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Australian Stroke Clinical Registry
New Dataset and AuSCR Update Webinar

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THE FLOREY
INSTITUTE OF NEUROSCIENCE & MENTAL HEALTH

@AustStrokeReg

Introduction

- Housekeeping
  - Please type your name/s and hospital in comments
  - Please mute yourself, and type any questions in comments
- General AuSCR update
- FeSS dataset
- ED dataset
- AuSDaT enhancements
- Improving follow-up rates

Hospital participation

Opt-out rate: 2.2%

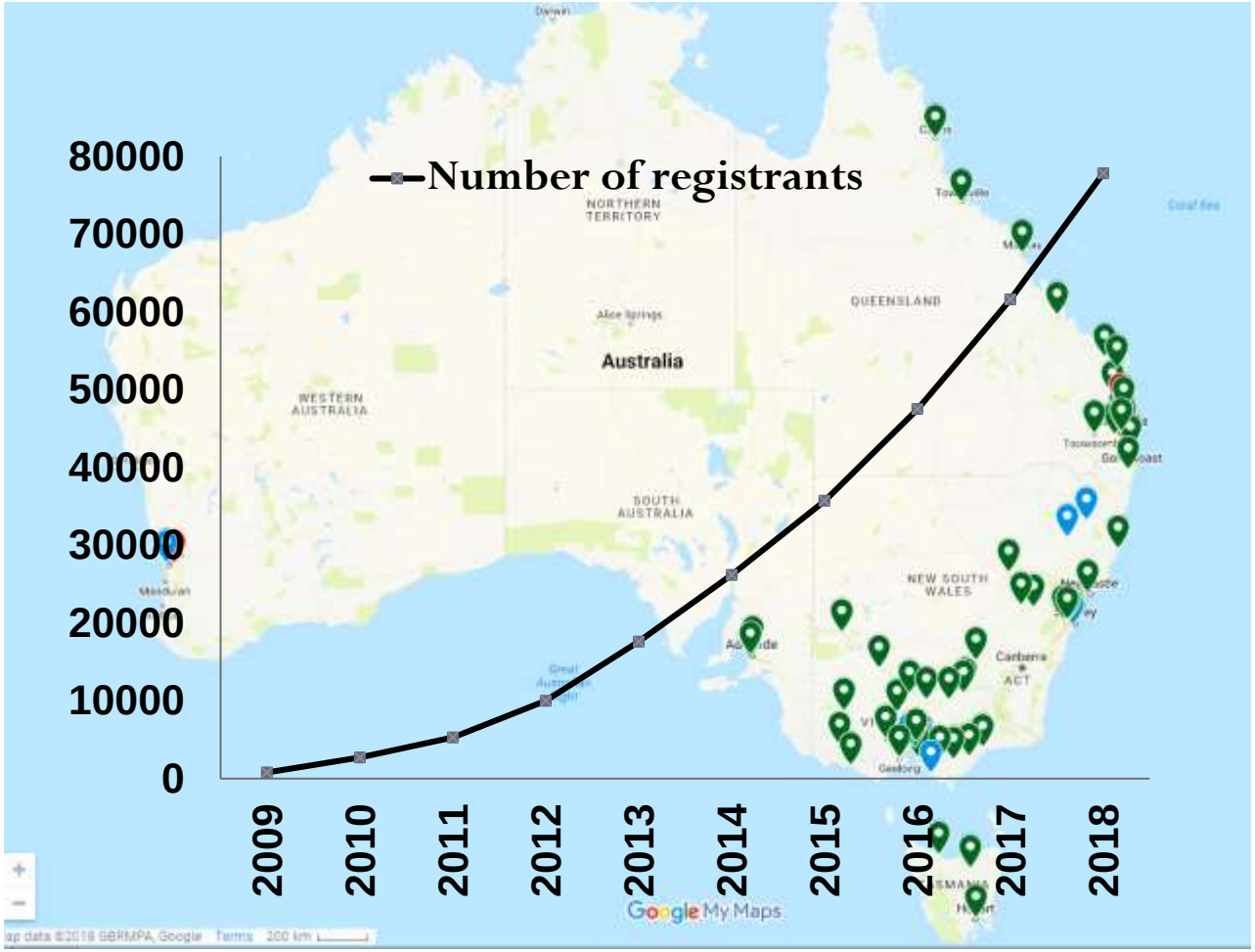
71 sites actively contributing data

83
Approved hospitals

80528
Stroke/TIA Episodes

36571
Patients completed Follow Up

	Sites	Episodes
QLD	24	33611
VIC	32	31685
NSW	18	8404
WA	3	1390
TAS	3	3044
SA	3	2394



Updated 4th March 2019

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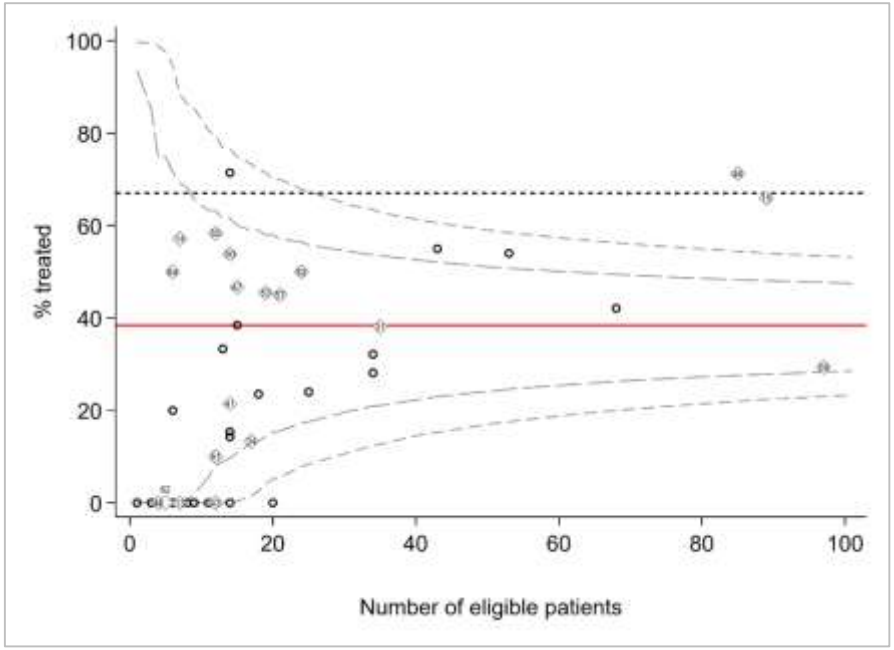
General AuSCR update

- 2017 annual report now available online & sent to PIs and coordinators

FIGURE 3: DOOR-TO-NEEDLE TIME <60 MINS OF ARRIVAL, BY HOSPITAL (EXCL. TRANSFERS)



General AuSCR update

- Please complete all 2018 data by 30th June, when data will be extracted for reporting
- New datasets
  - FeSS
  - ED
  - Paediatric

AuSCR 2017 Annual Report Highlights

13%

of patients with ischaemic strokes received thrombolysis.

= no change from 2016

**best hospitals achieved 22%*

39%

of hospitals achieved a median door to needle time <60 minutes for tPA

▲ **2% increase from 2016**

**median time overall was 73 minutes*

597

Patients with ischaemic stroke received Endovascular clot retrieval

**provided by 13 hospitals*

73%

of patients were discharged on antihypertensive medications

▲ **11% increase from 2016**

**best hospitals achieved 95%*

88%

of patients were discharged on antithrombotic medication

▲ **22% increase from 2016**

**best hospitals achieved 100%*

77%

of patients were discharged on lipid lowering medications

▲ **30% increase from 2016**

**best hospitals achieved 98%*

65%

of eligible patients completed follow-up measures at 90-180 days after stroke

▼ 4% decrease from 2016

** Over 1400 more completed than in 2016*

21%

of patients had been readmitted to hospital within 180 days of their stroke

5% of patients had a recurrent stroke within 180 days

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AuSCR 2018 Year in Review

71
Contributing hospitals

324 Clinicians using AuSDaT

18,363

2018 episodes registered (as of 4/3/19), and climbing!

4

Shortest average number of days from admission to record creation by a hospital

September
Busiest month for hospital data entry.

1,905
AuSCR cases entered

706

Calls to the AuSCR 1800 number

23,157

Follow-up forms sent by mail

3,599

Registrants phoned for follow-up

19,175

Kms travelled by AuSCR staff for audits and site visits

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Fever Sugar Swallow (FeSS) dataset

- FeSS video – full version available at:

https://strokefoundation.org.au/What-we-do/Treatment-programs/Professional-development-and-quality-improvement/Education-for-stroke-health-professionals

Fever Sugar Swallow (FeSS) dataset

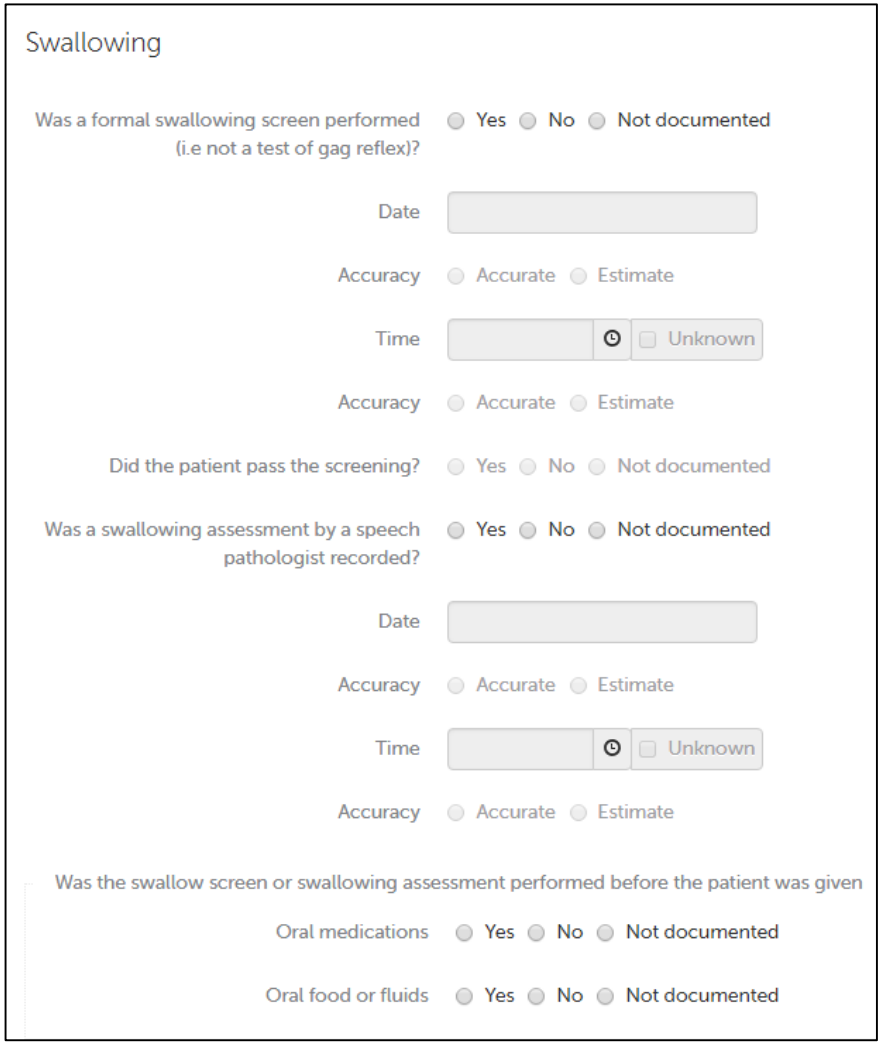
- QASC trial demonstrated patients who had received care in a stroke unit with FeSS protocols had:
  - 15.7% reduction in death and disability 90 days post stroke
  - Decreased mean temperature
  - Decreased mean blood glucose
  - Improved rates of swallow screen 24hs post stroke unit admission
- Result of longer-term mortality study
  - At median 4 years, >20% less likely to have died compared to those in control group
- Nurse initiated protocols with high quality evidence
- Economic benefits

Fever Sugar Swallow (FeSS) dataset

Clinical Guidelines for Stroke Management 2017

Strong recommendation **New**

All acute stroke services should implement standardised protocols to manage fever, glucose and swallowing difficulties in stroke patients.



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Fever Sugar Swallow (FeSS) dataset

Pyrexia management

Strong recommendation **New**

All stroke patients should have their temperature monitored at least four times a day for 72 hours.

Assessment and management of fever

Was temperature recorded at least four times on day one of ward admission	Yes / No / Not documented
In the first 72 hours following admission did the patient develop a fever ≥ 37.5°C	Yes / No / Not documented
Was paracetamol for the first elevated temperature administered within 1 hour	Please select

Glycaemic therapy

Strong recommendation **Updated**

All stroke patients should have their blood glucose level monitored for the first 72 hours following admission, and appropriate glycaemic therapy instituted to treat hyperglycaemia (glucose levels greater than 10 mmol/L), regardless of their diabetic status.

Assessment and management of hyperglycaemia

Was finger-prick blood glucose level recorded at least four times on day one of ward admission	Yes / No / Not documented
In the first 48 hours following ward admission did the patient develop a finger-prick glucose level of greater or equal 10 mmols/l?	Yes / No / Not documented
If yes, was insulin administered within 1 hour of the first elevated finger-prick glucose (>=10 mmol/L)?	Yes / No / Not documented

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Fever Sugar Swallow (FeSS) dataset

- Optional dataset
- Expand AuSCR record for FeSS variables
- Going live on 1st July 2019
- Notify AuSCR office if you would like this program available to your hospital
- Flexible – may be used for defined periods

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Fever Sugar Swallow (FeSS) dataset

- Live reports

Hyperglycaemia	
Was a finger-prick blood glucose level recorded at least four times on day one of ward admission?	Yes
	No
	Not Documente
	Missing
In the first 48 hours following ward admission did the patient develop a finger-prick glucose level of greater or equal to 10mmols/L?	Yes
	No
	Not Documente
	Missing

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ED dataset

- In response to regional and ‘spoke’ hospitals unable to capture their thrombolysis prior to transfer
- ~350 transfers for thrombolysis/ECR recorded in 2017
- Variables agreed upon by an expert committee
- Optional, separate dataset
- Going live on 1st July 2019
  - Currently receiving ethics/governance approvals

ED dataset – eligible patients

- To capture the care provided in ED prior to the patient being transferred to another hospital for further acute management
  - Will allow full capture of thrombolysis at hospitals, tracking ED times (eg door to needle), tracking process of care (eg advanced imaging and swallow screen) and better represent the patient journey
  - Includes ischaemic, haemorrhagic, TIA
  - Excludes patients who die in ED, are discharged home or admitted.
- Patients will need to be informed of the registry prior to AuSCR receiving data
  - PIS will need to be sent with post-discharge contact letter prior to entering data. No follow-up will be provided.

ED dataset – variables

- Patient demographics
  - Name, DOB, gender, Country of birth, ASTI, postcode
- Admission details
  - Onset date & time, discovery date & time, ED arrival, arrive by ambulance, pre-notification, transfer date & time, transfer reason
- Pre-stroke history
  - Pre-morbid mRS (score or derived)

ED dataset – variables

- Acute clinical data
  - ED triage category, baseline NIHSS
- Brain imaging
  - First brain scan, advanced imaging
- Type of stroke
- Telemedicine and reperfusion
  - Telemedicine consult details, thrombolysis details (incl SAE)
- Other clinical details
  - Swallow screen, screen prior to oral intake, walk on admission
- Discharge destination

ED dataset – live reports

- Suggestions?

- Door to CT times
- Door to Needle times
- Door in door out times
- Reason for transfer
- Telemedicine variables

AuSDaT enhancements

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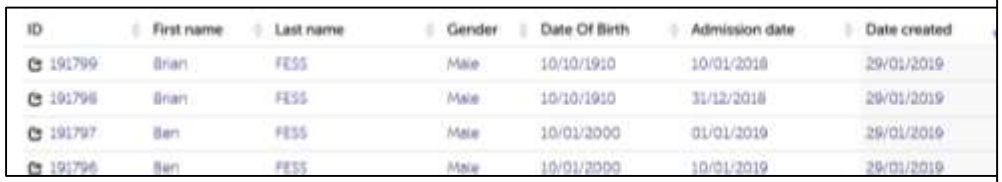
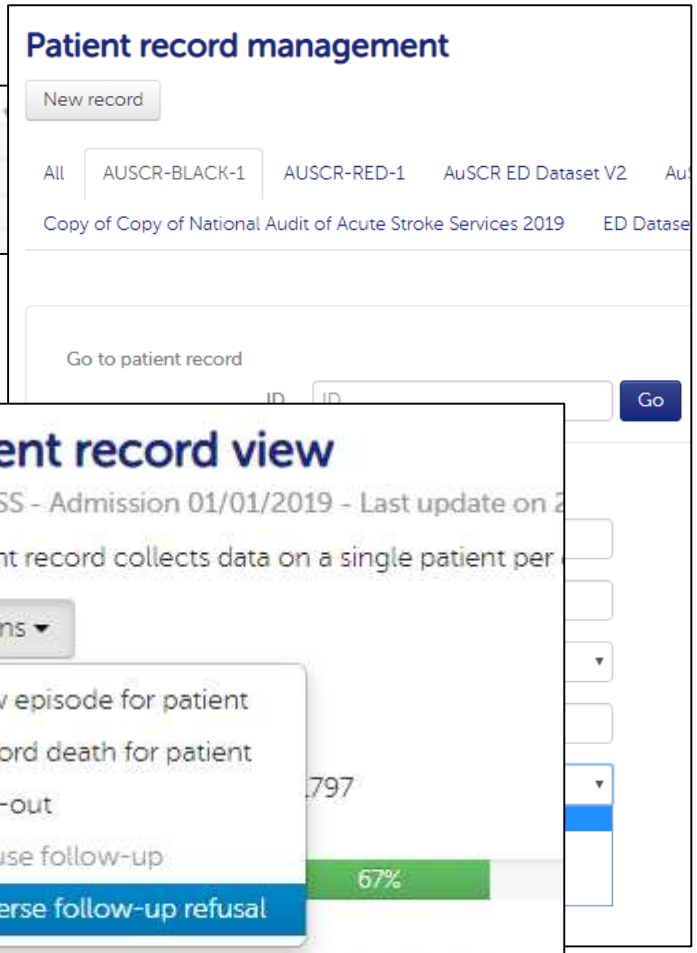


Search by error/completion sta

Reverse refuse to follow-up



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Improving follow-up

1st attempt

- 90 days following admission
- Follow-up form sent to registrant

2nd attempt

- If no response 6/52 later
- Follow-up form sent to registrant and emergency contact

3rd attempt

- If no response 6/52 later (at approx. 180 days)
- Phone follow-up, registrant, emergency and alternate contact all attempted up to three times

Improving follow-up

- Enter all data by 90 days post admission
- Follow-up generated if name, address and admission date in AuSCR
  - Important to confirm eligibility and complete in-hospital deaths before follow-up begins
- Enter as many details for emergency contact and alternate contact as possible (no need to repeat the same number)
- If entering manually, remember the first ‘0’ is pre-filled
- Discuss the AuSCR with patients while in hospital

SMS follow-up

- To improve the rates and decrease the cost of follow-up
  - Hi <name>, <hospital> and the Australian Stroke Clinical Registry (www.auscr.com.au) are interested in your recovery after your recent <stroke/transient ischaemic attack>. We invite you to answer a short survey here: <survey link>. If we do not hear from you we will send the survey via mail. Please do not reply by SMS. For questions call 1800 673 053.

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AuSCR Update and New Program Webinars

- Tuesday 2nd April, 12-1pm
- Wednesday 3rd April 2-3pm
- Thursday 11th April 10-11am

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Questions

Acknowledgements

Hospital staff & patients

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