Ambulance Victoria

STROKE TELEMEDICINE

Ambulance Victoria Stroke Care

Role of AV in Stroke

- Identification at time of call (~50% call?)
- Response (code 1 <12hours)
- Identification (x 2 means) and treatment
- Transport to VST centre or stroke centre (code 1)
- VST
- Secondary transport (road or air) for ECR
- Melbourne MSU (with RMH)
- Utstein 10 steps

Stroke Identification
(MSU data – 1st 1400 patients)

- 60% cancellation rate (MPDS – significant rates of over triage telephone)
- Of those attended 50/50 mimic and stroke/TIA
- 190 ischaemic
- 53 Thrombolysed
- Who are we missing? (Gait, vision, dysphasia, pre existing disability)

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Statement of Priorities

2018–19 Agreement between the Minister for Ambulance Services and Ambulance Victoria.

High quality and safe care

Key performance indicator	Target
Accreditation	
Certification to the ISO Standard ISO 9001:2015	Certified
Infection prevention and control	
Percentage of healthcare workers immunised for influenza	80%
Quality and Safety	
Percentage of emergency patients satisfied or very satisfied with the quality of care provided by paramedics	95%
Percentage of patients experiencing severe cardiac or traumatic pain whose level of pain was reduced significantly	90%
Percentage of adult stroke patients transported to definitive care within 60 minutes	90%
Percentage of major trauma patients that meet destination compliance	85%
Percentage of adult cardiac arrest patients surviving to hospital	50%
Percentage of adult cardiac arrest patients surviving to hospital discharge	25%

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	Jan – Mar 18	Apr – Jun 18	Jul – Sep 18	Oct – Dec 18
Number[1]	1,127	1,010	1,157	1,219
Number of paramedic identified stroke patients transported to stroke and thrombolysis services within 60 minutes	**1,098 (97.4%)**	**988 (97.8%)**	**1,114 (96.3%)**	**1,175 (96.4%)**

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Assess for MASS criteria

Action

- In the setting of normal BGL, a finding of one or more of the symptoms below is indicative of stroke:

Stroke signs and symptoms

Assessment findings			
Facial Droop	Pt shows teeth or smiles	**Normal** - both sides of face move equally	**Abnormal** - one side of face does not move as well as the other
Speech	The Pt repeats "You can't teach an old dog new tricks"	**Normal** - the Pt says the correct words, no slurring	**Abnormal** - the Pt slurs words, says the wrong words, or is unable to speak or understand
Hand grip	Test as for GCS	**Normal** - equal grip	**Abnormal** - unilateral weakness
Blood glucose	Test for BGL	**Abnormal** -if hypoglycemia Mx as per **CPG A0702 Hypoglycemia**	**Normal** BGL

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ACT-FAST (Arm, Chat, Tap after FAST/MASS assessment) Stroke Study

Updated May 2018

This is a 3-step clinical algorithm that aims to identify severe stroke patients that are likely to need endovascular clot retrieval. This is currently a research study and should not alter diagnosis, treatment or your decision to transport suspected stroke patients to the nearest stroke facility.

Please view the training videos on AV Intranet or Workplace first – please search for "ACT FAST"

STATUS

Suspected stroke or TIA (trial now statewide)

ASSESS

Perform routine AV stroke assessment first (ie face, hand grip, speech, glucose) – then assess step 1 of ACT-FAST

ACTION

"ACT-FAST" Assessment - stop if any step negative

- Step 1 **ARM**: Hold patient's arms at 45 degrees. Only one arm must convincingly fall completely to stretcher <10 secs.
- Step 2 (only if Step 1 positive)
  - If right arm weak - **CHAT**: Positive if severe speech deficit (mute, gibberish, not following simple commands).
  - If left arm weak - **TAP**: Positive if obvious deviation of eyes away from weak side, or abnormal response when tapped on the weak shoulder (& calling first name).
- Step 3 Endovascular eligibility (only if Step 2 positive)

Positive if deficits not pre-existing, onset **<24hrs**, mostly independent, no limits (near/comatose, BSL, seizure, malig brain cancer).

ANY STEP NEGATIVE

ACTION

Standard care and transport to the nearest stroke facility. Provide Signal 1 details as normal.

- **Record in VACIS:**
  Result > Clinical Trial > ACT-FAST-NEG

ALL STEPS POSTIVE

ACTION

Standard care and transport to the nearest stroke facility. Provide Signal 1 details as normal.

- If transporting to Royal Melbourne Hospital, you may signal in "ACT FAST Positive"
- Consider activating **Melbourne Mobile Stroke Unit/CTA01** for RV if en route to, or heading to, Melbourne (even if >20km from Royal Melbourne Hospital) and not very close to an endovascular hospital
- **Record in VACIS:**
  Result > Clinical Trial > ACT-FAST-POS

Endovascular hospitals:

- Royal Melbourne Hospital
- Monash Medical Centre
- Austin Hospital
- The Alfred Hospital
- St Vincent's (business hours)

Designated statewide 24/7

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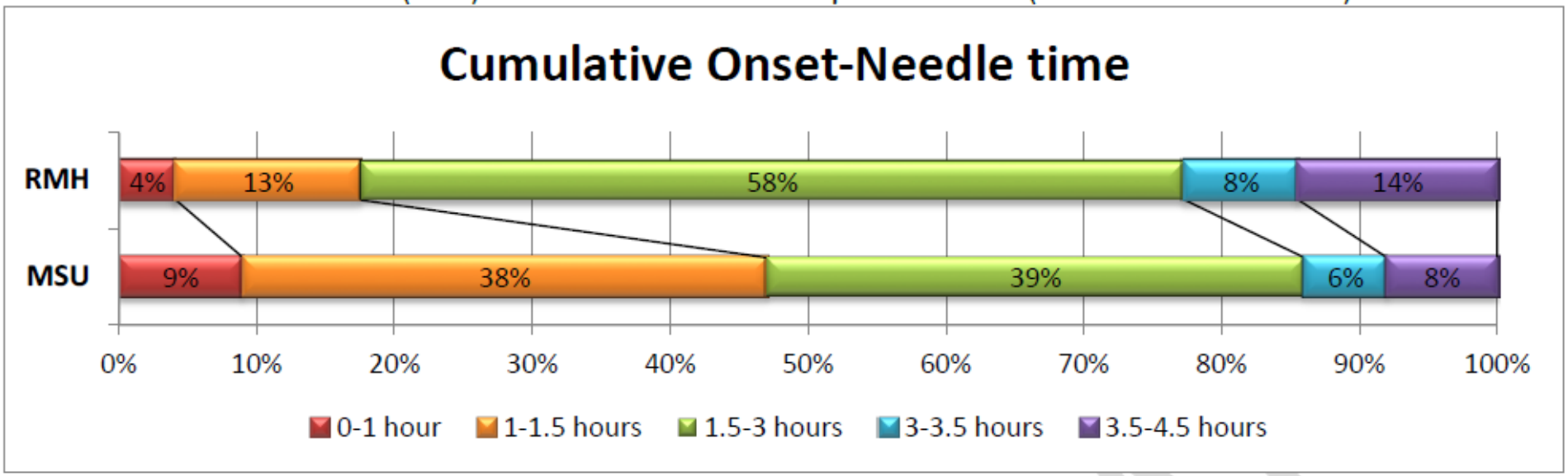
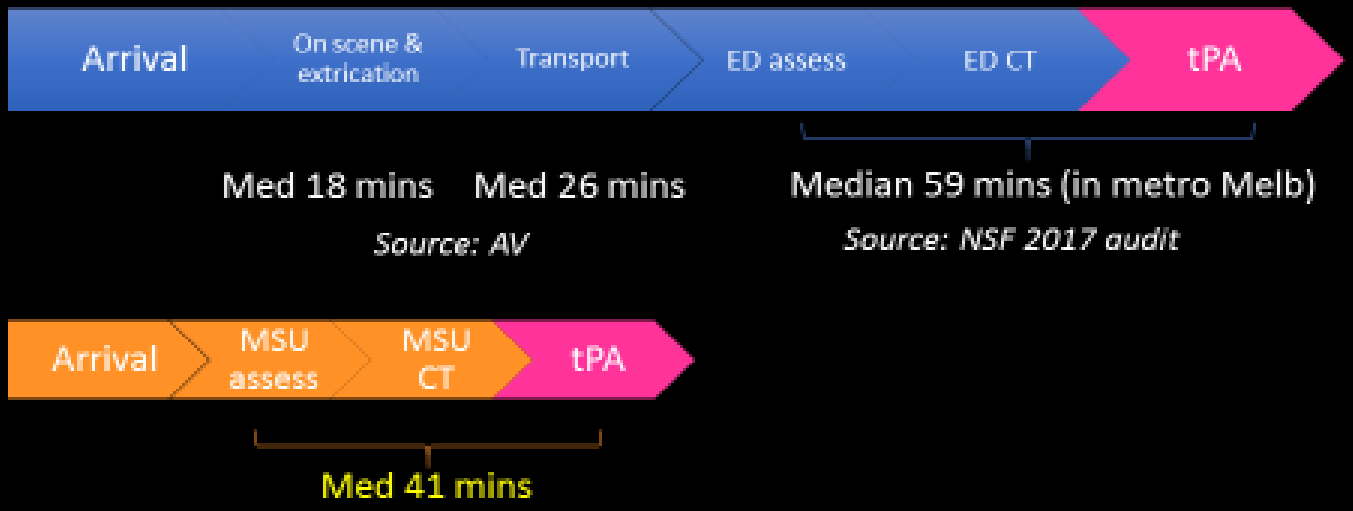
STROKE TELEMEDICINE

MSU Thrombolysis Time Epochs

Cumulative Onset-Needle (OTN) times on the MSU as compared to RMH (RMH data is 2018 data)



Time saving (thrombolysis)



➢ ***Time saving = ~1 hour***

Time saving (thrombectomy bypass)

Med 44 mins

Source: AV

Med 90 mins

Med 24 mins (transfer)

= 160 mins

Med 41 mins

+6 mins vs PSC

Med 34.5 mins

= 80 mins

➢ ***Time saving in most cases 80 mins+ for bypass***

What is VST?

The Victorian Stroke Telemedicine (VST) service:

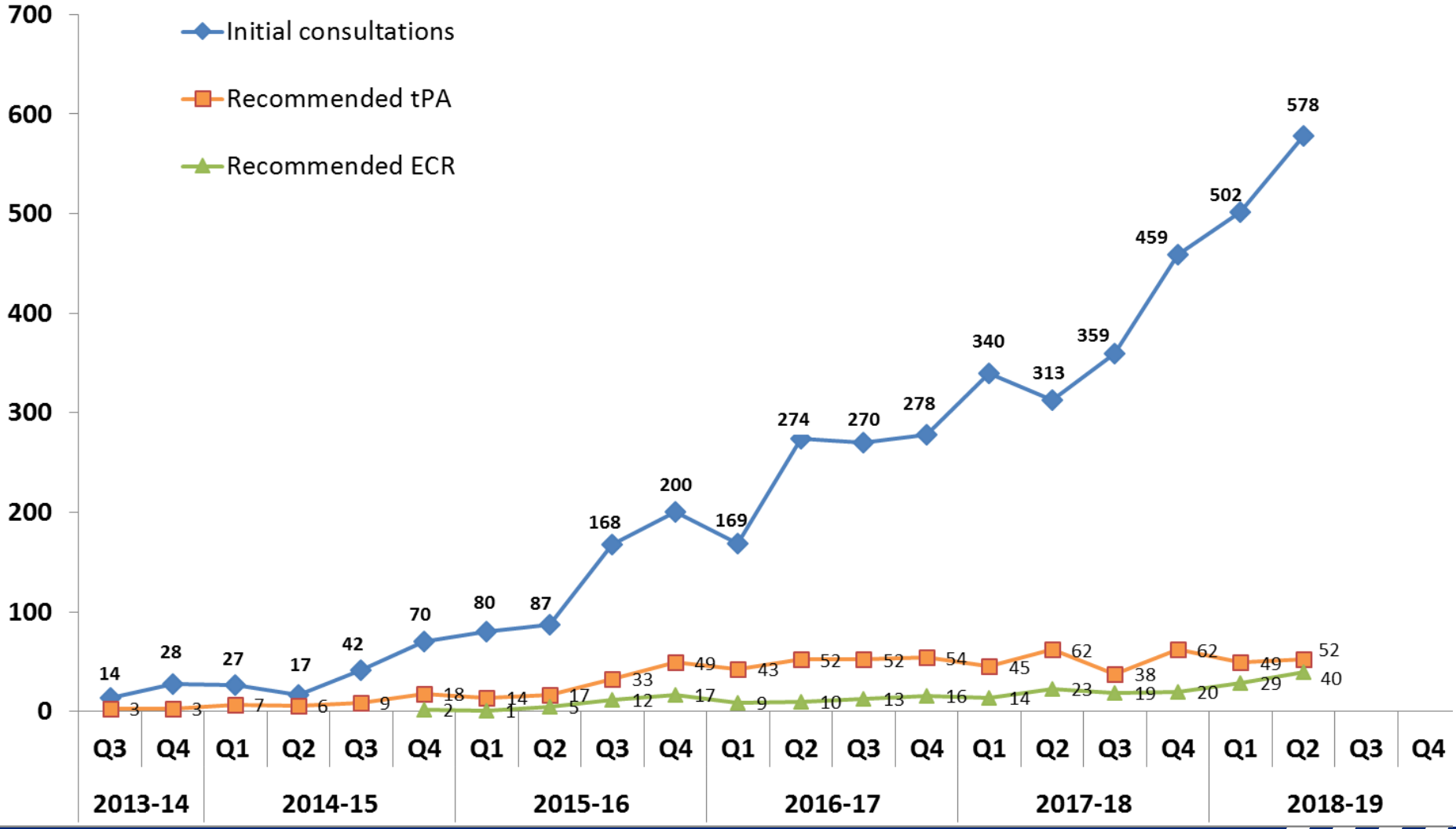
- 17 Victorian hospitals
- 24/7 access to neurologists/stroke specialists, irrespective of location
- treatment advice about patients presenting to ED with suspected acute stroke

VST relies on audio-visual communication between neurologists/stroke specialists, patients and ED doctors with real-time access to brain imaging to facilitate remote consultations.

The VST service is unique within Australia and is available **24 hours** a day, **7 days** a week, **365 days** of the year.


VICTORIAN STROKE TELEMEDICINE (VST)
LOCATIONS
JANUARY 2019
VST LOCATIONS
MILDURA
SWAN HILL
ECHUCA
ALBURY
SHEPPARTON
WANGARATTA
HORSHAM
BENDIGO
BALLARAT
HAMILTON
BAIRNSDALE
WERRIBEE
SALE
WARRAGUL
WARRNAMBOOL
TRARALGON
WONTHAGGI

VST Quarterly Activity



Safer Care Victoria | Stroke Clinical Network

October 2018

Endovascular clot retrieval for acute stroke

Statewide service protocol for Victoria

What's new?

- Management protocol for patients identified as potential candidates for ECR therapy **6 to 24 hours** after stroke onset.
- Imaging requirements for patients to be considered for ECR in the **6 to 24 hour** window after stroke onset.
- Process for transferring patients to a statewide ECR centre, including duties and responsibilities of all care providers.