

# JAWDA Quarterly Waiting Time Guidelines for (Specialized and General Hospitals)

**Issue: April 2021** 

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#### **Executive Summary**

The Department of Health– Abu Dhabi (DOH) is the regulatory body of the healthcare sector in the Emirate of Abu Dhabi and ensures excellence in healthcare for the community by monitoring the health status of its population.

The Emirate of Abu Dhabi is experiencing a substantial growth in the number of hospitals, centers and clinics. This is ranging from school clinics and mobile units to internationally renowned specialist and tertiary academic centers. Although, access and quality of care has improved dramatically over the last couple of decades, mirroring the economic upturn and population boom of the Abu Dhabi Emirate, however challenges remain in addressing further improvements.

The main challenges that are presented with increasingly dynamic population include an aging population with increased expectation for treatment, utilization of technology and diverse workforce leading to increased complexity of healthcare provision in Abu Dhabi. All of this results in an increased and inherent risk to quality and patient safety.

DOH has developed a dynamic and comprehensive quality framework in order to bring about improvements across the health sector. This guidance relates to the quality indicators that DOH is mandating the quarterly reporting against by the fully operating general and specialist hospitals in Abu Dhabi.

The guidance sets out the full definition and method of calculation for patient safety and clinical effectiveness indicators. For enquiries about this guidance, please contact <a href="mailto:jawda@doh.gov.ae">jawda@doh.gov.ae</a>

This document is subject for review and therefore it is advisable to utilize online versions available on the DOH website at all times.

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#### **About this Guidance**

The guidance sets out the definitions, reporting, and frequency of JAWDA waiting time (WT) performance indicators. Department of Health (DoH) with consultation of local and international emergency and accident (E &A) consultant expertise developed waiting time performance indicators that are aimed for assessing the degree to which a provider competently and safely delivers the appropriate clinical services to the patient within the optimal time period.

The waiting time performance indictors in this guidance include measures to monitor I.e., (time spent in emergency, wait time for cardiac procedures, wait time for diagnostic imaging, and primary care appointment). Healthcare providers are the most qualified professionals to develop and evaluate quality of care measures for emergency department. Therefore, it is crucial that clinicians retain a leadership position in defining emergency department quality of care.

#### Who is this guidance for?

All DoH licensed healthcare facilities providing emergency and outpatient care services (emergency, urgent care hospitals, and primary care providers) in the Emirate of Abu Dhabi.

#### How do I follow this guidance?

Each provider will nominate one member of staff to coordinate, collect, monitor and report waiting time quality performance indicators data as per communicated dates. The nominated healthcare facility lead must in the first instance e-mail their contact details (if different from previous submission) to <a href="mailto:jawda@doh.gov.ae">jawda@doh.gov.ae</a> and submit the required quarterly quality performance indicators through Jawda online portal.

#### What are the Regulation related to this guidance?

- Legislation establishing the Health Sector
- DOH Standard for Primary Health Care in Emirate of Abu Dhabi
- DOH Standard for Emergency Department
- As per <u>DoH Policy for Quality and Patient Safety</u> issued January 15th 2017, this guidance applies to all DOH Licensed Hospital Healthcare Facilities in the Emirate of Abu Dhabi in accordance with the requirements set out in this Standard.

#### **DoH Levels of Emergency Care**

- Emergency Department (Major Trauma)
- Emergency Department (Trauma)
- Urgent Care Centre

#### Waiting time Performance Indicators

KPI Description (title):	Primary Care Appointment- Outpatient Setting
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Time to see a Department of Health (DoH) licensed Family Physician or member of their team General Practitioner (GP) in the primary care service.
Calculation:	Numerator: Number of patients that were seen within 48 hours of requests.  Denominator: Total number of all appointment request Exclusions:  1) Non-Physician Led Appointment Types 2) Follow Up Appointment Types (Follow-up does not relate to billing aspect) 3) Dentist and anesthesia 4) Emergency Patients 5) Patient choice of not having the appointment within 48 hours when offered 6) Walk in Patients without prior appointment 7) Exclude no show up or cancelation appointments cases
Reporting Frequency:	Quarterly
Unit of Measure:	% for performance (hours for mean, median and min. & max)
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)
Target	90% within 48 hours
Notes for all facilities	
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to licensed operational general and specialist hospitals for provision of primary care and/or specialist/consultant outpatient facilities</li> </ul>

Type: Waiting Time Indicator Indicator Number: WT 002	
KPI Description (title):	Referral of Suspected Cancer Cases
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Time for a Department of Health (DOH) licensed relevant specialist/consultant to see a patient with suspected cancer from time of receiving the referral.
Calculation:	Numerator: Number of patients with suspected cancer that was seen by the relevant (DOH) licensed specialist/consultant within 2 weeks (or 14 calendar days) from receiving the referral (or self-requested appointment).  Denominator: Total number of all referral (including self-referral patients with suspected cancer).  Populations: All suspected cancer referral cases  Exclusions: -Non Physician Led Appointment Types -Follow Up Appointment Types (Follow-up does not relate to billing aspects) -Patient choice of not having the appointment within 14 days when offered - Walk-in without prior appointment - Exclude no show up or cancelation appointments cases
Reporting Frequency:	Quarterly
Unit of Measure:	% for performance ( <i>days</i> for mean, median and min. & max)
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)
Target	90% within 14 days
Notes for all facilities	
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to licensed operational general and specialist hospitals for provision of primary care and/or specialist/consultant outpatient facilities - Referral forms or database</li> </ul>

KPI Description (title):	Hospital Wait at Point of Arrival	
Domain	Access and Timeliness	
Sub-Domain	Waiting time	
Definition:	Time in minutes from registration to seeing any Department of Health (DOH) licensed (specialist, family medicine, general practitioner, or consultant).	
	<b>Numerator:</b> Number of patients that were seen within 60 minutes from registration in attendance.	
	<b>Denominator:</b> Total number of all patients registering by any DOH licensed specialist, family medicine, general practitioner, or consultant. physician.	
Calculation:	<ul> <li>Exclusions:</li> <li>Non-Physician Led Appointment Types</li> <li>Patients that required investigation done prior to seeing the doctor, as part of efficient process e.g.; hearing test, treadmill test, ECG, blood glucose, etc.</li> <li>Dental and anesthesia</li> <li>ED/UCC visits</li> <li>LWBS</li> </ul>	
Reporting Frequency:	Quarterly	
Unit of Measure:	% for performance ( <i>minutes</i> for mean, median and min. & max)	
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)	
Target	90% within 60 minutes	
	Notes for all facilities	
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to licensed operational general and specialist hospitals for provision of primary care and/or specialist/consultant outpatient facilities</li> </ul>	

KPI Description (title):	Consultant or specialist Hospital Appointment (excluding cancer)
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Time for a Department of Health (DOH)-licensed specialist or consultant to see a non-suspected cancer case.
Calculation:	Numerator: Number of patients that got seen by the relevant (DOH licensed specialist/consultant within 2 weeks (or 14 calendar days) from receiving the referral (or self-requested appointment).  Denominator: Total number of all referral including self-referral -patients.  Exclusions:  Exclude appointments in primary care services  Exclude cases appoint visits to dental and anesthesia providers  Exclude cases from Oncology Clinics  Non-Physician Led Appointment Types  Follow Up Appointment Types (Follow-up does not relate to billing aspects)  Patient choice of not having the appointment within 14 days when offered  Exclude no show up or cancelation appointments cases  Walk-in without prior appointment
Reporting Frequency:	Quarterly
Unit of Measure:	% for performance ( <i>days</i> for mean, median and min. & max)
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)
Target	90% within 14 calendar days
	Notes for all facilities
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to licensed operational general and specialist hospitals for provision of primary care and/or specialist/consultant outpatient facilities</li> </ul>

KPI Description (title):	Hospital Inpatient
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Number of days it takes to admit a non- emergency patient from DTA (decision to admit) made by a Department of Health (DOH) licensed specialist or consultant.
Calculation:	<ul> <li>Numerator: Number of patients being admitted within 28 days from date of DTA (Decision to Admit). DTA day=1</li> <li>Population: All elective admissions with DTA (Inpatient)</li> <li>Exclusions:         <ul> <li>Patients who are unable to have their treatment for social, work or personal reasons within 4 weeks from DTA</li> <li>Patients who choose to wait longer than 4-weeks for their treatment</li> <li>Patients for whom it is not clinically appropriate to start treatment within 4 weeks</li> <li>Delay in admission due to insurance approval being refused or delayed &gt;= 14 days</li> <li>Emergency/Unplanned admissions</li> </ul> </li> </ul>
Reporting Frequency:	Quarterly
Unit of Measure:	% for performance ( <i>days</i> for mean, median and min. & max)
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)
Target	90% within 28 calendar days
	Notes for all facilities
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide inpatient services</li> </ul>

KPI Description (title):	Door to Balloon (PCI) waiting time for patients suspected with Acute Myocardial Infarction (AMI)
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Number of minutes it takes to start angioplasty for emergency patients with Acute Myocardial Infraction (AMI). Acute myocardial infarction (AMI) patients with ST segment elevation or LBBB on the ECG closest to arrival time receiving primary PCI during the hospital stay with a time from hospital arrival to PCI of 90 minutes or less.
	<b>Numerator:</b> Number of patient who had primary angioplasty within 90 min of attending as an emergency with AMI
	<b>Denominator:</b> AMI patients with ST-elevation or LBBB on ECG who are indicated to receive primary PCI.
Calculation:	Denominator Inclusions:  □ Patients with Acute myocardial infarction diagnosis:  ○ An ICD-10-CM Principal Diagnosis Code for AMI:  I21.01 ST elevation (STEMI) myocardial infarction involving left main coronary artery I21.02 ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery I21.09 ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall I21.11 ST elevation (STEMI) myocardial infarction involving right coronary artery I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall I21.29 ST elevation (STEMI) myocardial infarction involving other sites I21.3 ST elevation (STEMI) myocardial infarction of unspecified site AND ○  CPT Principal and Other Procedure Codes for Percutaneous Coronary Intervention (PCI):  92920 Percutaneous transluminal coronary angioplasty; single major coronary artery or branch 92921 Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery (List separately in addition to code for primary procedure) 92924 Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch

	92925 Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure) 92933 Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed;
	single major coronary artery or branch 92934 Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)  AND/OR  ST-segment elevation or LBBB on the ECG performed closest to hospital arrival  AND  PCI performed within 24 hours after hospital arrival  Denominator Exclusions: Patients less than 18 years of age In-Patients Patients enrolled in clinical trials Patients administered fibrinolytic agent or any counter indication agent prior to PCI in another facility if indicated PCI described as non-primary by a physician/advanced practice nurse/physician assistant (physician/APN/PA)
Reporting Frequency:	Quarterly
Unit of Measure: 9	% for performance ( <i>minutes</i> for mean, median and min. & max)
	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)
Target 9	90% within 90 minutes
	Notes for all facilities
Data sources / Report - Name: -	

KPI Description (title):	Stroke admission with CT scan timeframe
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Number of minutes it takes to interpret head CT scan for emergency patients presenting with stroke signs and symptoms.
Calculation:	Numerator: Number of suspected stroke patients who had a CT-Scan of the head which was interpreted within 45 minutes of arrival to emergency department or UCC  Denominator: All adult Patients (>=18 years old) visiting emergency department or UCC who were suspected of having suspected stroke signs and symptoms. (See Appendix- A for stroke ICD_10 Diagnosis Codes for confirmed cases and include suspected cases as per clinical documentation)  Exclusion:  Patients below 18 years of age.  Stroke symptoms more than 6 hours before presentation  Stroke symptoms of undetermined duration  CT not conducted in the facility  Transferred to Stroke center
Reporting Frequency:	Quarterly
Unit of Measure:	% for performance ( <i>minutes</i> for mean, median and min. & max)
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)
Target	90% within 45 minutes
	Notes for all facilities
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide inpatient services</li> </ul>

KPI Description (title):	Seeing a doctor in emergency department or urgent care center (Door to Doctor Time)	
Domain	Access and Timeliness	
Sub-Domain	Waiting time	
Definition:	Number of minutes it takes from point of registration to seeing a doctor.	
Calculation:	<b>Numerator:</b> Number of patients seen by an emergency department or urgent care doctor within target time (60 minutes).	
	<b>Population:</b> All emergency or urgent care encounters (irrespective of triage category).	
	<ul> <li>Denominator Exclusion:</li> <li>Deceased on Arrival (DOA)</li> <li>Patient Left Without Being Seen (LWBS)</li> </ul>	
Reporting Frequency:	Quarterly	
Unit of Measure:	% for performance ( <i>minutes</i> for mean, median and min. & max)	
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)	
Target	90% within 60 minutes	
	Notes for all facilities	
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide emergency and inpatient services</li> </ul>	

KPI Description (title):	Registration to leaving emergency department or urgent care center (Door to Door Time)	
Domain	Access and Timeliness	
Sub-Domain	Waiting time	
Definition:	Number of minutes from registration to patient leaving the emergency department or urgent care center (admitted or discharged).	
	<b>Numerator:</b> Number of patients finished their emergency or urgent care visit within target time (180 minutes).	
	<b>Denominator:</b> All emergency/urgent care encounters (irrespective of triage category).	
Calculation:	Exclusion:	
	1) Deceased on Arrival (DOA)	
	2) Patient Left Without Being Seen (LWBS)	
	3) Patient Left Against Medical Advice (LAMA)	
	4) Triaged-out to Outpatient Services or to other hospitals	
	5) Visits with both unknown/invalid registration and triage date/time	
Reporting Frequency:	Quarterly	
Unit of Measure:	% for performance ( <i>minutes</i> for mean, median and min. & max)	
Reported	Numerator, Denominator, Indicator Performance (also, mean waiting time, median	
Information	waiting time, min. & max. waiting time)	
Target	90% within 180 minutes	
	Notes for all facilities	
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide emergency and inpatient services</li> </ul>	

KPI Description (title):	24 hours -Re attendance rate to emergency department or urgent care center
Domain	Access and Timeliness
Sub-Domain	Waiting time
Definition:	Number of patients who return to the emergency department or urgent care center within 24 hours of being discharge for the same chief complaint (s).
Calculation:	Numerator: Number of patients who return the emergency department or urgent care center within 24 hours of being discharge with the same chief complaint (s).  Denominator: Total number of all emergency/urgent care encounters (irrespective of triage category)  Exclusion:  Deceased on Arrival (DOA) Patient Left without being seen (LWBS) Patient Left against Medical advice (LAMA)
Reporting Frequency:	Quarterly
Unit of Measure:	% Re-attendance rate
Reported Information	Numerator, Denominator, Indicator Performance
Target	Lower is better
Notes for all facilities	
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide emergency and inpatient services</li> </ul>

KPI Description (title):	Left Without Being Seen (LWBS) by an emergency department or urgent care doctor	
Domain	Access and Timeliness	
Sub-Domain	Waiting time	
Definition:	Percentage of patients, who chose to leave the emergency department or urgent care, before an assessment by a doctor and treatment could occur.	
Calculation:	Numerator: Number of patients who left the emergency department or urgent care without being seen by an emergency or urgent care doctor.  Denominator: All emergency or urgent encounters (irrespective of triage category).	
Reporting Frequency:	Quarterly	
Unit of Measure:	% Left without being seen (LWBS)	
Reported Information	Numerator, Denominator, Indicator Performance	
Target Lower is better (3% or less)		
Notes for all facilities		
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide emergency and inpatient services</li> </ul>	

# Department of Health (DOH): JAWDA Waiting Time Indicators Type: Waiting Time Indicator Number: WT012

KPI Description (title):	Doctor to Decision to Admit Time		
Domain	Access and Timeliness		
Sub-Domain	Waiting time		
Definition:	Number of patients admitted from the emergency department or urgent care center with whom admit decision time to time of departure from the emergency department or urgent care is within 60 minutes; Admission order and/or time of bed request may be used as a proxy.		
	<b>Numerator:</b> Number of patients admitted to an inpatient unit from the emergency department or urgent care center, with whom admit decision time to time of departure from the emergency department or urgent care center is within 60 minutes.		
Calculation:	Denominator: All patients admitted to the facility from the emergency department or urgent care.  Denominator Exclusion:  Observation  Mental health patient Deceased on Arrival (DOA)  Left without been seen Discharged		
Reporting Frequency:	Quarterly		
Unit of Measure:	% for performance ( <i>minutes</i> for mean, median and min. & max)		
Reported Information	Numerator, Denominator, Indicator Performance (also, mean waiting time, median waiting time, min. & max. waiting time)		
Target	90% within 60 minutes		
Notes for all facilities			
Data sources / Report Name:	<ul> <li>National Quality form (NFQ) Emergency Department Throughput Measures         Stratification     </li> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide emergency and inpatient services</li> </ul>		

KPI Description (title):	Percentage of emergency department or urgent care patient admitted to hospital	
<b>Domain</b> Effectiveness		
Sub-Domain Inpatient admission		
Definition:	Percentage of emergency department or urgent care patient admitted to hospital	
Numerator: Number of patients that were admitted into hospitals.  Denominator: All emergency or urgent encounters (irrespective of triage category).  Calculation:  Denominator Exclusion:  Deceased on Arrival (DOA)  Left without been seen (LWBS)		
Reporting Frequency:	Quarterly	
Unit of Measure:	Percentage	
Target <20%		
Notes for all facilities		
Data sources / Report Name:	<ul> <li>Local business intelligence report or any other internally designed system</li> <li>Applicable to facilities licensed to provide emergency and inpatient services</li> </ul>	

#### **APPENDIX A- for stroke ICD\_10 Diagnosis Codes**

#### **Ischemic ICD-10 codes:**

Code	Shortened Description	
163.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	
163.011	Cerebral infarction due to thrombosis of right vertebral artery	
163.012	Cerebral infarction due to thrombosis of left vertebral artery	
163.019	Cerebral infarction due to thrombosis of unspecified vertebral artery	
163.02	Cerebral infarction due to thrombosis of basilar artery	
163.031	Cerebral infarction due to thrombosis of right carotid artery	
163.032	Cerebral infarction due to thrombosis of left carotid artery	
163.039	Cerebral infarction due to thrombosis of unspecified carotid artery	
163.09	Cerebral infarction due to thrombosis of other precerebral artery	
163.10	Cerebral infarction due to embolism of unspecified precerebral artery	
163.111	Cerebral infarction due to embolism of right vertebral artery	
163.112	Cerebral infarction due to embolism of left vertebral artery	
163.119	Cerebral infarction due to embolism of unspecified vertebral artery	
163.12	Cerebral infarction due to embolism of basilar artery	
163.131	Cerebral infarction due to embolism of right carotid artery	
163.132	Cerebral infarction due to embolism of left carotid artery	
163.139	Cerebral infarction due to embolism of unspecified carotid artery	
163.19	Cerebral infarction due to embolism of other precerebral artery	
163.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral	
163.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery	
163.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery	
163.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral	
163.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery	
163.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries	
163.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	
163.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid arteries	
163.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries	
163.30	Cerebral infarction due to thrombosis of unspecified cerebral artery	
163.311	Cerebral infarction due to thrombosis of right middle cerebral artery	
163.312	Cerebral infarction due to thrombosis of left middle cerebral artery	
163.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery	
163.321	Cerebral infarction due to thrombosis of right anterior cerebral artery	
163.322	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery	
163.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery	
163.331	Cerebral infarction due to thrombosis of right posterior cerebral artery	
163.332	Cerebral infarction due to thrombosis of left posterior cerebral artery	
163.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery	

163.341	Cerebral infarction due to thrombosis of right cerebellar artery		
163.342	Cerebral infarction due to thrombosis of left cerebellar artery		
163.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery		
163.39	Cerebral infarction due to thrombosis of other cerebral artery		
163.40	Cerebral infarction due to embolism of unspecified cerebral artery		
163.411	Cerebral infarction due to embolism of right middle cerebral artery		
163.412	Cerebral infarction due to embolism of left middle cerebral artery		
163.419	Cerebral infarction due to embolism of unspecified middle cerebral artery		
163.421	Cerebral infarction due to embolism of right anterior cerebral artery		
163.422	Cerebral infarction due to embolism of left anterior cerebral artery		
163.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery		
163.431	Cerebral infarction due to embolism of right posterior cerebral artery		
163.432	Cerebral infarction due to embolism of left posterior cerebral artery		
163.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery		
163.441	Cerebral infarction due to embolism of right cerebellar artery		
163.442	Cerebral infarction due to embolism of left cerebellar artery		
163.449	Cerebral infarction due to embolism of unspecified cerebellar artery		
163.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery		
163.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery		
163.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery		
163.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral		
163.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral		
163.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery		
163.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior		
163.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral		
163.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral		
163.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior		
163.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery		
163.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery		
163.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar		
163.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery		
163.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic		
163.8	Other cerebral infarction		
163.9	Cerebral infarction, unspecified		
163.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries		
163.033	Cerebral infarction due to thrombosis of bilateral carotid arteries		
163.113	Cerebral infarction due to embolism of bilateral vertebral arteries		
163.133	Cerebral infarction due to embolism of bilateral carotid arteries		
163.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries		
163.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries		
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163.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries	
163.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries	
163.333	Cerebral infarction to thrombosis of bilateral posterior cerebral arteries	
163.343	Cerebral infarction due to thrombosis of bilateral cerebellar arteries	
163.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries	
163.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries	
163.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries	
163.443	Cerebral infarction due to embolism of bilateral cerebellar arteries	
163.49	Cerebral infarction due to embolism of other cerebral artery	
163.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral	
	arteries	
163.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral	
	arteries	
163.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral	
	arteries	
163.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries	
163.81	Other cerebral infarction due to occlusion or stenosis of small artery	
163.89	Other cerebral infarction	

#### Hemorrhagic ICD-10 codes:

160.01         Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation           160.02         Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation           160.10         Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery           160.11         Nontraumatic subarachnoid hemorrhage from right middle cerebral artery           160.12         Nontraumatic subarachnoid hemorrhage from left middle cerebral artery           160.2         Nontraumatic subarachnoid hemorrhage from anterior communicating artery           160.30         Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery           160.31         Nontraumatic subarachnoid hemorrhage from left posterior communicating artery           160.32         Nontraumatic subarachnoid hemorrhage from left posterior communicating artery           160.4         Nontraumatic subarachnoid hemorrhage from basilar artery           160.50         Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery           160.51         Nontraumatic subarachnoid hemorrhage from left vertebral artery           160.52         Nontraumatic subarachnoid hemorrhage from other intracranial arteries           160.6         Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery           160.8         Other nontraumatic subarachnoid hemorrhage in hemisphere, subcortical           161.1         Nontraumat	160.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation
160.10   Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery	160.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation
160.11         Nontraumatic subarachnoid hemorrhage from right middle cerebral artery           160.12         Nontraumatic subarachnoid hemorrhage from left middle cerebral artery           160.2         Nontraumatic subarachnoid hemorrhage from anterior communicating artery           160.30         Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery           160.31         Nontraumatic subarachnoid hemorrhage from left posterior communicating artery           160.32         Nontraumatic subarachnoid hemorrhage from left posterior communicating artery           160.4         Nontraumatic subarachnoid hemorrhage from basilar artery           160.50         Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery           160.51         Nontraumatic subarachnoid hemorrhage from left vertebral artery           160.52         Nontraumatic subarachnoid hemorrhage from left vertebral artery           160.6         Nontraumatic subarachnoid hemorrhage from unspecified intracranial arteries           160.7         Nontraumatic subarachnoid hemorrhage from unspecified           160.8         Other nontraumatic subarachnoid hemorrhage, unspecified           161.0         Nontraumatic intracerebral hemorrhage in hemisphere, cortical           161.1         Nontraumatic intracerebral hemorrhage in hemisphere, unspecified           161.2         Nontraumatic intracerebral hemorrhage in brain stem	160.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation
160.12       Nontraumatic subarachnoid hemorrhage from left middle cerebral artery         160.2       Nontraumatic subarachnoid hemorrhage from anterior communicating artery         160.30       Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery         160.31       Nontraumatic subarachnoid hemorrhage from left posterior communicating artery         160.32       Nontraumatic subarachnoid hemorrhage from left posterior communicating artery         160.4       Nontraumatic subarachnoid hemorrhage from left posterior communicating artery         160.50       Nontraumatic subarachnoid hemorrhage from basilar artery         160.51       Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery         160.52       Nontraumatic subarachnoid hemorrhage from left vertebral artery         160.6       Nontraumatic subarachnoid hemorrhage from unspecified intracranial arteries         160.7       Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery         160.8       Other nontraumatic subarachnoid hemorrhage, unspecified         161.0       Nontraumatic intracerebral hemorrhage in hemisphere, subcortical         161.1       Nontraumatic intracerebral hemorrhage in hemisphere, unspecified         161.2       Nontraumatic intracerebral hemorrhage in brain stem         161.4       Nontraumatic intracerebral hemorrhage, intraventricular         161.5       Nontraumat	160.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery
160.2       Nontraumatic subarachnoid hemorrhage from anterior communicating artery         160.30       Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery         160.31       Nontraumatic subarachnoid hemorrhage from right posterior communicating artery         160.32       Nontraumatic subarachnoid hemorrhage from left posterior communicating artery         160.4       Nontraumatic subarachnoid hemorrhage from basilar artery         160.50       Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery         160.51       Nontraumatic subarachnoid hemorrhage from left vertebral artery         160.52       Nontraumatic subarachnoid hemorrhage from other intracranial arteries         160.6       Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery         160.8       Other nontraumatic subarachnoid hemorrhage         160.9       Nontraumatic subarachnoid hemorrhage, unspecified         161.0       Nontraumatic intracerebral hemorrhage in hemisphere, subcortical         161.1       Nontraumatic intracerebral hemorrhage in hemisphere, unspecified         161.2       Nontraumatic intracerebral hemorrhage in bemisphere, unspecified         161.3       Nontraumatic intracerebral hemorrhage in brain stem         161.4       Nontraumatic intracerebral hemorrhage, intraventricular         161.5       Nontraumatic intracerebral hemorrhage, multiple localized	160.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery
Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	160.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery
artery  160.31 Nontraumatic subarachnoid hemorrhage from right posterior communicating artery  160.32 Nontraumatic subarachnoid hemorrhage from left posterior communicating artery  160.4 Nontraumatic subarachnoid hemorrhage from basilar artery  160.50 Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery  160.51 Nontraumatic subarachnoid hemorrhage from right vertebral artery  160.52 Nontraumatic subarachnoid hemorrhage from left vertebral artery  160.6 Nontraumatic subarachnoid hemorrhage from other intracranial arteries  160.7 Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery  160.8 Other nontraumatic subarachnoid hemorrhage  160.9 Nontraumatic subarachnoid hemorrhage, unspecified  161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical  161.1 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified  161.2 Nontraumatic intracerebral hemorrhage in brain stem  161.4 Nontraumatic intracerebral hemorrhage in cerebellum  161.5 Nontraumatic intracerebral hemorrhage, intraventricular  161.6 Nontraumatic intracerebral hemorrhage, multiple localized  161.8 Other nontraumatic intracerebral hemorrhage	160.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery
Nontraumatic subarachnoid hemorrhage from left posterior communicating artery  160.4 Nontraumatic subarachnoid hemorrhage from basilar artery  160.50 Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery  160.51 Nontraumatic subarachnoid hemorrhage from right vertebral artery  160.52 Nontraumatic subarachnoid hemorrhage from left vertebral artery  160.6 Nontraumatic subarachnoid hemorrhage from other intracranial arteries  160.7 Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery  160.8 Other nontraumatic subarachnoid hemorrhage  160.9 Nontraumatic subarachnoid hemorrhage, unspecified  161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical  161.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical  161.2 Nontraumatic intracerebral hemorrhage in brain stem  161.4 Nontraumatic intracerebral hemorrhage in cerebellum  161.5 Nontraumatic intracerebral hemorrhage, intraventricular  161.6 Nontraumatic intracerebral hemorrhage, multiple localized  161.8 Other nontraumatic intracerebral hemorrhage	160.30	
160.4   Nontraumatic subarachnoid hemorrhage from basilar artery     160.50   Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery     160.51   Nontraumatic subarachnoid hemorrhage from right vertebral artery     160.52   Nontraumatic subarachnoid hemorrhage from left vertebral artery     160.6   Nontraumatic subarachnoid hemorrhage from other intracranial arteries     160.7   Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery     160.8   Other nontraumatic subarachnoid hemorrhage     160.9   Nontraumatic subarachnoid hemorrhage, unspecified     161.0   Nontraumatic intracerebral hemorrhage in hemisphere, subcortical     161.1   Nontraumatic intracerebral hemorrhage in hemisphere, unspecified     161.2   Nontraumatic intracerebral hemorrhage in brain stem     161.4   Nontraumatic intracerebral hemorrhage in cerebellum     161.5   Nontraumatic intracerebral hemorrhage, intraventricular     161.6   Nontraumatic intracerebral hemorrhage, multiple localized     161.8   Other nontraumatic intracerebral hemorrhage	160.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery
Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery	160.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery
Nontraumatic subarachnoid hemorrhage from right vertebral artery	160.4	Nontraumatic subarachnoid hemorrhage from basilar artery
Nontraumatic subarachnoid hemorrhage from left vertebral artery  160.6 Nontraumatic subarachnoid hemorrhage from other intracranial arteries  160.7 Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery  160.8 Other nontraumatic subarachnoid hemorrhage  160.9 Nontraumatic subarachnoid hemorrhage, unspecified  161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical  161.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical  161.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified  161.3 Nontraumatic intracerebral hemorrhage in brain stem  161.4 Nontraumatic intracerebral hemorrhage in cerebellum  161.5 Nontraumatic intracerebral hemorrhage, intraventricular  161.6 Nontraumatic intracerebral hemorrhage, multiple localized  161.8 Other nontraumatic intracerebral hemorrhage	160.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery
160.6 Nontraumatic subarachnoid hemorrhage from other intracranial arteries 160.7 Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery 160.8 Other nontraumatic subarachnoid hemorrhage 160.9 Nontraumatic subarachnoid hemorrhage, unspecified 161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical 161.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical 161.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified 161.3 Nontraumatic intracerebral hemorrhage in brain stem 161.4 Nontraumatic intracerebral hemorrhage in cerebellum 161.5 Nontraumatic intracerebral hemorrhage, intraventricular 161.6 Nontraumatic intracerebral hemorrhage, multiple localized 161.8 Other nontraumatic intracerebral hemorrhage	160.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery
160.7 Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery 160.8 Other nontraumatic subarachnoid hemorrhage 160.9 Nontraumatic subarachnoid hemorrhage, unspecified 161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical 161.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical 161.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified 161.3 Nontraumatic intracerebral hemorrhage in brain stem 161.4 Nontraumatic intracerebral hemorrhage in cerebellum 161.5 Nontraumatic intracerebral hemorrhage, intraventricular 161.6 Nontraumatic intracerebral hemorrhage, multiple localized 161.8 Other nontraumatic intracerebral hemorrhage	160.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery
I60.8 Other nontraumatic subarachnoid hemorrhage  I60.9 Nontraumatic subarachnoid hemorrhage, unspecified  I61.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical  I61.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical  I61.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified  I61.3 Nontraumatic intracerebral hemorrhage in brain stem  I61.4 Nontraumatic intracerebral hemorrhage in cerebellum  I61.5 Nontraumatic intracerebral hemorrhage, intraventricular  I61.6 Nontraumatic intracerebral hemorrhage, multiple localized  I61.8 Other nontraumatic intracerebral hemorrhage	160.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries
160.9 Nontraumatic subarachnoid hemorrhage, unspecified  161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical  161.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical  161.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified  161.3 Nontraumatic intracerebral hemorrhage in brain stem  161.4 Nontraumatic intracerebral hemorrhage in cerebellum  161.5 Nontraumatic intracerebral hemorrhage, intraventricular  161.6 Nontraumatic intracerebral hemorrhage, multiple localized  161.8 Other nontraumatic intracerebral hemorrhage	160.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery
161.0 Nontraumatic intracerebral hemorrhage in hemisphere, subcortical  161.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical  161.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified  161.3 Nontraumatic intracerebral hemorrhage in brain stem  161.4 Nontraumatic intracerebral hemorrhage in cerebellum  161.5 Nontraumatic intracerebral hemorrhage, intraventricular  161.6 Nontraumatic intracerebral hemorrhage, multiple localized  161.8 Other nontraumatic intracerebral hemorrhage	160.8	Other nontraumatic subarachnoid hemorrhage
I61.1 Nontraumatic intracerebral hemorrhage in hemisphere, cortical  I61.2 Nontraumatic intracerebral hemorrhage in hemisphere, unspecified  I61.3 Nontraumatic intracerebral hemorrhage in brain stem  I61.4 Nontraumatic intracerebral hemorrhage in cerebellum  I61.5 Nontraumatic intracerebral hemorrhage, intraventricular  I61.6 Nontraumatic intracerebral hemorrhage, multiple localized  I61.8 Other nontraumatic intracerebral hemorrhage	160.9	Nontraumatic subarachnoid hemorrhage, unspecified
I61.2       Nontraumatic intracerebral hemorrhage in hemisphere, unspecified         I61.3       Nontraumatic intracerebral hemorrhage in brain stem         I61.4       Nontraumatic intracerebral hemorrhage in cerebellum         I61.5       Nontraumatic intracerebral hemorrhage, intraventricular         I61.6       Nontraumatic intracerebral hemorrhage, multiple localized         I61.8       Other nontraumatic intracerebral hemorrhage	161.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical
I61.3       Nontraumatic intracerebral hemorrhage in brain stem         I61.4       Nontraumatic intracerebral hemorrhage in cerebellum         I61.5       Nontraumatic intracerebral hemorrhage, intraventricular         I61.6       Nontraumatic intracerebral hemorrhage, multiple localized         I61.8       Other nontraumatic intracerebral hemorrhage	161.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical
I61.4       Nontraumatic intracerebral hemorrhage in cerebellum         I61.5       Nontraumatic intracerebral hemorrhage, intraventricular         I61.6       Nontraumatic intracerebral hemorrhage, multiple localized         I61.8       Other nontraumatic intracerebral hemorrhage	161.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified
I61.5 Nontraumatic intracerebral hemorrhage, intraventricular  I61.6 Nontraumatic intracerebral hemorrhage, multiple localized  I61.8 Other nontraumatic intracerebral hemorrhage	161.3	Nontraumatic intracerebral hemorrhage in brain stem
<ul> <li>Nontraumatic intracerebral hemorrhage, multiple localized</li> <li>Other nontraumatic intracerebral hemorrhage</li> </ul>	161.4	Nontraumatic intracerebral hemorrhage in cerebellum
I61.8 Other nontraumatic intracerebral hemorrhage	161.5	Nontraumatic intracerebral hemorrhage, intraventricular
	161.6	Nontraumatic intracerebral hemorrhage, multiple localized
Non traumatic intracerebral hemorrhage, unspecified	161.8	Other nontraumatic intracerebral hemorrhage
	I61.9	Non traumatic intracerebral hemorrhage, unspecified

#### Summary of Code Changes – Updated to 2018 ICD-10 CM & CPT $\,$

(Quarter 3 2021)

Indicator	2011 CPT	2018 CPT
WT006	92982, 92984, 92995, 92996	92920, 92921, 92924, 92925, 92933, 92934

#### APPENDIX A- for stroke ICD\_10 Diagnosis Codes – Code Description changed in 2018

2015	Code Description	2018	Code Description
163.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral arteries	163.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery
163.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral arteries	163.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery
163.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar arteries	163.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery
163.323	Cerebral infarction due to thrombosis of bilateral anterior arteries	163.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries
163.333	Cerebral infarction due to thrombosis of bilateral posterior arteries	163.333	Cerebral infarction to thrombosis of bilateral posterior cerebral arteries
163.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle arteries	163.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries
163.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior arteries	163.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries
163.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior arteries	163.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries