QCR
Queensland Cancer Register

QCR Approved Form

Medical Imaging Notifiers

Version: 6.0

Date: August 2026

Queensland Cancer Register

Cancer Alliance Queensland

Level 1, B2, 2 Burke St Woolloongabba QLD 4102

QCR@health.qld.gov.au

(07) 3176 4400

Purpose

This Approved Form defines the mandatory messaging structure, content requirements, and formatting specifications for all cancer related medical imaging reports submitted to the Queensland Cancer Register (QCR). It replaces any previous guidance related to messaging formats and should be used as the authoritative technical specification for pathology notifications under the Public Health Act 2005 (Qld).

The purpose of this Approved Form is to ensure medical imaging providers submit validated imaging reports using a consistent, standards based HL7 (ORU^R01) format that enables accurate, reliable, and automated processing of cancer related notifications. It establishes a consistent, technically compliant standard to ensure that incoming files can be reliably processed, validated, and integrated into our systems.

This document specifies the required HL7 fields, expected terminology and codes, data element formats, and conditions under which each value must be supplied. PDF documents, embedded PDFs, or unstructured report formats are not considered an approved form. By adhering to this Approved Form, data providers help maintain data quality, reduce processing errors, and support efficient downstream workflows.

Scope

This Approved Form applies to all medical imaging practices and any organisations that produce validated imaging reports for patients who have, or have had, cancer. It covers all cancer related imaging examinations, including those performed for diagnosis, staging, monitoring, follow-up, and surveillance.

All participating facilities must ensure that their submissions comply with the technical specifications and formatting standards defined in this document.

Queensland Cancer Register (QCR) Medical Imaging Notification – Approved Form (Version 5.4 9 February 2026)

Notification about cancer related medical imaging to the QCR will be required under the Public Health Act 2005 Queensland Cancer Register (QCR) Legislation Amendments. This legislation commenced on **3 May 2025.**

Cancer notification diagnostic imaging reports must contain the following information:

- Diagnostic imaging provider organisation and facility/clinic where the imaging procedure was performed,
- Diagnostic imaging provider organisation that produced the report (if different from the organisation sending the notification),
- Patient identification and demographic information,
- Requesting provider and facility/practice information,
- Unique identification of the imaging request and each imaging procedure/exam,
- Observation date and time of the imaging procedure,
- The observation results comprising the validated diagnostic imaging report in formatted text. Images are not to be provided.
- Version control of the report, ensuring that any amendments are notified.

To meet these requirements, it is strongly recommended diagnostic imaging practices notify reports within a message file that conforms to the current HL7 Australia Diagnostic Messaging standard.

At the time of writing, the current normative standard is:

Australian Diagnostics and Referral Messaging - Localisation of HL7 Version 2.4 - HL7AUSD-STD-OO-ADRM-2021.1

Diagnostic imaging reports should be sent in HL7 messages with message type ORU^R01 and are expected to contain the values as described below. Practices must advise the QCR if their messages will deviate from the following list. Provision of the practice's interface specification is highly desirable, to ensure each data element is correctly interpreted.

Only validated diagnostic imaging reports (and updates to validated reports) in formatted text are required for QCR notification – images are not to be provided.

For further information: email QCR@health.qld.gov.au or phone 3176 4436.

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Notification	**Describes the message that contains the imaging results (e.g. a complete medical imaging report), within a compliant HL7 message structure of type ORU^R01.**	**MSH (Message header)**			**Mandatory**	1..1 (exactly one)
Sending application	The information system that is the source of this message, containing the imaging report.	MSH-3.1 (Sending application. Namespace ID)	*MYRADIOLOGYSYSTEM*	50	Mandatory	1..1 (exactly one)
Sending facility	The imaging facility that is responsible for the sending application. Together, the sending facility and application uniquely identify the source of the message. The following alternative formats may be used (in order of preference): 1. Use the facility's 16-digit 'national health provider identifier – organisation' (HPI-O) in the ISO format defined in the ADRM standard: <Facility name>^1.2.36.1.2001.1003.0.<hpio>^ISO 2. Use the sending facility's Australian NATA Organisation Accreditation number in the format: <Facility name>^<nata-number>^AUSNATA 3. Use the sending facility's Queensland Health (QH) facility number.	MSH-4 (Sending facility)	*My facility name^1.2.36.1.2001.1003.0.8003621566684455^ISO* *My facility name^2184^AUSNATA* *My facility name*	180	Mandatory	1..1 (exactly one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
	4. If none of the above identifiers is available, then use the 'Facility name' in MSH-4.1 on its own: <Facility name>					
Receiving application	A string that identifies the information system in the context of the receiving facility, that is intended to receive the message. This must be set to "QCR"	MSH-5.1 (Receiving application. Namespace ID)	QCR	3	Optional	0..1 (at most one)
Receiving facility	A string that identifies the facility that is responsible for the receiving application.	MSH-6 (Receiving facility)	CAQ	3	Optional	0..1 (at most one)
Message date time	The date and time that the sending system created the message. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	MSH-7 (Date/time of message)	20250901090000	26	Mandatory	1..1 (exactly one)
Message type	The type of message, trigger event, and the message structure ID for the message. This value is always set to "ORU^R01".	MSH-9 (Message type)	ORU^R01	7	Mandatory	1..1 (exactly one)
Message id	A string that uniquely identifies the message (in the sender's context). Refer to the HL7 v2 ADRM standard for the recommended format.	MSH-10 (Message control ID)	*imagingFacility_20260215.123*	199	Mandatory	1..1 (exactly one)
Patient	**The patient who is the subject of the imaging exam(s).**	**PID (Patient identification)**			**Mandatory**	1..1 (exactly one for each notification)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Facility patient identifier	The code that uniquely identifies the patient in the sender's facility. ***Note**: If the patient is a QH patient (i.e. the imaging procedure occurred within a QH facility or as a service provided to a QH facility) then the QH Unit Record Number issued by that facility must be provided with the patient identifier list.*	PID-3~1 (Patient identifier list - first repeat)	**07654321**^^^PAS^MR^00011 **624055839**^^^NATA&LAB&N	50	Mandatory	1..1 (exactly one)
National individual health identifier	The national individual health identifier (IHI) for the patient. ***Note**: If the patient does not have an IHI on the national Health Identifier Service, then use "0".*	PID-3~2 (Patient identifier list – second repeat)	**8003608833357361**^^^AUSHIC^NI	50	Mandatory	1..1 (exactly one)
Medicare number	The patient's Medicare number at the time of reporting. This should include the individual reference number as the final character.	PID-3~3 (subsequent repeats)	**41556495371**^^^AUSHIC^MC^^^ 202509	50	Conditional - mandatory if available	0..1 (at most one)
Other patient identifier	Another unique identifier of the patient.	PID-3~3+ (Patient identifier list – third+ repeat)	**1035468466**^^^QH^PT^EUID	50	Conditional - mandatory if available	0..* (one or more)
Name	One or more names of the patient. The primary or legal name of the patient is reported first. For each patient name, the family name, given name, and second and further names must be appropriately delimited from one another. All names should be correctly classified using the Name Type value. For example, a preferred name that is not the legal name of the patient may have Alias (A) name type.	PID-5 (Patient name)	**CITIZEN ^John^Paul ^^MR^^L**	125	Mandatory	1..* (one or more)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Date of birth	The date and time of patient's birth. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	PID-7 (Date/time of birth)	19631230081500	26	Mandatory	1..1 (exactly one)
Sex	The administrative sex of the patient. This reflects the patient's genetic, hormonal and physical characteristics (sex characteristics). This field should not be used to reflect the patient's Gender Identity. The valid values (from HL7 table 0001 Administrative sex) are: **Code – Description** M - Male F - Female A - X, intersex or indeterminate O - Other U - Not stated/inadequately described N – Not applicable ***Note**: The referenced standard does not specify the presentation of definitive Sex- and Gender-related data elements, such as Gender Identity and Sex for Clinical Use. If other data elements are available, please advise QCR so that the values can be accurately recorded.*	PID-8 (Administrative sex)	M U	1	Mandatory	1..1 (exactly one)
Indigenous status	The patient's indigenous status, represented by codes defined by METEOR (602543). This value is required for the national cancer data collection. The valid values are: **Code – Description**	PID-10 (Race)	1 4	1	Conditional (mandatory if available)	0..1 (at most one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
	1 - Aboriginal but not Torres Strait Islander origin 2 - Torres Strait Islander but not Aboriginal origin 3 - Both Aboriginal and Torres Strait Islander origin 4 - Neither Aboriginal nor Torres Strait Islander origin 9 - Not stated/unknown					
Address	The home address and/or mailing address of the patient, and includes street address, suburb, state, post code, country code, and address type.	PID-11 (Patient address)	100 James Street^^Fair Hills^QLD^4995^AUS^H	250	Mandatory	1..* (one or more)
Contact	One or more contact phone numbers and/or email addresses for the patient.	PID-13 (Phone number – home)	0400200123^PRN^CP Bill@smith.com.au^NET^X.400	250	Optional	0..* (zero or more)
Medical imaging request	**A request for one or more imaging examinations made by a healthcare provider to a medical imaging service provider.** ***Note*** *The ORC segment is optional.*	**PV1 (Patient visit) + ORC (Order common)**			**Mandatory**	1..1 (exactly one for each notification)
Visit number	The identifier for the patient's visit to the imaging facility, for one or more imaging exams on a single service request. This value is used to link multiple exams to one service request.	PV1-19 (Visit number)	12345678^^^MIQ	250	Mandatory	1..1 (exactly one)
Request number	The string of characters that is assigned by the requesting system, to identify the group of (one or more) orders, which belong to one service request submitted to the medical imaging practice.	ORC-4.1 (Placer group number.entity identifier)	ABC123456	50	Optional	0..1 (at most one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Request status	The status of the order group (request) from an imaging procedure request. The valid values are defined in HL7 Table 0119 – Order control codes.	ORC-1 (Order control)	RE	2	Optional	0..1 (at most one)
Servicing facility	The facility where the imaging procedure(s) took place. This is used to distinguish between multiple imaging facilities within the same medical imaging organisation. Provider-specific user-defined values must be supplied within the provider's interface specification.	PV1-39 (Servicing facility)	02	2	Mandatory	1..1 (exactly one)
Medical imaging order item	**An individual imaging examination that was ordered by a healthcare provider.** ***Note*** *The ORC segment is optional.*	**ORC (Order common) + OBR (Observation request)**			**Mandatory**	1..* (one or more order item for each imaging request)
Sequence number	The sequential order in which this order item appears in the notification. The first order has a Sequence number = 1, and then each subsequent order uses the next sequential number.	OBR-1 (Set ID)	1	4	Mandatory	1..1 (exactly one)
Order number (requester)	The string of characters which uniquely identifies the order item within the requesting provider's system. ***Note****: The values in ORC-2.1 (if present) and OBR-2.1 must be the same.*	ORC-2.1 + OBR-2.1 (Placer order number.entity identifier)	123456	50	Optional	0..1 (at most one)
Order number (provider)	The string of characters which uniquely identifies the order item within the laboratory's system. ***Note****: The values in ORC-3.1 (if present) and OBR-3.1 must be the same.*	ORC-3.1 + OBR-3.1	6543216500	50	Mandatory	1..1 (exactly one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
		(Filler order number.entity identifier)				
Order status	The status of the order. This value enables the communication of a status change. The valid values are defined in HL7 Table 0038 – Order status.	ORC-5 (Order status)	CM	2	Optional	0..1 (at most one)
Ordered service (SCT)	The code and term that universally identifies the imaging exam or group of exams that has been ordered, across Australia. ***Note**: This should be the order identifier endorsed by the Royal Australian and New Zealand College of Radiologists (RANZCR), if available, and must be a subtype of 71388002 |Procedure| in SNOMED CT-AU. In most cases this will be a subtype of 363679005 |Imaging (procedure)|.* ***Note**: OBR-4.3 must be set to "SCT"*	OBR-4.1 to 4.3 (Universal service identifier)	393161000119104^CT of chest, abdomen and pelvis without contrast^SCT	125	Conditional - mandatory if available	0..1 (at most one)
Ordered service (local)	The code and term that identifies the imaging exam (or set of imaging exams) that has been ordered, within the medical imaging system. ***Note**: If a local coding system is used, OBR-4.6 should use the following standard format "NATA#[-Version#]", e.g. "NATA7816", "NATA4810-4". If the medical imaging facility does not have a NATA accreditation number, then a suitable persistent identifier for the organization must be used.*	OBR-4.4 to 4.6 (Universal service identifier – alternate identifier)	...^CTCAP^CT of chest, abdomen, and pelvis without contrast^NATA1234-5	125	Mandatory	1..1 (exactly one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Service category	The department or discipline of medical imaging service that performed the imaging exam. The valid values are defined in HL7 Table 0074 – Diagnostic service section ID.	OBR-24 (Diagnostic serv sect ID)	RAD	3	Mandatory	1..1 (exactly one)
Relevant clinical information	Clinical information about the patient that can assist the medical imaging provider with interpreting the results, e.g. past history of a cancer diagnosis.	OBR-13 (Relevant clinical information)	Review suspicious mass pancreatic head. Staging study for known NSCLC.	300	Conditional - mandatory if available	0..1 (at most one)
Ordered date time	The date and time at which the imaging exam was ordered. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	OBR-27.4 (Quantity/timing.start date/time)	20060201151500	26	Conditional - mandatory if available	0..1 (at most one)
Ordering provider	The individual healthcare provider who ordered the imaging exam. The first repeat must include the national health provider identifier individual (HPI-I) of the ordering provider. If more than one repeat is provided, the second repeat must include the Medicare provider number for the same provider. ***Note**: The values in ORC-12 (if present) and OBR-16 must be the same.*	ORC-12 + OBR-16 (Ordering provider)	1234567^Browsn^Julie^^^Dr^^^AUSHICPR^NPI~7654321A^Brown^Julie^^^Dr^^^AUSHICPR^UPIN	250	Optional	0..1 (at most one)
Imaging date time	The date and time at which the imaging exam was performed. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	OBR-7 (Observation date/time)	20060214113000	26	Mandatory	1..1 (exactly one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Result status	The collective status of all observations for this order. Together with the unique order number (provider) (OBR-3), and result status change date time (OBR-22), this value enables version control of reports received and subsequently amended. The valid values are: **Code – Description** F – Final result C – Correction or amendment to one or more observations in the set	OBR-25 (Result status)	F	1	Mandatory	1..1 (exactly one)
Result status change date time	The date and time that the results were reported, or the status of the results changed. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	OBR-22 (Results rpt/ status chng – date/time)	20060216094500	26	Mandatory	1..1 (exactly one)
Medical imaging observation	**An individual observation or report for the given medical imaging order item.**	**OBX (Observation/ Result)**			**Mandatory**	1..* (one or more for each order item)
Sequence number	The sequential order in which this observation appears in the message. The first observation for each order item must have a Sequence number = 1, and then each subsequent observation uses the next sequential number.	OBX-1 (Set ID – OBX)	1	4	Mandatory	1..1 (exactly one)
Nesting level	The hierarchical level of this observation within the report. This field is used to group one or more child observations underneath a parent observation to form a nested structure.	OBX-4	1 1.1 1.1.2	20	Optional	0..1

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
	For example, 1) A heading within a report is the parent observation (nesting level 1), and observations under the heading form the child observations (nesting level 1.1, 1.2). This assists in correct rendering of the report. 2) A structured report that describes a repeating set of properties (child observations) for each lesion or nodule (parent observation).					
Value type	The data type (format) of the observation result value, e.g. FT (Formatted Text). The valid values are defined in HL7 table 0125 – Value type.	OBX-2 (Value type)	FT	3	Mandatory	1..1 (exactly one)
Name (standard)	The code and term of the imaging observation in either LOINC or SNOMED CT-AU. ***Note**: If both LOINC and SNOMED CT-AU codes are shared in the message, then OBX-3.1 (universal identifier) should include the LOINC code and OBX-3.4 (alternate identifier) should include the SNOMED CT-AU code.* ***Note**: If SNOMED CT-AU is used, this must either be a subtype of 71388002 |Procedure| or 363787002 |Observable entity|. In many cases this will be a subtype of 363679005 |Imaging (procedure)|.* ***Note**: If OBX-3.1 is a LOINC code then OBX-3.3 must be set to "LN"; If OBX-3.1 is a SNOMED CT-AU code then OBX-3.3 must be set to "SCT".*	OBX-3.1 to 3.3 (Observation identifier – universal identifier)	72253-8^CT Chest and Abdomen and Pelvis WO contrast^LN 393161000119104^CT of chest, abdomen and pelvis without contrast^SCT	125	Optional	0..1 (at most one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Name (alternative)	The code and name of the imaging observation in either SNOMED CT or the medical imaging provider's system. ***Note**: If a local coding system is used, OBX-3.6 should use the following standard format "NATA#[-Version#]", e.g. "NATA7816", "NATA4810-4". If the laboratory does not have a NATA accreditation number, then a persistent identifier for the organization is required.* ***Note**: If OBX-3.4 is a SNOMED CT-AU code then OBX-3.6 must be set to "SCT". A SNOMED CT-AU code may only be used in 3.4 if a LOINC code was provided in 3.1.*	OBX-3.4 to 3.6 (Observation identifier – alternative)	...^393161000119104 ^CT of chest, abdomen and pelvis without contrast^SCT ...^CTCAP^CT chest and abdomen and pelvis without contrast^ NATA1234-5	125	Mandatory	1..1 (exactly one)
Value	The observations made from the imaging exam (OBX-3), formatted according to the given value type (OBX-2). This may either be a complete report for the given order item or a single atomic value. Complete reports should be provided as formatted text. No PDF or other file types can be accepted. No images are to be sent.	OBX-5 (Observation value)	<Report presented as formatted text>	Up to 16MB	Mandatory	1..1 (exactly one)
Result status	The current completion status of the observation. Only final results and corrections to final results are permitted. The valid values (from HL7 Table 0085 – Observation result status) are: **Code – Description** F – Final result C – Corrected result D – Instruction to delete the result W – Instruction to flag previous result as wrong	OBX-11 (Observation result status)	F	1	Mandatory	1..1 (exactly one)

Value name	Description	Expected HL7 segment/field	Examples of expected values	Max character length for the value	Priority	Cardinality
Observationd ate time	The date and time of the observation. If the observation value is a report, this is the date and time that the report was created. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	OBX-14 (Date/time of the observation)	20060216094500	26	Mandatory	1..1 (exactly one)
Reported by	The imaging facility who is responsible for creating this observation/report. When this field is null, CAQ assumes that the observation/ report was produced by the sending facility. The following alternative formats may be used (in order of preference): 1. Use the facility's 16-digit 'national health provider identifier – organisation' (HPI-O) in the ISO format defined in the ADRM standard: <hpio>^<Facility name>^HPIO 2. Use the facility's Australian NATA Organisation Accreditation number in the format: <nata-number>^<Facility name>^AUSNATA 3. Use the facility's Queensland Health facility number and name: <QH facility number>^<facility name>^ QHFACILITY 4. If none of the above identifiers is available, then use the 'Facility name' in OBX-15.2 on its own: ^<facility name>	OBX-15 (Producer's ID)	*8003621566684455^ My facility name^ISO* *2184^My facility name^AUSNATA* *^My facility name*	250	Conditional - mandatory if applicable	0..1 (at most one)

Version control

Version no.	Date	Created/modified by	Modifications made
V5.3	31/03/2025	Julie Moore	Inclusion of Public Health Act 2005 Queensland Cancer Register (QCR) Legislation Amendments.
V5.4	26/02/2026	Linda Bird	Revised to ensure consistency with HL7 Australia Diagnostic Messaging standard.