



FACT SHEET

Abstraction of *Initial ECG Interpretation*

Effective April 1, 2010 through March 31, 2011 Discharges

1. The “Methodology” section:

- The “Methodology” is a suggested step-by-step approach for efficient abstraction of this data element.
- The abstractor may begin with the signed electrocardiogram (ECG) tracing but this is not a requirement. If a signed ECG tracing is not available, start with any other source of initial ECG interpretation. Do not stop abstraction if the tracing is not signed - Proceed to other sources.
- Only terms specifically identified or referred to by the physician/APN/PA as **ECG findings** AND where documentation is clear it is from the ECG performed closest to arrival should be considered in abstraction. A notation such as “STEMI” listed only as a physician diagnosis or impression, for example, should not be used in abstraction. Use an ECG finding only if documentation is clear it is in reference to the initial ECG. Do not use findings from ECGs performed subsequent to the initial ECG.
- **Stop abstraction if an Exclusion** is found in any documented interpretation and answer “No” to *Initial ECG Interpretation*. If an Exclusion is not found in an interpretation, continue through the rest of the interpretations to ensure no Exclusions exist elsewhere. Review all sources of physician/APN/PA-documented ECG findings.
- If the abstractor cannot determine between two or more ECGs which one was done closest to the time of arrival, or if two ECGs were done the same amount of time from arrival time, answer “No” to *Initial ECG Interpretation*, regardless of findings on either ECG.
- If there is no physician/APN/PA interpretation from the ECG done closest to arrival, answer “No” to *Initial ECG Interpretation*.

2. Evaluate findings on ECG reports **line by line**.

Example:

Signed ECG report lists:

Inferior Infarct
ST abnormality
*****Acute MI*****

Do not put two lines together to create the Inclusion “acute inferior infarct” or “ST abnormality consistent with acute MI.” In this interpretation, there is neither an

Inclusion nor Exclusion, so the abstractor should continue review of the record for other interpretations of the initial ECG. If these were the only initial ECG findings documented, answer “No” to *Initial ECG Interpretation*.

3. **Do not cross-reference** findings between interpretations unless otherwise specified in abstraction guidelines.

Example: “ST-elevation” on signed ECG report, ED MD report states initial ECG shows “Probable LVH with ST-T abnormalities.” Do **not** put the two interpretations together to construct the Exclusion “ST-elevation with mention of LVH.” If these were the only initial ECG findings documented, answer “Yes” to *Initial ECG Interpretation*.

4. “Contradictory documentation” is defined as an Inclusion plus a term which **directly** contradicts that term (e.g., “ST-elevation” and “No ST-elevation,” “STEMI” and “not STEMI”). This may occur within one interpretation or across different ECG interpretations. Answer “No” to *Initial ECG Interpretation* in cases of contradictory documentation.

Examples which should **NOT** be classified as “contradictory documentation”:

- “ST-elevation” and “ST-depression”
 - “Acute lateral MI” and “no STEMI”
5. If at least one physician/APN/PA interpretation describes an **LBBB on the initial ECG as old, chronic, or previously seen**, this negates any other LBBB findings in any other interpretations, including those LBBBs clearly described as new. If this documentation is found, ALL LBBB findings are disregarded in abstraction and not counted as Inclusions or Exclusions. Documentation must clearly connect the “old LBBB,” “chronic LBBB,” or “previously seen LBBB” to the initial ECG (e.g., “LBBB on initial ECG noted on prior ECG,” “Initial ECG shows old LBBB,” “ECG #1: Chronic LBBB”).
 6. “Incomplete” LBBBs and intraventricular conduction delays (IVCDs) or blocks are Exclusions. Answer “No” to *Initial ECG Interpretation* in these cases.
 7. Notations which describe ST-elevation as old, chronic, or previously seen, or as a range where it cannot be determined if elevation is less than 1 mm/.10mV (e.g., “0.5 - 1 mm ST-elevation”), should be disregarded (not an Inclusion or Exclusion). Same for “ST > 0.5 mm” (disregard). Other documentation of ST-elevation not described as such may still count as an Inclusion.
 8. Consider a notation such as “inferior injury, acute infarct” or “inferior injury (acute infarct)” **on one line** of an ECG report as an Inclusion (equivalent to “acute inferior infarct”).
 9. Remember that a MI noted with a location must be described as “acute” or “evolving” to count as an Inclusion. An anterior MI described as “age indeterminate,” “old,” or “new,” or a notation such as “consider inferior infarct,” “recent lateral MI,” or “posterior wall myocardial infarction,” for example, is disregarded - It does not count as an Inclusion or Exclusion.
 10. It is reasonable to infer that a notation of an ECG described as done “on arrival,” done “immediately,” or done when the patient “presented to the ED” is referring to the first ECG done after arrival, unless documentation suggests otherwise. Inferences can also

be made based on timing (e.g., H&P states "EKG shows STEMI" and only one ECG was done by that point in time). The abstractor should NOT infer that an ECG noted as done "on admission" is referring to the first ECG done after arrival unless documentation clearly suggests it is.

11. Do not attempt to match up ECG interpretations using findings such as heart rate and infer a physician interpretation is referring to the ECG done closest to arrival simply because the heart rate or other finding(s) referenced in his/her note are the same as that on the initial ECG report.

12. Descriptors:

- a. If an **Inclusion** term is described using one of the negative qualifiers/modifiers below, classify that term as an Exclusion and answer "No" to *Initial ECG Interpretation*.

Initial ECG Interpretation
Negative qualifiers
<ul style="list-style-type: none"> o And/or (+/-; e.g., "ST abnormalities consistent with ischemia and/or injury"), except when comparing only Inclusions (e.g., "ST segment elevation and/or STEMI") o Cannot exclude o Cannot rule out o Could be o Could have been o May be o May have o May have had o May indicate o Or, except when comparing only Inclusions o Questionable (?) o Risk of o Ruled out (r'd/o, r/o'd) o Suggestive of o Suspect o Suspicious o Vs., except when comparing only Inclusions
Negative modifiers
<ul style="list-style-type: none"> o Borderline o Insignificant o Scant o Slight o Sub-clinical o Subtle o Trace o Trivial

- b. **“Possible” is NOT a negative qualifier for *Initial ECG Interpretation*.** If an Inclusion term is described using the qualifier “possible,” disregard that finding. It should not be classified as either an Inclusion or Exclusion. For example, if the signed ECG report states “1 mm ST-elevation in leads II, III, possible acute anterior MI” – Answer “Yes” to *Initial ECG Interpretation* due to the Inclusion “1 mm ST-elevation in leads II, III.” [Negative qualifier list in Table 2.6, appendix H, clarifies that “possible” is a negative qualifier ONLY if NOT specified elsewhere in an element’s abstraction guidelines. In the case of *Initial ECG Interpretation*, abstraction guidelines DO specify otherwise - “If any of the Inclusion terms are described using the qualifier ‘possible,’ disregard that finding (neither Inclusion nor Exclusion).”]
- c. **An Exclusion described with a negative qualifier/modifier or “possible”** (e.g. “questionable IVCD”) **is still an Exclusion** and *Initial ECG Interpretation* should be answered “No.”
- d. An LBBB on initial ECG described as “? old” or “of unknown age” should be considered an Inclusion.

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