**Cancer Care Ontario**

**Specialized Services Oversight (SSO)**

**Interventional Radiology Data Dictionary**

***(Program previously designated as Focal Tumour Ablation)***

**Version 1.0 R7**

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# Sign-Off

| Name | Title and Business Unit | Other Comments | Date of Approval & Signature |
| --- | --- | --- | --- |
| Sherrie Hertz | Group Manager  Specialized Services Oversight |  |  |

# Document Concurrences

| Name | Title and Business Unit | Other Comments |
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| Victoria Hagens | Group Manager, Performance Management  Cancer Planning and Regional Program Development |  |
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| Cassandra McKay | Senior Specialist, Policy  Specialized Services Oversight |  |
| Amanda Wong | Coordinator, Program  Specialized Services Oversight |  |

# Appendix-27: Interventional Radiology: Data Elements

| **#** | **Entity** | **Data Element** | **Column\_Name** | **Definition (Description)** | **Format** | **Valid values (Notes)** | **Applies to** | **Purpose and Use** | **Mandatory** | **Business key (Uniqueness)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 01 | IR | Health Card Number | Health\_Card\_Number | Patient's Ontario Health Card Number. | CHAR(10) | Must be a valid ten-digit HCN | All | To link data with other CCO data holding areas. | Yes | (Yes) |
| 02 | IR | Patient Chart Number | Patient\_Chart\_Number | Facility’s internal unique patient identifier. | CHAR (12) | Must be alpha-numeric (i.e. no punctuation, must have numbers and characters). | All | For reimbursement: to uniquely identify procedure for a patient;  For investigations: chart number will be provided in log file for the records with errors. This will allow facilities to link data in log file with their data sets. | Yes |  |
| 03 | IR | Date of Birth | Date\_Of\_Birth | Patient birth date | CHAR (8) YYYYMMDD | Valid date  Must be later than 01-01-1900 | All | To link data with other CCO data holding areas. | Yes |  |
| 04 | IR | Postal Code | Postal\_Code | Patient’s residential postal code. | CHAR(10) | 1. Must match any of these format masks: ANANAN, NNNNN, NNNNN-NNNN, AA  2. If matches mask ANANAN, cannot begin with D,F,I,O,Q,U, or W  3. If matches mask AA, should match an entry in [Appendix-11](https://www.cancercare.on.ca/ext/databook/db1213/Appendix/Appendix_1-6_-_Province_and_State_codes.htm) (Province and State Codes). | All | Geographical distribution reporting. | Yes |  |
| 05 | IR | Facility Number | Facility\_Number | Submitting facility number | CHAR(3) | Valid facility number MOHLTC classification listed in Appendix-3 | All | Funding and planning | Yes | (Yes) |
| 06 | IR | Date of Receipt of Referral | Date\_of\_Receipt\_of\_Referral | Date the patient referral or request for consult was received for this service. | CHAR(8) YYYYMMDD | Valid date  Must be later than 01-01-1900 | All | Performance metrics - wait times | Yes |  |
| 07 | IR | Consultation Date | Date\_of\_Consultation | Date of patient’s first consultation for this service. | CHAR(8) YYYYMMDD | Valid date  Must be on or after date of receipt of referral. | All | Performance metrics - wait times | Yes |  |
| 08 | IR | Multidisciplinary Cancer Conference Review | MCC\_Review | Was this case discussed at MCC prior to the procedure? | Drop Down:   * Yes * No | If provided, must be one of the options in the drop down | All | Quality assurance | Optional |  |
| 09 | IR | Date of MCC | Date\_of\_MCC | Date of MCC review (if MCC Review is Yes) | CHAR(8) YYYYMMDD | Valid Date  If provided, must be on or before procedure date | All | Quality assurance | Optional |  |
| 10 | IR | Type of Ablation Procedure | Type\_of\_Ablation\_Procedure | Type of procedure used for ablation | Drop Down:   * RFA - Radio Frequency Ablation * TACE - Conventional / Ethiodol Based * TACE - Drug Eluting Beads | Select from drop down | All | Funding | Yes | (Yes) |
| 11 | IR | Procedure Date | Date\_of\_Procedure | Date of procedure | CHAR(8) YYYYMMDD | Valid Date  Must be on or after date of consultation and must be in current reporting period | All | Funding | Yes | (Yes) |
| 12 | IR | Specialty of Primary Operator | Specialty\_of\_Primary\_Operator | Specialty of Primary Operator | Drop Down:   * Radiologist / Interventional Radiologist * Surgeon * Other, Specify | Select from drop down | All | Planning | Yes |  |
| 13 | IR | Specialty, Other | Specialty\_Other | Other, Specify | CHAR(80) | Free text | All | Planning | Only if Specialty of Primary Operator = “Other, Specify” |  |
| 14 | IR | Procedure Site and Disease | Procedure\_Site\_and\_Disease | Procedure site and disease | Drop Down:   * Liver - Hepatocellular carcinoma * Liver - Colorectal Cancer Metastases * Lung - Primary * Lung - Metastases * Kidney - Renal cell carcinoma | Select from drop down | All | Funding | Yes |  |
| 15 | IR | Number of Probes Used | Number\_of\_Probes\_Used | Number of RFA probes used | Number (1) | Integer number between 1 and 9 | RFA Only | Funding | Optional |  |
| 16 | IR | Number of Lesions Treated | Number\_of\_Lesions\_Treated | Number of lesions treated | Drop down:   * 1 * 2 * 3 * 4 * 5 or more | If provided, must be one of the options in the drop down | RFA Only | Clinical criteria | For RFA Only |  |
| 17 | IR | Size of Largest Lesion | Size\_of\_Largest\_Lesion | Size (diameter) of largest lesion in cm | Number (2.1) | If provided, must be a number between 0.1 and 30.0 | RFA Only | Clinical Criteria | For RFA Only |  |
| 18 | IR | Image Guidance | Image\_Guidance | Type of image guidance used during the procedure | Drop down:   * CT * Fluoroscopy * MRI * Ultrasound * CT + Ultrasound * CT + Fluoroscopy | If provided, must be one of the options in the drop down | All | Planning | Optional |  |
| 19 | IR | Tumour Access | Tumour\_Access | Level of procedure invasiveness | Drop down:   * Percutaneous * Laparoscopic * Open Surgical | If provided, must be one of the options in the drop down | All | Planning / Quality | Optional |  |
| 20 | IR | Patient Stay | Patient\_Stay | Modality of patient stay | Drop down:   * In-patient procedure * Out-patient procedure | If provided, must be one of the options in the drop down | TACE Only | Funding | For TACE only |  |

# QA Checks

The QA checks are grouped by number as follows:

100’s - **File level checks**

200’s - **File format errors**: Entire record is rejected.  
300’s - **Rejected content errors**: Entire record is rejected.  
400’s - **Non-rejected content errors**: Entire record is retained, including erroneous field.  
500’s - **Apparent duplicate record warnings**: These are not necessarily errors, but could be.

# Validations: File Level Validations (Level 100)

The following rules will be applied and checked against every file submitted for SSO program.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Type** | **Condition** | **Error Message** | **Reject** |
| 100 | System Error |  |  |  |
| 105 | Invalid Header | Header list in CSV file is incorrect | File Error- Header list is incorrect. | Yes |
| 106 | Incorrect number of Columns | Record in file has incorrect number of data elements | File Error- Record has incorrect number of data elements. | Yes |
| 103 | File name mask | File name does not follow the convention for file name mask: **IR\_nnn\_ffff\_ffffQx.csv**  Where:  IR: a fixed string indicating the program name (Interventional Radiology)  nnn: the three-digit code of the submitting site (e.g. 567)  ffff \_ffff: the two calendar years that make up the fiscal year separated by an underscore character (e.g. 2015\_2016)  Q: a fixed character for Quarter  x: the quarter within the fiscal, which is always an integer number between 1 and 4 (e.g. 3)  .csv: a fixed string indicating that the file includes comma-separated values.  **Example**: IR\_567\_2015\_2016Q3.csv  ***Note****: This validation should be non-case-sensitive so that, for example, the string "IR" can also be sent as "ir".* | File Error - File is incorrectly named. | Yes |
| 104 | Empty | File is empty  ***Note****: files with only one row (i.e. the header row is present and not patient level data) are considered valid. This error applies only when there is no such header.* | File Error - invalid number of data columns in “&file\_name” file. | Yes |
| 191 | No Data | File includes only one line, and that line is a valid header line.  ***Note****: This is a valid submission if there were no procedures in the reported quarter, so we issue a warning just to make sure.* | Warning - No data submitted. If there are data records, please resubmit. | No |
| 107 | Other errors | Unknown | Unknown error. |  |

# Validations: File Format Errors (Level 200)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number** | **Entity** | **Data Element** | **Condition** | **Error Message** | **Reject** |
| 201 | All | All Fields | Data field is too long | Invalid field length | Yes |
| 202 | All | All Date Fields | Date is not in YYYYMMDD format | Invalid - Must be in YYYYMMDD format  *(For optional date fields, ignore if null)* | Yes |

# Validations: Content Errors, Record Rejected (Level 300)

| **Number** | **Element #** | **Data Element** | **Column** | **Condition** | **Error Message** | **Reject** |
| --- | --- | --- | --- | --- | --- | --- |
| 300 | IR 01 | Patient Health Card Number | Health\_Card\_Number | Is Null | Invalid - Null Value | Yes |
| 303 | IR 01 | Patient Health Card Number | Health\_Card\_Number | Is not a valid ten-digit HCN  Ignore if Null | Invalid Ontario Health Card Number | Yes |
| 300 | IR 02 | Patient Chart Number | Patient\_Chart\_Number | Is Null | Invalid - Null Value | Yes |
| 302 | IR 02 | Patient Chart Number | Patient\_Chart\_Number | Contains special characters e.g. \*,/,{  Ignore if Null | Invalid Patient Chart Number - Contains non alpha numeric characters | Yes |
| 300 | IR 03 | Date of Birth | Date\_Of\_Birth | Is Null | Invalid - Null Value | Yes |
| 601 | IR 03 | Date of Birth | Date\_Of\_Birth | Is before 1900-01-01 | Date is before 1900-01-01 | Yes |
| 300 | IR 04 | Postal Code | Postal\_Code | Is Null | Invalid - Null Value | Yes |
| 304 | IR 04 | Postal Code | Postal\_Code | Matches mask ANANAN but begins with D, F, I, O, Q, U, or W. | Invalid Postal Code- Invalid Initial Letter | Yes |
| 305 | IR 04 | Postal Code | Postal\_Code | Matches mask of AA but does not match any entry in [Appendix 11](https://www.cancercare.on.ca/ext/databook/db1213/Appendix/Appendix_1-6_-_Province_and_State_codes.htm) (Prov/State Codes) | Invalid Postal Code (Prov/State) - consult lookup table in template. | Yes |
| 306 | IR 04 | Postal Code | Postal\_Code | Does not match mask: ANANAN, NNNNN, NNNNN-NNNN, AA  Ignore if Null | Invalid Postal Code- Invalid mask | Yes |
| 300 | IR 05 | Facility Number | Facility\_Number | Is Null | Invalid - Null Value | Yes |
| 301 | IR 05 | Facility Number | Facility\_Number | Does not match any legal entry in **Appendix-3**  Ignore if Null | Invalid Hospital Number - consult lookup table in template. | Yes |
| 300 | IR 06 | Date of Receipt of Referral | Date\_of\_Receipt\_of\_Referral | Is Null | Invalid - Null Value | Yes |
| 602 | IR 06 | Date of Receipt of Referral | Date\_of\_Receipt\_of\_Referral | Is before 1900-01-01 | Date is before 1900-01-01 | Yes |
| 300 | IR 07 | Consultation Date | Date\_of\_Consultation | Is Null | Invalid - Null Value | Yes |
| 603 | IR 07 | Consultation Date | Date\_of\_Consultation | Is before date of referral | Date of consultation cannot be before date of referral | Yes |
| 399 | IR 08 | Multidisciplinary Cancer Conference Review | MCC\_Review | Is not a value in predefined list (Yes or No)  Ignore if Null | Invalid answer | Yes |
| 604 | IR 09 | Date of MCC | Date\_of\_MCC | Is not null when MCC\_Review = No | Since no MCC Review, no date of MCC is expected | Yes |
| 605 | IR 09 | Date of MCC | Date\_of\_MCC | Is later than procedure date  Ignore if Null | Date of MCC cannot be after date of procedure | Yes |
| 300 | IR 10 | Type of Ablation Procedure | Type\_of\_Ablation\_Procedure | Is Null | Invalid - Null Value | Yes |
| 399 | IR 10 | Type of Ablation Procedure | Type\_of\_Ablation\_Procedure | Is not a value in predefined list  Ignore if Null | Invalid answer | Yes |
| 300 | IR 11 | Procedure Date | Date\_of\_Procedure | Is Null | Invalid - Null Value | Yes |
| 606 | IR 11 | Procedure Date | Date\_of\_Procedure | Is before Date of Consultation  Ignore if Null | Date of procedure cannot be before date of consultation | Yes |
| 623 | IR 11 | Procedure Date | Date\_of\_Procedure | Is not in current reporting quarter  Ignore if Null | Date of procedure is not in the quarter being submitted | Yes |
| 300 | IR 12 | Specialty of Primary Operator | Specialty\_of\_Primary\_Operator | Is Null | Invalid - Null Value | Yes |
| 399 | IR 12 | Specialty of Primary Operator | Specialty\_of\_Primary\_Operator | Is not a value in predefined list  Ignore if Null | Invalid answer | Yes |
| 607 | IR 13 | Specialty Other | Specialty\_Other | Is null when Specialty\_of\_Primary\_Operator = Other | Since Specialty is Other, a description of the specialty is expected | Yes |
| 608 | IR 13 | Specialty Other | Specialty\_Other | Is not null when Specialty\_of\_Primary\_Operator <> Other | Since Specialty is not Other, a description of the specialty is not expected | Yes |
| 300 | IR 14 | Procedure Site and Disease | Procedure\_Site\_and\_Disease | Is Null | Invalid - Null Value | Yes |
| 399 | IR 14 | Procedure Site and Disease | Procedure\_Site\_and\_Disease | Is not a value in predefined list  Ignore if Null | Invalid answer | Yes |
| 613 | IR 15 | Number of Probes Used | Number\_of\_Probes\_Used | Not an Integer number between 1 and 9 and Type\_of\_Ablation\_Procedure = RFA  Ignore if Null | Invalid value. Value should be between 1 and 9. | Yes |
| 300 | IR 16 | Number of Lesions Treated | Number\_of\_Lesions\_Treated | Is Null and Type\_of\_Ablation\_Procedure = RFA | Invalid - Null Value | Yes |
| 399 | IR 16 | Number of Lesions Treated | Number\_of\_Lesions\_Treated | Is not a value in predefined list  Ignore if Null | Invalid answer | Yes |
| 300 | IR 17 | Size of largest lesion | Size\_of\_largest\_lesion | Is Null and Type\_of\_Ablation\_Procedure = RFA | Invalid - Null Value | Yes |
| 616 | IR 17 | Size of largest lesion | Size\_of\_largest\_lesion | Not a numeric value in “00.0” format  Ignore if Null | Invalid - Bad format. Must be a number of format XX.X | Yes |
| 617 | IR 17 | Size of largest lesion | Size\_of\_largest\_lesion | (Is not Null) AND ((Value < 0.1) OR (Value > 30.0)) | Invalid value. Size must be between 0.1 and 30.0 cm | Yes |
| 399 | IR 18 | Image Guidance | Image\_Guidance | Is not a value in predefined list  Ignore if Null | Invalid answer | Yes |
| 399 | IR 19 | Tumour Access | Tumour\_Access | Is not a value in predefined list Ignore if Null | Invalid answer | Yes |
| 300 | IR 20 | Patient Stay | Patient\_Stay | Is Null and Type\_of\_Ablation\_Procedure <> RFA | Invalid - Null Value | Yes |
| 399 | IR 20 | Patient Stay | Patient\_Stay | Is not a value in predefined list  Ignore if Null | Invalid answer | Yes |

# Validations: Content Errors, Record Not Rejected (Level 400)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number** | **Entity** | **Data Element** | **Condition** | **Error Message** | **Reject** |
| 491 | Procedure Site and Disease | Procedure\_Site\_and\_Disease | Procedure Site and Disease <> 'Liver - Hepatocellular carcinoma' and Type\_of\_Ablation\_Procedure <> ‘RFA’ | A site other than "Liver - Hepatocellular carcinoma" was reported for a TACE procedure. Is this correct? | No |
| 492 | Number of Probes Used | Number\_of\_Probes\_Used | Is Null and Type\_of\_Ablation\_Procedure = ‘RFA’ | Warning: since "number of probes used" was not entered for an RFA procedure, it is assumed one probe was used. | No |
| 493 | Number of Probes Used | Number\_of\_Probes\_Used | Is not Null and Type\_of\_Ablation\_Procedure <> ‘RFA’ | Number of Probes Used was reported for a TACE procedure. This is expected only for RFA. | No |
| 494 | Number of Lesions Treated | Number\_of\_Lesions\_Treated | Is not Null and Type\_of\_Ablation\_Procedure <> ‘RFA’ | Number of lesions treated was reported for a TACE procedure. This is expected only for RFA. | No |
| 495 | Size of Largest Lesion | Size\_of\_Largest\_Lesion | Is not Null and Type\_of\_Ablation\_Procedure <> ‘RFA’ | Size of largest lesion was reported for a TACE procedure. This is expected only for RFA. | No |
| 496 | Patient Stay | Patient\_Stay | Is not Null and Type\_of\_Ablation\_Procedure = ‘RFA’ | Patient Stay Modality was reported for an RFA procedure. This information is not required for RFA. | No |

# Validations: Duplicate or Apparent Duplicate Records (Level 500)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Entity** | **Data Element** | **Condition** | **Error Message** | **Reject** |
| 501 | Uniqueness of procedure | Health Card Number  Facility Number  Procedure Date  Type of Ablation Procedure | The four data elements (Health Card Number, Facility Number, Procedure Date, and Procedure Type) are the same for two records in the same file. | Error: Apparent duplicate records | Yes |
| 502 | Facility number | Facility Number | Facility number in the data does not match with the facility number selected on user interface. | Facility number mismatch | Yes |

# Appendix-3: Facility Numbers

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Program Title** | **Submitting Hospital** | **Facility Number** |
| 27 | Interventional Radiology | Halton Healthcare Services | 950 |
| Hamilton Health Sciences Centre - JCC | 942 |
| Kingston General Hospital | 693 |
| Lakeridge Health | 952 |
| London Health Sciences Centre - University Hospital | 899 |
| London Health Sciences Centre - Victoria Hospital | 717 |
| London Health Sciences Centre | 936 |
| North York General Hospital | 632 |
| Royal Victoria Regional Health Center | 606 |
| Sinai Health System | 976 |
| St. Joseph’s Healthcare, Hamilton | 674 |
| St. Joseph’s Health Centre, Toronto | 898 |
| Sunnybrook Health Sciences Centre | 953 |
| The Ottawa Hospital | 958 |
| Trillium Health Partners | 975 |
| University Health Network | 947 |
| Windsor Regional Hospital | 933 |

# Appendix-13: MOHLTC Master Numbering System

The Master Numbering System has been developed for the purpose of bringing together all Health Facilities and Programs under one system of identification. The list is a composite of health and health related units, facilities, clinics, programs and services. Each such organization has been assigned a unique four digit identifying code.

(For details, please refer Cancer Care Ontario's Data Book - 2012-2013, Appendix A: MOHLTC Master Numbering System, at link <https://www.cancercare.on.ca/ext/databook/db1213/documents/Appendix/CCO_Appendix_A_APR_12.pdf>).

# Appendix-11: Valid 2-digit Postal Codes

(Source: Cancer Care Ontario's Data Book - 2012-2013, Appendix B - Province and State codes, at link https://www.cancercare.on.ca/ext/databook/db1213/databook.htm).

The table below provides list of valid 2 digit postal codes for province and State codes.

