

Acute ischemic stroke quality indicators

Definitions and Reporting

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Purpose of this presentation

- Suggest methods for identifying patients with AIS (transferred, admitted, and in-hospital)
- Briefly overview the definitions for the 3 acute ischemic stroke (AIS) indicators
- Demonstrate the proposed data entry modules
- Q&A about the indicators or the data entry process

Special thanks to:

- VA Inpatient Evaluation Center (IPEC) staff:
 - Ron Freyberg
 - Rachel Rhude
 - Gregory Roth
- Sites participating in pilot data entry
- IPEC representatives are on the call to address any technical questions about the data entry or reporting process

Clarification about AIS reporting

- The AIS indicators were developed as part of the Directive process led by Dr. Tyndall, VA Director of Emergency Medicine, and will be reported to VA Specialty Care

Questions about the AIS indicators should be directed to the AIS Task Force:

- Dr. Graham and Dr. Tyndall will give final opinion
- Stroke QUERI, SQUINT, and IPEC can help address some common questions, offer suggestions about data collection, and be sure issues are appropriately directed to the Office of Specialty Care

define the three AIS Directive stroke quality indicators

Identifying patients with AIS

- Monthly report of ischemic stroke ICD-9 codes
 - Recommended codes include:
 - 433.10, 433.10, 433.11, 433.21, 433.31, 433.81, 433.91
 - 434.00, 434.01, 434.11, 434.91
 - 436
- Active surveillance
 - ED log
 - Admission log
 - Neurology consult log
 - Transfer/Utilization Review log
- Monthly report using Reminder Dialog information or note titles
 - NIHSS, tPA checklist

Multiple methods of identification are strongly recommended!

VA AIS Indicators

- **Timely receipt of t-PA among eligible patients**
 - Presenting within 2 hours of symptom onset
 - Presenting between 2 and 3 ½ hours of symptom onset
- **Documentation of the NIH Stroke Scale score**
 - Within 45 minutes if t-PA eligible
 - Within 24 hours for all others
- **Dysphagia screening before oral intake**

t-PA indicator

- **% of eligible patients receiving t-PA in the correct time window**
 - 2 separate measures for those seen within 2 hours and those seen within 2 hours -3 ½ hours of symptom onset
 - ED presentations and in-hospital strokes
- **Denominators:** 1) Patients arriving within 2 hours, 2) Patients arriving from 2 hours 1 minute to 3 ½ hours of symptom onset
- **Excluded:**
 - Time from symptom onset > 3 ½ hours
 - Documented reason for no t-PA (contraindications)
 - Patient or family refusal
- **Patients eligible for t-PA at the time of transfer to another hospital for stroke care are eligible for this indicator**

t-PA indicator

- Numerator:
 - For patients within 2 hours of symptom onset, those for whom t-PA was started within 3 hours of symptom onset
 - For patients 2 hours 1 minute to 3 ½ hours of symptom onset, those for whom t-PA was started within 4 ½ hours of symptom onset

t-PA indicator

- Documentation of exclusions
 - Critical to correctly identifying the eligible population (the denominator)
 - Report the number excluded each month (only 1 exclusion per patient) due to:
 - Excess bleeding risk (NINDS criteria for 3 hours, ECASS III criteria for 4 ½ hours)
 - CT signs of infarct > 1/3 of MCA territory
 - Symptoms rapidly improving
 - Minor stroke (NIHSS < 3)
 - Patient/family refused
 - Other
- Other t-PA data collection for QI (optional)
 - Total number of patients receiving t-PA each month (IV or IA)
 - Number of patients in each of the 2 time windows who have a t-PA checklist documented

NIHSS indicator

- **% of patients with ischemic stroke with NIHSS documented**
 - Within 45 minutes for patients recognized within 2 hours of symptom onset
 - Within 24 hours for all others
- Denominator: patients with ischemic stroke
- Excluded: Discharged prior to the end of hospital day 1
 - Patients transferred for acute stroke care are not excluded and should generally have NIHSS completed prior to transfer

NIHSS indicator

- Numerator:
 - Documentation of NIHSS in correct time window
- Any documentation is acceptable:
 - CPRS note template/Reminder Dialog
 - Provider documentation of individual items or total score
 - Scanned paper copy of NIHSS done
- Timing: if not clearly documented use time that note containing the NIHSS was started

Dysphagia indicator

- **% of patients with ischemic stroke with dysphagia screening prior to oral intake (medications or food)**
- Denominator: patients with ischemic stroke and any oral intake during hospital stay
- Excluded:
 - No oral intake during entire hospital stay (or from time of symptom recognition to transfer)
 - Designated comfort measures only prior to any oral intake
 - Documented reason for no dysphagia screening prior to any oral intake

Dysphagia indicator

- Numerator: Patients with documented dysphagia screening before oral intake of food, fluids, or medication
- Any type of screening tool accepted by your facility is adequate:
 - Standard nursing questionnaire/checklist
 - Functional bedside test (e.g. 3 oz water swallow)
 - Formal SLP evaluation
 - Provider documentation that swallow was tested at bedside (e.g. “Swallowing was OK, will order PO meds.”)
 - Neurologic examination of cranial nerves alone (without mention of functional swallow testing) is not adequate
- Timing: if not clearly indicated, use time that note containing the dysphagia screen was started
 - Use ED records and/or inpatient nursing notes and medication administration logs (BCMA) to determine time of first oral intake

Reporting Stroke Quality Indicators

- Monthly self-report to the VA Inpatient Evaluation Center (IPEC)
 - IPEC collects and reports a wide variety of inpatient (ICU and non-ICU) outcomes and quality data
 - E.g. ICU/ward adjusted 30-day mortality, ventilator-associated pneumonia rates, central line infections
- Data collection done via facility entry of monthly aggregate (not identifiable) data
 - E.g. number of patients seen within 2 hours of symptom onset
- Every site should have already identified their IPEC data entry person and sent this info to their VISN
 - In most cases, the local stroke team will play a large role in collecting the data, since it requires some specific clinical expertise, regardless of who will do the eventual data entry

IPEC Stroke module orientation

IPEC Data Management • Development System

home data views reports utilities

home > data > acute stroke measures

Enter data and click [save]

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QTR2 2012)

01 | total number of patients given tPA

Patients With Acute Ischemic Stroke in "2 hour" Group – see footnote (1) below

02 | patients with acute ischemic stroke in "2 hour" group

03a | number of (02) not given tPA due primarily to CT signs of infarct > 1/3 of MCA territory checklist

03b | number of (02) not given tPA due primarily to CT signs of infarct > 1/3 of MCA territory

03c | number of (02) not given tPA due primarily to symptoms rapidly improving

03d | number of (02) not given tPA due primarily to symptoms rapidly improving

03e | number of (02) not given tPA due primarily to symptoms rapidly improving

03f | number of (02) not given tPA due to symptoms rapidly improving

03 | total number of (02) not given tPA due to an excluding factor

04 | total number of (02) eligible

05 | number of (04) who received tPA

06 | % rate of timely IV thrombolysis

07 | number of (02) for whom a tPA checklist was completed

08 | % rate of checklist document

Patients With Acute Ischemic Stroke in "3 1/2 hour" Group – see footnote (3) below

09 | patients with acute ischemic stroke in "3 1/2 hour" group per NINDS criteria/tPA

10a | number of (09) not given tPA due primarily to CT signs of infarct > 1/3 of MCA territory checklist

10b | number of (09) not given tPA due primarily to CT signs of infarct > 1/3 of MCA territory

10c | number of (09) not given tPA due primarily to symptoms rapidly improving

AD/TN • log out • get help

Data facility and month...

network
10 Ohio

facility (see indicator key below)
538 Chillicothe, OH

Link to help and to reports

| | | | | | | | | | | | | | | |
|------|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 2012 | 01 | 02 | 03 | 04 | 05 | 06 | | | | | | | | |
| 2011 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2010 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2009 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2008 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2007 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2006 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2005 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2004 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | | |
| 2003 | | | | | | | | | | 10 | 11 | 12 | | |

00=complete 00=pending 00=no data

no data for station 539 Cincinnati, OH

save << >> refresh

go back

Department of Veterans Affairs

See the Stroke QUERI website for AIS Sharepoint and SQUINT call links:
www.queri.research.va.gov/str/default.cfm

t-PA data entry

IPEC Data Management • Development System

home > data > acute stroke measures

Enter data and click [save]

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February 201

01 | | total number of patients given tPA

Patients With Acute Ischemic Stroke in "2 hour" Group – see footnote (

02 | | patients with acute ischemic stroke in "2 hour" group

03a | | number of (02) not given tPA due primarily to excess bleeding risk p
checklist

03b | | number of (02) not given tPA due primarily to CT signs of infarct > 3

03c | | number of (02) not given tPA due primarily to symptoms rapidly imp

03d | | number of (02) not given tPA due primarily to minor stroke (NIHSS

03e | | number of (02) not given tPA due primarily to patient/family refusal

03f | | number of (02) not given tPA due to some other reason

03 | | total number of (02) not given tPA due to an excluding factor

04 | | total number of (02) eligible to receive tPA

05 | | number of (04) who received timely IV thrombolytic therapy – see

06 | | % rate of timely IV thrombolytic therapy for "2 hour" patient group

07 | | number of (02) for whom a tPA checklist was documented (optional)

08 | | % rate of checklist documentation for "2 hour" patient group

Patients With Acute Ischemic Stroke in "3 1/2 hour" Group – see footn

09 | | patients with acute ischemic stroke in "3 1/2 hour" group

10a | | number of (09) not given tPA due primarily to excess bleeding risk p
checklist

10b | | number of (09) not given tPA due primarily to CT signs of infarct > 3

10c | | number of (09) not given tPA due primarily to symptoms rapidly imp

save

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refresh

- Enter the number of patients given tPA. (1).
- Enter the number within 2 hours (2).
- Enter the number of these patients with specific exclusions (3a-f), **only 1 per patient!**
 - Only track exclusions on those in the time window
- Enter the number within 2 hours that got tPA within 3 hours (5).
- t-PA rate calculated for you (6).
- Optional data element to record use of tPA checklist in those within the time window (7).
- Same procedure for those presenting between 2 and 3 ½ hours.
 - If your facility doesn't treat patients past 3 hours just enter data accordingly so the number presenting and whether they would have been eligible is recorded.
 - Anticipating possible FDA approval for this time window.

NIHSS data entry

- Enter the total number of stroke patients cared for at your facility for at least one day. (14a)
- Enter the total number of stroke patients transferred for stroke care. (14b)
 - The total number of all stroke patients is summed for you (14)
- Enter the number with an appropriately timed NIHSS. (15)
 - The NIHSS rate is calculated for you.

| NIH Stroke Scale (NIHSS) Documentation | | |
|--|--|---|
| 14a | | total number of ischemic stroke patients cared for at your facility (admitted and in-hospital strokes, not transferred out for stroke care) |
| 14b | | total number of ischemic stroke patients transferred out from your facility for stroke care |
| 14 | | total number of ischemic stroke patients |
| 15 | | number of (14) with timely documentation of NIHSS score — see footnote (6) below |
| 16 | | % rate of patients with with timely documentation of NIHSS score |
| notes (enter in yellow box below) | | |
| | | |

Dysphagia data entry

- Enter the total number of stroke patients with oral intake and no other exclusions. (11) –**include those transferred who have a medication by mouth prior to transfer!**
- Enter the number with a dysphagia screen prior to oral intake. (12)
 - The dysphagia rate is calculated for you.

| Dysphagia Screening Before Oral Intake – see footnote (5) below | | |
|---|--|---|
| 11 | | patients with ischemic stroke with any oral intake during hospital stay |
| 12 | | number of (11) with a documented dysphagia screening performed before oral intake |
| 13 | | % rate of patients with a documented dysphagia screening performed before oral intake |
| NIH Stroke Scale (NIHSS) Documentation | | |
| 14a | | total number of ischemic stroke patients cared for at your facility (admitted and in-hospital strokes, not transferred out for stroke care) |
| 14b | | total number of ischemic stroke patients transferred out from your facility for stroke care |
| 14 | | total number of ischemic stroke patients |
| 15 | | number of (14) with timely documentation of NIHSS score – see footnote (6) below |
| 16 | | % rate of patients with with timely documentation of NIHSS score |
| notes (enter in yellow box below) | | |
| | | |

IPEC reports

- IPEC will generate reports for all facilities
 - This will require a period of “locking” data entry so they can generate reports without data changes occurring; data changes can be made later by contacting IPEC
 - Data can be corrected any time up until the quarterly lock-out period
 - AIS reports will be run at a frequency determined by Specialty Care...likely quarterly
- Facilities can generate their own reports whenever they like using the report feature

Getting Help

- Footnotes to data entry screens provide basic info
- 2 Help Documents for the IPEC modules will be accessible from the data entry screen or the Stroke QUERI website
 - Help on indicator definitions and assessments
 - Help on access, data entry, and reporting features
- Anticipate access to IPEC modules around July 22, Help Documents will be available at that time
 - Additional documents with indicator definitions and patient identification strategies are available on the AIS SharePoint site (site used in national training in Nov-Dec)

Suggestions

- Work with your local IRM staff and stroke team to put strategies in place to identify stroke patients
 - Ideally identify June patients as you go and finalizing list by early July for reporting by mid July
- Develop a data collection tool with your stroke team
 - Key elements required for the quality indicators
 - Other elements that you are interested in tracking
 - See example on the AIS SharePoint site
- Meet with your IPEC report contact to plan communication strategies for timely data entry and resolving questions

Questions?

