

# Stroke Patient Journey Through ED

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# NSWAS pre-hospital notification, 0150 hrs

- 72/M
- FAST positive with L sided facial droop, slurred speech, L sided arm and leg weakness, pre-hospital notification
- Last seen well at 2230 hrs

FAST Positive or FALSE Positive?

...and it was an *unusually busy* Night Shift...

- Resus Bays 1 and 2 with patients on respiratory support (arrived at 1900 and 2150) waiting to go to the ICU
- 15 patients in the Acute Area!
  - 3 patients waiting to go to the ward but no beds
  - 1 patient in Front of House holding area waiting to go into the Acute area
- Only 2 patients in “Fast Track”
- *Evening shift FACEM still on-site...!*

Night Shift medical staffing  
1 Registrar  
1 SRMO  
1 JMO

So, **NSWAS** handover, **0153** hrs, RESUS 3

- Wife heard coughing and found him fallen out of bed, supine on floor, 0055 hrs
- Call received **0058** hrs
- Dispatched **0101** hrs
- On scene **0105** hrs
- Scene Obs 0110 hrs: HR = 72/min, BP = 130/palp RR = 28/min, SpO<sub>2</sub> = 94% on room air, fingerstick BGL 6.7

# NSWAS handover, 0153 hrs

- O<sub>2</sub> applied by nasal prongs
- 12 lead ECG performed = sinus rhythm
- Extrication from bedroom floor 0120 hrs
- Attempted 18G IV access 0145 hrs, unsuccessful

# FACEM meets crew at Front of House

## 72/M: PDx = R-sided CVA

### ED Timeline

Triaged at **0153** hrs

Dr Dark contacted  $\pm$ **0200** hrs

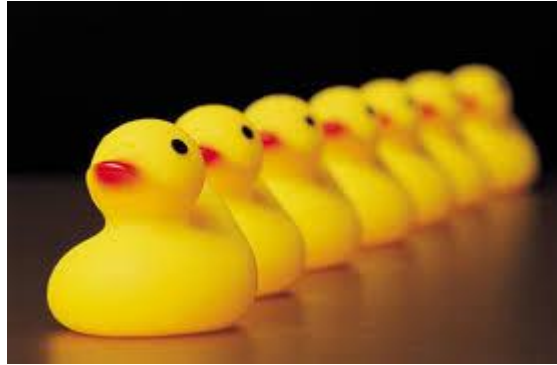
18G IV access L antecubital fossa

CT Perfusion at **0218** hrs

### Background History

- Diabetic
- COPD
- AF ***on Apixaban\****
- Metastatic (bone) CA Prostate!

Aspirin, Apixaban, Atorvastatin, Metformin  
Seretide, Spiriva, Ciclesonide, Doxycycline



# 25 minutes door-to-CT at 2am?? Sometimes the Ducks just line up

FACEM still on site at 2am...

CT tech already on-site (for a trauma patient)...

Local Neurologist coincidentally happens to be taking Gen Med call that night...

...next we will probably find the helicopter is available and the weather is good?



# Phone Call from ED about 2am

- 72 yo man wake up stroke
  - Last seen well 22:30 no concerns
- Woke wife up 01:00 when he fell out of bed
  - Left sided weakness, facial droop, dysarthria
- Arrived ED 01:53 by ambulance
  
- AF – apixaban withheld 3 days due to planned colonoscopy
  
- Urgent Perfusion scan

# Urgent Assessment

- Arrived ED 02:20
- Right MCA stroke clinically
- Dense left hemiplegia and sensory loss, facial droop, dysarthria, hemianopia, eyes deviated to right NIHSS 15
- AF on apixaban - ceased 3 days earlier for colonoscopy to Ix positive FOBT, with occasional PR bleeding from haemorrhoids
- PMHx: COPD, IHD with CABG, metastatic prostate ca, T2DM
  
- CT Brain/Perfusion/Angiography 02:18
- Retrieval helicopter notified possible transfer on way to CT

# Non contrast CT Brain

Current  
[ 10/10/2019 02:19:20 ]

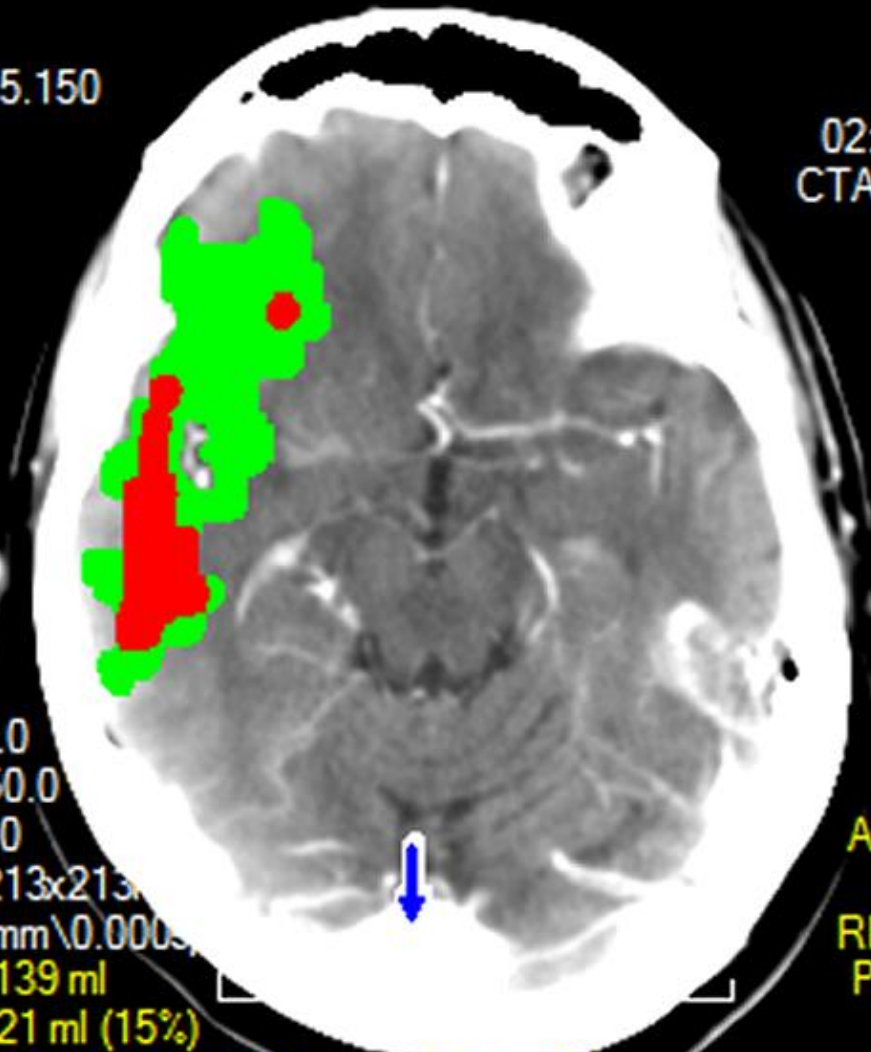
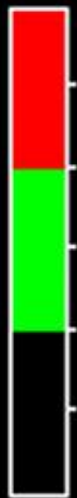
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Se:8  
Im:28  
Ax H45.150  
HFS

M 072Y  
20191010  
02:29:52.018  
CTAWP74114



kV 70.0  
mA 350.0  
Tilt: 0.0  
FOV:213x213  
4.500mm\0.000s  
DT3: 139 ml  
Core: 21 ml (15%)  
Mismatch: 118 ml (85%)

Ratio: 6.6

AutoMISar  
FOR  
RESEARCH  
PURPOSE  
ONLY

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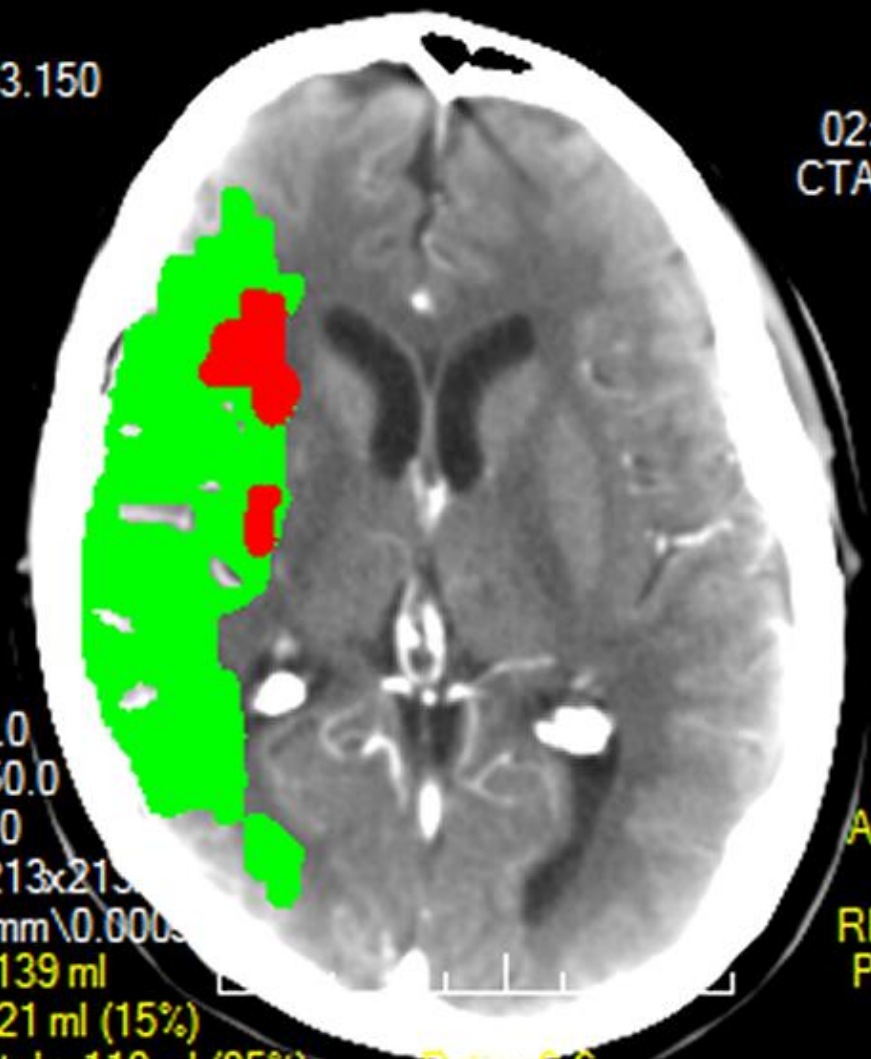
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L



kV 70.0  
mA 350.0  
Tilt: 0.0  
FOV:213x213  
4.500mm\0.000s  
DT3: 139 ml  
Core: 21 ml (15%)  
Mismatch: 118 ml (85%)

Ratio: 6.6

AutoMISar  
FOR  
RESEARCH  
PURPOSE  
ONLY

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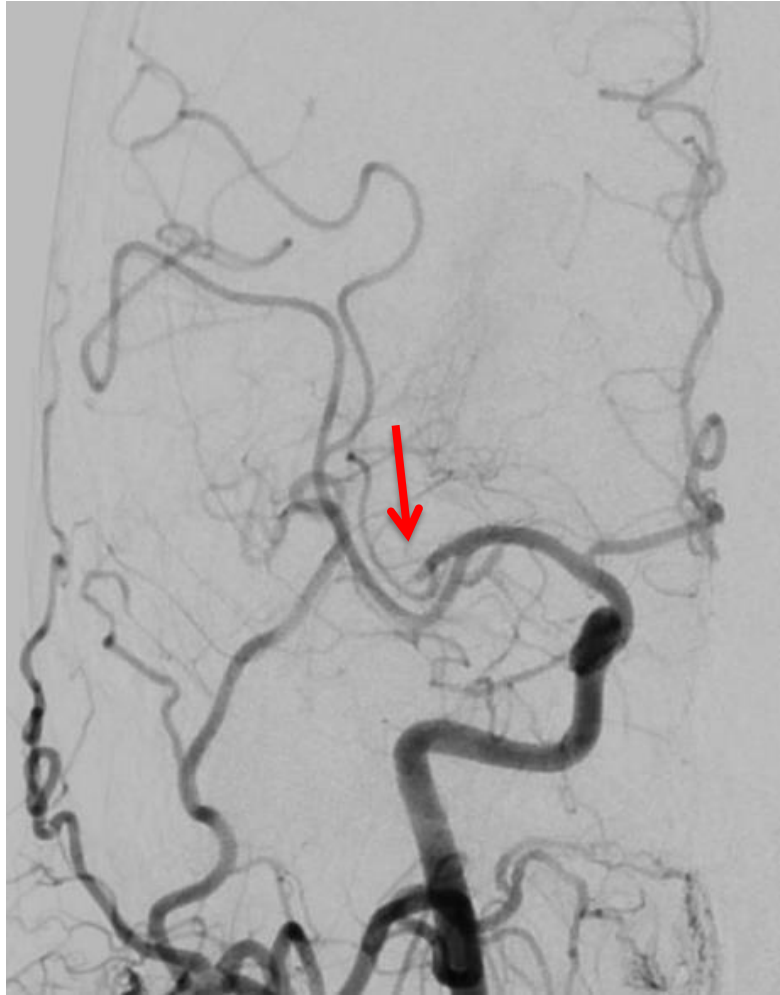
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# Acute Management Decision

- CTB: Dense R MCA sign
- CTP: Large area penumbra R MCA territory with small core
- CTA: M1 occlusion (proximal MCA); calcified carotid bulb
- Likely embolic stroke due to AF, significant deficit
- Considered co-morbidities including PR bleeding and metastatic ca
  
- Decision to thrombolyse - alteplase commenced 02:57
- Call to Interventional Neurology JHH – transfer for ECR
- Retrieval team Tamworth 03:55 → JHH 05:30



# Endovascular Clot retrieval

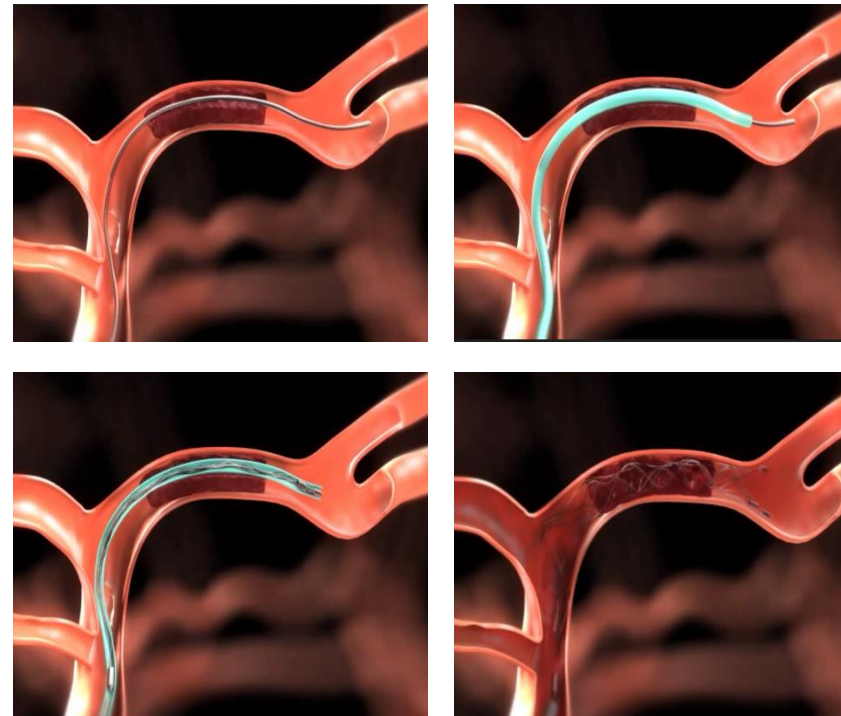


- Groin puncture 06:45 h.
- Baseline runs: recanalization of the M1 occlusion, with persistent superior M2 occlusion.
- Severe Aortic arch + carotid tortuosity.

# Endovascular Clot retrieval



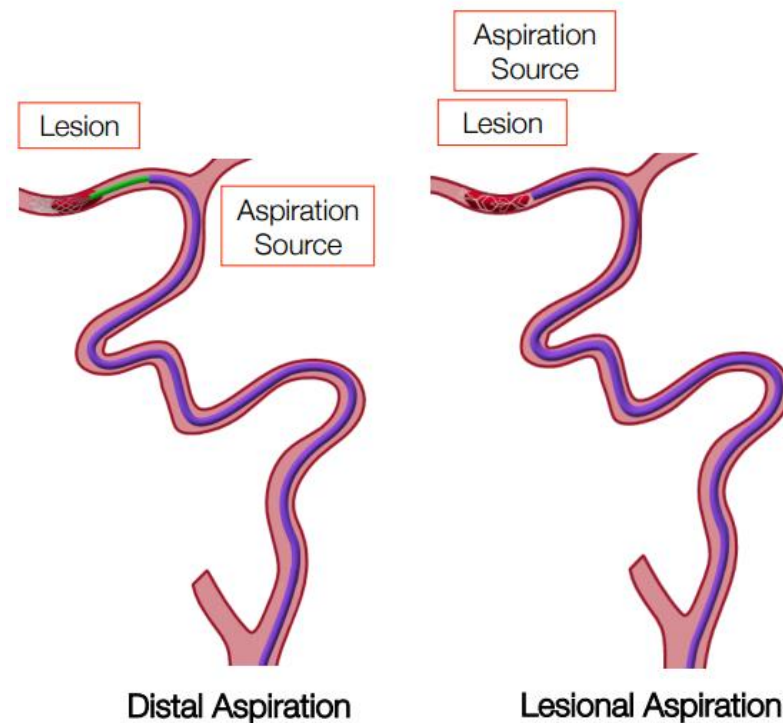
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- Baseline runs: recanalization of the M1 occlusion, with persistent superior M2 occlusion.



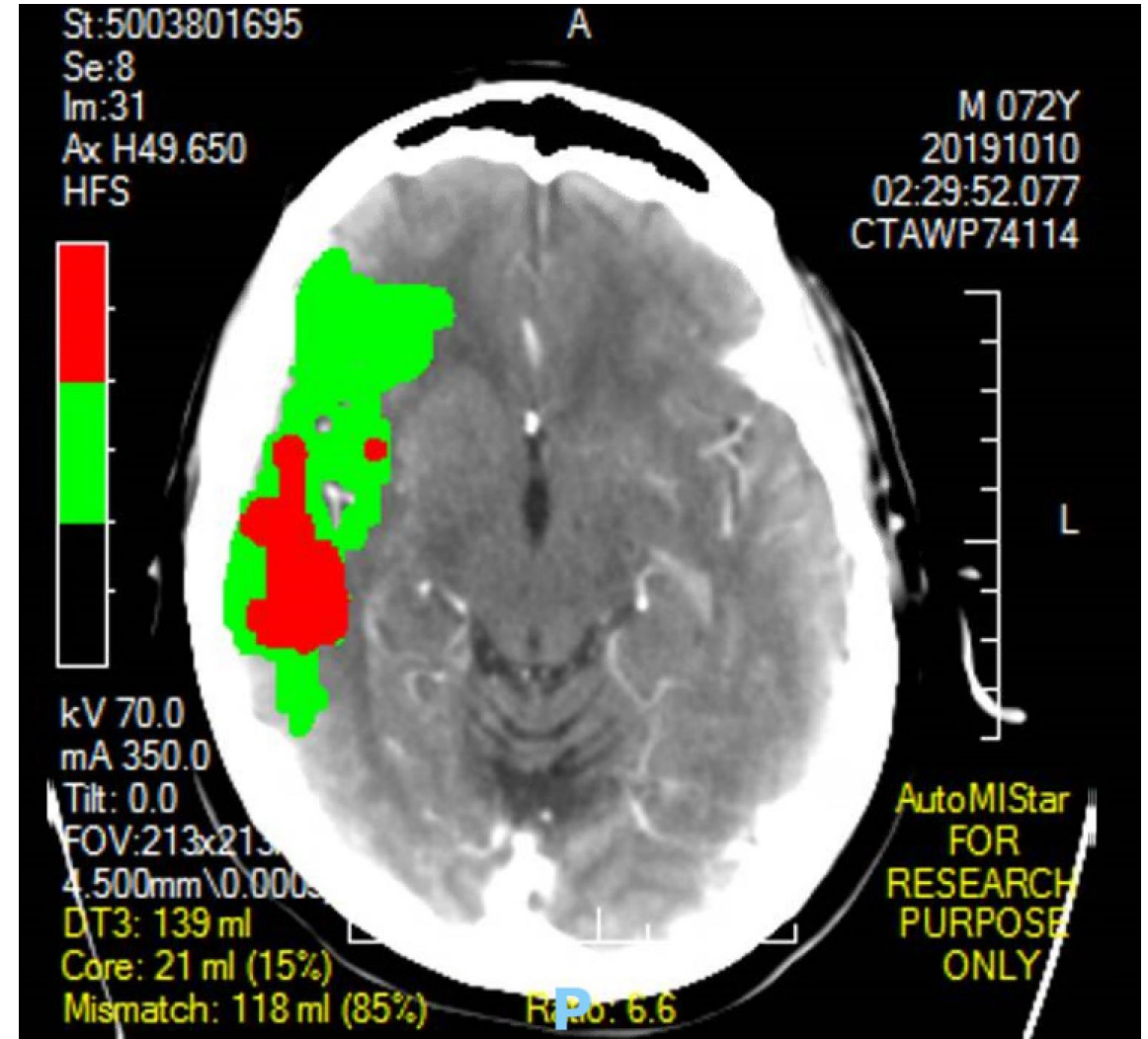
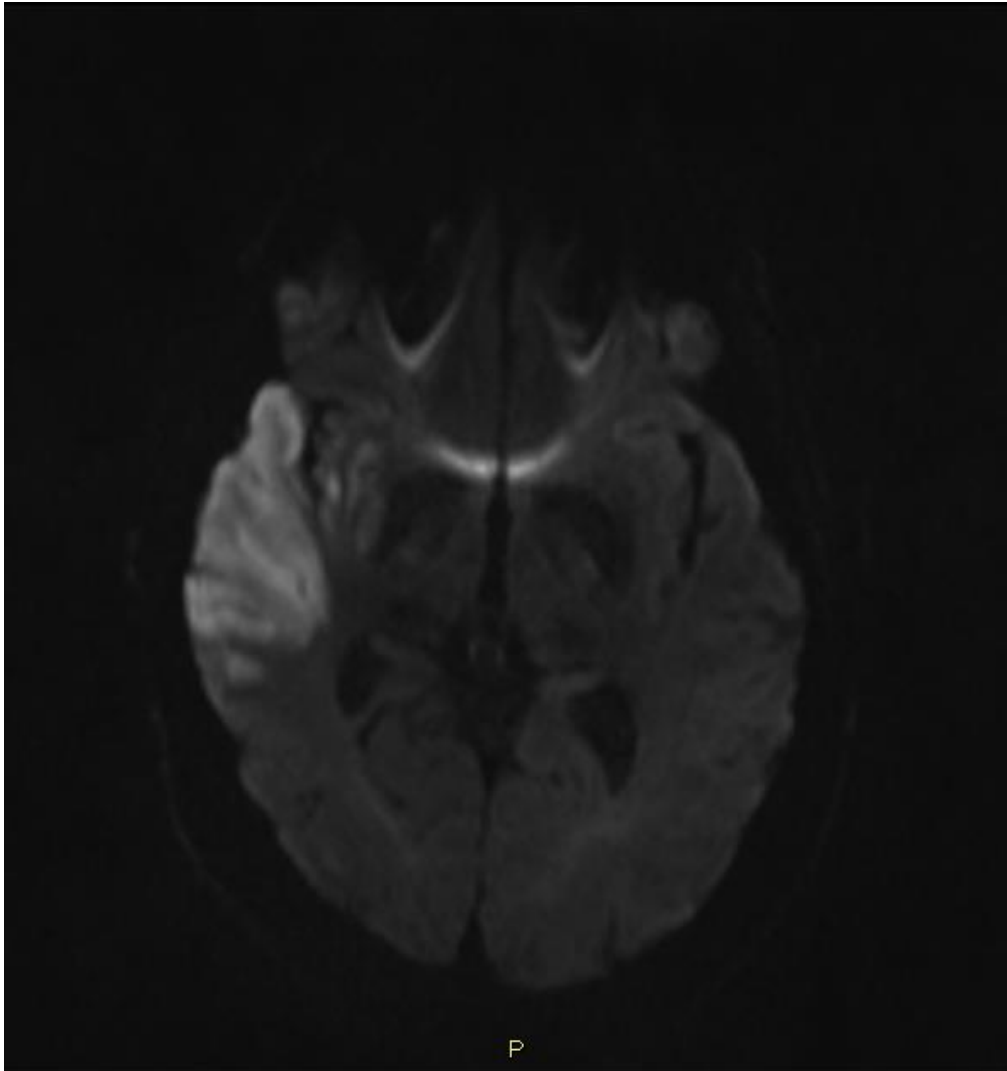
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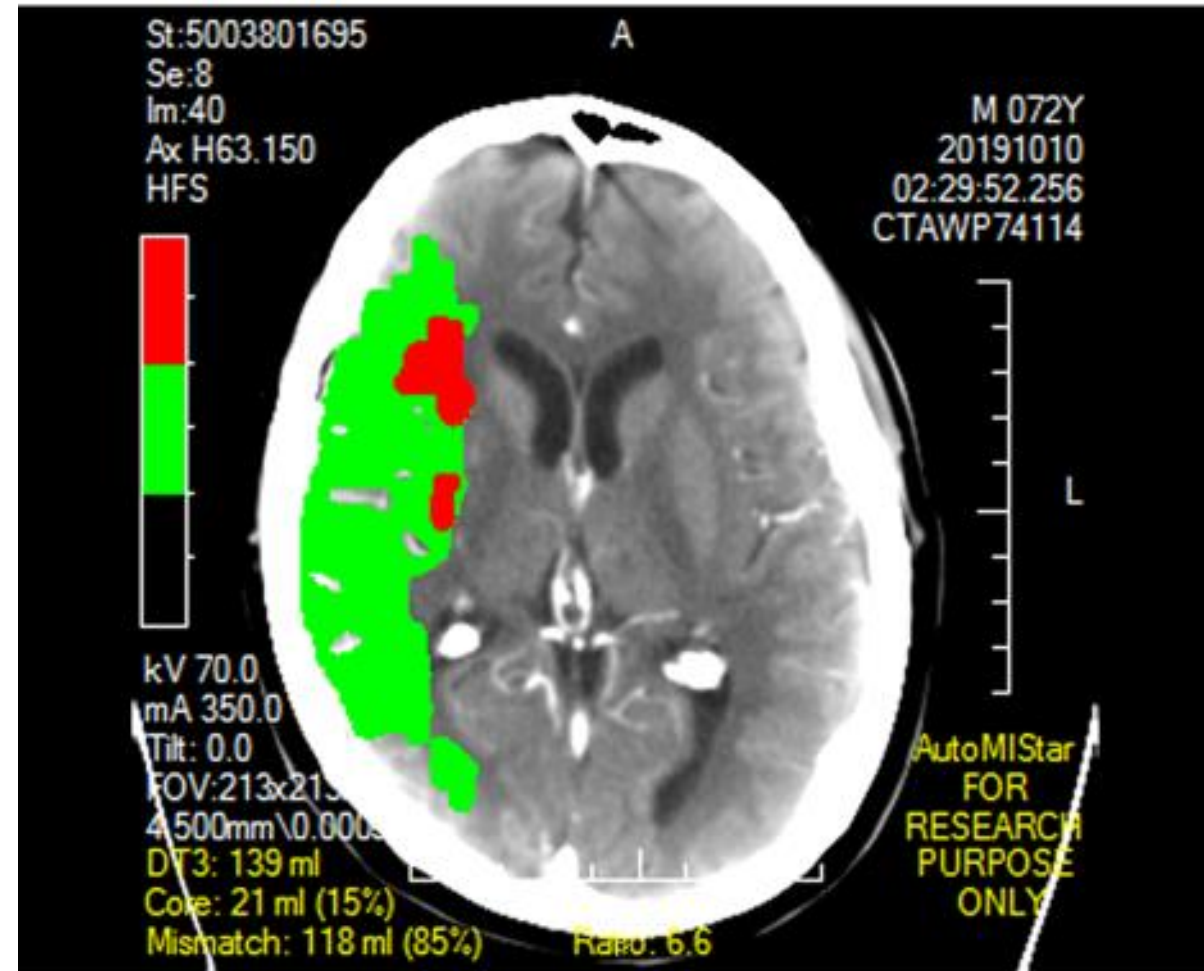
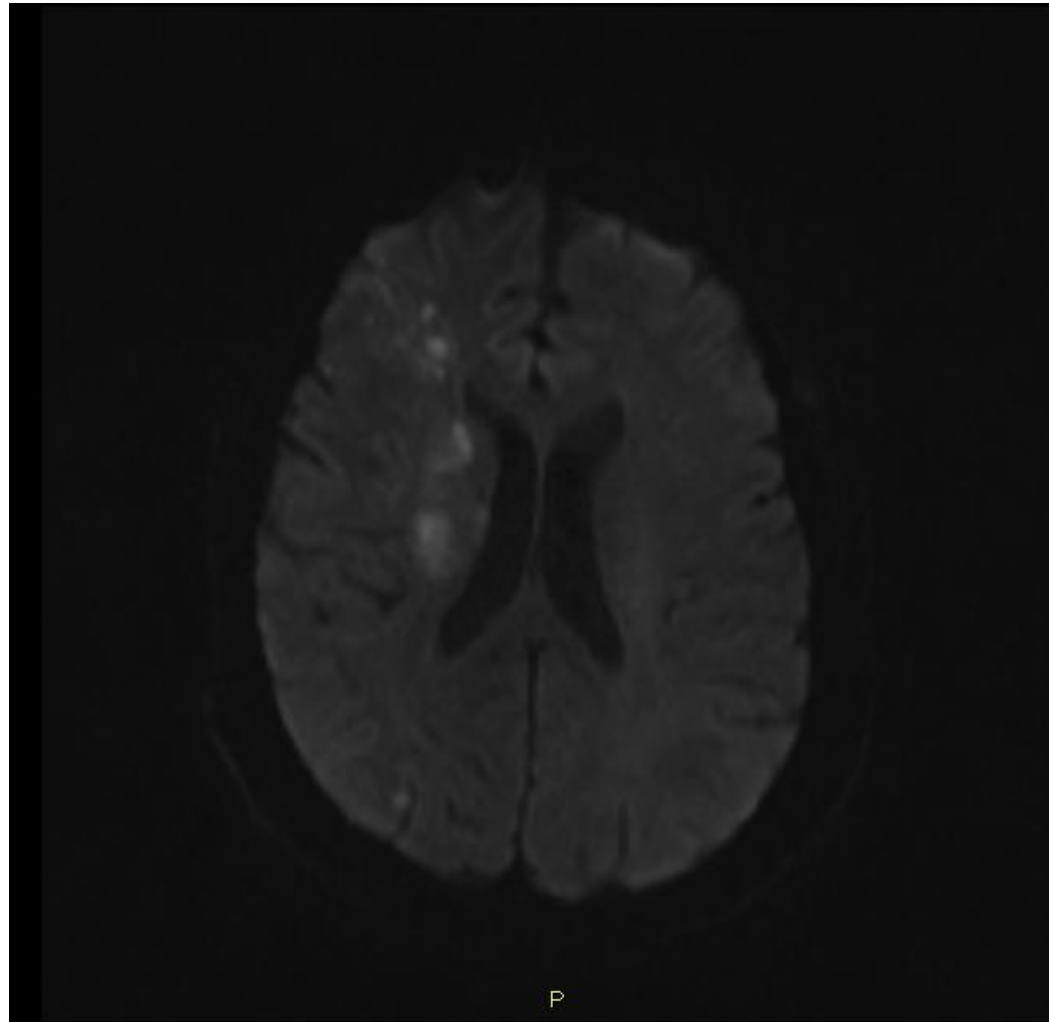
- 4 passes of stent-retriever + Distal Aspiration.
- Complete recanalization mTICI 3 (8:49 h).



# MRI Brain - DWI



# MRI Brain - DWI



# Outcome

- Returned to Tamworth 3 days later
- Mild weakness left hand and left leg, some neglect
- Rehabilitation TRRH & Tamara Private Hospital
- Depression – improved with sertraline
- Significant functional improvement