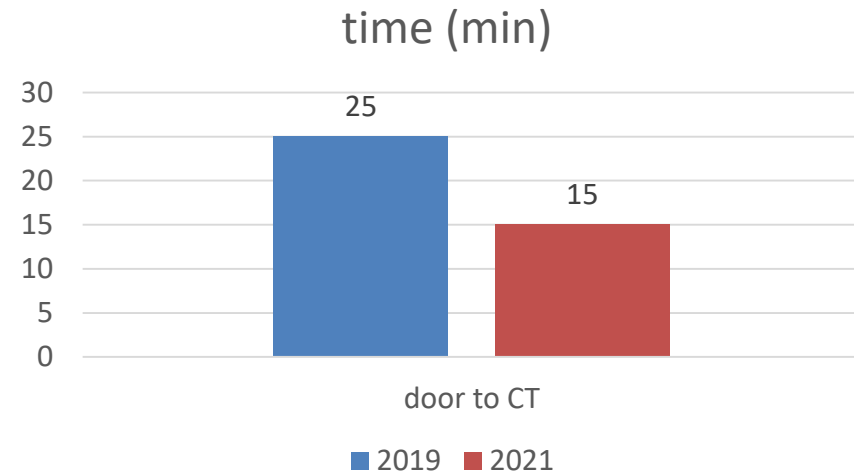
EMERGENCY DEPARTMENT RECEPTION

- ▶ Patient is directly admitted in triage box
- ▶ Stroke team welcomes the patient:
 - ▶ Nurse and Physician critical care unit
 - ▶ Neurologist
 - ▶ Radiologist
- ▶ Rapid assessment of the patient's clinical condition = NIHSS
- ▶ Confirmation of the stroke pathway



NIHSS SCORE	STROKE SEVERITY	IMPACTED BRAIN DENSITY
0	No Stroke	
0 – 4	Minor Stroke	
5 – 15	Moderate Stroke	
16– 20	Moderate to Severe Stroke	
21 - 42	Severe Stroke	

IN 40% OF CASES, STROKE PATHWAY IS CONFIRMED...



PATIENT IS ADMITTED TO CT-SCAN ON PARAMEDICS STRETCHER

MONITORING BY EMERGENCY TEAM (NURSE + PHYSICIAN)



ARRIVAL IN RADIOLOGY ...TIME OPTIMIZATION !



IV line for injection

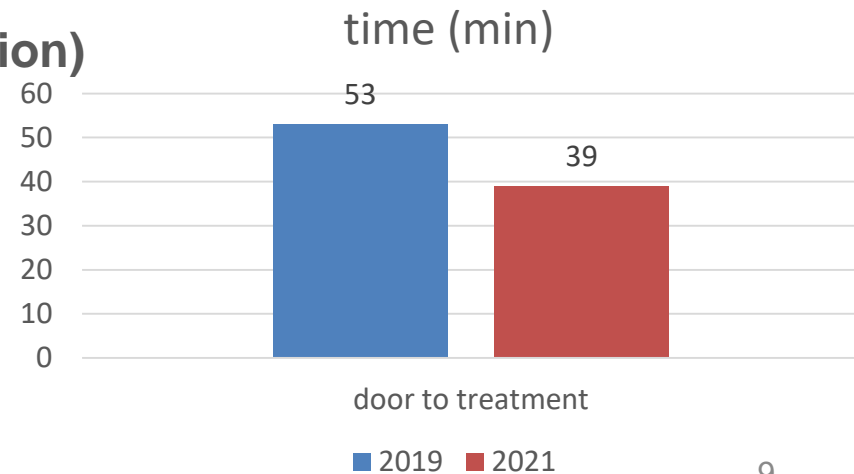


Preparation for CT-Scan



THROMBOLYSIS

- ▶ Directly administered on CT-Scan stretcher
- ▶ His administration depends on:
 - ▶ Time from onset symptoms
 - ▶ Past medical history and daily treatment
 - ▶ Risk of hemorrhage +++
- ▶ **Goal = T0+30 min (T0 = hospital admission)**
- ▶ Patient undergo thrombectomy
- ▶ Admission to stroke unit



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KEY MESSAGES

- ▶ Stroke onset symptoms detection remains a challenge
- ▶ Management of an acute stroke is a race against time to limit / avoid after-effects
- ▶ Prehospital Stroke code and stroke pathway save time
- ▶ This requires coordination of all stakeholders ensured by emergency department



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