

**QRRO 2007 Process Survey**  
**All Practice Case Data Aggregate**  
**Summary Report**  
**(Attachment E)**

The **2007 QRRO Process Survey All Practice Case Data Aggregate Report** is specific to all data abstracted from randomly selected eligible cases identified at all participating sites for review. The report is based upon generic and disease site specific radiation oncology current and emerging quality indicators/clinical performance measures developed by QRRO utilizing the American College of Radiology (ACR) Practice Guidelines and Technical Standards, National Comprehensive Cancer Network<sup>®</sup> (NCCN) guidelines and current available scientific literature.

*The report is divided into two sections by indicator type, Non Clinical and Clinical.*

The Non Clinical indicators are further defined as Current and categorized as Documentation, Communication and Consent. The Clinical indicators are further defined as Current and Emerging and are categorized by disease site including, breast, cervix, prostate, lung (NSCLC), lung (LS-SCLC) and gastric. The first column of the report titled, "INDICATOR", is a brief description of each measure. Each individual brief description contains a link to the QRRO website where a detailed description of the measure can be obtained. The second column titled, "DEFINITION", is the indicator defined as a percentage. The third column titled, "YES", indicates the number of cases in the measure denominator that meet the defined criteria. The fourth column titled, "%", indicates the percentage of the cases in the denominator that meet the defined criteria. The fifth column titled, "NO", indicates the number of cases in the measure denominator that did not meet the defined criteria. The sixth column titled, "%", indicates the percentage of the cases in the denominator that did not meet the defined criteria. The seventh and final column titled, "NA", contains the number of cases that are not included in the denominator due to exclusion criteria.

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INDICATOR	DEFINITION	YES	%	NO	%	N/A
<b>I. <u>Non Clinical</u></b>						
<b>Current:</b>						
<b>Documentation:</b>						
1) Initial radiation oncology consultation present in the radiation oncology patient medical record. <a href="http://www.qrro.org/Com_Consent_CPM.pdf">http://www.qrro.org/Com_Consent_CPM.pdf</a>	Percentage of patients receiving radiation therapy that have a written initial radiation oncology consultation present in their radiation oncology medical record.	1792	99.4	10	0.6	50*
2) Treatment (Completion) summary present in the radiation oncology patient medical record. <a href="http://www.qrro.org/Com_Consent_CPM.pdf">http://www.qrro.org/Com_Consent_CPM.pdf</a>	Percentage of patients that received radiation therapy that have a written treatment (completion) summary present in their radiation oncology medical record.	1704	94.6	98	5.4	50*
<b>Communication:</b>						
1) A. Evidence in the radiation oncology patient medical record that the initial consultation was sent to the referring physician. <a href="http://www.qrro.org/Com_Consent_CPM.pdf">http://www.qrro.org/Com_Consent_CPM.pdf</a>	Percentage of patients receiving radiation therapy with evidence in their radiation oncology medical record that the initial written radiation oncology consultation was sent to the referring physician.	1718	95.3	84	4.7	50*
2) A. Evidence in the radiation oncology patient medical record that the treatment (Completion) summary was sent to the referring physician. <a href="http://www.qrro.org/Com_Consent_CPM.pdf">http://www.qrro.org/Com_Consent_CPM.pdf</a>	Percentage of patients that received radiation therapy with evidence in their radiation oncology medical record that the written treatment (completion) summary was sent to the referring physician.	1566	86.9	236	13.1	50*
<b>Consent:</b>						
3) Evidence of documentation of informed consent prior to simulation and treatment. <a href="http://www.qrro.org/Com_Consent_CPM.pdf">http://www.qrro.org/Com_Consent_CPM.pdf</a>	Percentage of patients receiving radiation therapy that have a written signed and witnessed consent document in the radiation oncology patient medical record.	1792	99.4	10	0.6	50*

\*Communications questions were added after data had been collected for 50 patients.

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II. <u>Clinical</u>						
2107 Breast						
Current:						
1) A. Use of external beam regional node irradiation to the chest wall/breast and supraclavicular area in stage III breast cancer patients with $\geq 4$ positive axillary nodes.  <a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a>	Percentage of stage III breast cancer patients with $\geq 4$ positive axillary nodes that receive post chemotherapy external beam irradiation to the chest wall/breast and supraclavicular area	34	100	0	0	408
1) B. Use of external beam regional node irradiation to the chest wall/breast and supraclavicular area in stage II-III breast cancer patients with 1-3 positive axillary nodes.  <a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a>	Percentage of stage II-III breast cancer patients with 1-3 positive axillary nodes that receive post chemotherapy external beam irradiation to the chest wall/breast and supraclavicular area	32	52.5	29	47.5	381
2) Use of external beam irradiation treatment to the supraclavicular field and axillary apex without full axillary radiation in patients with N1 (1-3 positive axillary nodes) disease after axillary dissection.  <a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a>	Percentage of patients with N1 disease that receive supraclavicular field and axillary apex external beam irradiation without full axillary radiation after axillary dissection.	28	87.5	4	12.5	410
3) A. Use of external beam regional nodal irradiation in stage II-III patients with $\geq N1$ stage breast cancer post-Breast Conservation Treatment (BCT).  <a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a>	Percentage of stage II-III patients with $\geq N1$ breast cancer receiving post chemotherapy external beam nodal irradiation following breast conservation treatment.	30	51.7	28	48.3	384

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<p>3) B. Use of external beam regional nodal irradiation in stage II-III patients with <math>\geq</math>N1 breast cancer post-mastectomy.</p> <p><a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a></p>	<p>Percentage of stage II-III patients with <math>\geq</math>N1 breast cancer receiving post chemotherapy external beam nodal irradiation following mastectomy</p>	38	100	0	0	404
<b>Emerging:</b>						
<p>1) A. Use of CT volume-based treatment planning using conformal radiation methods to deliver external beam irradiation</p> <p><a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a></p>	<p>Percentage of patients receiving external beam irradiation delivered with CT volume-based treatment planning using conformal radiation methods.</p>	402	93.9	26	6.1	14
<p>1) B. Use of dose volume histograms for target organs and dose limiting normal tissues when CT volume-based treatment planning using conformal radiation methods is used to deliver external beam irradiation.</p> <p><a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a></p>	<p>Percentage of patients with dose volume histograms for target organs and dose limiting normal tissues when CT volume-based treatment planning using conformal radiation methods is used to deliver external beam irradiation.</p>	261	64.9	141	35.1	40
<p>2) A. Use of CT based treatment planning for all three PBI methods.</p> <p><a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a></p>	<p>Percentage of patients with PBI delivered with CT volume-based treatment planning.</p>	27	100	0	0	415
<p>2) B. Use of a Dose Volume Histogram (DVH), documentation of the planning target volume (PTV) and documentation that the PTV is covered by minimally 90% of the prescription dose when PBI is delivered with CT volume-based treatment planning.</p> <p><a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a></p>	<p>Percentage of patients with a Dose Volume Histogram (DVH), documentation of the planning target volume (PTV) and documentation that the PTV is covered by minimally 90% of the prescription dose when PBI is delivered with CT volume-based treatment planning.</p>	20	74.1	7	25.9	415

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<p>3) Use of accelerated partial breast irradiation (PBI) as the sole radiation modality in appropriate patients with breast conservation: who are <math>\geq 50</math> years of age, have unifocal invasive ductal carcinoma <math>\leq 3</math>cm. in size, have negative microscopic surgical margins of excision and are axillary node negative by dissection or sentinel node biopsy.</p> <p><a href="http://www.qrro.org/Breast_CPM.pdf">http://www.qrro.org/Breast_CPM.pdf</a></p>	<p>Percentage of patients who are <math>\geq 50</math> years of age, have unifocal invasive ductal carcinoma <math>\leq 3</math>cm. in size, have negative microscopic surgical margins of excision and are axillary node negative by dissection or sentinel node biopsy undergoing breast conservation who receive PBI as sole radiation modality.</p>	12	63.2	7	36.8	423
<b>2207 Cervix</b>						
<b>Current:</b>						
<p>1) Delivery of a biologically equivalent dose to Point A of 85 Gy <math>\pm</math> 5 % to patients with IB2-IVA cervical cancer treated with definitive irradiation</p> <p><a href="http://www.qrro.org/Cervix_CPM.pdf">http://www.qrro.org/Cervix_CPM.pdf</a></p>	<p>Percentage of patients with cervical cancer receiving definitive irradiation who receive a biologically equivalent dose of 85 Gy <math>\pm</math> 5% to Point A</p> <p><i>*Algorithms for computing equivalent dose not available</i></p>	*	*	*	*	*
<p>2) Use of brachytherapy in the definitive management of cervical cancer</p> <p><a href="http://www.qrro.org/Cervix_CPM.pdf">http://www.qrro.org/Cervix_CPM.pdf</a></p>	<p>Percentage of patients receiving definitive irradiation for cervical cancer who receive brachytherapy as part of their definitive treatment</p>	209	90.1	23	9.9	30
<p>3) Completion of all radiation treatment in less than or equal to 60 days for patients treated for carcinomas of the intact cervix.</p> <p><a href="http://www.qrro.org/Cervix_CPM.pdf">http://www.qrro.org/Cervix_CPM.pdf</a></p>	<p>Percentage of patients with cervical cancer receiving definitive irradiation who complete treatment within <math>\leq 60</math> days.</p>	136	54.4	114	45.6	12
<p>4) Use of Concurrent Cisplatin-containing chemotherapy with radiation</p> <p><a href="http://www.qrro.org/Cervix_CPM.pdf">http://www.qrro.org/Cervix_CPM.pdf</a></p>	<p>Percentage of patients with cervical cancer receiving definitive irradiation who receive concurrent Cisplatin-containing chemotherapy</p>	173	75.6	56	24.5	33

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Emerging:						
1) Dosimetry with documentation of bladder, rectal and Point A doses for each brachytherapy procedure performed in patients treated for cancer of the intact cervix  <a href="http://www.qrro.org/Cervix_CPM.pdf">http://www.qrro.org/Cervix_CPM.pdf</a>	Percentage of patients with cervical cancer receiving definitive irradiation who have dosimetry with documentation of bladder, rectal, and Point A doses for each brachytherapy procedure.	160	72.4	61	27.6	41
2) Weekly documentation of hemoglobin levels in radiation therapy records  <a href="http://www.qrro.org/Cervix_CPM.pdf">http://www.qrro.org/Cervix_CPM.pdf</a>	Percentage of patients with cervical cancer receiving definitive chemoradiation who have weekly documentation of hemoglobin levels in the radiation therapy records during the course of the chemoradiation treatment	81	39.7	123	60.3	58
2607 Prostate						
Current:						
1) Use of high energy linear accelerators ( $\geq 6$ MV) in men with non-metastatic prostate cancer treated with external beam radiotherapy (photons or protons).  <a href="http://www.qrro.org/Prostate_CPM.pdf">http://www.qrro.org/Prostate_CPM.pdf</a>	Percentage of patients with non-metastatic prostate cancer who receive treatment with protons or high energy photons ( $\geq 6$ MV).	353	99.7	1	0.3	60
2) Use of dose levels $\geq 75$ Gy (or CGE) for non-metastatic intermediate and high-risk prostate cancer treated with external beam radiotherapy alone.  <a href="http://www.qrro.org/Prostate_CPM.pdf">http://www.qrro.org/Prostate_CPM.pdf</a>	Percentage of patients with non-metastatic intermediate and high-risk prostate cancer treated with external beam radiotherapy alone who receive $\geq 75$ Gy (or CGE).*  <i>*Dose not adjusted for bioequivalence</i>	142	72.8	53	27.2	219

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<p>3) Androgen suppression therapy concurrent with external beam radiotherapy for high risk disease. (T3 or Gleason 8-10 or PSA &gt; 20)</p> <p><a href="http://www.qrro.org/Prostate_CPM.pdf">http://www.qrro.org/Prostate_CPM.pdf</a></p>	<p>Percentage of patients with high risk prostate cancer (T3 or Gleason 8-10 or PSA &gt; 20) treated with external beam radiotherapy that receive androgen suppression therapy.</p>	60	87.0	9	13.0	345
<b>Emerging:</b>						
<p>1) Dose-volume histogram evaluation recording dose to PTV, bladder and rectum in men with non-metastatic prostate cancer treated with external beam radiotherapy (photons or protons).</p> <p><a href="http://www.qrro.org/Prostate_CPM.pdf">http://www.qrro.org/Prostate_CPM.pdf</a></p>	<p>Percentage of patients with non-metastatic prostate cancer who receive treatment with external beam radiotherapy (photons or protons) in whom there is documentation of DVH constraints, etc. that are incorporated into the treatment planning process.</p>	337	95.2	17	4.8	60
<p>2) Post-implant dosimetric assessment (D90, V100) following low dose rate brachytherapy</p> <p><a href="http://www.qrro.org/Prostate_CPM.pdf">http://www.qrro.org/Prostate_CPM.pdf</a></p>	<p>Percentage of patients with non-metastatic prostate cancer who receive low dose rate brachytherapy in whom a dosimetric assessment is performed and documented in the medical record.</p> <p><i>*Post-implant dosimetry was unknown for this patient.</i></p>	85	98.8	1*	1.2	328
<p>3) Daily target localization</p> <p><a href="http://www.qrro.org/Prostate_CPM.pdf">http://www.qrro.org/Prostate_CPM.pdf</a></p>	<p>Percentage of patients with non-metastatic prostate cancer who receive treatment with external beam radiotherapy (photons or protons) in whom there is evidence of some form of daily target localization (e.g. BAT, fiducial markers, Calypso, etc).</p>	351	99.1	3	0.9	60
<b>3307 Lung – NSCLC</b>						
<b>Current:</b>						
<p>1) Proper Radiation Therapy Dose</p> <p><a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a></p>	<p>Percentage of patients with stage III non small cell lung cancer (NSCLC) receiving external beam radiotherapy to the thorax with concurrent chemotherapy who receive daily radiation therapy doses to a total dose between 60-74 Gy.*</p> <p><i>*Dose not adjusted for bioequivalence</i></p>	104	88.1	14	11.9	222
<b>Emerging:</b>						

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1) A. Use of CT-based simulation and treatment planning  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with non-metastatic non small cell lung cancer (NSCLC) receiving external beam radiotherapy to the thorax who undergo CT-based simulation and treatment planning.	313	100	0	0	27
2) A. Dose volume histogram (DVH) evaluation recording dose to the planning target volume (PTV), lung, and/or spinal cord  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with non-metastatic non small cell lung cancer (NSCLC) receiving external beam radiotherapy to the thorax in whom there is documentation of DVH constraints that are incorporated into the treatment planning process.	299	95.5	14	4.5	27
3) A. Staging workup for stage III NSCLC includes: (1) brain imaging with either brain MRI or brain CT scan AND (2) imaging with PET or bone scan  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with stage III non small cell lung cancer (NSCLC) receiving combined modality therapy (chemotherapy and external beam radiotherapy to the thorax) in whom there is documentation of staging workup including (1) brain imaging with either brain MRI or brain CT scan AND (2) imaging with PET or bone scan. (Note: The chemotherapy can be administered either sequentially or concurrently with the thoracic radiation therapy).	120	66.3	61	33.7	159
<b>3387 Lung – LS-SCLC</b>						
<b>Current:</b>						
2) Use of Concurrent Chemoradiation  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with good performance status (KPS > 70) limited stage small cell lung cancer (LS-SCLC) receiving external beam radiotherapy to the thorax who receive concurrent chemotherapy with the thoracic radiation.	59	95.2	3	4.8	82
<b>Emerging:</b>						
1) B. Use of CT-based simulation and treatment planning  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with non-metastatic small cell lung cancer (SCLC) receiving external beam radiotherapy to the thorax who undergo CT-based simulation and treatment planning.  <i>*Patient received PCI only – no external beam RT.</i>	142	99.3	1*	0.7	1

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2) B. Dose volume histogram (DVH) evaluation recording dose to the planning target volume (PTV), lung, and/or spinal cord  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with non-metastatic small cell lung cancer (SCLC) receiving external beam radiotherapy to the thorax in whom there is documentation of DVH constraints that are incorporated into the treatment planning process.	137	95.8	6	4.2	1
3) B. Staging workup for limited stage (LS)-SCLC includes: (1) brain imaging with either brain MRI or brain CT scan AND (2) imaging with bone scan or PET scan.  <a href="http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf">http://www.qrro.org/Lung%20NSCLC_SCLC_CPM.pdf</a>	Percentage of patients with LS-small cell lung cancer (LS-SCLC) receiving external beam radiotherapy to the thorax in whom there is documentation of staging workup including (1) brain imaging with either brain MRI or brain CT scan AND (2) imaging with bone scan or PET scan.	120	83.9	23	16.1	1
<b>3707 Gastric</b>						
<b>Current:</b>						
1) Use of postoperative (adjuvant) chemoradiotherapy  <a href="http://www.qrro.org/Gastric_CPM.pdf">http://www.qrro.org/Gastric_CPM.pdf</a>	Percentage of patients with Stage IB – IV (non-metastatic) gastric cancer who receive adjuvant chemoradiotherapy after an R0 surgical resection.  <i>*Use of CT-based treatment plan recorded as unknown</i>	112	100	0	0	138
2) Completion of planned RT course within the prescribed time frame  <a href="http://www.qrro.org/Gastric_CPM.pdf">http://www.qrro.org/Gastric_CPM.pdf</a>	Percentage of patients with gastric cancer receiving adjuvant chemoradiotherapy after an R0 surgical resection who complete radiotherapy within 33 to 45 days.	85	68.0	40	32.0	125
<b>Emerging:</b>						
1) A. Use of CT-based simulation and treatment planning  <a href="http://www.qrro.org/Gastric_CPM.pdf">http://www.qrro.org/Gastric_CPM.pdf</a>	Percentage of patients with Stage IB – IV (non-metastatic) gastric cancer receiving adjuvant chemoradiation who undergo CT-based simulation and treatment planning.	243	99.6	1	0.40	6

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<p>1) B. Use of image-guided tools, other than computed tomography scans, for radiation therapy (RT) target delineation.</p> <p><a href="http://www.qrro.org/Gastric_CPM.pdf">http://www.qrro.org/Gastric_CPM.pdf</a></p>	<p>Percentage of patients treated with chemoradiation for gastric cancer whose radiation therapy target delineation or treatment delivery includes image-guided tools, other than computed tomography scans.</p>	44	18.0	200	82.0	6
<p>2) Use of Dose volume histograms (DVH) to evaluate normal tissue doses to the kidneys and liver.</p> <p><a href="http://www.qrro.org/Gastric_CPM.pdf">http://www.qrro.org/Gastric_CPM.pdf</a></p>	<p>Percentage of patients receiving adjuvant chemoradiation whose treatment planning included the generation of dose volume histograms (DVH) to evaluate normal tissue doses to the kidneys and liver.</p>	180	76.6	55	23.4	15
<p>3) Use of preoperative (neoadjuvant) chemoradiotherapy</p> <p><a href="http://www.qrro.org/Gastric_CPM.pdf">http://www.qrro.org/Gastric_CPM.pdf</a></p>	<p>Percentage of patients with non-metastatic gastric cancer receiving pre-operative (neoadjuvant) chemoradiation for gastric cancer.</p>	35	18.7	152	81.3	63