Access to Care

Diagnostic Imaging (DI) Wait Times & Efficiencies

Data Standardization Guide

Version 5.0

Ontario
Cancer Care Ontario
Action Cancer Ontario

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Introduction to Diagnostic Imaging Wait Times and Efficiencies

Ontario's Wait Time Strategy

In November 2004, the Ministry of Health and Long-Term Care (Ministry) officially announced Ontario's Wait Time Strategy designed to reduce wait times by improving access to healthcare services for Ontarians. The Wait Time Strategy initially focused on the collection of wait times between a facility's order received date and the date of the actual procedure or scan. This is known as Wait 2. The capture of diagnostic imaging wait times started in August/September 2005. Diagnostic imaging facilities are required to capture and submit both adult and paediatric MRI and CT scans.

The capture of wait time data provides access to timely and standardized data that can enable significant performance improvement at provincial, Local Health Integration Network (LHIN) and facility levels. Wait times for all service areas are available on the ministry's public website: www.health.gov.on.ca/en/public/programs/waittimes.

MRI Efficiency Program

Acting on behalf of the Ministry, the University Health Network (UHN) launched the MRI Process Improvement Project (MRI PIP) in 2007 to support the Ontario Wait Time Strategy by improving patient access to MRI services. The first phases of the project focused on reducing MRI wait times by creating sustainable process improvements and providing facilities with a dashboard to monitor performance indicators to drive continuous improvement. As a result of this project, participating facilities reduced MRI wait times, increased MRI volumes, and increased MRI efficiency.

Building on the success of MRI PIP Phases 1&2, Phase 3 was launched in March 2013. The goal of this phase was to create a single, provincial wide dashboard allowing facilities, LHINs and the Ministry the ability to track indicators, enable evidence-based decision making, and understand how Ontario's MRI resources are utilized. The project implementation was led by UHN and ongoing operational support for the data collection and reporting have been the responsibility of Access to Care (ATC) at Cancer Care Ontario (CCO) as of October 2013 under the MRI Efficiency Program.

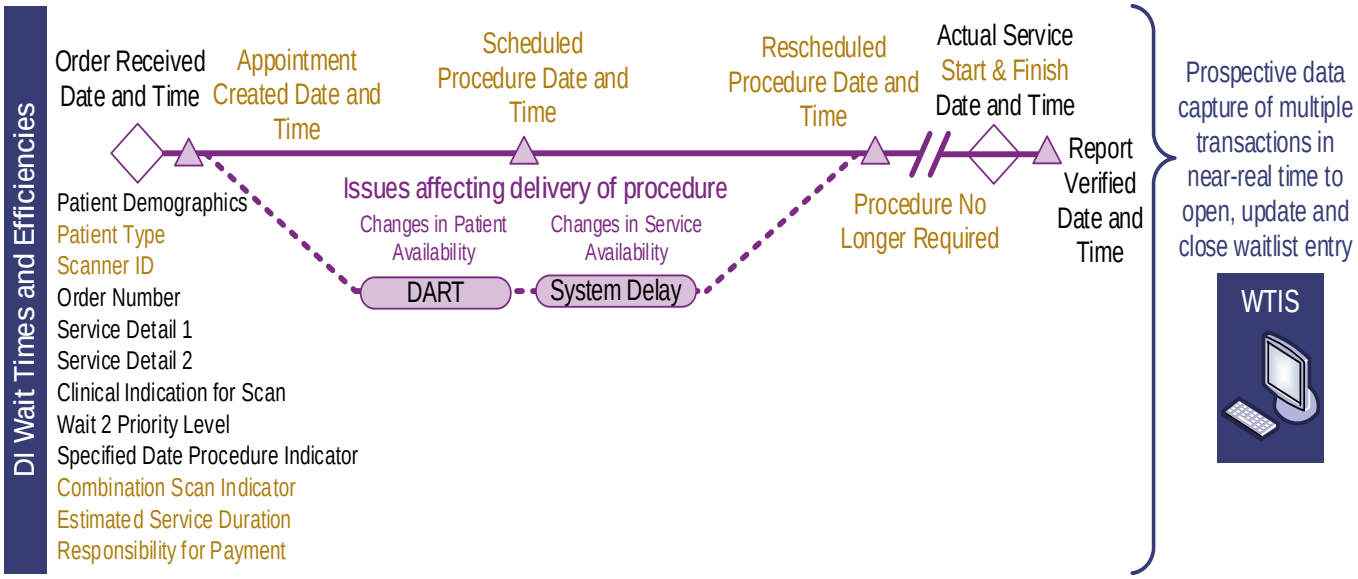
With the WTIS Expansion 2014/15: DI Efficiencies provincial deployment, MRI & CT Efficiency data will be submitted to the Wait Time Information System (WTIS) to collect information about these DI services across Ontario and support the monitoring and management of MRI & CT resources.

About this Guide

In this guide, you will find information on new and existing wait time and efficiency data elements that facilities are required to collect and submit. For each element, the definition, options for entry, purpose and relevant guidance (where appropriate) are included.

What's New for WTIS 2014/15: DI Efficiencies

The following diagram summarizes the existing and new data elements and related options for entry for this expansion which are detailed throughout this guide. New data elements and options for entry are coloured gold.



DART: Dates Affecting Readiness to Treat

- Change in Medical Status
- Inability to Contact the Patient
- ~~Missed Surgery/Procedure~~
  Missed Procedure/No Show
- Patient Chooses to Defer
- Pre-Procedure Instructions Not Followed
- ~~Neo-Adjuvant Chemotherapy~~
- ~~Neo-Adjuvant Radiation Therapy~~

System Delay

- Emergency Closures
- General Anaesthesia Required
- Lack of Facility Resources
- Patient Preference
- Prerequisites Not Completed
- Rescheduled Due to Higher Priority Case

Rescheduled Reason

- Change in Medical Status
- Data Entry Error
- Emergency Closures
- Lack of Facility Resources
- Missed Procedure/No Show
- Patient Chooses to Defer
- Prerequisites Not Completed
- Rescheduled Due to Higher Priority Case
- Rescheduled to Earlier Appointment

Procedure No Longer Required

- Cancelled by Patient
- Contraindications
- Data Entry Error
- Due to Medical Reasons
- Missed Procedure/No Show
- Patient Death
- Procedure Completed Elsewhere

Patient Demographic Data Elements and System Labels

Data Element	Definition
First Name	The patient's given name.
Middle Name	The patient's middle name or further given names.
Last Name	The patient's surname.
Date of Birth	The patient's date of birth (yyyy-mm-dd).
Site	The healthcare site where the patient receives care.
Facility	The healthcare facility where the patient is registered and where the procedure took place.
LHIN	The Local Health Integration Networks (LHINS) are local entities designed to plan, integrate and fund local health services including facilities, community care access centers, home care, long-term care and mental health within specific geographic areas.
Health Card Number (HCN)	The numeric portion of the patient's health insurance card number assigned by the provincial government.
Health Card Number Version	The two-character alphanumeric code which uniquely identifies a health card version.
Issuing Authority	The name of the province that creates/issues the patient's health card.
Sex/Gender	Patient gender code.
Address	Patient street address.
Address Type	Patient address type (e.g. home [H], mailing [M], temporary [T], current [C]).
City	City of patient residence.
Province/State	Province or state of patient's residence.
Country	Country code of patient's residence.
Postal/Zip Code	Patients' postal /zip code of their home address. A postal /zip code is a series of letters and/or digits appended to a postal address for the purpose of sorting mail.
Phone Number	The patient's phone number.
Phone Number Type	The patient's phone number type (e.g., home or business).
Medical Record Number (MRN)	The Medical Record Number is a unique identifier used to identify an individual and his or her medical record/information.
Order Number	The unique number which identifies and tracks the order for diagnostic imaging. This number must be unique across all sites within your facility and all areas of care. It will be used to identify the waitlist entry during its lifespan.
Scanner ID	The unique identifier for the scanner or room assigned to the patient. This identifier will be unique to a site.
Waitlist Entry ID	The unique identifier for the waitlist entry.

Patient Type

Data Element: Patient Type	
Definition	The type of patient receiving the procedure.
Options For Entry	Outpatient Inpatient Emergency Research
Purpose	Used in the calculation of all Wait Times Key Performance Indicators (KPIs): e.g. Booking Turnaround Time, Demand, Demand per Operating Hours, and Schedule Utilization KPIs.
Patient Type Options for Entry	
Outpatient	A patient arriving on the day of the scheduled procedure, and departing the day of the procedure.
Inpatient	A patient who is admitted prior to the procedure, and will remain an inpatient after the procedure. This term also applies to a patient arriving the day of the procedure, who will be admitted after the procedure.
Emergency	A patient registered in the emergency department and referred by an emergency physician or consult physician for a procedure.
Research	A patient receiving a procedure as a participant in a research study.

Waitlist Entry Status

Data Element: Waitlist Entry Status	
Definition	The Waitlist Entry status, reflecting whether the patient is still waiting or has had the procedure.
Reference Data	"O" = open – currently waiting "C" = closed – procedure completed
Purpose	To indicate the completeness of the record.

Wait 2 Data Elements and System Labels

Service Area

Data Element: Service Area	
Definition	A high-level category of the defined procedures.
Options For Entry	Diagnostic Imaging
Purpose	To define the type of service being performed.

Service Detail 1

Data Element: Service Detail 1	
Definition	The sub-category of the service area.
Reference Data	MRI CT
Purpose	To define the type of Diagnostic Imaging procedure that is being performed.

Service Detail 2

Data Element: Service Detail 2		
Definition	A further breakdown of Service Detail 1.	
Options For Entry	MRI	CT
	Abdomen Breast Cardiac Extremities Head (Brain) Head and Neck Pelvis Peripheral Vascular Spine Thorax	Abdomen CT Guidance of Biopsy Cardiac Extremities Head (Brain) Head and Neck Pelvis Peripheral Vascular Spine Thorax
Purpose	To further define the Diagnostic Imaging procedure being performed. This data element is used in the calculation of the Volume Performed by Body Type KPI.	

Combination Scan Indicator

Data Element: Combination Scan Indicator	
Definition	Indicates when multiple procedures have occurred during one appointment (regardless of whether or not they are clinically related).
Options For Entry	YES NO
Purpose	Combination scans, where more than one body part is scanned in a single appointment, generally take longer than single body part scans. This data element provides more context around the length of these longer scans.

Combination Scan Indicator Reporting Example:

A scenario where an MRI brain and cervical spine examination are completed together:

Feet In Time	MRI Head (Brain) Estimated Service Duration = 20 min	MRI Cervical Spine Estimated Service Duration = 30 min	Feet Out Time

	One Wait List Entry	Two Wait List Entries	
	Wait List Entry: Brain	Wait List Entry #1: Brain	Wait List Entry #2: C-Spine
WTIS Service Detail 2	Head (Brain)	Head (Brain)	Spine
Estimated Service Duration	50 minutes	20 minutes	30 minutes
Combination Scan Indicator	Yes	Yes	Yes
Actual Service Date Start Time	Feet In Time	Feet In Time	Feet In Time
Actual Service Date End Time	Feet Out Time	Feet Out Time	Feet Out Time

Supplementary Scans

Supplementary Scans	
Definition	Supplementary scans refer to any procedure(s) that were not originally requested on the requisition and have been added by a radiologist after the original exam has been started and the patient remains in the scanner room.

Supplementary Scan Reporting Example:

A requisition is received on January 3, 2015 at 10:00 am for a P4 Cervical scan MRI which has an ESD of 30 minutes and is booked for March 6, 2015 at 10:30 am.

During the scan on March 6, 2015 the radiologist determines that further images of the Head (Brain) are required and the technologist performs this extra service during the same appointment.

	Sites that manage one wait list entry	Sites that manage multiple wait list entries	
Data Element	WLE #1	WLE #1	WLE #2
Service Detail 1	MRI	MRI	MRI
Service Detail 2	Spine	Spine	Head (Brain)
Wait 2 Priority Level	4	4	4
ESD Cervical Spine	30 minutes	30 minutes	N/A
ESD Head (Brain)	N/A	N/A	**1 minute**
Order Received Date and Time	Jan 3, 2015,10:00	Jan 3, 2015,10:00	**Mar 6, 2015,10:33**
Actual Service Start Date and Time	Mar 6, 2015,10:33	Mar 6, 2015,10:33	Mar 6, 2015,10:33
Actual Service Finish Date and Time	Mar 6, 2015,11:23	Mar 6, 2015,11:23	Mar 6, 2015,11:23
Combination Scan	Yes	Yes	Yes

Wait 2 Priority Level

Data Element: Wait 2 Priority Level	
Definition	The assigned priority level of the Diagnostic Imaging procedure being performed.
Options For Entry	Priority 1 Priority 2 Priority 3 Priority 4
Purpose	This data element is used to calculate the Volume Performed by Priority and % High Priority Cases KPIs.
Wait 2 Priority Level Options For Entry	
Priority 1	Emergent – Target of 24 Hours Any condition in which failure to diagnose/treat would result in serious morbidity/mortality. Diverticulitis, appendicitis, pancreatitis, AAA or carotid/vertebral dissection, ischemic bowel, bowel obstruction, most trauma, pneumonia, empyema, intracranial hemorrhage, acute myelopathy, neck space infection, pulmonary embolus, unexplained loss of consciousness, acute visual loss.
Priority 2	Inpatient or Urgent – Target of 48 Hours Failure to diagnose/treat would result in significant deterioration/deficit. Impending cord compression (severe pain without neurologic deficit in a cancer patient), epidural abscess, complex joint trauma prior to surgery, post spinal surgery deterioration to assess for cord compression, venous sinus thrombosis, papilledema, pyelonephritis, renal colic.
Priority 3	Semi-urgent – Target of 10 Days Cancer staging/re-staging – biopsy proven cancer or imaging findings almost definite for cancer, biopsy pending, unexplained biliary obstruction with failed ERCP, hemoptysis, characterize lesions in kidney, pancreas, adrenals, liver and spleen, rapidly escalating pain, progressive myelopathy, suspected cancer, follow-up pneumonia, neck space infection if clinical response to treatment slower than expected.
Priority 4	Non-urgent – Target of 28 days. Hyperprolactinemia in absence of visual loss, chronic spine pain with radiculopathy, spinal stenosis, cancer follow-up, any chronic illness requiring follow-up at regular intervals, pulmonary nodule, non-specific abdominal pain, COPD, most MSK studies, MSK arthrograms, demyelination, change in headache pattern, hearing loss, dizziness, dementia.

Responsibility for Payment

Data Element: Responsibility for Payment	
Definition	Identifies the primary group responsible for payment of service(s) rendered.
Purpose	Used to calculate Booking Turnaround Time, Demand, Schedule Utilization, Actual Operating Hour Utilization and Urgent Time Utilization KPIs.
Options For Entry	Provincial Government (OHIP) Private Coverage Other
Responsibility for Payment Options For Entry	
Provincial Government (OHIP)	Payment is made by the Ontario Health Insurance Plan.
Private Coverage	Payment is made by patients paying for services out of pocket or through private insurance coverage.
Other	Payment is made by federal government programs including: Department of Veteran's Affairs (DVA), First Nations and Inuit Health Branch, RCMP, Department of National Defense, penitentiary inmates or immigration. Payment is made by a worker's service insurance board (e.g., WSIB or WCB etc.), other province or territory insurance plans in Canada (other than Ontario).

Order Received Date & Time

Data Element: Order Received Date & Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) the Diagnostic Imaging (DI) facility receives the request to book a procedure for the patient.
Purpose	Used in calculation of Wait Time (90th Percentile days), Booking Turnaround Time, all Wait List KPIs, Demand and Demand per Operating Hour KPIs.

Appointment Created Date & Time

Data Element: Appointment Created Date & Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) the patient's appointment was booked in the booking system.
Purpose	Used in calculation of Booking Turnaround Time, all Wait List KPIs, Demand and Demand per Operating Hour KPIs.

Estimated Service Duration

Data Element: Estimated Service Duration	
Definition	The length of scanning time (minutes) allotted for the appointment.
Purpose	Used to calculate the outpatient (OP) Schedule Utilization KPI.

Scheduled Procedure Date & Time

Data Element: Scheduled Procedure Date & Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) when the procedure is scheduled to be performed.
Purpose	Used to calculate the Schedule Utilization (OP) and No Show/Same Day Calculation Rate KPIs.

Actual Service Start Date & Time

Data Element: Actual Service Start Date & Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) when the patient entered the exam room (or "feet in" time).
Purpose	Used to calculate Wait Time (90th Percentile days), all Volume Performed KPIs, Patients per Operating Hour (OP), Actual Operating Hour Utilization, Urgent Time Utilization, Room Turnaround Time, % High Priority Cases, % IP/EP Cases, % Scans Greater Than One Hour, and % GA Cases KPIs.

Actual Service Finish Date & Time

Data Element: Actual Service Finish Date & Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) when the patient exited the exam room (or "feet out" time).
Purpose	Used to calculate Report Turnaround Time (90th Percentile days), Actual Operating Hour Utilization, Urgent Time Utilization, Room Turnaround Time, and % Scans Greater Than One Hour KPIs.

Report Verified Date &Time

Data Element: Report Verified Date & Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) the radiologist reviews the results and signs the report of the procedure.
Purpose	Used to calculate the Report Turnaround Time (90th Percentile days).

Specified Date Procedure

Data Element: Specified Date Procedure	
Definition	Specified Date Procedures (also known as Timed Procedures) are used to indicate when MRI and CT scans should be completed once a predefined time period has elapsed. There are no wait times recorded with these procedures as they must occur at a specific point in time.
Purpose	To exclude these records from Wait Time KPI calculations.

Clinical Indication for Scan

Data Element: Clinical Indication for Scan Reason	
Definition	Identifies the medical reason the procedure is being performed.
Options for Entry	Cancer Staging and/or Diagnosis Breast Cancer Screening Other
Clinical Indication for Scan Options for Entry	
Cancer Staging and/or Diagnosis	Indicates procedures performed for cancer screening, cancer staging, cancer diagnosis, cancer follow-up, and cancer re-staging. This excludes procedures performed to screen for breast cancer in high risk patients (as defined by the CCO Ontario Breast Screening Program).
Breast Cancer Screening	Indicates procedures performed to screen for breast cancer in high risk patients (as defined by the CCO Ontario Breast Screening Program).
Other	Indicates procedures performed for reasons other than to screen, diagnose, stage, re-stage, or follow-up on a suspected or confirmed cancer.

Rescheduled Reason

Rescheduled Reasons refer to reasons why an already scheduled Diagnostic Imaging procedure is rescheduled.

- Reschedule Reasons may overlap with DARTs and System Delays
- Where appropriate, a Rescheduled Reason as well as either a DART or System Delay may have to be entered for a waitlist entry

Data Element: Rescheduled Procedure Date and Time	
Definition	The date (yyyy-mm-dd) and time (hh:mm) to which the procedure has been rescheduled.

Data Element: Rescheduled Reason	
Definition	The reason the procedure is being rescheduled.
Options for Entry	Lack of Facility Resources Rescheduled Due to Higher Priority Case Change in Medical Status Prerequisites Not Completed Rescheduled to Earlier Appointment Data Entry Error Patient Chooses to Defer Emergency Closures Missed Procedure/No Show
Rescheduled Reason Options For Entry	
Lack of Facility Resources	The procedure is delayed due to the unavailability of staff or a reduction to scanner operating hours.
Rescheduled Due to Higher Priority Case	The procedure is rescheduled to accommodate a higher priority patient.
Change in Medical Status	The patient's medical condition has changed such that the procedure cannot be performed at this time.
Prerequisites Not Completed	The procedure is rescheduled due to missing or incomplete referral information or the patient has not completed the necessary prerequisites for the procedure as advised at the time of appointment notification. This can include incomplete labs or tests that delay the procedure.
Rescheduled to Earlier Appointment	The procedure is completed at an earlier date & time than the scheduled date & time.
Data Entry Error	The appointment information is incorrect due to a data entry error.
Patient Chooses to Defer	The patient is unavailable for the procedure due to personal reasons (such as vacation or death in the family), personal preferences for the date and time of the procedure, or weather reasons (such as road and airport closures).

Emergency Closures	The procedure is delayed due to unforeseen unavailability of healthcare resources. This can include radiology suite closures due to infectious outbreaks, extreme weather, or other emergency situations.
Missed Procedure/No Show	The patient is a no-show for their procedure at the scheduled date and time, or cancels on the scheduled procedure date, and as a result the procedure must be rescheduled. For this DART reason, one day will be subtracted from the overall Wait 2.

The chart below provides common examples of scenarios for when each **Rescheduled Reason** may be applicable. For more examples please refer to Case Studies and the Knowledge Database on the ATC Information site:

Rescheduled Reasons Examples		
Lack of Facility Resources	▪ Patient late due to porter delays ▪ Interpreter not available ▪ Scanner down – unplanned downtime ▪ Previous scan ran late (rebook for next day) ▪ Coil not working	▪ Lack of staff availability ▪ Registration error/delay ▪ Anaesthetist not available/delayed ▪ Patient size requires large-bore scanner
Rescheduled Due to Higher Priority Case	▪ Emergency patient must be accommodated	▪ Unstable patient in waiting area
Change in Medical Status	▪ Claustrophobia – patient has to see doctor for medication to help relax ▪ Increase in urgency of scan ▪ Patient's condition prevents them from completing scan and they must reschedule	▪ Medical complications ▪ Patient does not have the capacity to give informed consent ▪ Has allergic reaction to contrast/dye ▪ No intravenous (IV) access, inability to find vein
Prerequisites Not Completed	▪ Bloodwork or testing incomplete ▪ Consent form not signed	▪ Coordination with other services ▪ Post surgery waiting period not completed
Rescheduled to Earlier Appointment	▪ Patient arrives earlier than scheduled appointment date/time and receives their scan	
Data Entry Error	▪ Double booking of appointment	▪ Incorrect data entered
Patient Chooses to Defer	▪ Family emergency ▪ Work-related issues ▪ Designated driver not available for sedated patient	▪ Vacation plans ▪ Assistant/parent/guardian not available
Emergency Closures	▪ Infection control/quarantine ▪ Bomb threat ▪ All codes	▪ Natural disaster ▪ Power failure
Missed Procedure/No Show	▪ Family Emergency ▪ Work-related issues ▪ Patient arrives too late for appointment to be accommodated	▪ No shows

Dates Affecting Readiness to Treat (DART)

The WTIS currently captures and reports on wait times for Wait 2, defined as the amount of time that the patient waits for surgical or DI procedures. For DI scans, Wait 2 is measured from the order received date to the date the actual procedure is performed.

A DART is defined as the period of time between the Order Received Date and the Actual Procedure Date when the patient is unavailable for the procedure due to patient-related reasons. The period of time will be subtracted from the overall Wait 2.

Key principles of DART are:

1. To ensure a more accurate reflection of the patient's wait for surgery or DI, DARTs are captured and tracked in the WTIS.
2. The period of time captured through the use of a DART will be subtracted from the overall Wait 2 period.
3. The delays are patient-related delays only, and do not include system-related delays such as staff unavailability or scanner downtime.
4. Multiple DARTs should be applied as necessary if more than one patient-related delay is affecting the same waitlist entry.

Data Element: Dates Affecting Readiness to Treat From Date	
Definition	The beginning date (yyyy-mm-dd) of a period of time when the patient is unavailable for the procedure due to patient-related reasons.
Purpose	Used to calculate the period of time to be subtracted from the overall Wait 2.

Data Element: Dates Affecting Readiness to Treat To Date	
Definition	The end date (yyyy-mm-dd) of a period of time when the patient is unavailable for the procedure due to patient-related reasons.
Purpose	Used to calculate the period of time to be subtracted from the overall Wait 2.

In the WTIS, when a **DART From Date** and **DART To Date** are entered, a field is activated to allow the user to enter the DART reason.

Data Element: Dates Affecting Readiness to Treat Reason	
Definition	The reason the patient is unavailable for the procedure.
Options for Entry	Inability to Contact the Patient Change in Medical Status Missed Procedure/No Show Pre-Procedure Instructions Not Followed Patient Chooses to Defer

Dates Affecting Readiness to Treat Reason Options For Entry	
Inability to Contact the Patient	The scheduler has made a reasonable effort (determined by facility guidelines) to contact the patient in order to schedule or confirm the date and time for the procedure, but has not been able to do so.
Change in Medical Status	The patient's medical status has changed such that the procedure cannot be performed at this time.
Missed Procedure/No Show	The patient is a no show for their procedure at the scheduled date and time, or cancels on the scheduled procedure date, and as a result the procedure must be rescheduled. For this DART reason, one day will be subtracted from the overall Wait 2.
Pre-Procedure Instructions Not Followed	The patient has not completed the necessary prerequisites for the procedure as advised at the time of appointment notification.
Patient Chooses to Defer	The patient is unavailable for the procedure due to personal reasons (such as vacation or death in the family), personal preferences for the date and time of the procedure, or weather reasons (such as road and airport closures).

The chart below provides common examples of scenarios for when each **DART Reason** may be applicable. For more examples please refer to Case Studies and the Knowledge Database on the ATC Information site:

Dates Affecting Readiness To Treat (DART) Examples		
Inability to Contact the Patient	▪ Patient cannot be reached for appointment notification	
Change in Medical Status	▪ Patient's condition prevents them from completing scan and they must reschedule until their condition improves ▪ Has allergic reaction to contrast/dye	▪ Claustrophobia – patient has to see doctor for medication to help relax ▪ Pregnancy ▪ Requires MRI performed within a certain period of a woman's menstrual cycle
Missed Procedure/No Show	▪ Family Emergency ▪ Work-related issues ▪ Patient arrives too late for appointment to be accommodated	▪ No shows
Patient Chooses to Defer	▪ Family Emergency ▪ Work-related issues ▪ Driver not available for patient requiring sedation	▪ Vacation plans ▪ Assistant/parent/guardian not available
Pre-Procedure Instructions Not Followed	▪ Patient does not complete required bloodwork prior to scan	

Wait 2 System Delays

Wait 2 System delays refer to healthcare system delays that are non-patient related and impact the patient's wait time for a procedure.

The key principles of Wait 2 System Delays are:

1. System Delays provide context for wait time delays associated with a waitlist entry in the WTIS that are non-patient related.
2. When applying System Delays in the WTIS, no time is subtracted from the patient's overall wait.
3. The focus of the delay is the effect of non-patient related reasons on the patient's wait time for a procedure.

Note: Systems Delays were added to the WTIS at the request of facilities and are used to provide more context to wait times.

Wait 2 System Delays Reason Options For Entry	
Emergency Closures	The procedure is delayed due to unforeseen unavailability of healthcare resources. This may include radiology suite closures due to infectious outbreaks, extreme weather or other emergency situations.
Lack of Facility Resources	The procedure is delayed due to the unavailability of staff or a reduction to scanner operating hours.
Patient Preference	The procedure is delayed due to the patient's choice to remain on the waitlist of a particular facility or scanner despite being offered the option of an earlier procedure at another facility.
Prerequisites Not Completed	The procedure is delayed due to missing or incomplete referral information. This could include incomplete labs or tests that delay the procedure.
Rescheduled Due to Higher Priority Case	The procedure is delayed to accommodate a higher priority patient.
General Anaesthesia Required	The procedure requires general anaesthetic.

The chart below provides common examples of scenarios for when each **System Delay Reason** may be applicable. For more examples please refer to Case Studies and the Knowledge Database on the ATC Information site:

Wait 2 System Delays Reason Examples		
Emergency Closures	▪ Infection control/quarantine ▪ Bomb threat ▪ All codes	▪ Natural disaster ▪ Facility power failure
Lack of Facility Resources	▪ Patient late due to porter delays ▪ Interpreter not available ▪ Scanner down – unplanned downtime ▪ Previous scan ran late (rebook for next day) ▪ Coil not working	▪ Lack of staff availability ▪ Registration error/delay ▪ Anaesthetist not available/delayed ▪ Patient size requires large-bore scanner
Patient Preference	▪ Patient prefers to have their neurological procedure at a facility specializing in neurology	
Prerequisites Not Completed	▪ Bloodwork or testing incomplete ▪ Post-surgery waiting period not completed	▪ Coordination with other services ▪ Consent form not signed
Rescheduled Due to Higher Priority Case	▪ Emergency patient must be accommodated	▪ Unstable patient in waiting area
General Anaesthesia Required	▪ Patient needs general anaesthesia to complete scan	

Procedure No Longer Required

A Procedure No Longer Required Reason is entered for a waitlist entry when a procedure has been cancelled.

Procedure No Longer Required Options For Entry	
Cancelled by Patient	Patient cancels procedure without a given reason and does not reschedule the procedure.
Data Entry Error	Information related to the appointment is incorrect due to a data entry error.
Patient Death	Patient expired prior to scheduled appointment.
Procedure Completed Elsewhere	The procedure has been completed elsewhere.
Contraindications	The patient has a symptom, condition, or implant that renders the procedure unsafe.
Due to Medical Reasons	The patient is unable to have the scan due to medical reasons.
Missed Procedure/No Show	Patient did not show for their scheduled procedure or cancels on the scheduled procedure date.

The chart below provides common examples of scenarios for when each Procedure No Longer Required Reason may be applicable. For more examples please refer to Case Studies and the Knowledge Database on the ATC Information site:

Procedure No Longer Required Examples		
Cancelled by Patient	▪ Claustrophobia – patient chooses to cancel procedure	
Data Entry Error	▪ Incorrect data entered	▪ Double booking of appointment
Patient Death	▪ Patient expires prior to scheduled scan	
Procedure Completed Elsewhere	▪ Patient is scanned at another facility	▪ Patient does not fit in the facility's scanner
Contraindications	▪ Patient has metal in eye or metal implant that is unsafe for MRI ▪ Patient has pacemaker	▪ For a contrast CT exam, patient is allergic to IV contrast
Due to Medical Reasons	▪ Patient's condition improves or deteriorates - the scan is no longer required	▪ Pregnancy

No Show Reporting Guidance

No shows should be rescheduled in the WTIS as to reflect the true story of a patient's wait. If, due to technical limitations your facility must cancel a waitlist entry (WLE), the subsequent WLE to reschedule the no show must reflect the original Order Received Date and Time and include a 1-day DART for the originally missed procedure. Examples included below:

A patient does not show for an appointment or cancels on the day of the scheduled appointment. Through a facility follow-up call (or the patient calling in on a subsequent day), the appointment is rescheduled using the original requisition information. Scenario 1 outlines the details for when the WLE remains open before the appointment is rescheduled, and Scenario 2 outlines the details for when the appointment has been cancelled before being rescheduled.

Scenario	N WLEs	Order Received Date & Time	Scheduled Procedure Date & Time	Patient does not show on scheduled procedure date or cancels on scheduled procedure date	1-day DART	Rescheduled Procedure Date & Time	Rescheduled Reason	Actual Service Start & Finish Date
1	1	Jan 7, 2015 11:23 am	Mar 7, 2015 9:00 am		Mar 7, 2015	Apr 7, 2015 9:00 am	Missed Procedure/ No Show	Apr 7, 2015 Start: 9:05 am Finish: 9:30 am
2	1	Jan 7, 2015 11:23 am	Mar 7, 2015 9:00 am		**Procedure No Longer Required** Missed Procedure/No Show			
	2	Jan 7, 2015 11:23 am	Apr 7, 2015 9:00 am		Mar 7, 2015	-	-	Apr 7, 2015 Start: 9:05 am Finish: 9:30 am

A patient does not show up for an appointment or cancels on the day of the scheduled appointment. During a facility determined period of time, follow-up is attempted. The facility is unsuccessful at contacting the patient for rescheduling and no additional information is known. The WLE is subsequently cancelled.

Scenario	N WLEs	Order Received Date & Time	Scheduled Procedure Date & Time	Patient does not show on scheduled procedure date or cancels on scheduled procedure date	DART	DART	Procedure No Longer Required
1	1	Jan 7, 2015 11:23 am	Mar 7, 2015 9:00 am		Mar 7, 2015 (Missed Procedure/No Show)	Mar 8, 2015 – Mar 15, 2015 (Inability to Contact Patient)	Missed Procedure/ No Show
	2	Jan 7, 2015 11:23 am	Mar 7, 2015 9:00 am		**Procedure No Longer Required** Missed Procedure/No Show		

Operating Hours

Operating Hours measure the total number of hours the scanner is planned to be staffed and operating for the calendar day. This information is entered manually through the WTIS. Operating Hours data should include information for all scanners at a site for the specified date range. Operating Hours are designed to capture how your scanner were **planned to be used**.

Operating Hours are utilized in the calculation of three Key Performance Indicators (KPIs). These KPIs include (Actual Operating Hour Utilization (OP), Urgent Time Utilization, and Schedule Utilization (OP)).

Operating Hours FAQs	
When are Operating Hours due?	▪ Operating Hours are due to the WTIS on the 6th weekday of the subsequent month. Operating Hours can be entered in the WTIS up to 3 months in advance and updated as required ▪ It is important to note that after the 6th weekday of the subsequent month, Operating Hours cannot be edited. There is no correction or resubmission process available after the Operating Hours submission deadline. Facilities who do not enter their Operating Hours will be designated as Non-Compliant and escalated through the normal escalation processes
Should I be making daily changes to the Operating Hours?	▪ The Operating Hours should reflect what was planned, daily changes and retrospective updates to the Operating Hours are not required. Operating Hour Scenarios are provided in the table below:
How often should I review my Operating Hours?	▪ Recommended best practice is for facilities to review their Operating Hours at a minimum on a monthly basis. By reviewing what has happened, it can inform future changes to the Operating Hours. The Operating Hours review should be aligned with the release of the monthly MRI Efficiency Dashboard to examine the Key Performance Indicators which use Operating Hours in their calculation (Actual Operating Hour Utilization (OP), Urgent Time Utilization, and Scheduling Utilization)
Why does ATC not capture unplanned downtime?	▪ ATC is currently not collecting unplanned downtime. Operating Hours capture what was planned. Unplanned downtime is also not used in any of the Key Performance Indicator methodologies
How do facilities capture extended unplanned downtime?	▪ The initial downtime, such as the time it takes until it is determined that the equipment will be down for an extended period of time, should be left as normal operating hours. Following that, the remaining time that the equipment is down can be treated as planned downtime ▪ ATC recognizes that unplanned downtime can reflect in lower Actual Operating Hour Utilization values. If Actual Operating Hour Utilization values are being regularly impacted by unplanned downtime, this may trigger future decision making processes
How do I enter midnight hours in the WTIS? 23:59 or 00:00?	▪ For the WTIS Manage Operating Hours function, please enter 23:59 to indicate a midnight value ▪ If your facility is operating 24 hours, this can be entered as 00:00 to 23:59

Operating Hours Reporting Examples:

Operating Hours Scenarios	Expected Operating Hours Submission
<u>Preparation and clean up:</u> ▪ CT technologists start their shift at 07:30 and finish their shift at 15:30, but the first patient is not booked until 08:00 and the last patient is not completed at 15:00. The extra 30 minutes at the beginning and the end of the day are used for preparation and clean up time.	▪ 08:00 to 15:00 = Operating Hours OR ▪ 07:30 to 15:30 = Operating Hours ▪ Include 1 hour of Planned Downtime
<u>Staff break:</u> ▪ The facility has submitted MRI operating hours from 07:00 to 23:30. There is no preparation or clean up time noted. MRI technologists are scheduled for a one hour breaks from 12:00 to 13:00 and 18:30 to 19:30. There are no patients scheduled during these two breaks.	▪ 07:00 to 12:00 = Operating Hours ▪ 13:00 to 18:30 = Operating Hours ▪ 19:30 to 23:30 = Operating Hours OR ▪ 07:00 to 23:30 = Operating Hours ▪ Include 2 hours of Planned Downtime
<u>Unplanned uptime:</u> ▪ The CT scanner has operating hours from 07:30 to 15:30. During the evening and overnight hours, the CT scanner is being operated by on-call staff for emergency patients on an ad-hoc basis. These hours vary from day to day.	▪ 07:30 to 15:30 = Operating Hours ▪ Standby Hours are not captured ▪ Emergency patients performed during the on-call hours outside of the normal operating hours does not need to be updated on a retrospective or daily basis
<u>Scheduling changes:</u> a) 3 hours of Urgent time was converted into 2 hours of outpatient time and 1 hour of Emergency time b) An on-call DI technologist comes in to perform an emergency scan (or multiple emergency scans) for 4 hours c) Known shift change that you are planning for	a) The Operating Hours do not need to be updated b) The Operating Hours do not need to be updated c) The Operating Hours can be updated any time during the month, or subsequent month by the 6th weekday
<u>Inpatients and Standby Hours:</u> ▪ CT technologists start their shift at 07:30 and finish their shift at 19:30. Outpatients are booked from 07:30 until 17:00. Inpatients are scanned from 17:00 until 19:30. The technologists are on standby from 19:30 until 23:00.	▪ 07:30 to 19:30 = Operating Hours ▪ Include 2.5 hours of Urgent time ▪ Standby time is not captured

Inpatients and Outpatients: ▪ We have a technologist scheduled from 8:00 until 16:00. Our radiologists have limited us to 6 outpatients and the rest of the time is for inpatients and emergency patients. The outpatients are scheduled for 3 hours and the remaining time is allocated for inpatients.	▪ 08:00 to 16:00 = Operating Hours ▪ Include 5 hours of Urgent time
Inpatients and Emergency Patients: ▪ How do I submit Operating Hours in the scenario where the technologists are scheduled to scan inpatients and emergency patients for 8 hours?	▪ Submit the Operating Hours normally and include 8 hours of Urgent time.
Statutory Holidays: ▪ How do I capture Operating Hours on a statutory holiday?	▪ If your DI facility is planning to operate during the statutory holiday, then these hours should be submitted normally ▪ If your DI facility is not planning to operate during the statutory holiday, then these hours should be removed or omitted from the weekly schedule. To remove these hours: – Omit or delete the Operating Hours from the statutory holidays OR – Submit the hours as Planned Downtime for the entire day's Operating Hour duration, which will show zero total outpatient hours

Entering Operating Hours and Definitions:

- A standard weekly schedule can be entered and replicated to populate the monthly schedule for each scanner at a site
- Monthly data should be reviewed and the necessary adjustments made for Statutory Holidays, variations in Urgent, Downtime & Research Hours, or other variations in scanner operating hours
- For Operating Hours Start Time and Operating Hours Stop Time, a maximum of 3 start and stop times may be entered per calendar day

Operating Hours Start Time	
Definition	The time (hh:mm) the operating hours begin for the calendar day.
Purpose	To calculate total operating hours per calendar day.

Operating Hours Stop Time	
Definition	The time (hh:mm) the operating hours end for the calendar day.
Purpose	To calculate total operating hours per calendar day.

Urgent Time Allocated	
Definition	The number of hours allocated to scan inpatients and urgent patients (EP, P1, P2).
Purpose	Used to calculate Demand per Operating Hour, Schedule Utilization, Patients per Operating Hour, Actual Operating Hour Utilization and Urgent Time Utilization KPIs.

Planned Downtime	
Definition	The number of hours reserved for scanner maintenance.
Purpose	Used to calculate Demand per Operating Hour, Schedule Utilization, Patients per Operating Hour and Actual Operating Hour Utilization KPIs.

Dedicated Research Time	
Definition	The number of hours reserved to scan research patients.
Purpose	Used to calculate Demand per Operating Hour, Schedule Utilization, Patients per Operating Hour and Actual Operating Hour Utilization KPIs.

Time Allocated for General Anaesthetic Scans	
Definition	The numbers of hours allotted in the schedule for General Anaesthesia cases.
Purpose	General Anaesthesia (GA) cases generally take longer than non-GA cases. This information will provide context around longer scans.

Wait Times & Efficiencies Reporting

The MRI & CT data collected through the WTIS is used to produce performance, compliance and data quality reports.

For the MRI Efficiency Program, the following reports are distributed on a monthly basis:

- The Interim Data Quality Report
- The Performance Dashboard
- The Final Data Quality Report

For Diagnostic Imaging Wait Times, the following reports are generated on a regular basis:

- Surgery & DI Data Quality Verification Report
- Surgery & DI Compliance Designation Report
- Surgery & DI Compliance Indicator Report
- Surgery & DI Quarterly Stocktake Report

Please note that these reports are subject to change. All listed reports are available on the Access to Care Information Site.

Diagnostic Imaging Efficiencies Key Performance Indicators (KPIs)

Key Performance Indicators are quantifiable measures calculated from monthly data submissions from sites that will be monitored on a continual basis to help evaluate the progress of wait times and efficiencies at DI sites. The KPIs will be calculated using standard methodologies to ensure there is comparability among sites. The analyses performed using the collected data will enable sites to identify key areas for improvement and strive for greater efficiency at the site and system levels.

Please note that KPIs are subject to change. The MRI Efficiency KPI Guide is available on the Access to Care Information Site.

Appendix A: Additional Terminology

Additional Terminology	Definition
Wait 2	The time that the patient waits for surgical or diagnostic imaging procedures. For diagnostic imaging tests, Wait 2 is measured from the Order Received Date and Time to the date the procedure is performed.
90th Percentile Wait Time (Days)	This is the point at which 90 per cent of the patients received their consult or procedure and the other 10 per cent waited longer. For example, if a 90th percentile wait time is 58 days, this means that 90 per cent or 9 out of 10 of the patients waited 58 days or less and the other 10 per cent waited more than 58 days.
Median Wait Time (Days)	This is the point at which half the patients have had their procedure and the other half are still waiting. For example, if a median wait time is 26 days, this means that half of the patients waited 26 days or less and half waited more than 26 days. The median is another way to show what a "typical" patient might have experienced in that time period. Unlike the average wait time, the median wait time is not affected by one or two very unusual cases (long or short). Therefore, it is more stable over time.
Average Wait Time (Days)	This is the average (or mean) length of time a patient waited to have the consult or procedure. A few very short or very long wait times may skew this wait time. The average wait time is calculated by dividing the total number of waiting days that a facility reported, by the total number of treatments reported during the time period.
Wait 2 Access Target	The maximum recommended wait time in days for the associated priority level as recommended by clinical expert panels. This applies to Wait 2 procedures only.
Wait 2 Variance	The difference, either positive or negative, between the current wait time of a patient and the defined provincial access target based on assigned priority level.

Appendix B: Data Standardization Guide Change History

Note: The following table shows the revisions to the Diagnostic Imaging (DI) Wait Times & Efficiencies Data Standardization Guide over time.

Data Element	Definition	Change History	Change Date
Treating Healthcare Professional	The healthcare professional name and identifier code for the physician who oversees the procedure.	This data element was removed.	Sept 2014
Service Detail 2	A further breakdown of Service Detail 1.	The Service Detail 2 breakdown for CT was added.	Sept 2014
Rescheduled Reason – Prerequisites Not Completed	The patient has not completed the necessary prerequisites for the procedure as advised at the time of appointment notification.	Definition change: The procedure is rescheduled due to missing or incomplete referral information or the patient has not completed the necessary prerequisites for the procedure as advised at the time of appointment notification. This can include incomplete labs or tests that delay the procedure.	Sept 2014
Operating Hours	Operating hours measure the number of hours the scanner is available to be booked for scans in a calendar day. This information will be entered manually through the WTIS. Operating hours data should include information for all scanners at a site for the specified date range of the submission.	Definition change: Operating hours measure the total number of hours the scanner is planned to be staffed and operating for the calendar day. This information will be entered manually through the WTIS. Operating hours data should include information for all scanners at a site for the specified date range of the submission.	Sept 2014
Estimated Service Duration	The length of scanning time (minutes) allotted for the appointment.	Definition change: Estimated Service Duration should be reported in minutes not (HH:MM) as previously mentioned in the Data Standardization Guide.	Sept 2014
Pregnancy DART Example	Darts are defined as the period of time between the Order Received Date and the Actual Procedure Date when the patient is unavailable for the procedure due to patient-related reasons.	Change to the table demonstrating DART reasons. Pregnancy example was moved from Missed Surgery/Procedure to Change in Medical Status.	Sept 2014
Rescheduled Reason – Lack of Hospital Resources	Rescheduled Reasons refer to reasons why an already scheduled Diagnostic Imaging procedure is rescheduled.	Name change: Lack of Hospital Resources changed to Lack of Facility Resources.	Nov 2014
Wait 2 System Delays – Lack of Hospital Resources	Wait 2 System delays refer to healthcare system delays that are non-patient care related and impact the patient's wait time for a procedure.	Name change: Lack of Hospital Resources changed to Lack of Facility Resources.	Nov 2014
DI Data Elements Graphical Representation of What's New	The visual representation of DI Data Elements has been updated.	The new DART, Rescheduled and Procedure No Longer Required Reason of Missed Procedure/No Show has been added.	April 2015

Patient Type Option for Entry	The type of patient receiving the procedure.	Name change: Emergency Patient changed to Emergency. Research Patient changed to Research.	April 2015
Combination Scan Indicator	Indicates if more than one body part is being scanned.	A combination scan example has been added to the document.	April 2015
DART	The period of time when a patient is unavailable for the procedure due to patient-related reasons.	Minor edits to the examples.	April 2015
Pre-Surgery/Procedure Instruction Not Followed	The patient has not completed the necessary prerequisites for the procedure as advised at the time of appointment notification.	The name of this DART reason has been changed from Pre-Surgery/Procedure Instructions Not Followed to Pre-Procedure Instructions Not Followed.	April 2015
Emergency Closures Example	The procedure is delayed due to unforeseen unavailability of healthcare resources. This can include radiology suite closures due to infectious outbreaks, extreme weather, or other emergency situations.	Changed Act of God to Natural disaster.	April 2015
Procedure No Longer Required Options for Entry	The patient is a no-show for their procedure at the scheduled date and time.	Added Missed Procedure/No Show to the list of Procedure No Longer Required Options for Entry.	April 2015
Rescheduled Reasons	Rescheduled Reasons refer to reasons why an already scheduled Diagnostic Imaging procedure is rescheduled.	Added Missed Procedure/No Show.	April 2015
Operating Hours	Operating hours measure the total number of hours the scanner is planned to be staffed and operating for the calendar day.	Added a new table of examples.	April 2015
Supplementary Scan	Supplementary scans refer to any procedure(s) that were not originally requested on the requisition and have been added by a radiologist after the original exam has been started and the patient remains in the scanner room.	Added to the document.	April 2015
No Show Reporting Guidance	The patient is a no show for their procedure at the scheduled date and time and as a result the procedure must be rescheduled.	Added to the document.	April 2015
Operating Hours	Operating hours measure the total number of hours the scanner is planned to be staffed and operating for the calendar day.	Added FAQs section and included additional Operating Hours scenarios.	Nov 2015 (Version 5.0)