

# **California and Florida “In the Know” Inpatient Data Collection, Reporting, and Validation**

## **Module 3: MEASUREMENT INFORMATION FORM (MIF) “101”**

**April 2011**

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## **Measurement Information Form**

- Measurement Information
  - Found in **Section 2** of the **Specifications Manual** for the associated discharge period being reported.
- Overview of Measure Information Form and Flowchart Formats
  - Found in **Appendix E** under **Appendices** in the **Specifications Manual**
  - Gives definitions of terms and phrases used in the Measurement Information Form
  - Provides Algorithm Flowchart Symbols and their meanings

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## ***Measurement Information Form***

### **Overview of Measure Information Form**

- Includes information such as:
  - Description of the measure
  - Rationale of the measure
  - Selected literature that supports the measure
  - Type of measure (process or outcome)
  - How improvement is indicated for the measure

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## ***Understanding the Measures***

### **Overview of Measure Information Form**

- Includes information such as:
  - Numerator statement with description of included and excluded populations
  - Denominator statement with description of included and excluded populations
  - Data elements used in the algorithm
  - Algorithms

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## ***Understanding the Measures***

### **Overview of Measure Information Form and Flowchart Formats (Appendix E)**

- **Measure Outcomes (CMS Only):**
  - “Calculated measure results for each Episode of Care (EOC) that is processed through a measure algorithm”

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## ***Understanding the Measures***

### **Overview of Measure Information Form and Flowchart Formats: Measure Outcome Categories (Appendix E)**

- **B: Not in Measure Population:**
  - For rate-based and continuous variable measures:  
EOC record is not a member of a measure’s population  
and is excluded from the denominator.

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## ***Understanding the Measures***

### **Overview of Measure Information Form and Flowchart Formats: Measure Outcome Categories (Appendix E)**

- **D: In Measure Population:**
  - For rate-based measures: EOC record is a member of the measure’s population and the intent of the measure was not met.
  - For continuous variable measures: EOC record is a member of the measure’s population and has sufficient, accurate, and valid data to compute the measurement.

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## ***Understanding the Measures***

### **Overview of Measure Information Form and Flowchart Formats: Measure Outcome Categories (Appendix E)**

- **E: In Numerator Population:**
  - For rate-based measures: EOC record is a member of the measure’s population and the intent of the measure was met.
  - For continuous variable measures: Does not apply.

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## ***Understanding the Measures***

### **Overview of Measure Information Form and Flowchart Formats: Measure Outcome Categories (Appendix E)**

- **X: Data Are Missing**
  - For rate-based and continuous variable measures: Data are missing that are required to calculate the measure. The record will be rejected when transmitted.

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## ***Understanding the Measures***

### **Overview of Measure Information Form and Flowchart Formats: Measure Outcome Categories (Appendix E)**

- **Y: Unable to Determine (UTD) Allowable Value  
Does Not Allow Calculation of the Measure**
  - For rate-based measures: Does not apply.
  - For continuous variable measures: EOC record contains a Date, Time or Numeric data element with a value of “UTD.”

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## ***The Algorithms***

### ***AMI-8 Median Time to Primary PCI***

- **Rationale:** The early use of primary angioplasty in patients with ST-segment myocardial infarction (STEMI) results in a significant reduction in mortality and morbidity. The earlier primary coronary intervention is provided, the more effective it is. National guidelines recommend the prompt initiation of PCI in patients presenting with ST-elevation myocardial infarction.
- **Reference Literature:** Found in the *Specifications Manual 3.3*, Section 2 Measurement Information, Section 2.2 Acute Myocardial Infarction (AMI), page AMI-8-3, page 66 PDF.

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## ***The Algorithms***

### ***AMI-8 Median Time to Primary PCI***

- **Included Populations: Discharges with:**
  - An ICD-9-CM Principal Diagnosis Code for AMI as defined in Appendix A, Table 1.1
  - AND**
  - PCI (ICD-9-CM Principal and Other Procedure Codes for PCI as defined in Appendix A, Table 1.2)
  - AND**
  - ST-segment elevation or LBBB on the ECG performed closest to hospital arrival
  - AND**
  - PCI performed within 24 hours after hospital arrival

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## ***The Algorithms*** ***AMI-8 Median Time to Primary PCI***

- **Excluded Populations:**
  - Patients less than 18 years of age
  - Patients who have a Length of Stay greater than 120 days
  - Patients enrolled in clinical trials
  - Patients received as a transfer from an inpatient or outpatient department of another hospital
  - Patients received as a transfer from the emergency/observation department of another hospital
  - Patients received as a transfer from an ambulatory surgery center

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## ***The Algorithms*** ***AMI-8 Median Time to Primary PCI***

- **Excluded Populations:**
  - Patients administered fibrinolytic agent prior to PCI
  - PCI described as non-primary by a physician/advanced practice nurse/physician assistant (physician/APN/PA)
  - Patients who did not receive PCI within 90 minutes and had a reason for delay documented by a physician/APN/PA (e.g., social, religious, initial concern or refusal, cardiopulmonary arrest, balloon pump insertion, respiratory failure requiring intubation)

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## ***The Algorithms***

### ***AMI-8 Median Time to Primary PCI***

- The AMI-8 Algorithm consists of 16 data elements; see page AMI-8-2 of AMI Measurement Information or PDF page 65.
- Data elements are used in the measure algorithms to determine the path the record will take in the algorithm and eventually, the measure outcome assignment for the record.
- The path and measure outcome are based on the Value answer selected for the data element during abstraction.

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## ***The Algorithms***

### ***AMI-8 Median Time to Primary PCI***

- In the Data Dictionary under each data element name is the list of measures for which that data element is used.
- Example:
  - Data Element Name: *Initial ECG Interpretation*
  - Collected for: CMS/The Joint Commission: AMI-7, AMI-7a, AMI-8, AMI-8a

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## The Algorithms

### AMI-8 Median Time to Primary PCI

- This measure is a TIMING measure (continuous variable).
- The median time for the INCLUDED group is determined.
- Because this is a continuous variable measure, the measure outcome assignment of E (record in the denominator and numerator) does not apply.

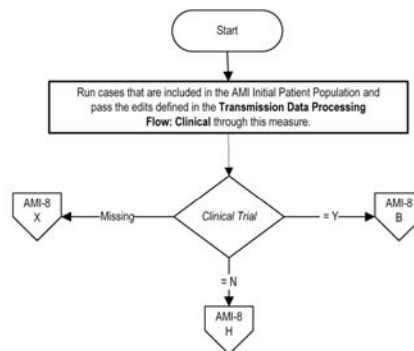
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## The Algorithms

### AMI-8 Median Time to Primary PCI

#### AMI-8: Median Time to Primary PCI

Continuous Variable Statement: Time (in minutes) from hospital arrival to primary PCI in patients with ST-segment elevation or LBBB on the ECG performed closest to hospital arrival.



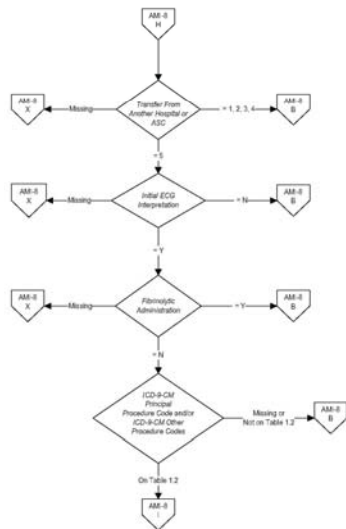
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## The Algorithms

### AMI-8 Median Time to Primary PCI

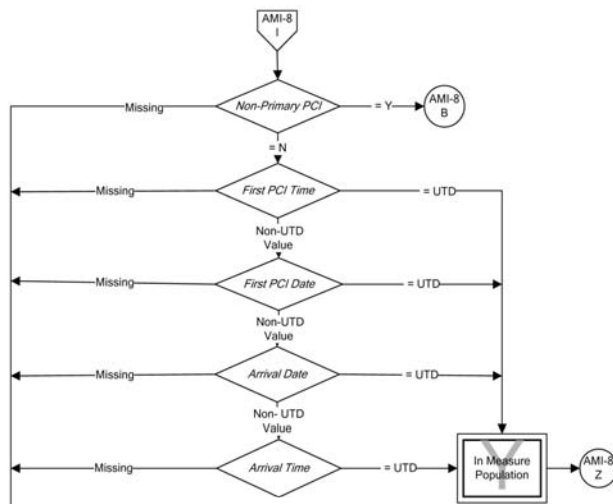


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## The Algorithms

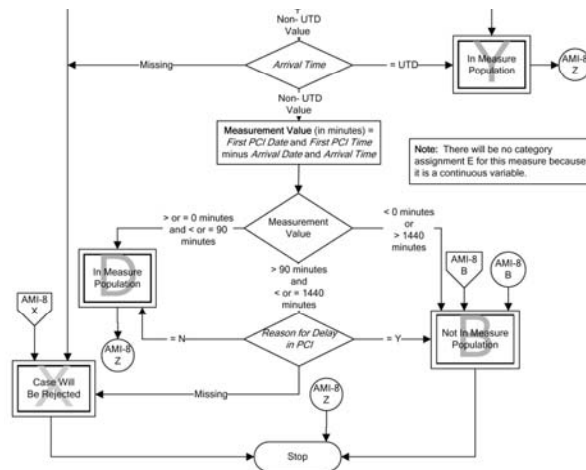
### AMI-8 Median Time to Primary PCI



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## The Algorithms AMI-8 Median Time to Primary PCI



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## The Algorithms AMI-8a Primary PCI Received Within 90 Minutes of Hospital Arrival

- The algorithm is similar to AMI-8 with the exception of the last step.
- AMI-8a is not a timing measure (continuous variable) and will have a measure outcome assigned.
- Records with timing under 90 minutes will be assigned a measure outcome of E.

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## ***The Algorithms*** ***AMI-8a Primary PCI Received Within 90 Minutes of Hospital Arrival***

- Records with a timing greater than 90 minutes will be checked for *Reason for Delay in PCI*.
- Records with a *Reason for Delay in PCI* will be assigned a measure outcome of B (excluded).
- Records without a *Reason for Delay in PCI* will be assigned a measure outcome of D (in the denominator but not the numerator).

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## ***The Algorithms*** ***HF-3 ACEI or ARB for LVSD***

- **Denominator Statement: Heart failure patients with LVSD**
  - **Included Populations: Discharges with:**
    - An ICD-9-CM Principal Diagnosis Code for heart failure as defined in Appendix A, Table 2.1
- AND**
- Chart documentation of a LVEF less than 40% or a narrative description of LVS function consistent with moderate or severe systolic dysfunction

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## ***The Algorithms*** ***HF-3 ACEI or ARB for LVSD***

- **Excluded Populations:**
  - Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-9-CM procedure code for LVAD and heart transplant as defined in Appendix A, Table 2.2)
  - Patients less than 18 years of age
  - Patients who have a Length of Stay greater than 120 days
  - Patients enrolled in clinical trials
  - Patients discharged to another hospital

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## ***The Algorithms*** ***HF-3 ACEI or ARB for LVSD***

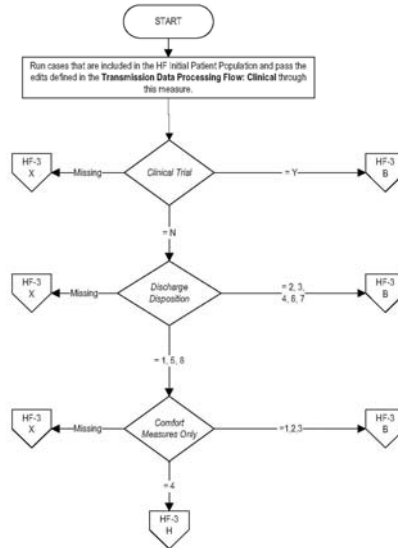
- **Excluded Populations:**
  - Patients discharged to another hospital
  - Patients who left against medical advice
  - Patients who expired
  - Patients discharged to home for hospice care
  - Patients discharged to a healthcare facility for hospice care
  - Patients with *Comfort Measures Only documented*
  - Patients with a documented *Reason for No ACEI and No ARB at Discharge*

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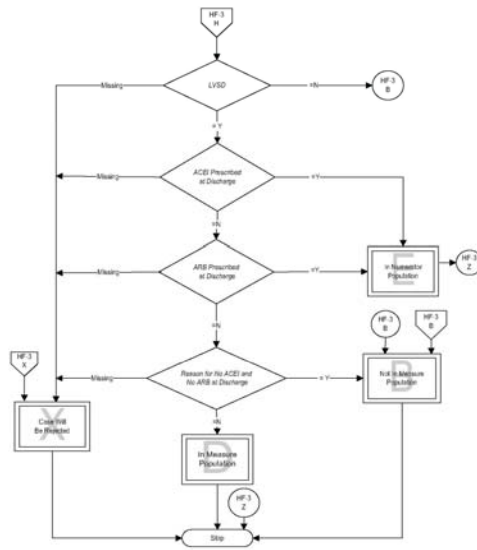
### The Algorithms HF-3 ACEI or ARB for LVSD



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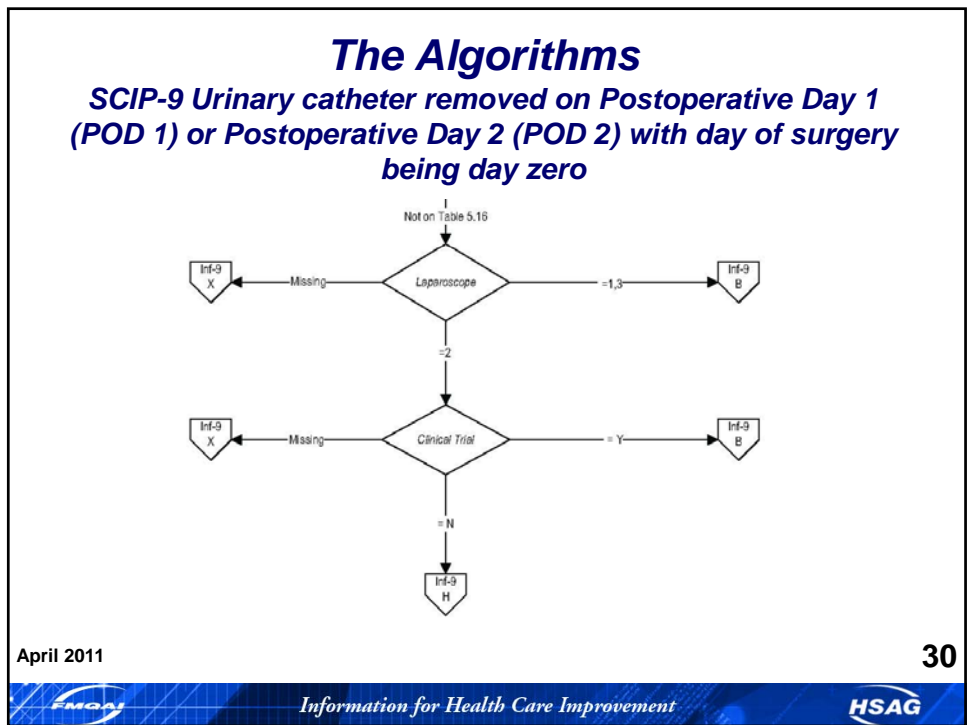
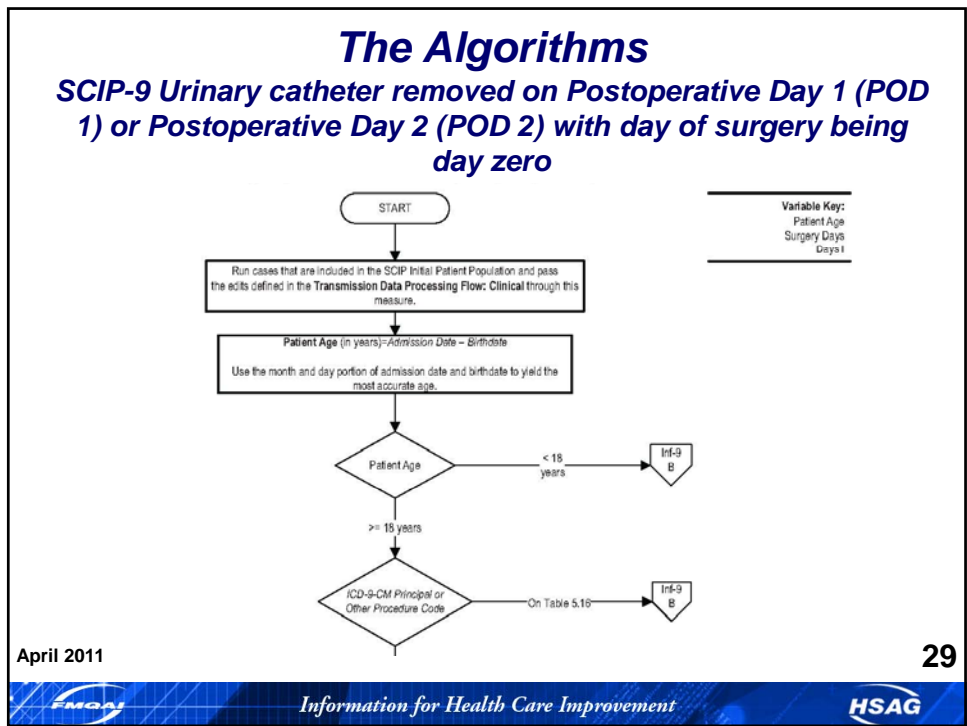
### The Algorithms HF-3 ACEI or ARB for LVSD



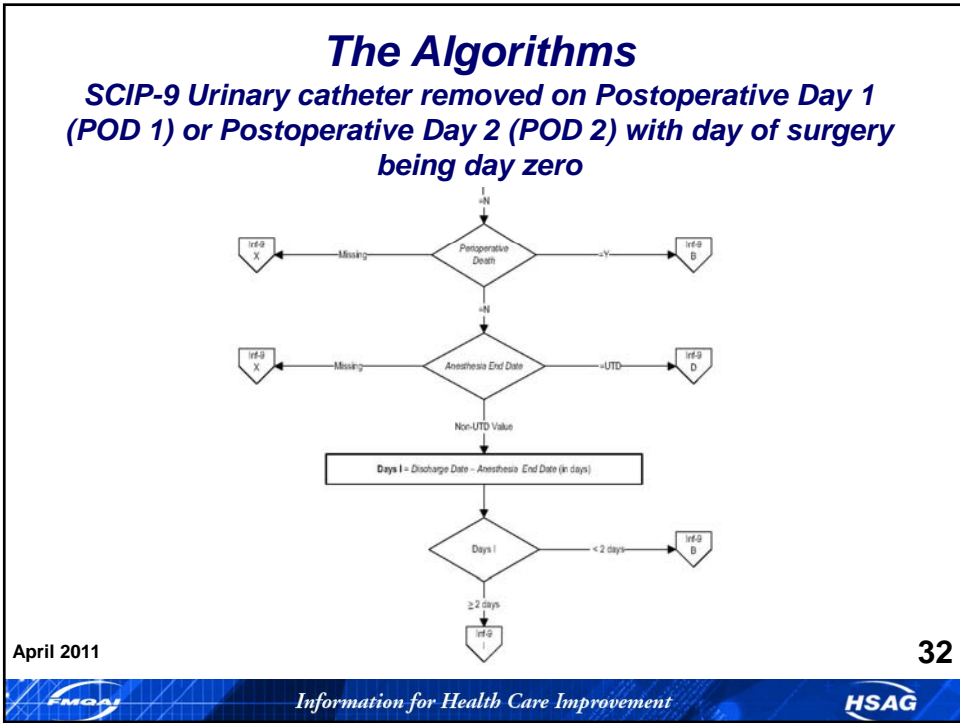
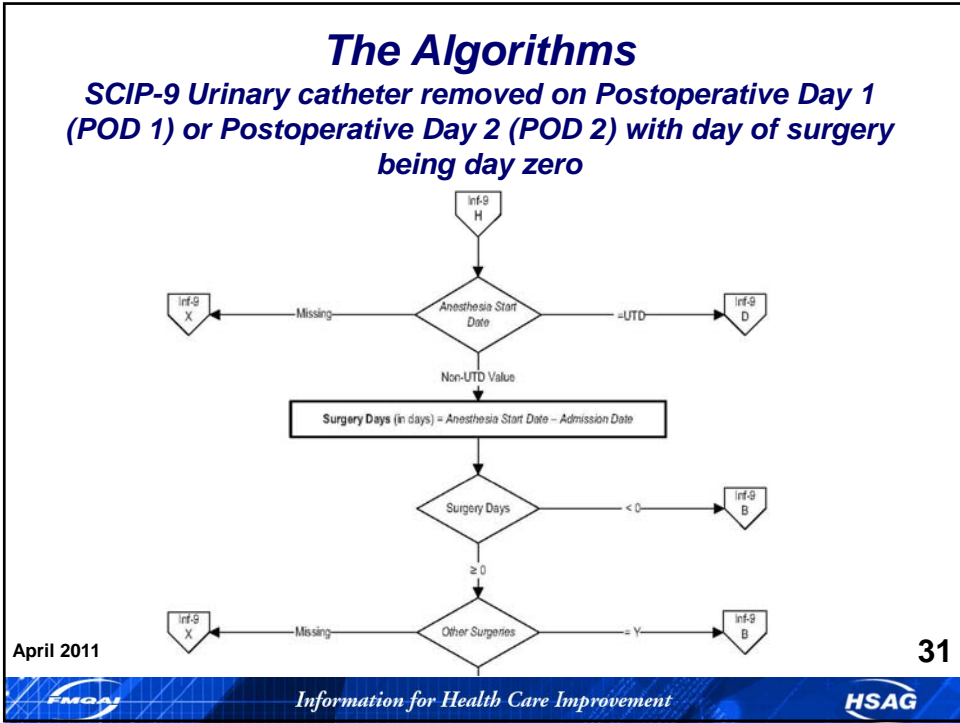
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## ***Helpful Document Algorithms***

- AMI-8
- AMI-8a
- HF-3
- SCIP-9

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## ***Stay “In the Know”...***

- Recorded webinars will be posted no later than the fourth week of:
  - January
  - April
  - July
  - Oct

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## ***Questions?***

- E-Mail questions to Becky or Lawanna no later than Friday, May 13, 2011.
- Questions and answers will be distributed back to you in a Post-Presentation Q&A Fact Sheet via the FL & CA Hospital Inpatient Quality Reporting Program E-Mail List no later than May 23, 2011.

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**Stay “In the Know”...**

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