



Taming VTE confirmed

Change Review Process Pilot

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VTE Confirmed Issues

- [CQM-882](#): VTE confirmed data element is infeasible
 - Diagnostic test results/reports not captured in structured format
 - Diagnosis is not made by radiologist
- [CQM-1085](#) and [CQM-1048](#): VTE confirmed value set is limited
 - Missing VTE locations
 - Excessive granularity
 - No ICD-9-CM or ICD-10-CM codes
- [CQM-1070](#): Misalignment between VTE and VTE confirmed value sets
 - Codes in VTE but not in VTE confirmed

VTE Confirmed Issues: Distilled

Clinical Issues

- Data source
- Measure coverage
- Confusing measure constructs

Workflow Issues

- Data source
- Data granularity

The Intent Behind VTE Confirmed

- Narrow the population captured by the VTE and Obstetrics VTE value sets:

Exclusion	Rationale
Suspected VTEs or VTEs not confirmed by an appropriate diagnostic test	Restrict hospital accountability to confirmed VTEs Support flexibility in clinical judgment for non-confirmed VTEs
Distal and upper extremity VTEs	Course of treatment targeted by the measures not supported by evidence

The Intent Behind VTE Diagnostic Test

- Tests that can provide definitive confirmation of a VTE
- Tied to the result to ensure:
 - The diagnostic test wasn't performed for an unrelated reason
 - It's the confirmatory test

Why is this important?

VTE-6: did the patient develop a VTE during the hospitalization and were they prophylaxed **before** the VTE was suspected?

Proposed Solution

- Eliminate the VTE confirmed value set from the measure logic
- Identify specific VTE locations targeted by the measures from administratively assigned ICD-9-CM/ICD-10-CM codes
- Maintain VTE diagnostic criterion
 - Variation #1: adding a reason for the test (which would be VTE)
 - Variation #2: tying the diagnostic test to the diagnosis (general VTE codes) through timing

Proposed Solution (Variation #1)

- AND: Diagnosis, Active: Administrative PE or proximal DVT [ICD-9-CM, ICD-10-CM] starts during Inpatient Encounter
- AND:
 - OR: VTE Diagnostic Test (reason: VTE [SNOMED-CT]) starts during Inpatient Encounter

Data source:
administratively
assigned ICD
codes

Data source:
“general” VTE
codes

Proposed Solution (Variation #2)

- AND: Diagnosis, Active: Administrative PE or proximal DVT [ICD-9-CM, ICD-10-CM] starts during Inpatient Encounter
- AND:
 - OR:
 - AND: VTE Diagnostic Test starts during Inpatient Encounter
 - AND: Diagnosis, Active: VTE [SNOMED-CT] <= 2 days starts after start of VTE Diagnostic Test
 - OR:
 - AND: VTE Diagnostic Test <= 4 days starts before start of Inpatient Encounter
 - AND: Diagnosis, Active: VTE [SNOMED-CT] <= 2 days of Inpatient Encounter admission

Data source:
administratively assigned ICD codes

Data source:
EHR clinical documentation, e.g. problem list, encounter diagnosis list

Timing:
<=2 days of test performed or admission (if test before admission)

Pros and Cons

Variation #1: reason for diagnostic test

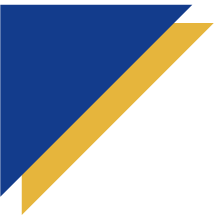
Pros	Cons
<ul style="list-style-type: none">• Simple logic• Diagnosis implicitly (and presumably) tied to diagnostic test	<ul style="list-style-type: none">• Likely inclusion of non-confirmed VTEs• Replacing one workflow issue with another one?

Variation #2: tying diagnostic test to diagnosis through timing

Pros	Cons
<ul style="list-style-type: none">• Evidence of VTE confirmed rather than suspicions• Identification of confirmatory test	<ul style="list-style-type: none">• Complex logic• Relies on clinical documentation for VTE confirmation (reliability?)• Additional guidance required

Impact on measure population

- Obstetrical population largely lost ($\approx 1\%$ of overall VTE IPP)
- Impact on sensitivity and specificity of VTE patients TBD:
 - Do administratively assigned location-specific ICD account for the majority of the confirmed VTE population? [sensitivity]
 - Are administratively assigned location-specific ICD associated with a significant number of non-confirmed VTEs? [specificity]



Discussion Questions

- Do any of the solutions work?
- Any potential unintended consequences?
- Are there other solutions we should consider?
- What if we do nothing?
- Any additional comments/feedback?

Providing feedback

- Comment on the JIRA tickets:
 - [CQM-882](#)
 - [CQM-1085](#)
 - [CQM-1048](#)
 - [CQM-1070](#)
- Shoot me an email at amartinsbaptista@jointcommission.org