

DATA BRIEF- XRT AND BRACHYTHERAPY

Data Captured

- Utilization Data of Overseas Beam Therapy and Brachytherapy, by Insurer Type

Disclaimer & Explanation

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Data briefs are created and posted based on input from a variety of stakeholders and are used for multiple applications. The data presented below are by topic, with specifics such as diagnoses codes and procedures codes often coming from the requestor. As a result, the same topic or condition may show different claims data, due to variability in coding selection. Additionally, as information is received, changes in data capture may occur, which may be corroborated by the dates of the request. Due to the nature of procedure coding, many codes are not mutually exclusive to a specific application or specialty, which means values for office visits, for example, may appear in multiple specialty analytics. Additional information is available, with regard to claim type and diagnosis to discern further follow up, as needed. Finally, analytics for “common” coding in any field are strictly based on identically matching values. It is possible other, frequent codes exist, but may not be captured if entered in multiple varied formats.

The data used to generate this brief includes claims data and expenditure from 1 April 2013 to 31 March 2017. For any clarification or follow up information, please email healthcouncil@bhec.bm. To submit a topic of interest for a data brief, please complete an online [Data Analysis Interest Form](#).

Data & Interpretation

Table 1 represents potential radiotherapy procedures captured within the claim data, between 1st April 2013 and 31st March 2017. Claims are divided by type of insurance provider (public or private). Analysis is presented by procedure code as defined by the ASTRO list of radiation treatment delivery methods¹. (Note: Claims counts do not represent individual patients.)

Category	Procedures	2016-17 Claims Count	2015-16 Claims Count	2014-15 Claims Count	2013-14 Claims Count
Brachytherapy	77761-77768, 77770-77772, 77778, 0394T-0395T, 77789-77790	47	28	10	10
Conventional External Beam Radiation Treatment Delivery	77401-77416, G6003-G6014	826	1427	1595	1601
Intensity Modulated Radiation Therapy (IMRT)	77385-77386, G6015-G6016	860	1247	289	0
Intraoperative Radiation Therapy (IORT)	77424-77425	1	1	0	0
Neutron beam treatment delivery	77422-77423	0	0	0	0

¹ ASTRO is an overseas healthcare provider that defines CPT codes for use, here: <https://www.astro.org/Basics-of-Coding.aspx>

Proton beam treatment delivery	77520-77525	12	23	14	0
SRS treatment delivery	77371-77372	1	4	0	1
SBRT treatment delivery	77373	26	30	29	4

Table 2 represents the diagnosis codes from overseas claims for radiotherapy procedures. *(Note: Diagnosis codes listed are primary diagnosis codes for each claim. Each claim may have up to five associated diagnosis codes.)*

Category (from Table 1)	2017 Diagnoses	
Brachytherapy	185.0	Malignant neoplasm of prostate
	233.0	Carcinoma in situ of breast
	701.4	Keloid Scar
	C53.8	Malignant neoplasm of overlapping sites of cervix uteri
	C54.1	Malignant neoplasm of endometrium
	C61.0	Malignant neoplasm of prostate
	V58.0	Encounter for radiotherapy
	Z17.0	Estrogen receptor positive status
	Z51.0	Encounter for antineoplastic radiation
Conventional External Beam Radiation Treatment Delivery	161.0	Malignant neoplasm of larynx
	162.3	Malignant neoplasm of upper lobe, unspecified bronchus or lung
	173.0	Other and unspecified malignant neoplasm of skin of lip
	173.3	Other and unspecified malignant neoplasm of skin of other and unspecified parts of face
	174.0	Malignant neoplasm of nipple and areola of female breast
	174.1	Malignant neoplasm of central portion of female breast
	174.4	Malignant neoplasm of upper-outer quadrant of female breast
	174.5	Malignant neoplasm of lower-outer quadrant of female breast
	174.8	Malignant neoplasm of other specified sites of female breast
	174.9	Malignant neoplasm of breast (female), unspecified
	180.0	Malignant neoplasm of endocervix
	196.3	Secondary and unspecified malignant neoplasm of axilla and upper limb nodes
	198.5	Secondary malignant neoplasm of bone and bone marrow
	198.81	Secondary malignant neoplasm of breast
	216.8	Other benign neoplasm of skin, unspecified
	233.0	Carcinoma in situ of breast
	692.9	Contact dermatitis and other eczema, unspecified cause
	780.0	General symptoms
	C50.112	Malignant neoplasm of central portion of left female breast
	C50.212	Malignant neoplasm of upper-inner quadrant of right female breast
	C50.411	Malignant neoplasm of upper-outer quadrant of right female breast
	C50.412	Malignant neoplasm of upper-outer quadrant of left female breast
	C50.91	Malignant neoplasm of breast of unspecified site, female
	C50.911	Malignant neoplasm of unspecified site of right female breast
	C50.912	Malignant neoplasm of unspecified site of left female breast
	C53.8	Malignant neoplasm of overlapping sites of cervix uteri
	C67.8	Malignant neoplasm of overlapping sites of bladder
	C79.51	Secondary malignant neoplasm of bone
	C90.30	Solitary plasmacytoma not having achieved remission
	D05.11	Intraductal carcinoma in situ of right breast

Category (from Table 1)	2017 Diagnoses	
	V42	Organ or tissue replaced by transplant
	V58.0	Encounter for radiotherapy
	V86.0	Estrogen receptor positive status
	Z17.0	Estrogen receptor positive status
	Z51.0	Encounter for antineoplastic radiation
Intensity Modulated Radiation Therapy (IMRT)	162.3	Malignant neoplasm of upper lobe, bronchus or lung
	171.3	Malignant neoplasm of connective and other soft tissue of lower limb, including hip
	180.0	Malignant neoplasm of endocervix
	180.9	Malignant neoplasm of cervix uteri, unspecified site
	184.0	Malignant neoplasm of vagina
	185.0	Malignant neoplasm of prostate
	C01	Malignant neoplasm of base of tongue
	C09.9	Malignant neoplasm of tonsil
	C09.8	Malignant neoplasm of overlapping sites of tonsil
	C21.1	Malignant neoplasm of anal canal
	C34.12	Malignant neoplasm of upper lobe, left bronchus or lung
	C50.411	Malignant neoplasm of upper-outer quadrant right female breast
	C50.811	Malignant neoplasm of overlapping sites of right female breast
	C61.0	Malignant neoplasm of prostate
	C73	Malignant neoplasm of thyroid gland
	E86.0	Dehydration
	K12.3	Oral mucositis (ulcerative)
	R13.1	Dysphagia
	R13.12	Dysphagia, oropharyngeal phase
	R63.4	Abnormal weight loss
	V58.0	Encounter for radiotherapy
	V70.0	Routine medical exam
	Z51.0	Encounter for antineoplastic radiation
	Z51.11	Encounter for antineoplastic chemotherapy
Z71.3	Dietary counseling and surveillance	
Z87.891	Personal history of nicotine dependence	
Intraoperative Radiation Therapy (IORT)	174.4	Malignant neoplasm of upper-outer quadrant of female breast
Neutron beam treatment delivery	-	-
Proton beam treatment delivery	V58.0	Encounter for radiotherapy
SRS treatment delivery	V58.0	Encounter for radiotherapy
SBRT treatment delivery	154.1	Malignant neoplasm of rectum
	158.0	Malignant neoplasm of retroperitoneum and peritoneum
	162.5	Malignant neoplasm of lower lobe, bronchus or lung
	233.0	Carcinoma in situ of breast
	C79.31	Secondary malignant neoplasm of brain
	V58.0	Encounter for radiotherapy
	Z51.0	Encounter for antineoplastic radiation therapy

Category (from Table 1)	2016 Diagnoses	
Brachytherapy	180.8	Malignant neoplasm of other specified sites of cervix
	180.9	Malignant neoplasm of cervix uteri, unspecified site
	185.0	Malignant neoplasm of prostate
	D05.11	Intraductal carcinoma in situ of right breast
Conventional External Beam Radiation Treatment Delivery	Z51.0	Encounter for antineoplastic radiation
	154.0	Malignant neoplasm of rectum rectosigmoid junction and anus
	154.1	Malignant neoplasm of rectum
	162.2	Malignant neoplasm of main bronchus
	162.3	Malignant neoplasm of upper lobe, unspecified bronchus or lung
	174.1	Malignant neoplasm of central portion of female breast
	174.2	Malignant neoplasm of upper-inner quadrant of female breast
	174.3	Malignant neoplasm of lower-inner quadrant of female breast
	174.4	Malignant neoplasm of upper-outer quadrant of female breast
	174.8	Malignant neoplasm of other specified sites of female breast
	174.9	Malignant neoplasm of breast (female), unspecified
	180.8	Malignant neoplasm of other specified sites of cervix
	180.9	Malignant neoplasm of cervix uteri, unspecified site
	184.0	Malignant neoplasm of vagina
	185.0	Malignant neoplasm of prostate
	188.2	Malignant neoplasm of lateral wall of urinary bladder
	198.3	Secondary malignant neoplasm of brain and spinal cord
	198.5	Secondary malignant neoplasm of bone and bone marrow
	200.3	Marginal zone lymphoma
	202.8	Other malignant lymphomas
	216.8	Other benign neoplasm of skin, unspecified
	233.0	Carcinoma in situ of breast
	453.4	Acute venous embolism and thrombosis of deep vessels of lower extremity
	758.0	Down's syndrome
	780.0	General symptoms
	794.31	Nonspecific abnormal electrocardiogram
	996.76	Other complications due to genitourinary device, implant, and graft
	C50.412	Malignant neoplasm of upper-outer quadrant of left female breast
	C50.911	Malignant neoplasm of unspecified site of right female breast
	C50.912	Malignant neoplasm of unspecified site of left female breast
	C50.919	Malignant neoplasm of unspecified site of unspecified female breast
	C50.31	Malignant neoplasm of lower-inner quadrant of female breast
	C78.01	Secondary malignant neoplasm of lung
	C79.51	Secondary malignant neoplasm of bone
	D05.11	Intraductal carcinoma in situ of right breast
	E918	* Was not entered with decimal and converts to Caught accidentally in or between objects
V50.8	Other elective surgery for purposes other than remedying health states	
V58.0	Encounter for radiotherapy	
Intensity Modulated Radiation Therapy	142.0	Malignant neoplasm of parotid gland

Category (from Table 1)	2016 Diagnoses	
(IMRT)	146.0	Malignant neoplasm of tonsil
	161.0	Malignant neoplasm of glottis
	161.9	Malignant neoplasm of larynx, unspecified
Intensity Modulated Radiation Therapy (IMRT)	162.2	Malignant neoplasm of main bronchus
	162.9	Malignant neoplasm of bronchus and lung, unspecified
	171.0	Malignant neoplasm of connective and other soft tissue of head, face, and neck
	173.42	Squamous cell carcinoma of scalp and skin of neck
	174.4	Malignant neoplasm of upper-outer quadrant of female breast
	174.9	Malignant neoplasm of breast (female), unspecified
	180.9	Malignant neoplasm of cervix uteri, unspecified site
	185.0	Malignant neoplasm of prostate
	190.5	Malignant neoplasm of retina
	191.1	Malignant neoplasm of frontal lobe
	191.9	Malignant neoplasm of brain, unspecified
	195.0	Malignant neoplasm of head, face, and neck
	196.0	Secondary and unspecified malignant neoplasm of lymph nodes of head, face, and neck
	233.0	Carcinoma in situ of breast
	527.9	Unspecified disease of salivary glands
	608.89	Other specified disorders of male genital organs
	780.0	Alteration of consciousness
	C20	Malignant neoplasm of rectum
	C21.0	Malignant neoplasm of anus, unspecified
	C21.1	Malignant neoplasm of anal canal
	C49.0	Malignant neoplasm of connective and soft tissue, unspecified
	C61.0	Malignant neoplasm of prostate
	C71.3	Malignant neoplasm of parietal lobe
	C71.9	Malignant neoplasm of brain, unspecified
V58.0	Encounter for radiotherapy	
V58.11	Encounter for antineoplastic chemotherapy	
Z51.0	Encounter for antineoplastic radiation therapy	
Intraoperative Radiation Therapy (IORT)	174.9	Malignant neoplasm of breast (female), unspecified
Neutron beam treatment delivery	-	-
Proton beam treatment delivery	V58.0	Encounter for radiotherapy
SRS treatment delivery	198.3	Secondary malignant neoplasm of brain and spinal cord
	V58.0	Encounter for radiotherapy
SBRT treatment delivery	153.9	Malignant neoplasm of colon, unspecified site
	157.1	Malignant neoplasm of body of pancreas
	173.3	Other and unspecified malignant neoplasm of skin of other and unspecified parts of face
	198.3	Secondary malignant neoplasm of brain and spinal cord
	V58.0	Encounter for radiotherapy

Category (from Table 1)	2015 Diagnoses	
Brachytherapy	185.0	Malignant neoplasm of prostate

Category (from Table 1)	2015 Diagnoses	
	591.0	Intraductal carcinoma in situ of right breast
	133.0	Scabies
	154.0	Malignant neoplasm of rectosigmoid junction
	154.1	Malignant neoplasm of rectum
	161.0	Malignant neoplasm of glottis
	162.3	Malignant neoplasm of upper lobe, unspecified bronchus or lung
	162.9	Malignant neoplasm of bronchus and lung, unspecified
	171.3	Malignant neoplasm of connective and other soft tissue of lower limb, including hip
	174.0	Malignant neoplasm of nipple and areola of female breast
	174.1	Malignant neoplasm of central portion of female breast
	174.2	Malignant neoplasm of upper-inner quadrant of female breast
	174.3	Malignant neoplasm of lower-inner quadrant of female breast
	174.4	Malignant neoplasm of upper-outer quadrant of female breast
	174.5	Malignant neoplasm of lower-outer quadrant of female breast
	174.8	Malignant neoplasm of other specified sites of female breast
	174.9	Malignant neoplasm of breast (female), unspecified
Conventional External Beam Radiation Treatment Delivery	178.0	Hereditary hemorrhagic telangiectasia
	179.0	Malignant neoplasm of uterus, part unspecified
	180.8	Malignant neoplasm of other specified sites of cervix
	184.4	Malignant neoplasm of vulva, unspecified site
	185.0	Malignant neoplasm of prostate
	195.0	Malignant neoplasm of head, face, and neck
	198.3	Secondary malignant neoplasm of brain and spinal cord
	198.5	Secondary malignant neoplasm of bone and bone marrow
	198.81	Secondary malignant neoplasm of breast
	202.01	Modular lymphoma, lymph nodes of head, face, and neck
	202.1	Mycosis fungoides
	204.0	Lymphoid leukemia acute
	233.0	Carcinoma in situ of breast
	729.81	Swelling of limb
	V58.0	Encounter for radiotherapy
	V15.3	Personal history of irradiation, presenting hazards to health
	V58.81	Fitting and adjustment of vascular catheter
	174.9	Malignant neoplasm of breast (female), unspecified
Intensity Modulated Radiation Therapy (IMRT)	182.0	Malignant neoplasm of corpus uteri, except isthmus
	184.4	Malignant neoplasm of vulva, unspecified site
	185.0	Malignant neoplasm of prostate
	V49.9	Unspecified problems with limbs and other problems
Intraoperative Radiation Therapy (IORT)	-	-
Neutron beam treatment delivery	-	-
Proton beam treatment delivery	V58.0	Encounter for radiotherapy
SRS treatment delivery	-	-
SBRT treatment delivery	162.3	Malignant neoplasm of upper lobe, bronchus or lung

Category (from Table 1)	2015 Diagnoses	
	192.1	Malignant neoplasm of cerebral meninges
	198.3	Secondary malignant neoplasm of brain and spinal cord
	225.2	Benign neoplasm of cerebral meninges
	V58.0	Encounter for radiotherapy

Category (from Table 1)	2014 Diagnoses	
Brachytherapy	185.0	Malignant neoplasm of prostate
	149.0	Malignant neoplasm of pharynx, unspecified
	150.0	Malignant neoplasm of esophagus
	154.1	Malignant neoplasm of rectum
	160.9	Malignant neoplasm of accessory sinus, unspecified
	162.2	Malignant neoplasm of main bronchus
	162.3	Malignant neoplasm of upper lobe, bronchus or lung
	162.8	Malignant neoplasm of other parts of bronchus or lung
	162.9	Malignant neoplasm of bronchus and lung, unspecified
	170.6	Malignant neoplasm of pelvic bones, sacrum, and coccyx
	171.0	Malignant neoplasm of connective and other soft tissue
	172.3	Malignant melanoma of skin of other and unspecified parts of face
	172.9	Melanoma of skin, site unspecified
	173.3	Other and unspecified malignant neoplasm of skin of other and unspecified parts of face
	173.62	Squamous cell carcinoma of skin of upper limb, including shoulder
	174.1	Malignant neoplasm of central portion of female breast
	174.2	Malignant neoplasm of upper-inner quadrant of female breast
	174.4	Malignant neoplasm of upper-outer quadrant of female breast
	174.5	Malignant neoplasm of lower-outer quadrant of female breast
	174.8	Malignant neoplasm of other specified sites of female breast
	174.9	Malignant neoplasm of breast (female), unspecified
	179.0	Malignant neoplasm of uterus, part unspecified
	180.0	Malignant neoplasm of cervix uteri
	180.1	Malignant neoplasm of exocervix
	180.8	Malignant neoplasm of other specified sites of cervix
	184.0	Malignant neoplasm of other and unspecified female genital organs.
	185.0	Malignant neoplasm of prostate
	193.0	Malignant neoplasm of thyroid gland
	196.0	Secondary and unspecified malignant neoplasm of lymph nodes
	198.3	Secondary malignant neoplasm of brain and spinal cord
	198.5	Secondary malignant neoplasm of bone and bone marrow
	202.8	Other malignant lymphomas
	202.85	Other malignant lymphomas, lymph nodes of inguinal region and lower limb
	203.0	Multiple myeloma and immunoproliferative neoplasms
	203.02	Multiple myeloma, in relapse
	233.0	Carcinoma in situ of breast and genitourinary system
	457.1	Other lymphedema
Conventional External Beam Radiation Treatment Delivery		

Category (from Table 1)	2014 Diagnoses	
Conventional External Beam, cont'd	569.49	Other specified disorders of rectum and anus
	701.4	Keloid scar
	787.91	Diarrhea
	789.07	Abdominal pain, generalized
	V10.44	Personal history of malignant neoplasm of other female genital organs
	V10.87	Personal history of malignant neoplasm of thyroid
	V58.0	Encounter for radiotherapy
	V72.84	Pre-operative examination, unspecified
Intensity Modulated Radiation Therapy (IMRT)	-	-
Intraoperative Radiation Therapy (IORT)	-	-
Neutron beam treatment delivery	-	-
Proton beam treatment delivery	-	-
SRS treatment delivery	198.5	Secondary malignant neoplasm of bone and bone marrow
SBRT treatment delivery	162.3	Malignant neoplasm of upper lobe, bronchus or lung