ACTION Registry-GWTG

Inclusion Criteria

April 10, 2013
• National surveillance system for high-risk AMI patients admitted with STEMI/NSTEMI:

  – Assess characteristics, treatments, and outcomes of this patient population

  – Optimize outcomes and management of AMI patients through implementation of ACC/AHA evidence-based guideline recommendations in clinical practice

  – Facilitate efforts to improve quality and safety of ACS patient care; and investigate QI methods
The History: ACTION Registry-GWTG

- ACTION Registry transitioned from CRUSADE and NRMI Registries
- January 2007 ACTION was established
- May 2008 ACTION merged with AHA GWTG CAD to become

**ACTION Registry-GWTG**

- Current membership of 830 Hospitals
- ~500,000 records submitted
Data Powering Performance

The NCDR® is the American College of Cardiology’s worldwide suite of data registries helping hospitals and private practices measure and improve the quality of cardiovascular care they provide. The NCDR encompasses six hospital-based registries and one outpatient registry, making it the most comprehensive outcomes-based quality improvement program in the United States. With growing domestic and international participation, there are currently more than 2,400 hospitals and nearly 1,000 outpatient providers participating in NCDR registries.

A trusted resource, the NCDR has developed clinical modules that support the areas of cardiovascular care where quality can be measured, benchmarked, and improved to make a difference in patients’ lives. With 18 million patient records, the NCDR has the deep clinical data needed to provide an evidence-based rationale that informs treatment choices and lowers treatment costs.

NCDR registries use standardized data elements and definitions for patient demographics, clinical variables, and outcomes to facilitate communication and allow for “apples to apples” comparisons across disciplines and studies. And, as part of the NCDR’s data quality program, all submissions are reviewed for completeness, consistency, and accuracy.
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Inclusion Population

NOT EVERY STEMI and NSTEMI MEET INCLUSION CRITERIA TO BE IN THE REGISTRY

If a patient presents with:
• Any other symptoms other than AMI symptoms
• Any kind of procedures that cause an AMI

These patients are not included
Inclusion Population

Acute Myocardial Infarctions-STEMI & NSTEMI

Patient must present to 1st Facility with symptoms of ACS, within 24 hours of arrival

Patient must have positive ECG- ST elevation, new LBBB, or documented Posterior MI

OR

Positive Biomarkers- Troponin or CK-MB within 24 hours of arrival

Transfer In patients- STEMI must arrive within 72 hours, NSTEMI within 24 hours
Inclusion Criteria

Documentation:

- Presented with epigastric discomfort, back pain, SOB, nausea & vomiting x 2 days
- Initial troponin 7.6 ng/mL
- Diagnostic cath- no CAD- aortic aneurysm with dissection with severe Aortic regurg
- Patient was taken emergently to the OR
Question

Would this patient meet inclusion criteria for the ACTION Registry-GWTG?

1. No
2. Yes
Inclusion Criteria

Documentation:
• Presented with epigastric discomfort, back pain, SOB, nausea & vomiting x 2 days
• Initial troponin 7.6 ng/mL
• Diagnostic cath- no CAD- aortic aneurysm with dissection with severe Aortic regurg
• Patient was taken emergently to the OR

Would this patient meet inclusion criteria for the ACTION Registry-GWTG?
1. No
2. Yes
Answer: No

- This patient **did** meet inclusion for symptoms of ACS, and **did** meet the elevated troponin.
- In the end this patient **did not rule in as an AMI**.
  - Patient was taken emergently to the OR

- Patient presented with epigastric discomfort, back pain, SOB, nausea & vomiting x 2 days
- Initial troponin 7.6 ng/mL
- Diagnostic cath- no CAD- **aortic aneurysm with dissection with severe Aortic regurg**
- Patient was taken emergently to the OR
Inclusion Criteria

Documentation:

- 97-yo female altered level of responsiveness
- Noted SOB no change from baseline
- Hx COPD- continues to smoke, on home oxygen
- Initial Troponin 0.784- positive
- ED & primary physician- initial presentation r/o CVA, noncompliant with O2
- Cardiologist noted Probable NSTEMI
Would this patient meet inclusion criteria for the ACTION Registry-GWTG?

1. No
2. Yes
Inclusion Criteria

Documentation:

- 97-yo female- altered level of responsiveness
- Noted SOB- no change from baseline
- Hx COPD- continues to smoke, on home oxygen
- Initial Troponin 0.784- positive
- ED & primary physician- initial presentation r/o CVA, noncompliant with O2
- Cardiologist noted probable NSTEMI

Would this patient meet inclusion criteria for the ACTION Registry-GWTG?

1. No
2. Yes
Answer: No

- Initial presentation was for r/o CVA
- SOB was unchanged from normal
- Cardiologist documented “probable” NSTEMI
- Pull out the details needed to focus on inclusion to help determine inclusion

97-yo female- altered level of responsiveness
- Noted SOB- no change from baseline
- Hx COPD- continues to smoke, on home oxygen
- Initial troponin 0.784- positive
- ED & primary physician document initial presentation r/o of CVA, noncompliant with O2
- Cardiologist note- probable NSTEMI
Inclusion Criteria

Documentation:

• Patient collapses in public area, cardiac arrest noted when EMS arrived
• Never regains consciousness, no documented symptoms of ACS
• Temporarily regains rhythm- Cardiologist documents “ECG STEMI” and “cardiac arrest”
• Patient is immediately transported to the cath lab in cardiac arrest and deceases prior to start of procedure
Question

Would this patient be included in the ACTION Registry-GWTG?

1. Yes

2. No, the patient did not have symptoms of ACS documented

3. No, the patient deceased prior to cardiac care measures being able to be provided
Inclusion Criteria

Documentation:

• Cardiac arrest- EMS arrives
• No symptoms of ACS- unconscious
• Cardiologist documents “STEMI” & “cardiac arrest”
• Immediately transported- cath lab in cardiac arrest & deceases prior to start of procedure

Would this patient be included in the ACTION Registry-GWTG?

1. Yes
2. No, no symptoms of ACS documented
3. No, the patient deceased prior to cardiac care measures being able to be provided
Answer: No, the patient deceased prior to cardiac care measures being able to be provided

- If a patient presents in cardiac arrest and deceases before you are able to provide cardiac care measures you will not include this patient.

- When a patient presents unable to provide symptoms, such as when they are in cardiac arrest, this patient may still be included with documentation from the physician that the arrest was cardiac arrest.

- Never regains consciousness, no documented symptoms of ACS
- Temporarily regains rhythm- Cardiologist documents “ECG STEMI” and “cardiac arrest”
- Patient is immediately transported to the cath lab in cardiac arrest and deceases prior to start of procedure.
Inclusion Criteria
Seq. #4030 & 10,000 STEMI/NSTEMI

Documentation:

- Entered data into the ACTION Registry-GWTG tool
- Quality check /DQR for data assessment
- Find this error message:

STEMI or STEMI Equivalent (4030) must be 'Yes' or Positive Cardiac Markers w/in First 24 Hours (10000) must be 'Yes' for this patient to be included in the ACTION Registry - GWTG. Please verify the data.
Question

What does this error mean?

1. #4030 or #10,000 – is answered “no” & both must be “yes”
2. Both #4030 & #10,000 – “no” & one must be “yes”
3. Both #4030 & #10,000 – “yes” & one must be “no”
Inclusion Criteria
Seq. #4030 & 10,000 STEMI/NSTEMI

Documentation:
• QC or DQR for data assessment
• Find this error message:

STEMI or STEMI Equivalent (4030) must be 'Yes' or Positive Cardiac Markers w/in First 24 Hours (10000) must be 'Yes' for this patient to be included in the ACTION Registry - GWTG. Please verify the data.

What does this error mean?
1. #4030 or #10,000 – is answered “no”& both must be “yes”
2. #4030 & #10,000 -“no”& one must be “yes”
3. #4030 & #10,000 -“yes”& one must be “no”
Answer: Both #4030 & #10,000 are answered “no” & one must be “yes”

- Seq. #4030 and #10,000 are Inclusion Fields
- Both have a threshold of 100% and must be answered to determine inclusion
- #4030 “STEMI or STEMI equivalent” must be answered as “yes” for STEMI or #10,000 “Positive Cardiac Markers within 24 hours” as “yes” for NSTEMI
- If the patient did not rule in as a STEMI or NSTEMI then you would delete this record from the ACTION Registry-GWTG
Inclusion Criteria

Documentation:

- Patient- “full out stroke symptoms” per EMS
- On the way to hospital ECG- ST elevation
- No chest pain, confirmed arm pain per EMS
- TPA administered for both stroke and MI
- ST elevation to Cath lab same day
Would this patient be included when he presented to EMS as a stroke patient?

1. No
2. Yes
Inclusion Criteria

Documentation:

• Patient- full out stroke symptoms per EMS
• On the way to hospital ECG- ST elevation
• No c/o chest pain, confirmed arm pain for EMS
• TPA administered for both stroke and MI
• ST elevation to Cath lab same day

Would this patient be included when he was initially a stroke patient?

1. No
2. Yes
Answer: Yes

- Presenting symptoms were for stroke only
- This patient did have arm pain - a symptom of ACS
- Cardiac issues identified prior to arrival
- Patients that present with multiple conditions stroke and MI, are included in the Registry

- Patient- full out stroke symptoms per EMS
- On the way to hospital ECG- ST elevation
- No c/o chest pain, confirmed arm pain per EMS
- TPA administered for both stroke and MI
- ST elevation to Cath lab same day
Inclusion Criteria

Documentation:

- Presents with chest pain
- ECG was positive with ST elevation
- Troponins were positive
- Diagnosed with Takotsubo Cardiomyopathy
- His primary diagnosis was Myocardial Infarction
- Cardiologist documented "stress-induced myocardial infarction- not ACS"
Question

Should this patient be included in the ACTION Registry-GWTG?

1. No
2. Yes
Inclusion Criteria

Documentation:

• Patient presents with chest pain
• ECG was positive with ST elevation
• Troponins were positive
• Diagnosed with Takotsubo Cardiomyopathy
• His primary diagnosis was Myocardial Infarction
• Cardiologist documented "stress-induced myocardial infarction- not ACS"

Should this patient be included in the ACTION Registry-GWTG?

1. No
2. Yes
Answer: Yes

- Takotsubo Cardiomyopathy does not automatically include or exclude a patient
- This patient did meet inclusion criteria

- Presents with chest pain
- ECG was positive with ST elevation
- Troponins were positive
- Diagnosed with Takotsubo Cardiomyopathy
- His primary diagnosis was Myocardial Infarction
- Cardiologist documented "stress-induced myocardial infarction- not ACS"
Inclusion Criteria

Documentation:

- Presents with chest pain- intermittent, some shortness of breath
- ECG- ST elevation
- Symptoms started 3 days ago documented by cardiologist
- To cath lab for immediate primary PCI
Symptom onset started 3 days prior. Would this patient be included in the registry?

1. No
2. Yes
Inclusion Criteria

Documentation:

• Presents with chest pain intermittent, some shortness of breath
• ECG- ST elevation
• Symptoms started 3 days ago documented by cardiologist
• To cath lab for immediate primary PCI

Symptom onset started 3 days prior. Would this patient be included in the registry?
1. No
2. Yes
Answer: Yes

- A patient can have UA & progress into an infarction. The decision of when the infarction occurs is determined by the MD.
- ACTION criteria does not R/O patients based on how long they have been having symptoms.
- Patients rule in based symptoms within 24 hours of arrival.
- MD documentation stating the MI occurred 2-3 days prior, do not include this patient into the Registry.
- If you have no documentation excluding the patient, and the patient is treated as an acute MI, include the patient in the Registry.
Inclusion Criteria

Documentation:

- Are there any patients that are typically excluded other than patients with symptoms outside of a 24 hour window?
Question

Which one of these patients should be included in the ACTION Registry-GWTG?

1. Last symptoms of ACS 36 hours prior to arrival
2. STEMI transferred to my facility for CABG
3. Scheduled cath has STEMI post procedure
4. STEMI presentation with clean coronary arteries
5. Presents with symptoms of ACS with minor Troponin elevation- diagnosis HF
Inclusion Criteria

Documentation:
• Are there any patients that are typically excluded other than symptoms outside of the 24 hour window?

Which one of these patients should be included in the ACTION Registry-GWTG?
1. Last symptoms of ACS 36 hours prior to arrival
2. STEMI transferred to my facility for CABG
3. Scheduled cath has STEMI post procedure
4. STEMI presentation with clean coronary arteries
5. Presents with symptoms of ACS with minor Troponin elevation - diagnosis HF
Answer: STEMI presentation with clean coronary arteries

- Type 2 MI’s are included- vasospasm, supply-demand
- Clean coronary arteries do not exclude patients from the Registry or AMI care measures
- Symptoms of ACS 36 hours prior to arrival must be within 24 hours
- STEMI transferred to my facility for CABG: scheduled procedure
- Scheduled cath has STEMI post procedure: scheduled procedure
- Presents with symptoms of ACS with minor Troponin elevation-diagnosis HF
Thank You

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