

For CART Users
Acute Myocardial Infarction (AMI) Abstraction Paper Tool

General Data Elements

First Name _____

Last Name _____

What is the patient's sex? (Sex)

- Female
 Male
 Unknown

What is the patient's date of birth? (Birthdate)

____ - ____ - ____ (UTD is **not** an allowable entry)

What is the patient's race? (Race) Select one:

- 1 **White:** Patient's race is White or the patient has origins in Europe, the Middle East or North Africa.
 2 **Black or African American:** Patient's race is Black or African American.
 3 **American Indian or Alaska Native:** Patient's race is American Indian/Alaska Native.
 4 **Asian:** Patient's race is Asian.
 5 **Native Hawaiian or Pacific Islander:** Patient's race is Native Hawaiian/Pacific Islander.
 6 **RETIRED VALUE** (effective 07-01-05 discharges)
 7 **UTD**-Unable to determine the patient's race or not stated (e.g., not documented, conflicting documentation or patient unwilling to provide)

Is the patient of Hispanic ethnicity or Latino? (Hispanic Ethnicity)

- Yes Patient is of Hispanic ethnicity or Latino
 No Patient is not of Hispanic ethnicity or Latino or unable to determine from medical record documentation.

What was the number used by the hospital to identify this patient's stay?

(Hospital patient identifier) _____

What is the date the patient was admitted to inpatient care? (Admission date)

____ - ____ - ____ (UTD is **not** an allowable entry)

What is the date the patient was discharged from acute care, left against medical advice (AMA) or expired? (Discharge date)

____ - ____ - ____ (UTD is **not** an allowable entry)

AMI Data Elements

1. Would you like the questions to be enabled or disabled appropriately per the measure algorithms or do you want all questions enabled? (SKIPPATTERN)

- 01 Enable/disable questions appropriately
 02 Enable all questions

2. What was the ICD-9-CM code selected as the principal diagnosis for this record? (ICD-9-CM principal diagnosis code) (Refer to Appendix A, Table 1.1 Acute Myocardial Infarction) _____

3. Were there ICD-9-CM other diagnosis codes? (OTHRDX#A)

- 01 Yes
 02 No

If yes, what were the ICD-9-CM other diagnosis codes selected for this medical record? (ICD-9-CM other diagnosis codes) (Refer to Appendix A, Table 1.1 Acute Myocardial Infarction)

_____._____._____ _____ . _____ . _____ _____ . _____ . _____
_____._____._____ _____ . _____ . _____ _____ . _____ . _____
_____._____._____ _____ . _____ . _____ _____ . _____ . _____

4. Was there an ICD-9-CM code selected as the principal procedure for this record? (PRINPXA)

- 01 Yes
 02 No

If yes, what was the ICD-9-CM code selected as the principal procedure for this record? (ICD-9-CM principal procedure code) (ICD-9-CM principal procedure dates) (Refer to Appendix A, Table 1.2 Percutaneous Coronary Intervention (PCI))

Code _____ Date _____ - _____ - _____ or UTD

5. Were there ICD-9-CM other procedure codes? (OTHRPX#A)

- 01 Yes
 02 No

If yes, what were the ICD-9-CM code(s) selected as other procedure(s) for this record? (ICD-9-CM other procedure codes) (ICD-9-CM other procedure dates) (Refer to Appendix A for ICD-9-CM Code Tables)

Code _____ Date _____ - _____ - _____ or UTD

_____._____._____ _____ - _____ - _____ or UTD

_____._____._____ _____ - _____ - _____ or UTD

_____._____._____ _____ - _____ - _____ or UTD

_____._____._____ _____ - _____ - _____ or UTD

6. What was the Point of Origin for admission or visit? (Point of Origin for admission or visit)

- | | |
|---|---|
| <input type="checkbox"/> 1 Non-Health Care Facility Point of Origin | <input type="checkbox"/> 7 Emergency Room |
| <input type="checkbox"/> 2 Clinic referral | <input type="checkbox"/> 8 Court/Law Enforcement |
| <input type="checkbox"/> 3 (Discontinued Effective 10/01/2007) | <input type="checkbox"/> 9 Information Not Available (UTD) |
| <input type="checkbox"/> 4 Transfer from a Hospital (Different Facility) | A (Discontinued Effective 10/01/2007) |
| <input type="checkbox"/> 5 Transfer from Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF) | <input type="checkbox"/> D Transfer from One Distinct Unit Of the Hospital to another Distinct Unit of the Same Hospital Resulting in a Separate Claim to the Payer |
| <input type="checkbox"/> 6 Transfer from another Health Care Facility | <input type="checkbox"/> E Transfer from Ambulatory Surgery Center |
| | <input type="checkbox"/> F Transfer from Hospice and is Under a Hospice Plan of Care or Enrolled in a Hospice Program |

7. What is the source of payment for the patient's services? (Payment source)

Record ALL payment sources:

- 1 **Medicare (Title 18):** Medicare is listed as a payment source and has a standard Patient HIC Number. This would include Medicare Fee for Service (include DRG or PPS), Black Lung, End Stage Renal Disease (ESRD), Railroad Retirement Board (RRB) and Medicare coverage as a secondary payer and may include Medicare HMO/Medicare Advantage.
- 2 **Medicaid (Title 19):** Medicaid is listed as a payment source
- 3 **Other:** There is a payment source other than Medicare or Medicaid (e.g., Veterans Administration [VA], CHAMPUS [TRICARE], Workers' Compensation or private insurance).
- 4 **No insurance/not documented/unable to determine:** The patient has no insurance coverage, the payment source is not documented, unable to determine the payment source or the payment source does not coincide with one of the above options.
- 5 **Medicare other:** Medicare is listed as a payment source and does not have a standard Patient HIC Number. This would include Undocumented Alien (Illegal immigrant) status and may include Medicare HMO/Medicare Advantage.

8. What is the patient's Medicare/HIC number? (Patient HIC#) (Required only if payment source is Medicare. Refer to the CMS National Hospital Quality Measure Data Transmission sub-section, within the Transmission section, for valid patient HIC# format)

9. What is the postal code of the patient's residence? (Postal code) Any valid five or nine digit postal code or "HOMELESS" if the patient is determined not to have a permanent residence. If the patient is not a resident of the United States, use "NON-US."

10. Does this case represent part of a sample? (Sample)

- Yes
- No

11. What was the patient's discharge disposition? (Discharge status) (Refer to Appendix H, Table 2.5 Discharge Status Disposition)

- 01 Discharged to home care or self care (routine discharge)
- 02 Discharged/transferred to a short term general hospital for inpatient care
- 03 Discharged/transferred to skilled nursing facility (SNF) with Medicare certification in anticipation of covered skilled care
- 04 Discharged/transferred to an intermediate care facility (ICF)
- 05 Discharged/transferred to another Type of Health Care Institution not Defined Elsewhere in this code list.
- 06 Discharged/transferred to home under care of organized home health service organization in anticipation of covered skilled care
- 07 Left against medical advice or discontinued care
- 20 Expired
- 41 Expired in a medical facility (e.g., hospital, SNF, ICF or freestanding hospice)
- 43 Discharged/transferred to a federal health care facility
- 50 Hospice - home
- 51 Hospice - medical facility (certified) providing hospice level of care
- 61 Discharged/transferred to hospital-based Medicare approved swing bed
- 62 Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital
- 63 Discharged/transferred to a Medicare certified long term care hospital (LTCH)
- 64 Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare
- 65 Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
- 66 Discharged/transferred to a Critical Access Hospital (CAH)

12. Is there physician/APN/PA documentation of comfort measures only during the hospital stay? (Comfort measures only)

- Yes There is physician/APN/PA documentation of “comfort measures only” during the hospital stay.
 No There is no physician/APN/PA documentation of “comfort measures only” during the hospital stay, or unable to determine from medical record documentation

13. Was the patient involved in a clinical trial during this hospital stay relevant to the measure set for this admission (AMI)?(Clinical trial)

- Yes There is documentation that the patient was involved in a clinical trial during this hospital stay relevant to the measure set for this admission.
 No There is no documentation that the patient was involved in a clinical trial during this hospital stay relevant to the measure set for this admission (AMI), or unable to determine from medical record documentation.

14. Was the patient received as a transfer from an emergency department of another hospital? (Transfer from another ED)

- Yes Patient received as a transfer from another hospital emergency department.
 No Patient not received as a transfer from another hospital emergency department or unable to determine from medical record documentation.

15. What was the earliest documented date the patient arrived at the hospital? (Arrival date)

____ - ____ - ____ (MM-DD-YYYY) or UTD

16. What was the earliest documented time the patient arrived at the hospital? (Arrival time)

Enter the earliest documented time of arrival

____: ____ (HH:MM military format) or UTD

17. Is the left ventricular systolic function (LVSF) documented as an ejection fraction (EF) less than 40% or a narrative description consistent with moderate or severe systolic dysfunction? (LVSD)
(Refer to Appendix H, Table 1.3 Moderate/Severe Systolic Dysfunction Inclusion Table and Table 1.5 LVSD Notes Table)

- Yes LVSF is documented as an EF less than 40% or a narrative description consistent with moderate or severe systolic dysfunction.
 No LVSF is not documented as an EF less than 40% or a narrative description not consistent with moderate or severe systolic dysfunction, or unable to determine from medical record documentation (e.g., LVSF assessment was never done, “Echo done last March” [without mention of LVSF results]).

18. Is there documentation of ST-segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to hospital arrival? (Initial ECG Interpretation)

- Yes ST-segment elevation or a LBBB on the interpretation of the 12-lead ECG performed closest to hospital arrival.
 No No ST-elevation or LBBB on the interpretation of the 12-lead ECG performed closest to hospital arrival, no interpretation or report available for the ECG performed closest to hospital arrival or unable to determine from medical record documentation.

19. Was primary fibrinolytic therapy received during this hospital stay?(Fibrinolytic Administration)(Refer to Appendix C, Table 1.5 for a comprehensive list of Fibrinolytic Agents)

- Yes Primary fibrinolytic therapy administered during hospital stay.
 No No primary fibrinolytic therapy administered during hospital stay, or unable to determine from medical record documentation.

20. What was the date primary fibrinolytic therapy was initiated during this hospital stay? (Fibrinolytic Administration date)

____ - ____ - ____ (MM-DD-YYYY) or UTD

21. What was the time primary fibrinolytic therapy was initiated during this hospital stay? (Fibrinolytic administration time)

___ __: ___ __ (HH:MM military format) or UTD

22. Is there a reason documented by a physician/APN/PA for a delay in initiating fibrinolytic therapy after hospital arrival? (Reason for delay in fibrinolytic therapy)

Yes Reason documented by a physician/APN/PA for a delay in initiating fibrinolytic therapy after hospital arrival.

No No reason documented by a physician/APN/PA for a delay in initiating fibrinolytic therapy after hospital arrival or unable to determine from medical record documentation.

23. Is one or more of the following potential contraindications or reasons for not prescribing aspirin present on arrival? (Contraindication to aspirin on arrival) (Refer to Appendix C, Table 1.1 for a comprehensive list of aspirin and aspirin-containing medications. Refer to Appendix C, Table 1.4 for a comprehensive list of Warfarin medications)

Yes Documentation that the patient has one or more of the following potential contraindications/reasons for not prescribing an aspirin on arrival:

- Aspirin allergy
- Coumadin/warfarin prescribed as pre-arrival medication
- Other reasons documented by physician/APN/PA for not prescribing aspirin on arrival

No There is no documentation of contraindications/reasons for not prescribing aspirin on arrival or unable to determine from medical record documentation.

24. Was aspirin received within 24 hours before or 24 hours after hospital arrival? (Aspirin received within 24 hours before or after hospital arrival) (Refer to Appendix C, Table 1.1 for a comprehensive list of aspirin and aspirin-containing medications)

Yes Aspirin received within 24 hours before or 24 hours after hospital arrival.

No Aspirin not received within 24 hours before or 24 hours after hospital arrival or unable to determine from medical record documentation.

25. Is one or more of the following potential contraindications/reasons for not prescribing a beta-blocker present on arrival? (Contraindication to beta-blocker on arrival) (Refer to Appendix C, Table 1.3 for a comprehensive list of beta-blockers)

Yes Documentation that the patient has one or more of the following potential contraindications/reasons for not prescribing a beta-blocker on arrival:

- Beta-blocker allergy
- Bradycardia (heart rate less than 60 beats per minute [bpm]) on arrival or within 24 hours after arrival while not on a beta-blocker
- Heart failure on arrival or within 24 hours after arrival
- Second- or third-degree heart block on ECG on arrival or within 24 hours after arrival AND does not have a pacemaker
- Shock on arrival or within 24 hours after arrival
- Other reasons documented by physician/APN/PA for not prescribing a beta-blocker on arrival

No There is no documentation of a contraindication/reason for not prescribing beta-blocker on arrival or unable to determine from medical record documentation.

26. Was a beta-blocker received within 24 hours after hospital arrival? (Beta-blocker received within 24 hours after hospital arrival) (Refer to Appendix C, Table 1.3 for a comprehensive list of beta-blocker medications)

Yes Beta-blocker received within 24 hours after hospital arrival.

No Beta-blocker not received within 24 hours after hospital arrival or unable to determine from medical record documentation.

27. Is BOTH a potential contraindication/reason for not prescribing an angiotensin converting enzyme inhibitor (ACEI) at discharge AND a potential contraindication/reason for not prescribing an angiotensin receptor blocker (ARB) at discharge documented? (Contraindications to BOTH ACEI and ARB at discharge) (Refer to Appendix C, Table 1.2 for a comprehensive list of ACEIs and Table 1.7 for a comprehensive list of ARBs.)

- Yes Documentation that the patient has BOTH a potential contraindication/reason for not prescribing an ACEI at discharge AND a potential contraindication/reason for not prescribing an ARB at discharge, as evidenced by one or more of the following:
- ACEI allergy AND ARB allergy
 - Moderate or severe aortic stenosis (This is a contraindication to both ACEIs and ARBs)
 - Physician/APN/PA documentation of BOTH a reason for not prescribing ACEI at discharge AND a reason for not prescribing an ARB at discharge. ** Note: Documentation of a reason for not prescribing one class (either ACEI or ARB) should be considered implicit documentation of a reason for not prescribing the other class for the following five conditions only:
 - o Angioedema
 - o Hyperkalemia
 - o Hypotension
 - o Renal artery stenosis
 - o Worsening renal function/renal disease/dysfunction
 - Reason documented by physician/APN/PA for not prescribing an ARB at discharge AND an ACEI allergy
 - Reason documented by physician/APN/PA for not prescribing an ACEI at discharge AND an ARB allergy
- No There is no documentation of BOTH a potential contraindication/reason for not prescribing an ACEI at discharge AND a potential contraindication/reason for not prescribing an ARB at discharge, or unable to determine from medical record documentation.

28. Was an angiotensin converting enzyme inhibitor (ACEI) prescribed at discharge? (ACEI prescribed at discharge) (Refer to Appendix C, Table 1.2 for a comprehensive list of ACEIs)

- Yes ACEI prescribed at discharge.
 No ACEI not prescribed at discharge, or unable to determine from medical record documentation

29. Was an angiotensin receptor blocker (ARB) prescribed at discharge? (ARB prescribed at discharge) (Refer to Appendix C, Table 1.7 for a comprehensive list of ARBs.)

- Yes
 No

30. Is one or more of the following potential contraindications/reasons for not prescribing aspirin at discharge documented? (Contraindication to aspirin at discharge) (Refer to Appendix C, Table 1.1 for a comprehensive list of aspirin and aspirin-containing medications. Refer to Appendix C, Table 1.4 for a comprehensive list of Warfarin medications)

- Yes Documentation that the patient has one or more of the following potential contraindications/reasons for not prescribing an aspirin at discharge:
- Aspirin allergy
 - Coumadin/warfarin prescribed at discharge
 - Other reasons documented by physician/APN/PA for not prescribing aspirin at discharge.
- No There is no documentation of potential contraindications/reasons for not prescribing aspirin at discharge or unable to determine from medical documentation.

31. Was aspirin prescribed at discharge? (Aspirin prescribed at discharge) (Refer to Appendix C, Table 1.1 for a comprehensive list of aspirin and aspirin-containing medications)

- Yes Aspirin prescribed at discharge.
 No Aspirin not prescribed at discharge or unable to determine from medical record documentation.

32. Is one or more of the following potential contraindications/reasons for not prescribing a beta-blocker at discharge documented?(Contraindication to beta-blocker at discharge) (Refer to Appendix C, Table 1.3 for a comprehensive list of beta-blockers)

- Yes Documentation that the patient has one or more of the following potential contraindications/reasons for not prescribing a beta-blocker at discharge:
- Beta-blocker allergy
 - Bradycardia (heart rate less than 60 beats per minute [bpm]) on day of discharge or day prior to discharge while not on a beta-blocker
 - Second- or third-degree heart block on ECG on arrival or during hospital stay and does not have a pacemaker
 - Other reasons documented by physician/APN/PA for not prescribing a beta-blocker at discharge
- No There is no documentation of contraindications/reasons for not prescribing to beta-blocker at discharge or unable to determine from medical record documentation.

33. Was a beta-blocker prescribed at discharge? (Beta-blocker prescribed at discharge) (Refer to Appendix C, Table 1.3 for a comprehensive list of beta-blocker medications)

- Yes Beta-blocker prescribed at discharge.
- No Beta-blocker not prescribed at discharge or unable to determine from medical record documentation.

34. Does the physician/advanced practice nurse/physician assistant (physician/APN/PA) describe the first percutaneous coronary intervention (PCI) done after hospital arrival as NOT primary? (Non-primary PCI)

- Yes Physician/APN/PA documentation describes the first PCI done after hospital arrival as NOT primary.
- No Physician/APN/PA documentation does NOT describe the first PCI done after hospital arrival as non-primary, or unable to determine from medical record documentation.

35. What was the time of the first percutaneous coronary intervention (PCI) done after hospital arrival? (First PCI time)

___ __: ___ __ (HH:MM military format) or UTD

36. What is the date associated with the time of the first percutaneous coronary intervention (PCI) done after hospital arrival (i.e., date associated with First PCI Time)? (First PCI date)

___ __ - ___ __ - ___ __ ___ __ (MM-DD-YYYY) or UTD

37. Is there a reason documented by a physician/APN/PA for a delay in doing the first percutaneous coronary intervention (PCI) after hospital arrival?(Reason for delay in PCI)

- Yes Reason documented by a physician/APN/PA for a delay in doing the first PCI after hospital arrival.
- No No reason documented by a physician/APN/PA for a delay in doing the first PCI after hospital arrival, or unable to determine from medical record documentation.

38. Did the adult patient smoke cigarettes anytime during the year prior to hospital arrival? (Adult smoking history)

- Yes There is documentation that the adult patient smoked cigarettes anytime during the year prior to hospital arrival
- No There is documentation that the adult patient did not smoke cigarettes anytime during the year prior to hospital arrival, smoking history was not addressed or unable to determine from medical record documentation.

39. Was the adult patient/caregiver given smoking cessation advice or counseling during this hospital stay?(Adult smoking counseling)

- Yes Patient/caregiver received smoking cessation advice/counseling during hospital stay.
- No Smoking cessation advice/counseling not given or unable to determine from medical record documentation.

40. Was an LDL-cholesterol (LDL-c) test performed during this hospital stay? (*In-hospital LDL-cholesterol test*)

- Yes LDL-c test was performed during this hospital stay.
- No LDL-c test was not performed during this hospital stay or unable to determine from medical record documentation.

41. What is the patient's LDL-cholesterol (LDL-c), in mg/dL or mg/100 ml, from the first LDL-c test performed after hospital arrival? (*First in-hospital LDL-cholesterol value*)

___ ___ ___ Enter the patient's LDL-c value, in mg/dL or mg/100 ml, from the first LDL-c test performed after hospital arrival.

- UTD = Unable to Determine

42. How did the physician/advanced practice nurse/physician assistant (physician/APN/PA) qualitatively describe the results of the first LDL-cholesterol (LDL-c) test performed after hospital arrival? (*First in-hospital LDL-cholesterol qualitative description*)

- 1 **Elevated LDL-c:** Physician/APN/PA qualitatively described the results of the first LDL-c test performed after hospital arrival in terms consistent with elevated LDL-c
- 2 **No Elevated LDL-c:** Physician/APN/PA qualitatively described the results of the first LDL-c test performed after hospital arrival in terms, which are NOT consistent with elevated LDL-c
- 3 **Not Documented:** Physician/APN/PA did not qualitatively describe the results of the first LDL-c test performed after hospital arrival in any manner, or unable to determine from medical record documentation.

43. Was an LDL-cholesterol (LDL-c) test performed within one year prior to hospital arrival? (*Pre-arrival LDL-cholesterol test*)

- Yes LDL-c test was performed within one year prior to hospital arrival.
- No LDL-c test was not performed within one year prior to hospital arrival or unable to determine from medical record documentation.

44. What is the patient's LDL-cholesterol (LDL-c), in mg/dL or mg/100 ml, from the LDL-c test performed within one year prior to hospital arrival? (*Pre-arrival LDL-cholesterol value*)

___ ___ ___ Enter the patient's LDL-c value, in mg/dL or mg/100 ml, from the LDL-c test performed within one year prior to hospital arrival.

- UTD = Unable to Determine

45. How did the physician/advanced practice nurse/physician assistant (physician/APN/PA) qualitatively describe the patient's LDL-cholesterol (LDL-c) from the test performed within one year prior to arrival? (*Pre-arrival LDL-cholesterol qualitative description*)

- 1 **Elevated LDL-c:** Physician/APN/PA qualitatively described the patient's LDL-c from the test performed within one year prior to arrival in terms consistent with elevated LDL-c (e.g., "Labs done last month showed elevated lipids").
- 2 **No Elevated LDL-c:** Physician/APN/PA qualitatively described the patient's LDL-c from the test performed within one year prior to arrival in terms, which are NOT consistent with elevated LDL-c (e.g., "Lipid levels normal in April").
- 3 **Not Documented:** Physician/APN/PA did not qualitatively describe the patient's LDL-c from the test performed within one year prior to arrival in any manner, or unable to determine from medical record documentation.

46. Is there a plan to do LDL-cholesterol (LDL-c) testing after discharge? (*Plan for LDL-cholesterol test*)

- Yes Documentation of a plan to do LDL-c testing after discharge.
- No No documentation of a plan to do LDL-c testing after discharge or unable to determine from medical record documentation.

47. Is there a reason documented by a physician/advanced practice for not doing LDL-cholesterol (LDL-c) testing? (Reason for no LDL-cholesterol testing)

- Yes Reason documented by a physician/APN/PA for not doing LDL-c testing.
- No No reason documented by a physician/APN/PA for not doing LDL-c testing or unable to determine from medical record documentation.

48. Was a lipid-lowering medication prescribed at discharge? (Lipid-lowering agent prescribed at discharge)

- Yes Lipid-lowering medication prescribed at discharge.
- No Lipid-lowering medication not prescribed at discharge or unable to determine from medical record documentation.

49. Is one or more of the following potential contraindications/reasons for not prescribing a lipid-lowering medication at discharge documented? (Reason for no lipid-lowering therapy)

- Yes Documentation that the patient has one or more of the following potential contraindications/reasons for not prescribing a lipid-lowering medication at discharge:
- Lipid-lowering medication allergy
 - Other reasons documented by a physician/APN/PA for not prescribing a lipid-lowering medication at discharge
- No There is no documentation of potential contraindications/reasons for not prescribing a lipid-lowering medication at discharge or unable to determine from medical record documentation.

50. What is the first physician identifier? (Physician 1)

51. What is the second physician identifier? (Physician 2)

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