QCR
Queensland Cancer Register

QCR Approved Form

Pathology Notifiers

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Queensland Cancer Register

Cancer Alliance Queensland

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Purpose

This Approved Form defines the mandatory messaging structure, content requirements, and formatting specifications for all cancer-related pathology examination results 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 that all pathology laboratories consistently produce HL7-compliant diagnostic messages (ORU^R01) that meet national accreditation standards, SPIA terminology requirements, and RCPA structured pathology reporting protocols. 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 pathology laboratories, including any referral laboratories, that submit cancer-related pathology results to the QCR. It covers all diagnostic, follow-up, and ancillary cancer-related examinations and requires that all results be transmitted in the specified HL7 format using approved terminology and codes.

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

Queensland Cancer Register (QCR) Pathology Notification – Approved Form (Version 2.0, 19 February 2026)

Notification about cancer-related pathological examinations to the QCR is required under the Public Health Act 2005 Queensland Cancer Register (QCR) Legislation Amendments[1]. This legislation commenced on **3 May 2025**.

The approved form aligns with:

- The national pathology accreditation standards, published by the Australian Commission for Safety and Quality in Health Care[2], and
- The pathology terminology and information standardisation guidelines and reference sets[3], published for Royal College of Pathologists of Australasia (RCPA) on the National Clinical Terminology Service (NCTS) website, and
- The structured pathology reporting of cancer protocols[4], published by RCPA.

Pathology laboratories are required to provide additional follow up cancer-related examination results (even if there is no cancer identified in the specimen) performed by the pathology laboratory for a person who has or has had cancer. This information must be provided in the 'approved form', as follows:

- Pathology results must be presented in a message file that conforms to the current HL7 Australia Diagnostic and Referral Messaging standard (ADRM)[5], as specified in Table 1 below.
- PDF documents and PDF files embedded in HL7 messages are not an approved form.
- Pathology results must have titles that consistently and accurately describe the contents of the report, i.e., the panel names (Universal service identifier name) must reflect the test results found in the report.
- Where available, the standardised requesting and reporting content, terminology, codes, and units must be applied, as specified in the RCPA Standardised Pathology Informatics in Australia (SPIA) guidelines, associated reference sets and information models, published as RCPA resources on the National Clinical Terminology Service website[3].
- For cancer resections, reports must conform to the structured pathology reporting of cancer protocols, specified on the RCPA website[4] (or linked from there to the International Collaboration on Cancer Reporting data sets), including precise

adherence to the reporting proforma and data sets, with all ancillary test results and use of standardised terminology where specified.

- For genetic testing of neoplasms, standardised terminology must be applied, including Human Genome Variation Society (HGVS) nomenclature for variations to DNA sequences and amino acids, as specified in the SPIA reference material and the accreditation requirements for medical testing for human genetic variation[6].
- For tests referred to other laboratories, the referring laboratory must ensure the report is notified to the cancer register in the approved form.

Table 1 Message specification for the approved form of notifiable cancer-related examination results.

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Notification	**Describes the message that contains the pathology results (e.g. complete pathology 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 pathology report.	MSH-3 (Sending application)	*MYLABSYSTEM*	50	Mandatory	1..1 (exactly one)
Sending facility	The pathology 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	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	HL7 segment/field	Example values	Max character length	Priority	Cardinality
	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. 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. This must be set to "CAQ".	MSH-6.1 (Receiving facility.Namespace ID)	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)	*lab_20250915.789*	199	Mandatory	1..1 (exactly one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Patient	**The patient who is the subject of the pathology investigation(s).**	**PID (Patient identification)**			**Mandatory**	1..1 (exactly one for each notification)
Facility patient identifier	The code that unique identifies the patient in the sender's facility. ***Note**: if the patient is a Queensland Health patient (i.e., the imaging procedure has occurred within a Queensland Health facility or as a service provided to a Queensland Health facility) then the Queensland Health Unit Record Number issued by that facility must be provided with the patient identifier list.*	PID-3 (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 (Patient identifier list - second repeat)	**8003608833357361**^^^AUSHIC^NI	50	Mandatory	1..1 (exactly one)
Medicare number	May be referenced for patient matching if other identifiers are inadequate to match.	PID-3 (third repeat)	**41556495371**^^^AUSHIC^MC^^^202509	50	Conditional (mandatory if available)	0..1 (at most one)
Other patient identifier	Other identifiers that uniquely identify the patient.	PID-3 (Patient identifier list - third+ repeat)	**1035468466**^^^QH^PT^EUID	50	Optional	0..* (zero 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	PID-5 (Patient name)	**CITIZEN**^**John**^**Paul**^^MR^^**L**	125	Mandatory	1..* (one or more)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
	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 a name type of Alias (A).					
Date of birth	The date of the patient's birth. This is a date in the format: YYYYMMDD	PID-7 (Date/time of birth)	19631230	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)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
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** 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	PID-10 (Race)	1 4	1	Conditional (mandatory if available)	0..1 (at most one)
Address	The home addresses and/or mailing address of the patient, and includes street address, suburb or town, 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	A phone number or email addresses on which the patient can be contacted.	PID-13 (Phone number – home)	0400200123^PRN^CP Bill@smith.com.au^NET^X.400	250	Optional	0..* (zero or more)
Pathology request	**A request for one or more pathology tests, whose results are included in this notification.** ***Note*** *The ORC segment is optional.*	**ORC (Order common)**			**Optional**	0..* (zero or more pathology request for each notification)
Request number	The string of characters that is assigned by the requester's system, to identify the group of (one or more) orders, which belong to one service request submitted to the pathology lab.	ORC-4.1 (Placer group number.entity identifier)	ABC123456	50	Optional	0..1 (at most one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Request status	The status of the order group (request) from a pathology request. The valid values are defined in HL7 Table 0119 – Order control codes.	ORC-1 (Order control)	RE	2	Mandatory	1..1 (exactly one)
Pathology order item	**An individual pathology test or panel that was ordered by a healthcare provider.** ***References***: • *RCPA Standardised Pathology Informatics in Australia (SPIA) Guidelines and associated information models* • *RCPA - SPIA Terminology Reference Sets & Information Models (see ADHA's NCTS site)*	**ORC (Order common) + OBR (Observation request)**			**Mandatory**	1..* (one or more order item per request and/or notification)
Sequence number	The sequential order in which this imaging order item appears in the request (or message). The first order has a 'order 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 (Filler order number.entity identifier)	6543216500	50	Mandatory	1..1 (exactly one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Laboratory accession number	The string of characters, known as the laboratory accession number, which identifies the service request in the pathology system. ***Note**: This field must be provided as a name (i.e. "LN") = value (i.e. the lab number) pair.*	OBR-20 (Filler field 1)	LN=456123789	60	Mandatory	1..1 (exactly one)
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 pathology test or panel that has been ordered, across Australia. ***Note**: This should be a SNOMED CT-AU concept identifier and preferred term from the 933412481000036103 |RCPA SPIA Requesting Pathology Terminology reference set|. If a suitable concept is not available in this reference set, then any appropriate subtype of 386053000 |Evaluation procedure| or 363787002 |Observable entity| in SNOMED CT-AU may be used.*	OBR-4~1 (Universal service identifier - first repeat)	252416005^Histology^SCT 26604007^Full blood count^SCT	125	Mandatory	1..1 (exactly one for each OBR)
Ordered service (local)	The code and term that identifies the pathology test or panel that has been ordered, within the pathology system.	OBR-4~2 (Universal service identifier - second repeat)	HISTO^Histopathology^NATA7777 FBE^Full Blood Examination^NATA7777	125	Conditional – mandatory if not the same as the Ordered service (SCT)	0..1 (at most one)
Service category	The department or discipline where the observations were processed and reported, e.g. "SP" for "Histology and	OBR-24 (Diagnostic serv sect ID)	SP	3	Mandatory	1..1 (exactly one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
	Anatomical Pathology". The valid values are defined in HL7 Table 0074 – Diagnostic service section ID.					
Relevant clinical information	Clinical information about the patient or specimen that can assist the pathology provider with interpreting the results, e.g. past history of a cancer diagnosis.	OBR-13 (Relevant clinical information)	Past history of colon cancer. Right hemicolectomy for adenocarcinoma resection, distal margin inked 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 pathology test or panel 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	20250601113000	26	Conditional - mandatory if known	0..1 (at most one)
Ordering provider	The individual healthcare provider who ordered the pathology test or panel. 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^^^AUS HICPR^NPI~76543 21A^Brown^Julie^ ^^Dr^^^AUSHICPR ^UPIN	250	Optional	0..1 (at most one)

Value name	Description	HL7 segment/field	Example values	Max character length	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 C	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)	20250604090000	26	Mandatory	1..1 (exactly one)
Specimen	**A sample of tissue or fluid collected from the patient for examination by the laboratory.**	**OBR (Observation request)**			**Mandatory**	1..1 (exactly one for each order item)
Type	The type of specimen on which the observations were made. The value must be a subtype of 123038009 |Specimen| in SNOMED CT-AU.	OBR-15.1 (Specimen source. Specimen source name or code)	386053000&Tissue specimen&SCT	150	Mandatory	1..1 (exactly one)
Body site	The body site from which the primary specimen was collected. *The laterality/side must also be included, where relevant.*	OBR-15.4 (Specimen source. body site)	41224006&Left lower lobe of lung&SCT	150	Conditional - Mandatory for tissue specimens	0..1 (at most one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
	***Note**: It is important that this field is populated with information about the specific body site of the main tumour tissue, for all anatomical pathology and biomarker studies on biopsies and resections of tumour tissue.* ***Note**: If the value is SNOMED CT coded, the value must be a subtype of 91723000 |Anatomical structure (body structure)| in SNOMED CT-AU.*		110494001&Upper inner quadrant of right breast&SCT			
Collected date time	The date and time at which the specimen was collected from the patient. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	OBR-7 (Observation date/time)	20250604090000	26	Mandatory	1..1 (exactly one)
Received date time	The date and time at which the receipt of the specimen was recorded in the laboratory system. This is a time stamp in the format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]	OBR-14 (Specimen received date/time)	20250603163000	26	Mandatory	1..1 (exactly one)
Pathology observation	An individual observation result or report for the given pathology order item. ***References**: RCPA Structured Pathology Reporting of Cancer – Protocols (if applicable)*	OBX (Observation/ Result)			Mandatory	1..* (one or more Pathology observation per 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)
Value type	The data type (format) of the observation result value, e.g. FT (Formatted Text), NM (Numeric). The valid values are defined in HL7 table 0125 – Value type.	OBX-2 (Value type)	NM FT	3	Mandatory	1..1 (exactly one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Name (LOINC)	The LOINC code and name that identifies the observations (individual tests). ***Note**: This field should use a LOINC code and display from the RCPA SPIA Pathology Reporting value set (https://healthterminologies.gov.au/fhir/ValueSet/spia-pathology-reporting-1). If a suitable code does not exist in this value set, any appropriate LOINC code may be used.*	OBX-3~1 (Observation identifier - first repeat)	718-7^Haemaglobin^LN	125	Mandatory	1..1 (exactly one)
Name (local)	The code and name that is used to identify the observation (individual test) within the pathology system.	OBX-3~2 (Observation identifier - second repeat)	HGB^Haemaglobin^NATA7777	125	Conditional – mandatory if not the same as the Name (LOINC)	0..1 (at most one)
Value	The result value that was observed for the test specified in Name (OBX-3), presented according to the data type specified in Value type (OBX-2). Each observation result in the set should be provided as a discrete value (in an individual OBX segment) and in the context of a complete report (in a formatted text value), i.e. in both atomic and display formats. No PDF reports can be accepted. ***Note**: Each report in formatted text should report on exactly one order item, i.e. multiple services should not be reported on the same report, unless they are ancillary studies.* ***Note**: Where applicable, refer to the RCPA SPIA guidelines. For cancer resections, refer to RCPA cancer protocols. For genetic testing, refer to the Requirements for medical testing for human genetic variation.*	OBX-5 (Observation value)	14.3	Depends on data type, up to 16 MB.	Mandatory	1..1 (exactly one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Units	The units of measure that apply to the observation result value. This field should use the RCPA preferred units.	OBX-6.1 (Units. Identifier)	g/L	25	Conditional - mandatory if applicable	0..1 (at most one)
Reference range	The lower and/or upper limits between which the result value is considered 'normal'. Reference ranges may vary according to factors such as the age and sex of the patient at the time of the observation.	OBX-7 (Reference range)	135 - 175	60	Conditional - mandatory if applicable	0..1 (at most one)
Abnormal flags	Characters that indicate whether the result value falls within the normal range of values and the degree to which the result is considered to be abnormal.	OBX-8 (Abnormal flags)	H HH + +++	5	Conditional - mandatory if applicable	0..5 (at most five)
Result status	The current completion status of the observation. Only final results and corrections to final results. 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)
Analysis date time	The date and time that the raw observation result was generated by the analytical instrument. 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)	20250604090000	26	Mandatory	1..1 (exactly one)

Value name	Description	HL7 segment/field	Example values	Max character length	Priority	Cardinality
Reported by	The pathology 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> ***Note**: If a specimen has been sent to another lab for testing, the referring laboratory must also include the associated report in the notification.*	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)

References:

1. Health and Other Legislation Amendment Act 2023 - Queensland Legislation - Queensland Government
2. Pathology Standards | Australian Commission on Safety and Quality in Health Care
3. RCPA resources - National Clinical Terminology Service
4. RCPA - Structured Pathology Reporting of Cancer - Protocols
5. HL7AUSD-STD-OO-ADRM-2021.1 - Australian Diagnostic and Referral Messaging - Localisation of HL7 Version 2.4
6. Requirements for Medical Testing for Human Genetic Variation (Fourth Edition, 2025) | Australian Commission on Safety and Quality in Health Care

Version control

Version no.	Date	Created/modified by	Modifications made
V1.0	03/04/2025	Julie Moore	Inclusion of Public Health Act 2005 Queensland Cancer Register (QCR) Legislation Amendments.
V2.0	19/02/2026	Linda Bird, Dalisay Giffard	Revised to ensure consistency with recognised national and international data standards. Updated hyperlinks.