Technical Specifications for RT-QBP Bundle Volumes

Please note that the data source for all bundle volumes is Ontario Health - Cancer Care Ontario's Data Book/Activity Level Reporting (ALR). Key changes from last year version are highlighted in yellow. There have been no methodological changes to the Technical Specifications since last year. Updates are limited to the appendices, specifically reflecting the revised protocol list.

Also note that the content of appendices **A2** to **A6** referenced in this document is included in the Excel file named "RT-QBP 2026-27 Appendices for Tech Specs.xlsx". Note that RT-QBP Operational Reports available for the current fiscal year reflect the latest version of these appendices. These appendices are updated regularly during the fiscal year, and the operational reports reflect the latest version.

Consults

The consultation bundle is triggered at the time of initial consultation for radiation treatment with a radiation oncologist.

Inclusions:

- Funding is triggered when an initial radiation clinic visit (C1R) occurs during the current fiscal year.

Exclusions / Non-funded volumes:

- Cases where derived Disease Group (Clinical Practice Group derived from diagnosis associated with ALR case) is "Unknown" (see excel appendix A6. C1R Unknown Diag)
- Cases where derived Disease Group is "Non-Neoplastic" and the diagnosis is defined as non-malignant → identified as non-funded (FUNDED = 'N') in excel appendix A4. C1R Non-Neoplastic Diag
- Cases where derived Disease Group is "Uncertain/Unspecified" and the diagnosis is defined as non-malignant → identified as non-funded (FUNDED = 'N') in appendix A5. C1R Uncertain-Unspec Diag
- Patients who are not covered by OHIP, including out-of-province and non-OHIP Ontario patient

Steps for calculating in-scope/funded cases:

Step 1:

Extract all initial consult cases (C1R) for the current fiscal year. Exclude any consult case for which the patient is not covered by OHIP.

Step 2:

For the remaining consult cases (C1R) after **Step 1**, link in the latest diagnosis information (ICD-10 diagnosis code, ICD-03 Topography and Morphology codes as reported by facilities). Then, for each

case, determine its funding status (in-scope/funded vs. out of scope/non-funded) based on its diagnosis and derived Disease Group, using the following logic:

- If the derived Disease Group is "Unknown" (see A6. C1R Unknown Diag for how "Unknown" Disease Group is derived), then funding status is assigned 'N' (out of scope/non-funded) for this case.
- If the derived Disease Group is "Non-Neoplastic", then the funding status for this case is assigned the value of the FUNDED column for the entry uniquely identified by this case's ICD-10 diagnosis code (DIAG_ICD10_CA_CD) in excel appendix A4. C1R Non-Neoplastic Diag.
- If the derived Disease Group is "Uncertain/Unspecified", then the funding status for this case is assigned the value of the FUNDED column for the entry uniquely identified by the combination of this case's ICD-10 diagnosis code (DIAG_ICD10_CA_CD), ICD-03 Topography code (TOPOG_CD), and ICD-03 Morphology code (MORPH_CD) in excel appendix A5. C1R Uncertain-Unspec Diag.
- Otherwise (if the derived Disease Group is anything else), then funding status is assigned 'Y' (in-scope/funded) for this case.

Exclude all consult cases (C1R) for which funding status = 'N'. The remaining consult cases (for which funding status = 'Y') represent the final set of consult cases (C1R) eligible for funding.

Re-Consults

The re-consult bundle is intended to support the needs of a patient during the transition from an evidence-informed protocol/clinical trial intended to treat a primary cancer to an evidence-informed protocol/clinical trial having metastatic treatment intent.

Inclusions:

- Funding is triggered when a patient switches from one evidence-informed protocol/clinical trial intended to treat a Primary cancer to an evidence-informed protocol/clinical trial having Metastatic treatment intent during the current fiscal year.

Notes:

- The last/previous protocol delivered to a patient with Primary intent may have been completed up to five years prior to the start of the current funding period.

Steps for calculating in-scope/funded cases:

Step 1:

Identify all instances of metastatic protocols/clinical trials (i.e. strictly METASTATIC protocols/clinical trials listed in excel appendices A2. Protocols and A3. Clinical Trials) having been delivered during the current funding period (Fiscal Year). Only consider metastatic instances that are in-scope for the current funding period after **Steps 1 to 8** (described in Treatment Protocols) section have been

performed. Record the *Start of treatment date* for each (which is the *Start of treatment date* of its first course).

Step 2:

For each metastatic protocol/CT instance identified in **Step 1**, identify the last/previous course of treatment having been delivered to the same patient (ALR case) prior to the start of this metastatic treatment (based on *Start of treatment date*), going as far back as five years prior to the start of the current funding period (Fiscal Year) if needed, to find this last/previous course. Record the treatment *Intent* captured for this last/previous course.

Step 3:

Based on results of previous step (**Step 2**), exclude all metastatic protocol/CT instances for which either the last/previous course could not be found or could be found but its treatment *Intent* is Metastatic or missing (i.e. unknown). The remaining metastatic protocol/CT instances, for which the last/previous course could be found and was delivered with Primary treatment *Intent*, represent the set of Re-Consult cases eligible for funding.

Treatment Protocols

The Treatment bundle is triggered when an evidence-informed protocol is delivered to a patient, with the last radiation course of treatment for this protocol having been completed during the current funding period.

Interpretation rules for *protocol instances* captured in ALR:

General rule: All radiation courses delivered to the same patient (same ALR case) for the same Ready to Treat (RTT) date and same protocol, are interpreted as representing a single protocol instance triggering a single Treatment bundle.

There are two exceptions to this general rule:

1. **Breast** and **Lung** primary-intent protocols: If for the same RTT date (for same ALR case and protocol), the set of courses involved targets different body region lateralities (mix of **Right** and **Left**), this is considered to be two protocol instances.
2. Protocol is identified (under appendix A2. Protocols) as belonging to a special "Funding Trigger Group", Group **#1**, for which each course will trigger a separate bundle, even when these courses share the same RTT date (for same ALR case and protocol).

Examples

Course properties					*Number Of instances funded and reason*
ALR Case ID	*Protocol*	*RTT date*	*Course ID*	*Targeted body region laterality*	
patient_A	CNS_BRAIN_MET_SRS_SINGLE	May 5,2022	101	-	One instance of protocol CNS_BRAN_MET_SRS_SINGLE is funded, based on **General rule**
patient_A	CNS_BRAIN_MET_SRS_SINGLE	May 5,2022	102	-	
patient_A	CNS_BRAIN_MET_SRS_SINGLE	May 5,2022	103	-	
patient_A	CNS_BRAIN_MET_SRS_SINGLE	May 5,2022	104	-	
patient_B	BREAST_HYPO	June 18,2022	151	Left	Two instances of protocol BREAST HYPO are funded, based on **Exception 1**, because there is a mix of **Right** and **Left** lateralities being targeted by this **Breast** treatment to paitent_B
patient_B	BREAST_HYPO	June 18,2022	152	Left	
patient _B	BREAST_HYPO	June 18,2022	161	Right	
patient _B	BREAST_HYPO	June 18,2022	162	Right	
pa tient_C	LUNG_METS_SBRT_SINGLE	April 2,2022	131	-	Two instance of protocol LUNG_METS_SBRT_SINGLE are funded, based on **General rule**, because even though the ALR case and protocol are the same, different treatment plans (different RTT dates) are involved
pa tient_C	LUNG_METS_SBRT_SINGLE	April 2,2022	132	-	
pa tient_C	LUNG_METS_SBRT_SINGLE	August 13,2022	181	-	
pa tient_C	LUNG_METS_SBRT_SINGLE	August 13,2022	182	-	
patient_D	BREAST_FULL_HYPO	July 9,2022	1067	Left	One instance Of protocol BREAST_FULL_HYPO is funded, based on **General rule**, because even if the protocol is a **Breast** protocol, only one laterality (the **Left**) is targeted by the treatment
patient_D	BREAST_FULL_HYPO	July 9,2022	1068	Left	
patient_D	BREAST_FULL_HYPO	July 9,2022	1069	Left	
patient_E	CNS_BRAI_HIGH_GRADE_SC	July 9,2022	1068	-	Two instances of protocol CNS_BRAI_HIGH_GRADE_SC are funded, based on **Exception 2**, because even though the ALR Case, protocol, and RTT date are all the same, this protocol belongs to "Special Funding Trigger Group **#1**"
patient_E	CNS_BRAI_HIGH_GRADE_SC	July 9,2022	1069	-	

Exclusions / Non-funded volumes:

The following would not be funded (out of scope). See more details about these exclusions under **Steps for calculating in-scope/funded cases** section.

1. Courses delivered to patients who are not covered by OHIP, including out-of-province and non-OHIP Ontario patient
2. Courses that are not marked as having been completed or forced-completed (by OH, after 60 days of inactivity)
3. Courses involving photodynamic therapy (PDT) activities
4. Courses for which the Protocol Name is missing or is not recognized according to protocols listed under appendix A2. Protocols
5. Protocol instances for which the Ready to Treat (RTT) date appears to be miscoded. For consecutive courses representing a specific protocol delivered to a specific patient (ALR case), the RTT date of each course is expected to be the same.
6. Protocol instances for which the Intent is "unknown" or miscoded (recorded as "Metastatic" instead of "Primary" or vice versa)
7. Protocol instances for which the Disease Group derived from the captured diagnosis is "unknown" or miscoded (does not correspond to the protocol delivered)

Please note that any course with activities reported under a previously completed treatment course number will also be excluded.

Steps for calculating in-scope/funded cases:

Step 1:

Extract all radiation courses of treatment (courses involving at least one treatment activity) that were delivered during period of interest. Note that the timeframe may need to be expanded to include all activity/courses that may span outside of the period of interest (e.g., March of preceding fiscal year, or April of subsequent fiscal year). Exclude any course satisfying any of the following criteria:

- delivered to a patient not covered by OHIP;
- not marked as having been completed or forced-completed (by OH, after 60 days of inactivity)
- involves photodynamic therapy (PDT) activities [*NHPIP_ACT_CD* = 582, *NHPIP_ACT_DESC* = Tx PDT]. Note this is applicable for historical analyses/comparisons, as the activity codes were discontinued in June 2021

Step 2:

Of all remaining valid courses after **Step 1** (i.e. courses that were not excluded in **Step 1**), identify all courses for which the Protocol Name captured is either missing or is not recognized according to protocols listed under appendix A2. Protocols. Exclude all such courses (for "Invalid Protocol Name" reason) from the courses to be processed by the next step. Order all the remaining courses by patient identifier, Protocol Name, Ready to Treat date, and course Start of treatment date (which is the date of the first treatment activity for each course).

Step 3:

By applying the interpretation rules described under **Interpretation rules for protocol instances captured in ALR** section, process all remaining courses (after **Step 2**) to identify protocol instances (sets of one or more courses) that will serve as input for the next step (**Step 4**).

Step 4:

Of all protocol instances identified by the previous step (**Step 3**), only retain those instances for which the last course was completed during the period of interest (e.g., fiscal year). Note that a protocol instance may start (and even contain a course that completely lies) in the timeframe outside of period of interest (e.g., previous Fiscal Year), but so long as its last course ends (is completed) during the current period (e.g., Fiscal Year), this protocol instance will be eligible for funding in the current funding period.

Step 5:

Of the protocol instances retained by the previous step, identify all instances for which the Ready to Treat (RTT) date appears to be miscoded. By design, courses representing a specific protocol delivered to a specific patient (ALR case) are expected to have the same RTT date. For purposes of RTT date validation, two consecutive courses of treatment having different RTT dates are considered to be part of the same protocol instance if the second course starts within a certain number of days from the end of the first course. Specifically, when the difference between the two courses (start date of second course minus end date of first) is 7 days or less for two non-brachy courses, or 28

days or less if either of the courses is a brachytherapy, then the RTT dates are expected to be the same, otherwise, the RTT date is considered miscoded.
Exclude all protocol instances where RTT is considered miscoded (as described above), except METASTATIC protocols and protocols belonging to "Special Funding Trigger Group **#1**" (as defined under appendix A2. Protocols).

Examples

Course properties						*Result of Step 5*
ALR Case ID	*Protocol*	*RTT date*	*Course ID*	*Course Start of treatment date*	*Course End date*	
patient_A	BREAST_FULL_HYPO	**April 10, 2022**	101	June 10, 2022	July 3, 2022	One instance of protocol BREAST_FULL_HYPO remains a candidate for funding after **Step 5**: the two-course instance that *ends* on **July 3**. On the other hand, the single-course instance having *RTT date* = **May 3** and *Start of treatment date* = **July 4** is considered to be part of the same protocol as the previous course that *ends* on **July 3**, and therefore would be *excluded* in **Step 5** (not funded for "Miscoded RTT date" reason).
patient_A	BREAST_FULL_HYPO	**April 10, 2022**	102	June 12, 2022	**July 3, 2022**	
patient_A	BREAST_FULL_HYPO	**May 3, 2022**	103	**July 4, 2022**	July 10, 2022	
patient_B	CNS_MEDULLO_2-3P_IMRT	June 18, 2022	151	August 2, 2022	August 23, 2022	Two instances of protocol CNS_MEDULLO_2-3P_IMRT, each containing two courses, remain candidates for funding after **Step 5**, because even though a different RTT date (**July 31**) was assigned to the courses making up the second instance, the course having *Start of treatment date* = **Oct. 10** is not considered to be part of the same protocol as the course that ends on **Aug 30**, given that this treatment begins 41 days (> 7 days) after the *End date* of the previous course.
patient_B	CNS_MEDULLO_2-3P_IMRT	June 18, 2022	152	August 24, 2022	**August 30, 2022**	
patient_B	CNS_MEDULLO_2-3P_IMRT	**July 31, 2022**	161	**October 10, 2022**	November 3, 2022	
patient_B	CNS_MEDULLO_2-3P_IMRT	**July 31, 2022**	162	November 4, 2022	November 10, 2022	

Step 6:

Of the protocol instances that remain candidates for funding, identify all instances for which the captured protocol Intent (which is the Intent that was submitted for the first course of each protocol instance) is either missing (i.e., unknown) or does not match the Expected Intent associated with the captured Protocol Name (i.e., the Intent given under appendix A2. Protocols for this protocol) are considered miscoded.

Exclude any protocol instance where protocol Intent is missing or miscoded. Retain remaining protocols.

Examples

Protocol instance properties			*Result of Step 6*
Protocol Name	*Captured Intent (based on Intent that was submitted for the 1st course of protocol instance)*	*Expected Intent (based on Intent specified in appendix "A2. Protocols" for this protocol)*	
GI_ESO_2P_HIGHDOSE	**Metastatic**	PRIMARY	Both of these protocol instances would be excluded in **Step 6** (not funded for "Miscoded intent" reason).
LUNG_METS_BRACHY	**Primary**	METASTATIC	
BONE_MET_SBRT_SPINE	Metastatic	METASTATIC	All three of these protocol instances remain candidates for funding after **Step 6**.
GU_BLAD_IMRT	Primary	PRIMARY	
HEME_LYMPH_SHORT_OTHER_MULTI	Primary	PRIMARY/METASTATIC	

Step 7:

Of the protocol instances that remain candidates for funding, all instances for which the derived protocol Disease Group (derived from diagnosis associated with ALR case) is either “Unknown” or does not match any of the *Supported Disease Groups* associated with the captured Protocol Name (i.e. the *Supported Disease Groups* given under appendix A2. Protocols for this protocol) are considered miscoded.

Exclude all protocol instance for which the derived protocol Disease Group is either “Unknown” or miscoded.

Examples

Protocol instance properties			*Result of Step 7*
Protocol Name	*Derived Disease Group (derived from diagnosis associated with ALR case)*	*Supported Disease Groups (as specified in appendix "A2. Protocols" for this protocol)*	
HEME_AB_LYMPH_ISRT	**GENITOURINARY**	HAEMATOLOGY	Both of these protocol instances would be excluded in **Step 7** (not funded for "Miscoded Disease Group" reason).
SKIN_OTHER	**BREAST**	SKIN, SARCOMA	
GYNE_OVARIAN_ADJ	GYNAECOLOGICAL	GYNAECOLOGICAL	All three of these protocol instances remain candidates for funding after **Step 7**.
HN_BID	HEAD AND NECK	HEAD AND NECK, PRIMARY UNKNOWN	
SKIN_OTHER	SARCOMA	SKIN, SARCOMA	

Rectal Spacers (for primary prostate cancer treatment)

To identify that a Rectal Spacer was used for a specific prostate protocol instance with treatment completed during current fiscal year, at least one of the courses of treatment in this protocol instance must have a Rectal Spacer activity (*NHPIP_ACT_CD* = **399**, *NHPIP_ACT_DESC* = **Insertion of rectal spacer**) in combination with at least one indication as per table below:

NHPIP codes attached to a Funded Prostate Protocol (ie: 399 – rectal spacer inserted + at least 1 indicatio

Rectal Spacer Description	NHPIP code
Patients with prostate cancer with conditions pre-disposing to extreme reactions of the rectum (inflammatory bowel disease - IBD)	NHPIP 399+726X
Patients with prostate cancer on chronic anti-coagulant therapy (anything other than acetylsalicylic acid (ASA)) for other medical conditions, thereby increasing the risk of significant post-radiotherapy rectal bleeding	NHPIP 399+727X
Patients with prostate cancer with bilateral hip prosthesis	NHPIP 399+728X
Rectal spacer approved via Special Access Program (SAP)	NHPIP 399+729X

Clinical Trials

The Treatment bundle is triggered when a Clinical Trial (CT) is delivered to a patient and the last radiation course of treatment for this CT is completed during the current period of interest (e.g. Fiscal Year).

To identify CT instances in ALR, the rules are the same as for Treatment Protocols (see **Interpretation rules for protocol instances captured in ALR** section) except that they rely on the "Standard of Care"

(SOC) protocol associated with each CT (refer to appendix A3. Clinical Trials), for example to determine if the CT belongs to "Special Funding Trigger Group **#1**".

Exclusions / Non-funded volumes for Clinical Trials are the same as for Treatment Protocols and follow the same steps, except that they rely on the SOC protocol associated with each CT

Active Patients not on Treatment

Inclusions:

One Patient-Month funding is triggered for each month that there is one or more radiation clinic visit(s) (C2R) with no evidence of treatment (Radiation Treatment or non-IV Systemic Treatment) after the initial clinic visit (C1R).

Exclusions:

- Radiation clinic visits (C2R) occurring within 30 days of initial clinic visit (C1R)
- Radiation clinic visits (C2R) occurring during the same month as the start of treatment (either RT or non-IV ST)
- Cases where derived *Disease Group* is “Unknown” (see A6. C1R Unknown Diagnosis)
- Cases where derived *Disease Group* is “non-neoplastic” and the diagnosis is defined as non-malignant → identified as non-funded (FUNDED = 'N') in appendix A4. C1R Non-Neoplastic Diagnosis
- Cases where derived *Disease Group* is “Uncertain/Unspecified” and the diagnosis is defined as non-malignant → identified as non-funded (FUNDED = 'N') in appendix A5. C1R Uncertain-Unspec Diagnosis
- Patients who are not covered by OHIP, including out-of-province and non-OHIP Ontario patients

Notes:

- A patient’s initial radiation clinic visit (C1R) preceding the patient-month(s) funded may have occurred up to five years prior to the start of the current fiscal year.

Steps for calculating in-scope/funded cases:

Step 1:

Extract all initial consult cases (**C1R**) that occur during the period of interest (e.g. Fiscal Year) or during any of the five previous fiscal years. Exclude **C1R**s that would normally not be in-scope for the Consults bundle (i.e. patient not covered by OHIP or excluded in Step 2 of Consults section).

Step 2:

For each **C1R** that remains, identify the earliest Radiation Treatment (RT) activity or non-IV Systemic Treatment (ST) activity (refer to Technical Specifications for ST-QBP Non-IV Treatment bundle) that

occurred after the **C1R** visit date (some patients may not have any RT or non-IV ST)... Only retain the **C1R**s (to potentially represent Active Patients not on Treatment) which satisfy any of the following conditions:

- **C1R** is not followed by any RT or non-IV ST activity that occurred during the time between the **C1R** visit date and the last day (March 31) of current fiscal year.
- **C1R** is followed by RT or non-IV ST and the earliest treatment activity date for this treatment lies within the fiscal year, not before.

Step 3:

For each **C1R** from Step 2, extract all **C2R**s (follow-up radiation clinic visits) whose visit date satisfies all of the following criteria:

  - **C2R** visit date follows the corresponding **C1R** visit date by more than 30 days;
  - **C2R** visit date lies within the period of interest (e.g. Fiscal Year);
  - When the corresponding **C1R** is followed by treatment in the period of interest (e.g. Fiscal Year), the **C2R** visit date precedes the earliest treatment activity date and does not occur in the same month as the earliest treatment activity.

Record the fiscal year and month for each resulting **C2R**.

Step 4:

Each candidate **C1R** from Step 3 that identified at least one **C2R** represents an Active Patient not on Treatment to be funded by Patient-Month. For each unique combination of a **C1R** and a month in which one or more follow-up clinic visits (**C2R**) occurred, one Patient-Month would be funded for the period of interest (e.g. Fiscal Year).

Appendix A2- Appendix A6



RT-QBP 2026-27
Appendices for Tech