

Quality Measures Fact Sheet

Time to Intravenous Thrombolytic Therapy (NQF #1952)

National Quality Strategy Domain: Prevention and Treatment

Quality Measures Set: Alternate

Data Source: Registry

BPCI Advanced and Quality

The Center for Medicare & Medicaid Innovation's (the CMS Innovation Center's) BPCI Advanced Model rewards health care providers for delivering services more efficiently, supports enhanced care coordination, and recognizes high quality care. Hospitals and clinicians should work collaboratively to achieve these goals, which have the potential to improve the BPCI Advanced Beneficiary experience and align to the CMS Quality Strategy goals of promoting effective communication and care coordination, highlighting best practices, and making care safer and more affordable. A goal of the BPCI Advanced Model is to promote seamless, patient-centered care throughout each Clinical Episode, regardless of who is responsible for a specific element of that care.

Background on Intravenous Thrombolytic Therapy

Intravenous thrombolytic therapy is a treatment that dissolves dangerous blood clots, restores blood flow in blocked blood vessels, and limits damage to tissues and organs. This therapy is a crucial treatment for specific types of stroke and often initiated by providers in the emergency department. Multiple studies demonstrate that rapid administration of intravenous alteplase to appropriate ischemic stroke patients is an effective treatment that restores blood flow and improves outcomes.⁷⁴

CMS Innovation Center Rationale for Including the Time to Intravenous Thrombolytic Therapy Measure in BPCI Advanced

The CMS Innovation Center chose the Time to Intravenous Thrombolytic Therapy measure for BPCI Advanced because it focuses efforts on achieving door-to-needle (DTN) times within 60 minutes in \geq 50% of acute ischemic stroke patients treated with intravenous alteplase.⁷⁵ The goal is to complete an

⁷⁴ National Quality Forum (2018). Measure information: #1952 Time to Intravenous Thrombolytic Therapy.

Retrieved from: <https://www.qualityforum.org/QPS/1952>.

⁷⁵ Powers, W. J., Rabinstein, A. A., Ackerson, T., Adeoye, O. M., Bambakidis, N. C., Becker, K., Biller, J., Brown, M., Demaerschalk, B. M., Hoh, B., Jauch, E. C., Kidwell, C. S., Leslie-Mazwi, T. M., Ovbiagele, B., Scott, P. A., Sheth, K. N., Southerland, A. M., Summers, D. V., Tirschwell, D. L. (2018). Guidelines for the early management of patients with acute ischemic stroke: a guideline for health care professionals from the American Heart Association/American Stroke Association, *Stroke*, 49, e46–e99. Retrieved from:

<https://www.ahajournals.org/doi/10.1161/STR.000000000000158>.

evaluation and initiate thrombolytic treatment within 60 minutes of the patient’s arrival in the emergency department. Clinical trial evidence underscores the importance of minimizing total ischemic time and restoring blood flow as soon as feasible. For every 15-minute reduction of DTN time, there is a 5% decrease in the odds of in-hospital mortality.⁷⁶

Applicable Clinical Episodes

The Time to Intravenous Thrombolytic Therapy measure is included in the Alternate Quality Measures Set and applies to the following inpatient Clinical Episode⁷⁷:

- Stroke: Medicare Severity–Diagnosis-Related Groups (MS-DRG) 061, 062, 063, 064, 065, and 066

Measure Specifications

The Time to Intravenous Thrombolytic Therapy measure selected for BPCI Advanced follows National Quality Forum (NQF) #1952 measure specifications. The registry will calculate Acute Care Hospital (ACH) level performance for all patients included in the denominator. The term “patients” refers to people 18 years and older who undergo a procedure at the hospital associated with the Clinical Episodes from the “Applicable Clinical Episodes” section, not limited to Medicare beneficiaries or BPCI Advanced Beneficiaries. For Physician Group Practices (PGPs), the registry will calculate the measure as specified at individual hospitals, then the CMS Innovation Center will weight measure performance based on PGP Clinical Episode volume for each ACH where a PGP triggers an episode.

Denominator

The denominator for the Time to Intravenous Thrombolytic Therapy measure includes all patients 18 or older with a primary diagnosis of ischemic stroke who received intravenous alteplase at the hospital. This measure is not limited to Medicare beneficiaries or BPCI Advanced Beneficiaries.

The exclusions for this measure include patients:

- whose stroke systems occurred after hospital arrival (in the emergency department, while under observation, or as an inpatient)
- whose date or time of emergency department arrival or thrombolytic administration is blank, not documented, or not applicable
- who have a negative calculated time difference
- who have a ‘Date Last Known Well’, but no ‘Time Last Known Well’
- who receive intravenous alteplase greater than 4.5 hours after ‘Last Known Well’
- who received intravenous alteplase at an outside hospital or by emergency medical services/mobile stroke unit

⁷⁶ Jauch, E. C., Saver, J. L., Adams, H. P., Bruno, A., Connors, J. J., Demaerschalk, B. M., Khatri, P., McMullan, P. W., Qureshi, A., Rosenfield, K., Scott, P. A., Summers, D. R., Wang, D. Z., Wintermark, M., Yonas, H.; on behalf of the American Heart Association Stroke Council, Council on Cardiovascular Nursing, Council on Peripheral Vascular Disease, and Council on Clinical Cardiology (2013). Guidelines for the early management of patients with acute ischemic stroke: a guideline for health care professionals from the American Heart Association/American Stroke Association, *Stroke*, 44, 870–947. Retrieved from:

<https://www.ahajournals.org/doi/full/10.1161/STR.0b013e318284056a>.

⁷⁷ MS-DRGs are up to date as of Model Year 3 (2020) and will be updated for Model Year 4 as needed.

- who have documented eligibility or a medical reason for delay in treatment
- who are in a clinical trial

Numerator

The numerator includes individuals in the previously defined denominator who receive intravenous alteplase at a hospital within 60 minutes after triage.

Measure Submission

BPCI Advanced Participants may submit this measure through the American Heart Association® (AHA) Get With The Guidelines (GWTG)®- Stroke Registry.

Revisions to the Published Specifications

There are no revisions to the measure beyond a revised exclusion: individuals who received intravenous alteplase at an outside hospital or by emergency medical services/mobile stroke unit. Previously, all patients who were transferred from another acute care facility were excluded.

Composite Quality Score

The Time to Intravenous Thrombolytic Therapy measure is one component of the BPCI Advanced Composite Quality Score (CQS) calculation. The CMS Innovation Center uses the CQS to adjust a portion of any Positive Total Reconciliation Amount and any Negative Total Reconciliation Amount. The CQS adjustment will not adjust the Positive Total Reconciliation Amount down by more than 10 percent, nor will it adjust the Negative Total Reconciliation Amount up by more than 10 percent. More information is available at the BPCI Advanced website provided below.

Other Resources

Organization/Resource	Website Address
NQF #1952 specifications	https://www.qualityforum.org/QPS/1952
BPCI Advanced	https://innovation.cms.gov/initiatives/bpci-advanced
AHA® GWTG®	https://www.heart.org/en/professional/quality-improvement
AHA® GWTG®-Stroke	https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-stroke