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**Health Services Cost Review Commission**

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To: Chief Financial Officers

From: Christopher N. Konsowski,  Chief, Audit & Compliance

Date: May 14, 2015

Re: Respiratory Therapy Relative Value Units

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On May 13, 2015, the Health Services Cost Review Commission approved for review and public comment the revisions to the Relative Value Unit (RVU) scale for Radiation Therapy (RAT) services. The revisions are specific to the Chart of Accounts and Appendix D of the Accounting and Budget Manual. A work group comprising of experienced hospital and clinical personnel was formed to address concerns regarding RAT. The RVU scale was updated to reflect new additions the Current Procedural Terminology (CPT) codes, changes in clinical practices and to eliminate "By Report" to ensure standardized charging practices for RAT services. The Maryland Hospital Association's HSCRC Technical Issues Task Force has approved these revisions.

Please have your Radiation Therapy and finance department personnel review these proposed RVUs. If these proposed RVUs are approved by the Commission, they would be effective July 1, 2015.

Comments should be sent to my attention and received in this office by May 28, 2015 by fax at 410-358-6217 or email at [chris.konsowski@maryland.gov](mailto:chris.konsowski@maryland.gov).

**SECTION 200**  
**CHART OF ACCOUNTS**

7360 Radiation- Therapeutic

Function

This cost center provides radiation therapy services as required for the care and treatment of patients under the direction of a qualified radiation oncologist. Therapeutic radiology services include consultation, patient education, physician planning, simulation, dosimetry planning, blocking and shaping, quality assurance, treatment delivery, image guidance, on-treatment assessment, and follow-up. Therapeutic radiation may be delivered using a variety of radiation sources including external photon beams, external live radiation source, intracavitary live radiation source, implantable live radiation source, intraoperative radiation, and particle beam therapy. The most common radiation therapy modalities include but are not limited to 3-D conformal treatment (“3-D”), Intensity Modulated Radiation Therapy (“IMRT”), Image Guided Radiation Therapy (“IGRT”), Stereotactic Radiosurgery (“SRS”), Stereotactic Body Radiation Therapy (“SBRT”), brachytherapy, and intraoperative radiation therapy (“IORT”). Details and descriptions of radiation therapy services and terminology can be found on the websites of the Centers for Medicare and Medicaid Services, the National Cancer Institute, and the American Society for Radiation Oncology.

Description

This cost center includes the direct expenses incurred in providing therapeutic radiology services. Included in these direct expenses are: salaries and wages, employee benefits, professional fees (non-physician), supplies, purchased services, maintenance costs (maintenance contracts or bio-medical engineering costs if done in-house) on principal equipment, facility costs, other direct expenses, and transfers.

Standard Unit of Measure: Relative Value Units

Therapeutic Radiology RVUs were assigned using the 2015 CMS Physician Fee Schedule, technical component or global RVUs. The RVU Assignment Protocol is detailed in the Appendix D Standard Unit of Measure References, account number 7360.

Data Source

The number of RVUS shall be the actual count maintained by the Therapeutic Radiology cost center.

Reporting Schedule

Schedule D – Line D34

**APPENDIX D**  
**STANDARD UNIT OF MEASURE REFERENCES**

**Account Number**

7360

**Cost Center Title**

**Radiology Therapeutic**

**Approach**

Therapeutic Radiology Relative Value Units were developed by an industry task force under the auspices of the Maryland Hospital Association. The descriptions of codes in this section of Appendix D were obtained from the 2015 edition of the Current Procedural Terminology (CPT) manual and the 2015 edition of the Healthcare Common Procedure Coding System (HCPCS). In assigning RVUs the group used the [2015 Medicare Physician Fee schedule \(MPFS\)](#). RVUs were assigned using the following protocol (“RVU Assignment Protocol”).

The RVUs reported in the 2015 MPFS include 2 decimal points. In order to maintain whole numbers in Appendix D, while maintaining appropriate relative value differences reported in the MPFS, the RVU work group agreed to remove the decimals by multiplying the reported RVUs by ten and then rounding the product of the calculation, where values less than X.5 are rounded down and all other values are rounded up.

1. CPT codes with RVUs listed in the MPFS.
  - a. For CPT codes with RVUs that include both professional (modifier 26) and technical (modifier TC) components, use only the technical (TC) component RVU.
  - b. CPT codes with only a single RVU listed
    - a. CPT codes that are considered technical only (such as treatment codes), the single RVU reported will be used.
    - b. CPT codes considered professional only (such as weekly treatment management and physician planning), are not listed in Appendix D.
2. CPT codes that do not have RVUs listed in the MPFS.
  - a. CPT 77387 did not have a published RVU in the MPFS. The RVU work group agreed the work activity associated with this code is similar to CPT 77014. Given the similarity of the work activity, it was determined the same RVU should be applied to CPT 77387.
  - b. CPT codes 77424 and 77425 did not have published RVUs in the MPFS. The RVU work group agreed the work activity associated with these codes is similar to CPT 77787. Given the similarity of the work activity, it was determined the same RVU should be applied to CPTs 77424 and 77425.
  - c. CPT 77520 did not have a published RVU in the MPFS. The code does have an OPFS APC relative value weight, and it is valued the same as CPTs 77385 and 77386. It was determined the RVUs for 77385 and 77386 should be applied to CPT 77520.
  - d. CPT 77522, 77523, and 77525 did not have published RVUs in the MPFS. These codes are in the same family of services as CPT 77520. The codes have an OPFS APC with a relative value weight 2.112 times greater than the APC for CPT 77520. It was determined CPT codes 77522, 77523, and

77525 should each have the same RVU which is calculated by multiplying 2.112 to the RVU of CPT 77520.

- e. CPT 77402 did not have a published RVU in the MPFS. This is a code where Medicare’s hospital based fee schedule and physician fee schedule differ. Since the 2015 MPFS is being used as the source for RVUs, the corresponding CPT value is G6003. The RVU work group used the same RVU for G6003 for CPT 77402.
- f. CPT 77407 did not have a published RVU in the MPFS. This is a code where Medicare’s hospital based fee schedule and physician fee schedule differ. Since the 2015 MPFS is being used as the source for RVUs, the corresponding CPT value is G6007. The RVU work group used the same RVU for G6007 for CPT 77407.
- g. CPT 77412 did not have a published RVU in the MPFS. This is a code where Medicare’s hospital based fee schedule and physician fee schedule differ. Since the 2015 MPFS is being used as the source for RVUs, the corresponding CPT value is G6011. The RVU work group used the same RVU for G6011 for CPT 77412.
- h. CPT 77371 did not have a published RVU in the MPFS, and it was determined there was not a similar CPT for benchmarking. Table 1 provides the methodology employed to assign RVUs of 378 to CPT 77371.

**Table 1: CPT 77371 RVU Assessment**

**CPT 77371 Gamma Knife Treatment Delivery RVU Assignment**

- a. Step One, Determine a base CPT: CPT 77385 and 77386 were used as a base to which the work associated with CPT 77371 could be compared and extrapolated. CPT 77385 and 77386 each have a RVU of 11.15
- b. Step Two, Determine the comparative work components for the CPT in question (77371). These are the work components for which the relative workload will be evaluated against the base CPTs 77385 and 77386.

Component	Weighting	Weighting Methodology
Initial Set-up	65%	The setup for SRS treatment is 4Xs the work effort of an IMRT setup - criticality of coordinate system - application of frame
Treatment	20%	It takes on average 3Xs the amount of time to deliver an SRS Cobalt Based treatment vs. IMRT
QA	7.50%	The QA process is 50% less work effort than with IMRT
Resources	7.50%	The treatment delivery is managed by the Medical Physics personnel as compared to therapists for IMRT delivery. Physicists are 2Xs the resource intensity as IMRT therapists

- c. Step Three, Extrapolate the RVU value

	Initial S/U	Treatment	QA	Resources			
Weighting	65%	20%	7.50%	7.50%			
Base RVU	11.15	11.15	11.15	11.15			
Multiplier	4	3	0.5	2	Sum	Multiplier	RVUs
Total RVUs	28.99	6.69	0.42	1.67	37.77	10	378

3. CPT codes for which the published RVU did not make sense,
  - a. CPT 77333 had a RVU that did not seem reasonable as compared to CPT 77332 and 77334, which are in the same family of codes and clinical services. It was determined the RVU for CPT 77333 should be the average value of CPT codes 77332 and 77334.

### **CPT Codes without an Assigned RVU Value**

An effort was made to assign RVUs to all codes that were effective in 2015. In the case of CPT codes listed as 'By Report', hospitals should assign RVUs based on the time and resource intensity of the service provided compared to like services in the department.

For new codes developed and reported by CMS after the 2015 reporting, these codes are considered to be "By Report". When assigning RVUs to these new codes, hospitals should use the RVU Assignment Protocol described above where possible. Documentation of the assignment of RVUs to codes not listed in Appendix D should always be maintained by the hospital.

<u>CPT Code</u>	<u>Procedure</u>	<u>RVU</u>
61793	<del>Stereotactic Focused Proton Beam or Gamma Radiosurgery</del>	175
—	<del>Reset/set Treatment Field — The redefining a previously simulated field</del>	6
77014	Computed tomography guidance for placement of radiation therapy fields	20
77280	Therapeutic radiology simulation-aided field setting; simple	66
77285	Therapeutic radiology simulation-aided field setting; intermediate	104
77290	Therapeutic radiology simulation-aided field setting; complex	120
77293	Respiratory motion management (list separately in addition to code for primary procedure)	101
77295	3-Dimensional radiotherapy plan, including dose-volume histograms	74
77299	Unlisted procedure, therapeutic radiology clinical treatment planning	By Report
77300	Basic radiation dosimetry calculation, central axis depth dose, TDF, NSD, gap calculation, off axis factor, tissue inhomogeneity factors, calculation of non-ionizing radiation surface and depth dose, as required during course of treatment, only when prescribed by the treating physician	9
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications	425
77305	<del>Teletherapy, isodose plan (whether hand or computer calculated); simple (one or two parallel opposed unmodified ports directed to a single area of interest)</del>	15
77306	Teletherapy isodose plan; simple (1 or 2 unmodified ports directed to a single area of interest), includes basic dosimetry calculation(s)	20
77307	Teletherapy isodose plan; complex (multiple treatment areas, tangential ports, the use of wedges, blocking, rotational beam, or special beam considerations), includes basic dosimetry calculation(s)	37
77310	<del>Intermediate (three or more treatment ports directed to a single area of interest)</del>	20
77315	<del>Complex (mantle or inverted Y, tangential ports, the use of wedges, compensators, complex blocking, rotational beam or special beam considerations)</del>	30
77316	Brachytherapy isodose plan; simple (calculation[s] made from 1 to 4 sources, or remote afterloading brachytherapy, 1 channel), includes basic dosimetry calculation(s)	32
77317	Brachytherapy isodose plan; intermediate (calculation[s] made from 5 to 10 sources, or remote afterloading brachytherapy, 2-12 channels), includes basic dosimetry calculation(s)	41

77318	Brachytherapy isodose plan; complex (calculation[s] made from over 10 sources, or remote afterloading brachytherapy, over 12 channels), includes basic dosimetry calculation(s)	56
77321	Special teletherapy port plan, particles, hemibody, total body	12
77326	<del>Brachytherapy isodose calculation; simple (calculation made from single plane, one to four sources/ribbon application, remote afterloading brachytherapy, 1 to 8 sources)</del>	20
77327	<del>Intermediate (multiplane dosage calculations, application involving 5 to 10 sources/ribbons, remote afterloading brachytherapy, 9 to 12 sources)</del>	25
77328	<del>Complex (multiplane isodose plan, volume implant calculations, over ten sources/ribbons used, special spatial reconstruction, remote afterloading brachytherapy, over 12 sources)</del>	35
77331	Special dosimetry (e.g., TLD, microdosimetry) (specify), only when prescribed by the treating physician	5
77332	Treatment devices, design and construction; simple, <del>to include prefabricated blocks (simple block, simple bolus)</del>	15
77333	<del>Treatment devices, design and construction; intermediate, to include prefabricated blocks (multiple blocks, stents, bite blocks, special bolus)</del>	20
77334	<del>Treatment devices, design and construction; complex (irregular blocks, special shields, compensators, wedges, molds or casts)</del>	25
77336	Continuing medical <del>radiation</del> physics consultation, including assessment of treatment parameters, quality assurance of dose delivery, and review of patient treatment documentation in support of therapeutic radiologist, <del>including continuing quality assurance reported per week of therapy</del>	21
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan	79
77370	Special medical radiation physics, consultation	32
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; multi-source Cobalt 60 based	378
77372	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based	297
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions	377
77375	<del>3D Reconstruction of the Tumor</del>	204
77385	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; simple	112
77386	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; complex	112

77387	Guidance for localization of target volume for delivery of radiation treatment delivery, includes intrafraction tracking, when performed	20
77399	Unlisted procedure, medical radiation physics, dosimetry and treatment devices	By Report
77401	Radiation treatment delivery, superficial and/or ortho voltage, per day	6
77402	Radiation treatment delivery, single treatment area, single port or parallel-opposed ports, simple blocks or no blocks; up to 5 MeV >1 MeV; simple	45
77403	6–10 MeV	6
77404	11–19 MeV	7
77406	20 MeV or greater	8
77407	Radiation treatment delivery, two separate treatment areas, three or more ports on a single treatment area, use of multiple blocks; up to 5 MeV >1 MeV; intermediate	72
77408	6–10 MeV	7
77409	11–19 MeV	8
77411	20 MeV or greater	9
77412	Radiation treatment delivery, three or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, special particle beam (e.g., electron or neutron); up to 5 MeV >1 MeV; complex	77
77413	6–10 MeV	9
77414	11–19 MeV	10
77416	20 MeV or greater	11
77417	Therapeutic radiology port film(s)	3
77422	High energy neutron radiation treatment delivery; single treatment area using a single port or parallel-opposed ports with no blocks or simple blocking	9
77423	High energy neutron radiation treatment delivery; 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)	18
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session	147
77425	Intraoperative radiation treatment delivery, electrons, single treatment session	147
77470	Special treatment procedure (e.g., total body irradiation, hemibody irradiation, per oral, vaginal cone irradiation)	13
74999	Unlisted procedure, therapeutic radiology treatment management	By Report
77520	Proton treatment delivery, simple, without compensation	112
77522	Proton treatment delivery, simple, with compensation	235
77523	Proton treatment delivery, intermediate	235

77525	Proton treatment delivery, complex	235
77600	Hyperthermia, externally generated; superficial (i.e., heating to a depth of 4 cm or less)	90
77605	Hyperthermia, externally generated; deep (i.e., heating to depths greater than 4 cm)	183
77610	Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators	266
77615	Hypothermia generated by interstitial probe(s); more than 5 interstitial applicators	252
77620	Hyperthermia generated by intracavitary probe(s)	105
77750	Infusion or instillation of radioelement solution	31
77761	Intracavitary <del>radioelement</del> radiation source application; simple	53
77762	Intracavitary radiation source application; intermediate	61
77763	Intracavitary radiation source application; complex	79
77776	Interstitial <del>radioelement</del> radiation source application; simple	64
77777	Interstitial radiation source application; intermediate	54
77778	Interstitial radiaton source application; complex	80
77781	Remote afterloading high intensity brachytherapy; 1-4 source positions or catheters	60
77782	5-8 source positions or catheters	70
77783	9-12 source positions or catheters	80
77784	Over 12 source positions or catheters	90
77785	Remote afterloading high dose rate radionuclide brachytherapy; 1 channel	46
77786	Remote afterloading high dose rate radionuclide brachytherapy; 2-12 channels	90
77787	Remote afterloading high dose rate radionuclide brachytherapy; over 12 channels	147
77789	Surface application of <del>radioelement</del> radiation source	17
77790	Supervision, handling, loading of <del>radioelement</del> radiation source	12
77799	Unlisted procedure, clinical brachytherapy	By Report