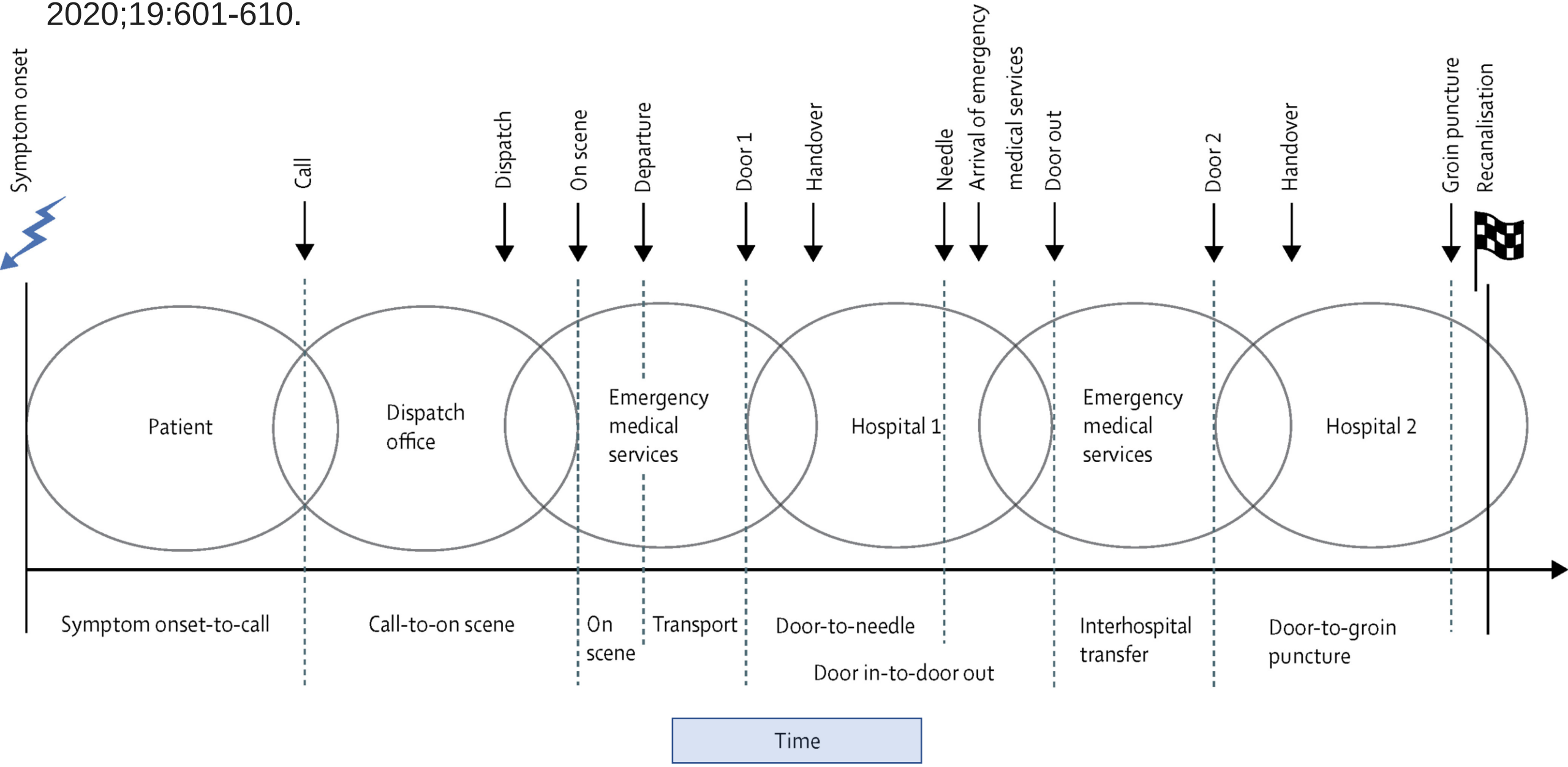
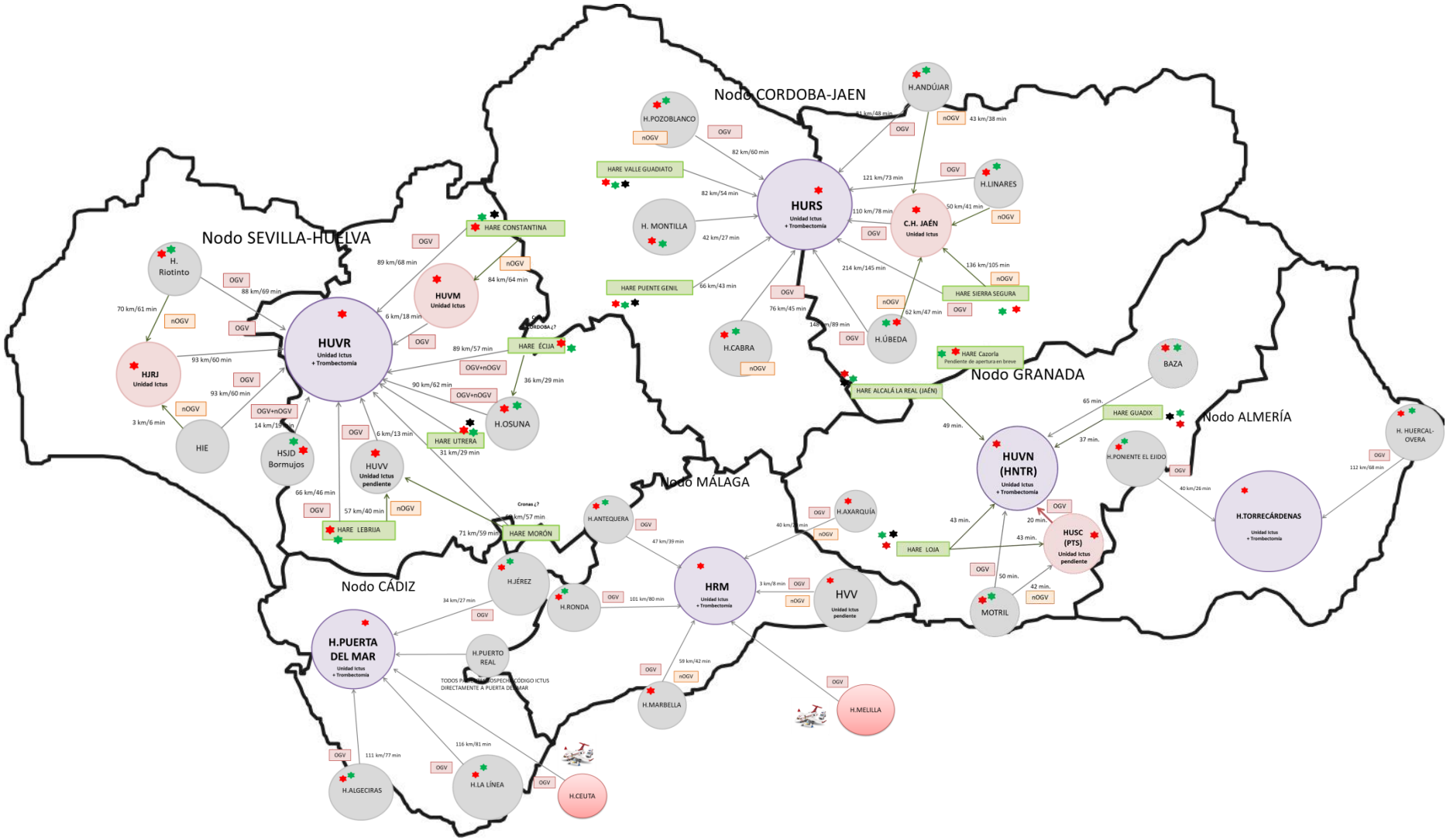
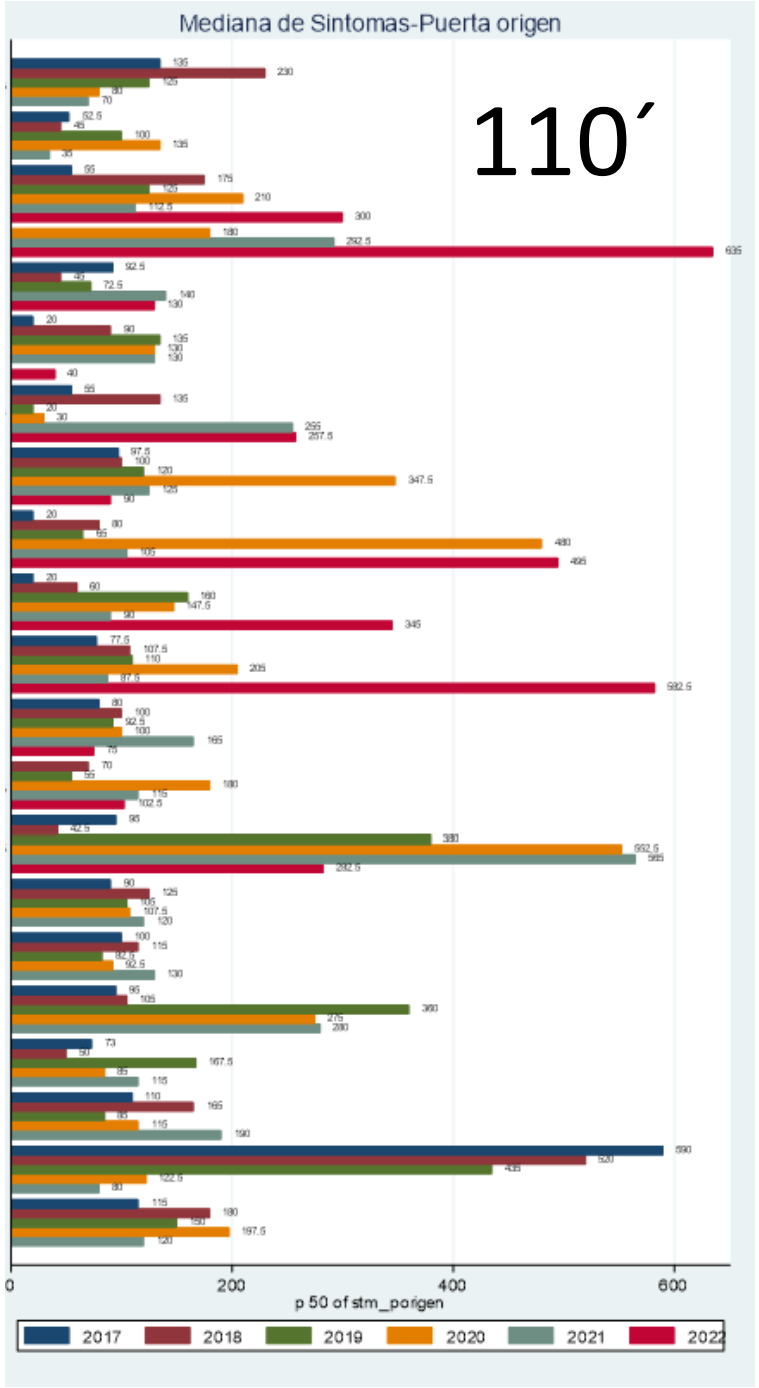

Las ambulancias del futuro serán verdaderos hospitales móviles, hiperconectadas, en las que se acelerará el diagnóstico, se iniciará el tratamiento y se hará mas eficiente el *delivery* al hospital receptor más adecuado.

Fassbender K, et al. **Prehospital stroke management in the thrombectomy era**. *Lancet Neurol*. 2020;19:601-610.



# Andalusian Stroke Network




Mediana de Sintomas-Puerta origen
110´
0
200
400
600
p 50 of stm_porigen
2017
2018
2019
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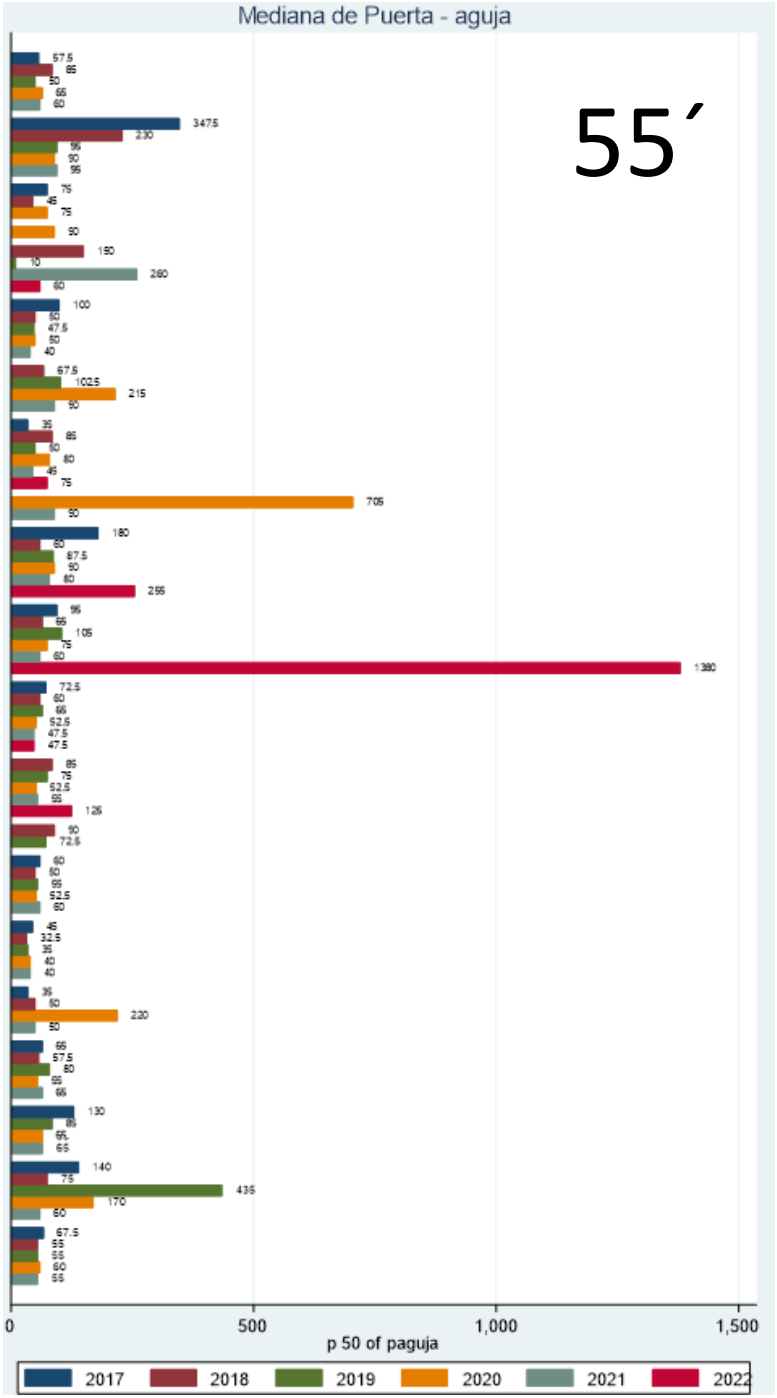
2021
2022


Mediana de Puerta - aguja
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1,000
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2017
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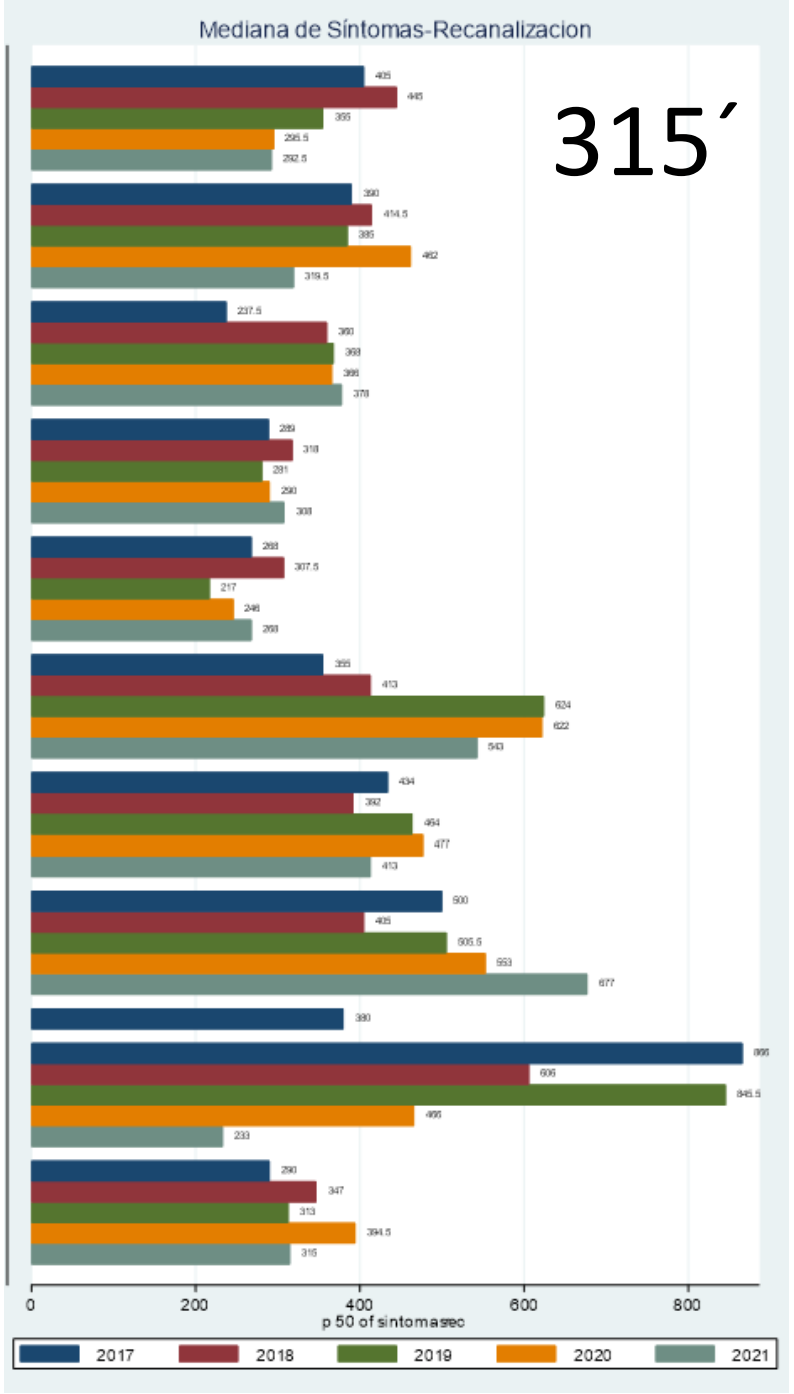
Mediana de Síntomas-Recanalizacion
315´
0
200
400
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800
p 50 of sintomasrec
2017
2018
2019
2020
2021

Stroke. 2023 Feb;54(2):415-425. doi: 10.1161/STROKEAHA.122.039821. Epub 2023 Jan 23.

# Golden Hour Treatment With tPA (Tissue-Type Plasminogen Activator) in the BEST-MSU Study

Jason Mackey [1], Jose-Miguel Yamal [2], Stephanie A Parker [3], Kelly Silnes [1 4], Suja S Rajan [2], Asha P Jacob [3], Mengxi Wang [2], Noopur Singh [2], William J Jones [5], Ilana Spokoyny [6], Babak B Navi [7], Jeffrey L Saver [8], James C Grotta [9]; BEST-MSU Study Group

Affiliations + expand

PMID: 36689579 DOI: 10.1161/STROKEAHA.122.039821


Each STEMO mobile stroke unit is fitted with a CT scanner and a miniature laboratory, enabling the diagnostic evaluation of stroke patients. Photo: Unfallkrankenhaus Berlin (ukb)

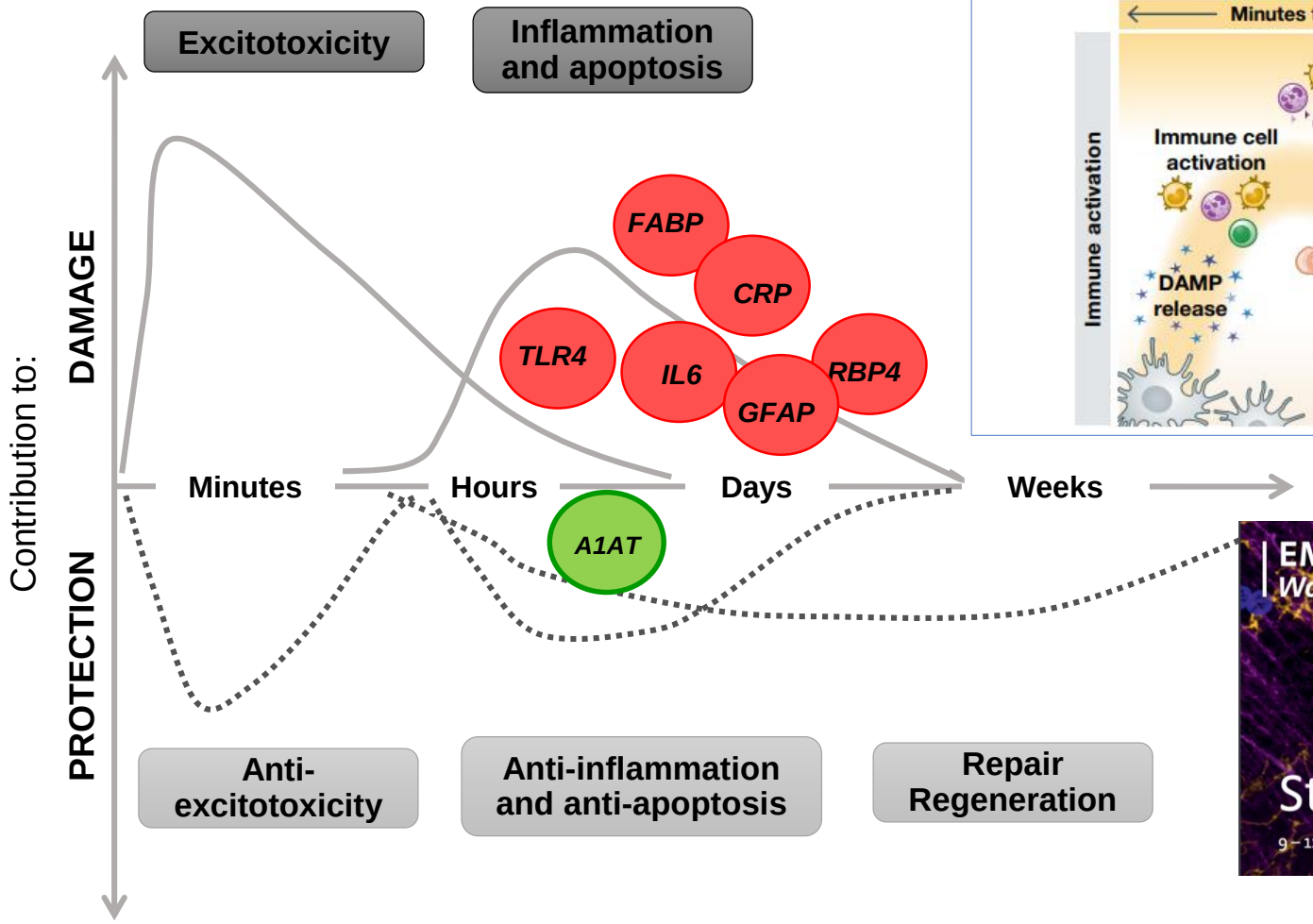
FHT was associated with higher adjusted odds ratio for 90-day modified Rankin Scale score of 0 to 1 (odds ratio, 1.87 [95% CI, 1.25-2.84]; P=0.003). Among FHT patients, 68% achieved a 90-day modified Rankin Scale of 0 or 1 or returned to their baseline status. FHT was not associated with higher risk of hemorrhage and was associated with reduced risk of treating neurovascular mimics.

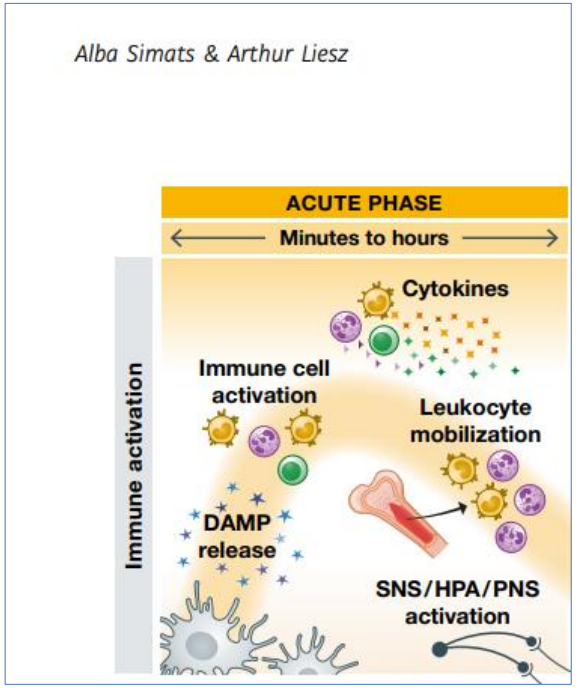
Clinical Trial > Lancet Neurol. 2022 Jun;21(6):520-527. doi: 10.1016/S1474-4422(22)00171-5. Epub 2022 May 4.

## Comparison of tenecteplase with alteplase for the early treatment of ischaemic stroke in the Melbourne Mobile Stroke Unit (TASTE-A): a phase 2, randomised, open-label trial



# Summary of biological processes

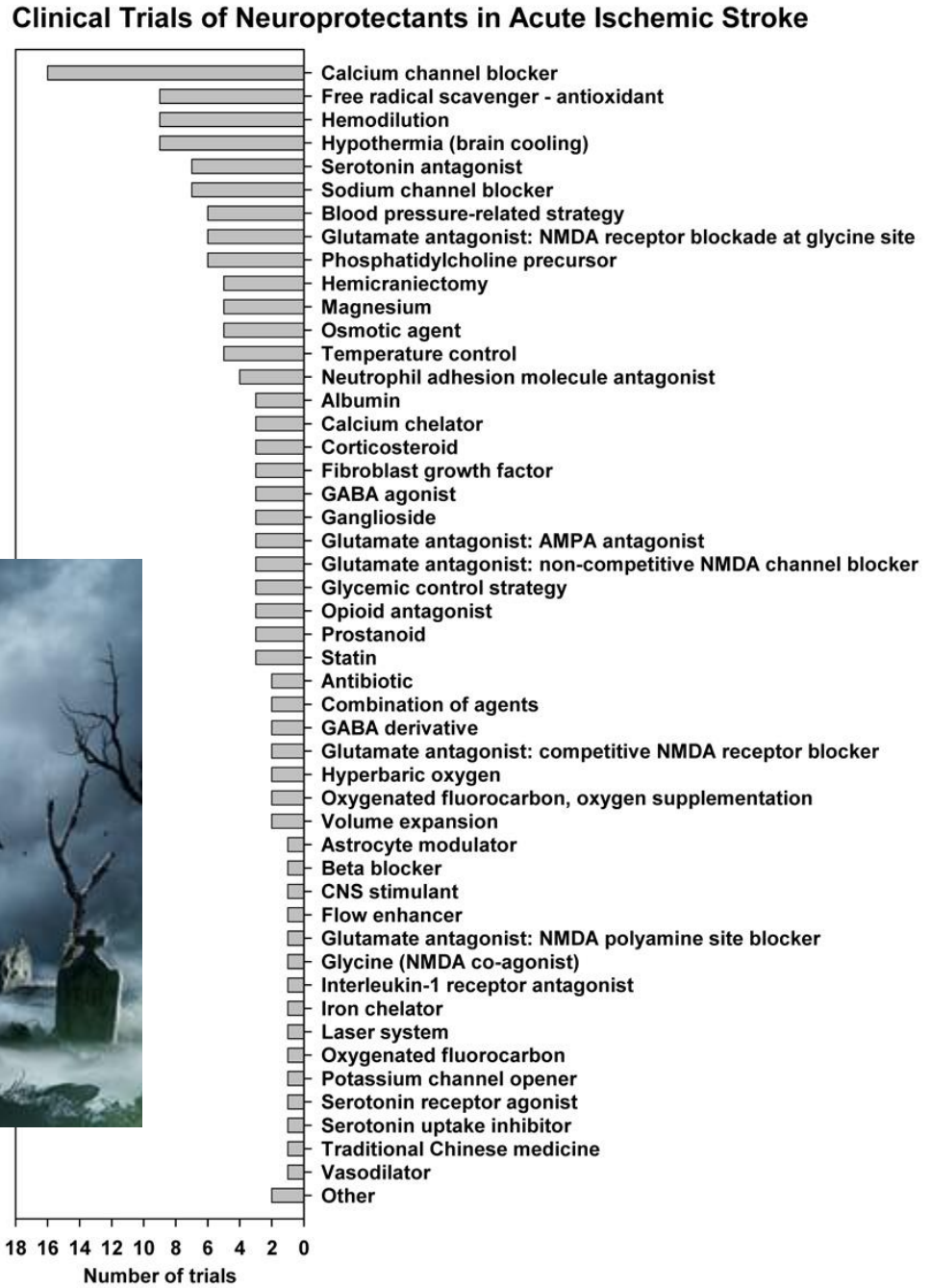




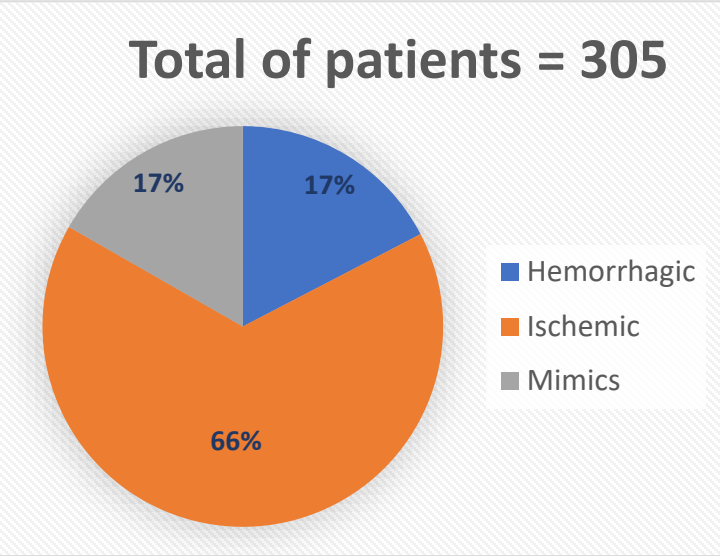
Dirnagl U. Ann N Y Acad Sci 2012;1268:21-25

# “Zombi drugs” 4 stroke



# Do you want to treat all stroke suspicions or only ischemic strokes?

BIOFAST: clinical data results

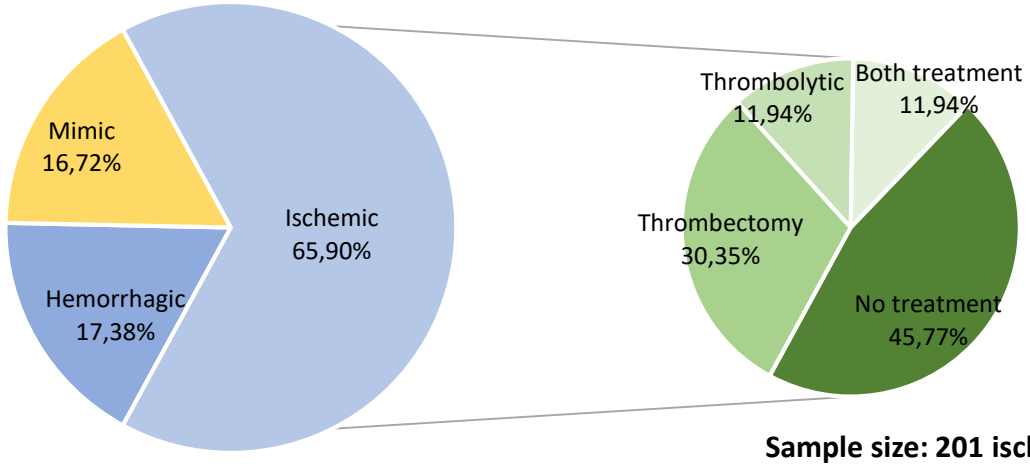



| AMBULANCES | Total = 175 |
|---|---|
| Ischemic | 112 |
| Hemorrhagic | 33 |
| Mimics | 30 |

| ER hospital | Total = 130 |
|---|---|
| Ischemic | 89 |
| Hemorrhagic | 20 |
| Mimics | 21 |

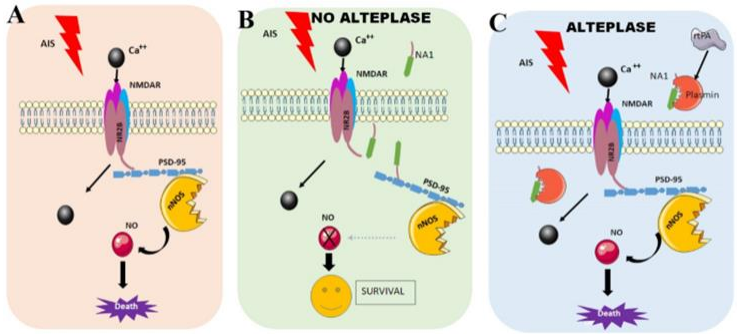
| Total LVO patients | THROMBECTOMY | NO THROMBECTOMY |
|---|---|---|
| n=100 | n=78 | n=22 |

- 33% of the BIOFAST patients were LVOs
- 50% of the ischemic patients were LVOs




**Sample size: 201 ischemic strokes**

# ESCAPE-NA1 Trial Brings Hope of Neuroprotective Drugs for Acute Ischemic Stroke: Highlights of the Phase 3 Clinical Trial on **Nerinetide**




Brief Summary:

The purpose of this study is to determine whether nerinetide (NA-1) is effective in reducing global disability in patients with acute cerebral ischemia if administered early after symptom onset.

| Condition or disease | Intervention/treatment | Phase |
|---|---|---|
| Acute Cerebral Ischemia | Drug: Nerinetide (NA-1)<br>Drug: Placebo | Phase 3 |

Detailed Description:

Nerinetide (NA-1) is being developed as an emergency drug aimed at reducing global disability in patients with acute cerebral ischemia if administered early after symptom onset.

The primary objective is to determine the efficacy of nerinetide in reducing global disability in patients with acute stroke. The secondary objectives are to determine the efficacy of nerinetide in reducing functional dependence, reducing mortality rate, reducing worsening of stroke, improving neurological outcome and improving activities of daily living.

The leading safety objectives are to determine the effect of administering a target dose of 2.60 mg/kg (up to a maximum dose of 270 mg) IV infusion of nerinetide within three hours of symptom onset by paramedics in the field on serious adverse events and 90-day mortality.

This trial is a multicenter, randomized, double-blind, placebo-controlled, single dose study initiated prehospital in the ambulance. It is being conducted using Emergency Medical Services (EMS) in Canada. Subjects with suspected acute stroke will be identified in the field by trained paramedics using the approved stroke protocol in use by the local EMS system, and further screened for eligibility and approval by an on-call trial physician. The paramedics will administer the study drug. Upon arrival at the emergency department, subjects will receive standard-of-care.

An Independent Data Monitoring Committee will perform safety reviews of the clinical data.

**Study Design** Go to

| | |
|---|---|
| Study Type: | Interventional (Clinical Trial) |
| Actual Enrollment: | 532 participants |
| Allocation: | Randomized |
| Intervention Model: | Parallel Assignment |
| Masking: | Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor) |
| Primary Purpose: | Treatment |
| Official Title: | A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of Intravenous NA-1 Initiated by Paramedics in the Field for Acute Cerebral Ischemia Within Three Hours of Symptom Onset |
| Actual Study Start Date: | March 26, 2015 |
| Estimated Primary Completion Date: | December 2023 |
| Estimated Study Completion Date: | December 2023 |

Paramedics in Vancouver and Richmond, B.C., have joined colleagues in two Ontario locations to take part in a drug trial that could greatly improve outcomes for stroke patients.

Emergency Health Services said the B.C. paramedics, along with those in Toronto and the Region of Peel, will administer a clinical study drug called NA-1, a substance that limits brain damage if a stoke occurs.

Eligible stroke patients will either receive NA-1 or a placebo.

EHS said results of the trial could help researchers assess the effect of speedy treatment by paramedics, before patients even reach hospital.

Almost two million brain cells die each minute after a stroke, making quick assessment and treatment crucial.

Stroke Services B.C. spokeswoman Pam Ramsay said that if NA-1 reduces the devastating impact of strokes while a patient is on the way to hospital, the results could have tremendous impacts on recovery and rehabilitation.


Paramedics are at the forefront of a randomized trial testing a substance that limits brain damage if a stoke occurs. (Jonathan Hayward/Canadian Press)

While consent is required before participants are given a product in most studies, that would not be the case for stroke patients in the randomized trial of 558 patients.

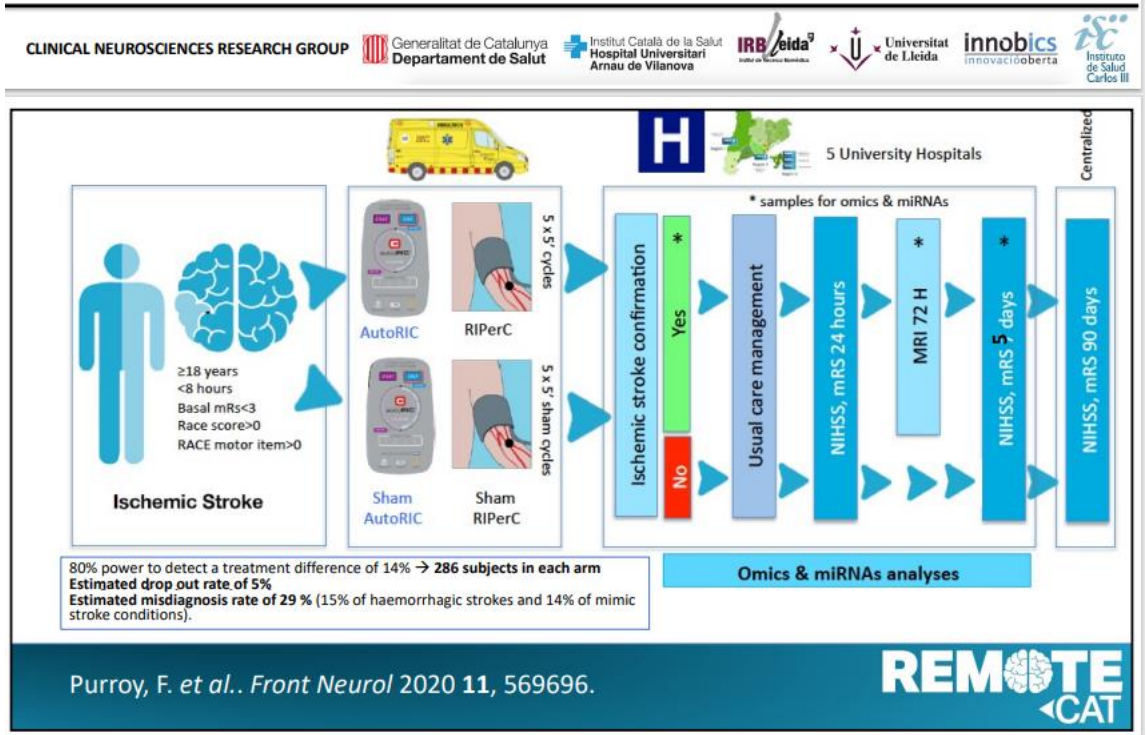
Dr. William Dick, vice-president of medical programs for B.C. Emergency Health Services, said paramedics are at the forefront of groundbreaking medical research for the trial.

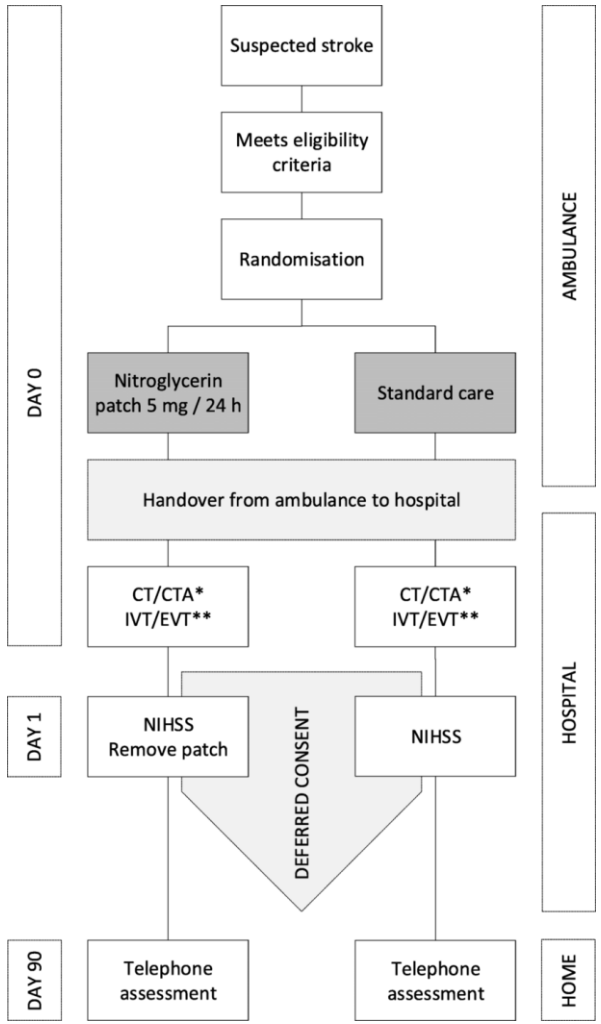
FRONTIERS

https://clinicaltrials.gov/ct2/show/NCT02315443

# REMOTE CAT

ClinicalTrials.gov ID: NCT03375762






Clinical Trial > Lancet Neurol. 2022 Nov;21(11):971-981. doi: 10.1016/S1474-4422(22)00333-7.
Epub 2022 Sep 1.

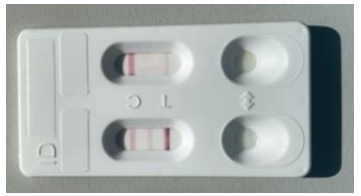
# Prehospital transdermal glyceryl trinitrate in patients with presumed acute stroke (MR ASAP): an ambulance-based, multicentre, randomised, open-label, blinded endpoint, phase 3 trial

Sophie A van den Berg [1], Simone M Uniken Venema [2], Hendrik Reinink [2], Jeannette Hofmeijer [3], Wouter J Schonewille [4], Irene Miedema [5], Puck S S Fransen [6], D Martijn O Pruissen [7], Theodora W M Raaijmakers [8], Gert W van Dijk [9], Frank-Erik de Leeuw [10], Jorine A van Vliet [11], Vincent I H Kwa [12], Henk Kerkhoff [13], Alex van 't Net [14], Rene Boomars [15], Arjen Siegers [16], Tycho Lok [17], Klaartje Caminada [18], Laura M Esteve Cuevas [19], Marieke C Visser [20], Casper P Zwetsloot [21], Jooske M F Boomsma [22], Mirjam H Schipper [23], Roeland P J van Eijkelenburg [24], Olvert A Berkhemer [25], Daan Nieboer [26], Hester F Lingsma [26], Bart J Emmer [27], Robert J van Oostenbrugge [28], Aad van der Lugt [29], Yvo B W E M Roos [30], Charles B L M Majoie [27], Diederik W J Dippel [31], Paul J Nederkoorn [30], H Bart van der Worp [2]; MR ASAP Investigators

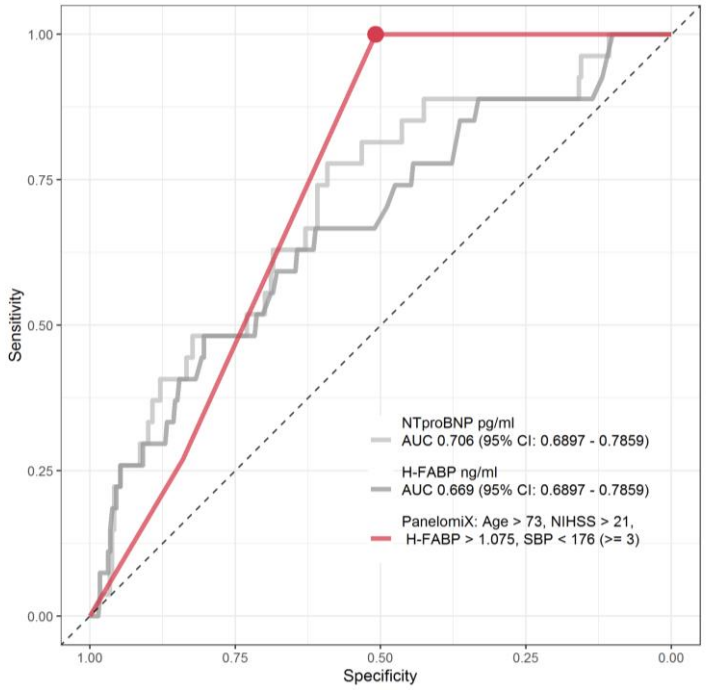
Collaborators, Affiliations + expand

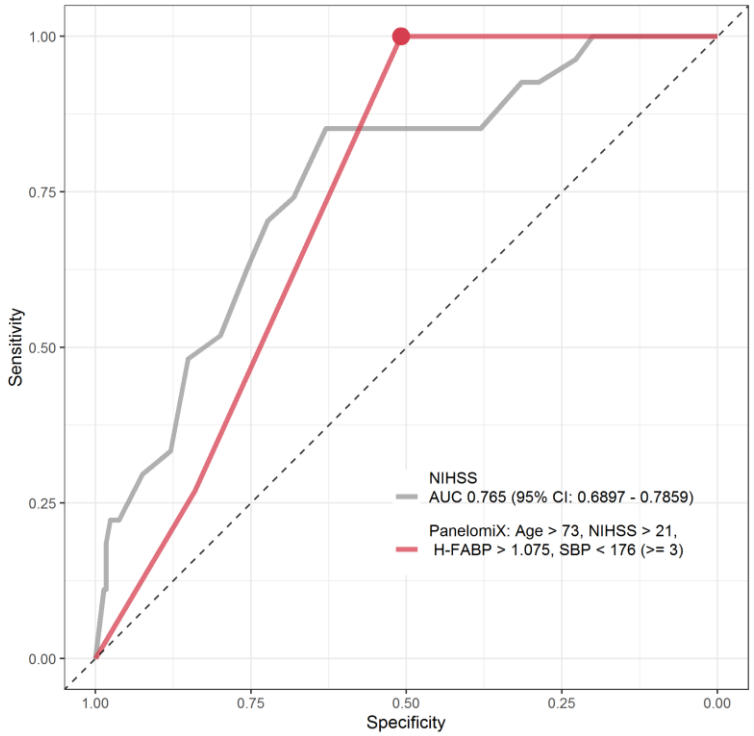
PMID: 36058230 DOI: 10.1016/S1474-4422(22)00333-7

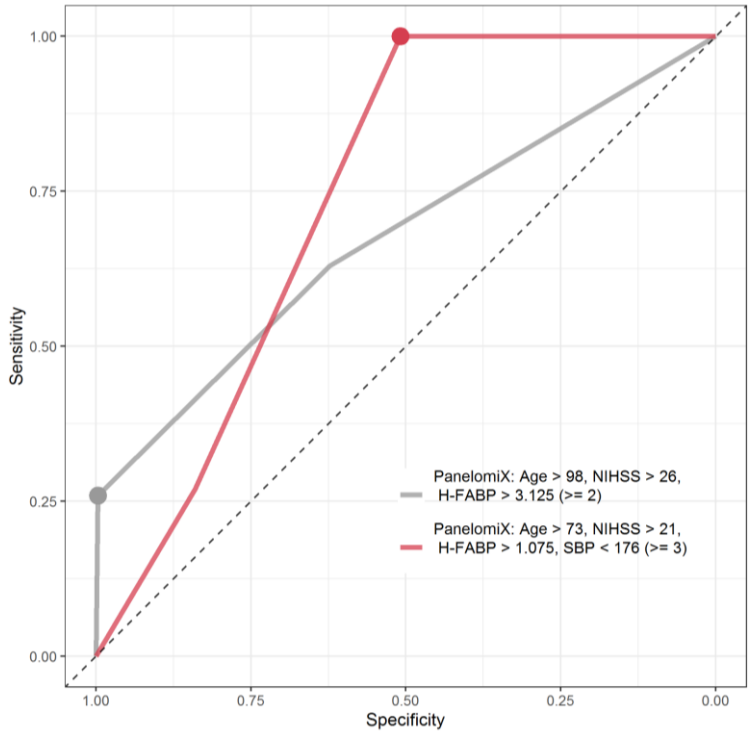
# LVOCheck & mortality at discharge



Using Panelomix software (in LVOs n=320) we identified optimal cutoffs for age, NIHSS score and FABP to predict mortality with excellent specificity (specificity=99.70% and sensitivity=25.90%). We also identified cutoffs for age, NIHSS score, systolic blood pressure and FABP to predict mortality with excellent sensitivity (specificity=50.90% and sensitivity=100%).



Year 1 → Year 2 → Year 3

Neuroprotection (N)

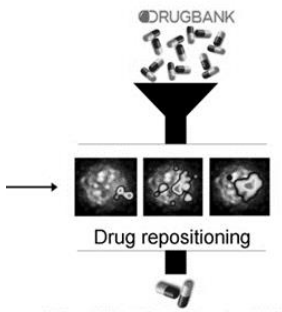
High throughput screening

Stablish combinations of targets and select intervention approach

Test the effect on stroke models

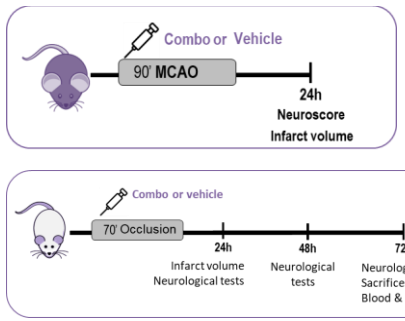
Define future application as neuroprotectants

Biomarkers (B)




Stroke Drosophila model

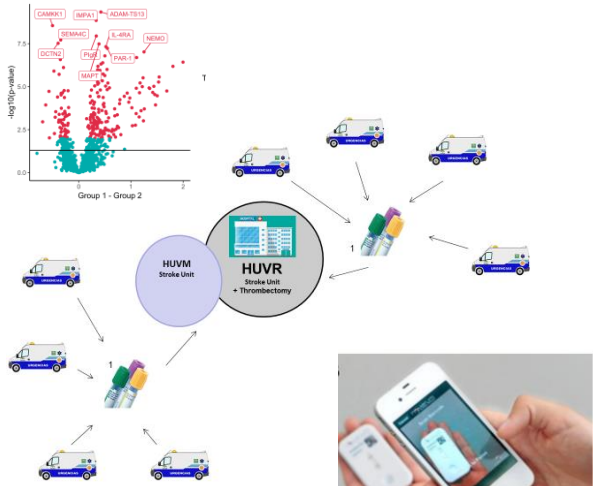
Brain organoid







Convergence B+N






THE SOONER THE TREATMENT, THE BETTER THE CHANCES.

## CONTACT

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