Dashboard and Outcomes Report with Case Studies

Kim Hustler - Clinical Quality Consultant, American College of Cardiology

The following relationships exist:

Kim Hustler: No Disclosures

Section F- Procedures and Tests

LVEF %

Documentation:

• Elderly man presents with symptoms ACS
• ECG- ST depression, positive Troponin
• Extensive cardiac history, CVA- L sided impairment
• Transferred to PCI hospital diagnostic cath
• EF measured- cath 35-40%
Question #112

What value would you enter in for LVEF Seq. #7010?

1. 35%
2. 40%
3. 38%
4. LVEF not available

LVEF %

Documentation:
- Elderly man presents with symptoms ACS
- ECG- ST depression, positive Troponin
- Extensive cardiac history, CVA- L sided impairment
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What value would you enter in for LVEF Seq. #7010?
1. 35%
2. 40%
3. 38%
4. LVEF not available

Outcome Report Metric #25
Excessive initial Unfractionated Heparin (UFH) dose

Documentation:
- 70 y/o male presents with STEMI
- Weight is 50 kg
- This patient refuses primary PCI and Thrombolytics
- Patient will be medically treated
- ED administers 4000 units IV bolus UFH and IV infusion is started at 12 units/kg/hr.
Question #23

As a STEMI who refused reperfusion strategy, would this patient be included in the denominator for Excessive initial UFH dose?

1. No
2. Yes

Outcome Report Metric #25
Excessive initial Unfractionated Heparin (UFH) dose

Documentation:
- 70 y/o male presents with STEMI
- Weight is 50 kg
- This patient refuses primary PCI and Thrombolytics
- Patient will be medically treated
- ED administers 4000 units IV bolus UFH and IV infusion is started at 12 units/kg/hr.

As a STEMI who refused reperfusion strategy, would this patient be included in the denominator for Excessive initial UFH dose?

1. No
2. Yes

25. Excessive initial unfractionated heparin (UFH) dose

Description: Proportion of AMI patients that received:
- An initial bolus dose of UFH > 70 units per kilogram OR
- A total initial bolus dose exceeding 4000 units OR
- An initial infusion > 10 units per kilogram per hour OR
- A total initial infusion > 1000 units per hour.

Numerator: Count of AMI patients who received:
- An initial bolus dose of UFH > 70 units per kilogram OR
- A total initial bolus dose exceeding 4000 units OR
- An initial infusion > 10 units per kilogram per hour OR
- A total initial infusion > 1000 units per hour.

Denominator: Count of AMI patients who received intravenous UFH within 24 hours of hospital arrival.

Inclusion Criteria:
- All ACTION/ONTG AMI patients who receive UFH within 24 hours of hospital arrival.
- Data from submissions that pass NCDR data inclusion thresholds.

Exclusion Criteria:
- Patients ≥ 18 years of age.
- STEMI patients with a PCI indication of immediate, primary PCI for STEMI.
- Patients given another anticoagulant therapy (Aspirin, Inhantin, fondaparinux, Dalteparin) prior to intravenous UFH.
- Patients on heparin (unfractionated) who start date/time after within 48 hours
- Records that are incomplete for data elements used in the algorithm.

Time period: Four (4) consecutive quarters (example: the 2009 a1 report would include 2009Q1, 2009Q2, 2009Q3 and 2009Q4). The “a” indicates the quarter. This is also called “trailing four quarters” (4Qs).
UFH dosing for STEMI with primary PCI

Outcomes Report: Metric #28
AMI Revascularized patients discharged on ADP receptor inhibitors

Documentation:

• Site calls with concern - missing patient
• Patient #871366671 is missing from the dashboard
• Patient had PCI with stent
• Should have received an P2Y12 at discharge
• Expected to see as fall out in metric

Question #33

What is the best way to figure out why the patient was not included in the dashboard drill down?

1. Data Extract
2. Dashboard
3. Companion Guide
4. Call Kim
3/8/2014

Metric #28 AMI Revascularized patients discharged on ADP receptor inhibitors

**Documentation:**
- Site calls with concern - missing patient
- Patient #871366671 is missing from the dashboard
- Patient had PCI with stent
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**What is the best way to figure out why the patient was not included in the dashboard drill down?**
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### Metric #28 AMI Revascularized patients discharged on ADP receptor inhibitors

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>Site in</th>
<th>ADP</th>
<th>PCI</th>
<th>CABG</th>
<th>Discharge To</th>
<th>Location</th>
<th>Discharge ADP Status</th>
<th>Discharge Location Status</th>
<th>Discharge CABG Status</th>
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</table>

### Metric #28 AMI Revascularized patients discharged on ADP receptor inhibitors

**Description:** Proportion of AMI revascularized patients prescribed an ADP receptor inhibitor at discharge.

**Numerator:** All AMI patients who are prescribed ADP Receptor Inhibitors at discharge.

**Denominator:** All AMI patients who are prescribed ADP Receptor Inhibitors at discharge and who underwent either PCI or CABG.

**Inclusion Criteria:**
- All ACTION Registry-SMART patients.
- Data from submissions that pass KDR data inclusion thresholds.

**Exclusion Criteria:**
- Patients <18 years of age
- Patients with a discharge location of other hospital
- Patients discharged with comfort measures only
- Patients with a discharge status of deceased
- Contraindicated or limited to ADP Receptor Inhibitors (Clopidogrel, Ticagrelor, and Prasugrel)
- Patients with a discharge location of hospice
- Patients with a discharged medication of Warfarin = Yes
- Records that use reclassification for more information reported in algorithm.
Outcomes Report
Overall AMI Performance Composite Metric #1

Documentation:
- This site started a year ago at 88.2%
- Q3 2013 finished the year of work at 99.1%

Question #4
What Metric is most often the most common cause of lower Overall AMI Composite scores?

1. Metric #12 ACE-I or ARB for LVSD at discharge
2. Metric #16 Median Time to Primary PCI for STEMI patients
3. Metric #21 Cardiac Rehabilitation patient referral from an inpatient setting
4. Metric #17 Reperfusion Therapy
Metric #21 Cardiac Rehabilitation patient referral from an inpatient setting

1st requirement:
- Patient must be aware of Cardiac Rehab referral by staff or provided a pamphlet

2nd requirement:
- Patient must receive information how to schedule the cardiac rehab before discharge
- Physician's are welcome to delay start cardiac rehab until after the first office visit
- A pamphlet that incorporates all the information & provided to patient before discharge qualifies

Outcomes Report

Metric #18 Door in Door Out

Documentation:
- Physician reads “Association of Door-In to Door-Out Time With Reperfusion Delays and Outcomes Among Patients Transferred for Primary PCI”
- He asks to see this site’s DIDO time
- He requests you identify the transferring hospitals and variables for this site’s patient to better understand if there are means to improve the times
Question #53

What is the best way to identify the transferring hospitals and variables for the patients?

1. Data Extract
2. Dashboard
3. Companion Guide
4. Call Kim

Metric #18 Door in Door Out

Documentation:
- Physician reads “Association of Door-In to Door-Out Time With Reperfusion Delays and Outcomes Among Patients Transferred for Primary PCI”
- He asks to see what this site’s time is
- He requests you identify the transferring hospitals and variables for this site’s patients to better understand if there are means to improve the times

What is the best way to figure out why the patient was not included in the dashboard drill down?

1. Data Extract
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Metric #18 Door in Door Out

- Excel filter for STEMI, transfer in “yes”, PPCI
- Identify patients in DIDO metric
- Identify patients with longest DIDO times
- No cardiac arrests, no non-system reasons for delay
### Metric #18 Door in Door Out

**Transferring Hospital**

<table>
<thead>
<tr>
<th>Arrival Date/Time</th>
<th>Indic in</th>
<th>Name</th>
<th>DT/INT/OUT</th>
<th>Transferred From Inside Facility</th>
<th>Transferred From Outside Facility</th>
<th>Door in DO Out time (mins)</th>
<th>DO Out</th>
<th>Transferred Hospital</th>
<th>Sub/EGO Date/Time</th>
<th>PCE Indication</th>
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<tbody>
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<td>STPM</td>
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<td>54</td>
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<td></td>
<td></td>
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<tr>
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<td>STPM</td>
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<td></td>
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<tr>
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</table>
Metric #18 Door in Door Out
Look at times

- Transport times - 23 & 20 minutes

Now what?
- Create and share reports for that facility
- Physician to physician conversations
- Create form for them to complete and send with patient with timelines outlined

Outcomes Report
Metric #19 Time from ED at Referral facility to Primary PCI at Receiving facility

Documentation:
- There is discussion around transports by air vs. ambulance
- Door to balloon transfer in metric #19 time is being reviewed for end of year
Question #6.3

What is the best way to create a report for D2B transfer in air vs. ambulance arrivals for Q4, when Outcomes Report is not published yet?

1. Data Extract
2. Dashboard drill down
3. Outcomes Report
4. Data Extract and Dashboard

Metric #19 Time from ED at Referral facility to Primary PCI at Receiving facility

Documentation:
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3. Outcomes Report
4. Data Extract and Dashboard

Graphs
First Medical Contact to Device

Documentation:
- Presents to physician office CP- ECG STEMI
- EMS transports to PCI hospital
- Emergent Primary PCI
Question #7

How does Auxiliary fields 4 (Is EMS the first medical contact?) affect the graph values for First Medical Contact (FMC) to Device?

1. No changes to this graph
2. This will lengthen the FMC times
3. This will shorten the FMC times

First Medical Contact to Device

Documentation:
- Presents to physician office CP-EKG STEMI
- EMS transports to PCI hospital
- Emergent Primary PCI

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1. No changes to this graph
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Graphs

Suspected Bleeding Event

Documentation:
- Noted higher incidence of bleeding
- Concerned about data entry for suspected bleeding event, R4Q rate was 5.8%
- Noted Cath PCI bleeding within 72 hours was 1.1%
Question #8

What reasons might contribute to ACTION's bleeding event being different than CathPCI bleeding event?

1. Coding instructions in dictionary are different
2. Target values timeline are different
3. Population between the registries are different
4. How the registries are capturing events are different
5. Selections 1,2,3
6. Selections 2,3,4

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