Coding Guidance for Use of CT Image Guidance Related to IMRT Planning and Treatment Delivery

IMRT is a technology for delivering highly conformal external beam radiation therapy to a well-defined treatment volume. IMRT treatment planning and delivery can provide a more conformal target coverage and normal tissue sparing than 2-D or 3-D treatment planning and treatment delivery. IMRT is particularly useful for producing highly conformal dose distributions needed to irradiate targets positioned near, or immediately adjacent to, sensitive normal tissues.

Image guidance may be used to direct the radiation beam or to track motion during IMRT treatment delivery. A variety of techniques may be used to perform guidance including imaging (i.e., ultrasound, CT, MRI and stereoscopic imaging) and non-imaging (i.e., electromagnetic or infrared tracking) techniques.

**IMRT Treatment Planning**

Effective January 1, 2017, CMS issued updated guidance on the CPT codes that may be reported with 77301 *IMRT Treatment Planning* for developing an IMRT treatment plan. Payment for the services identified by CPT codes 77014, 77280, 77285, 77290, 77295, 77306, 77307, 77321, and 77331, are included in the payment for CPT code 77301 (IMRT planning). These codes should not be reported in addition to CPT code 77301 when provided prior to or as part of the development of the IMRT plan. Additionally, CPT code 77280 Simulation aided field setting should not be reported for verification of the treatment field during the course of IMRT.

CPT Code 77370 *Special Medical Radiation Physics Consultation* cannot be used for a QA or development of the treatment plan. There may be certain clinical scenarios where the physician will need a special physics consult after the development of the plan.

CPT Code 77014 should not be billed for CT imaging used in the development of the IMRT treatment plan.

**Use of CPT Code 77014 during IMRT Treatment Delivery**

In 2014, CPT code 77014 *Computed Tomography Guidance for Placement of Radiation Therapy Fields* was packaged into simulation codes 77280, 77285 and 77290. As a result, CPT Code 77014 can only be billed to describe the CT image guidance used to direct the radiation beam or to track motion during the process of treatment delivery.

CT guidance can accurately define positioning adjustments for target localization for daily delivery of IMRT treatments. Three-dimensional CT (MV or kV CT) images are acquired on the treatment system for image guided patient localization prior to the delivery of each fraction. CPT Code 77014 can be delivered using one of three systems:

- Helical Tomo Therapy
- Integrated cone beam CT (MV or kV)
- CT on rails

Image guidance is a critical component in the delivery of IMRT and CPT Code 77014 *Computed Tomography Guidance for Placement of Radiation Therapy Fields* is one of several image guidance techniques which can be used. A radiation oncologist, or a medical physicist or trained therapist under the supervision of the radiation oncologist, reviews the automated image fusion and makes manual or
automatic adjustments as necessary. These images may be used for subsequent planning
target volume (PTV) determination adapting to patient- specific PTV or online guidance.

A medical physicist, or trained radiation therapist under the supervision of the radiation
oncologist, must perform the scan. The physician must review any necessary patient positioning
adjustments and review all CT images in near real time.

Application of Image Guidance Codes with IMRT Based on Site of Service
A new CPT code for image guidance was created in 2015:
- **77387**: Guidance for localization of target volume for delivery of radiation treatment
delivery, includes intrafraction tracking, when performed.

However, CPT code 77387 did not receive an assigned reimbursement value in the MPFS.
Providers billing under Medicare were instructed to report IGRT services using the following
Healthcare Common Procedure Coding System (HCPCS) G-codes and CPT code:
- **G6001**: Ultrasonic guidance for placement of radiation therapy fields
- **G6002**: Stereoscopic X-ray guidance for localization of target volume for the
delivery of radiation therapy
- **G6017**: Intra-fraction localization and tracking of target or patient motion during
delivery of radiation therapy (e.g., 3D positional tracking, gating, 3D surface
tracking), each fraction of treatment
- **77014**: Computed tomography guidance for placement of radiation therapy fields

Please see the table below for an outline of IGRT reporting requirements in regard to their
application with the delivery of IMRT. It is extremely important to check with your payer
before submitting claims, as requirements and policies vary by payer.

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<th>FREESTANDING SETTING</th>
<th>HOSPITAL SETTING</th>
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<tr>
<td>IMRT Delivery with IGRT</td>
<td><strong>Office bills</strong>&lt;br&gt;• IMRT code: <strong>G6015</strong> or <strong>G6016</strong>. If reporting CPT code: 77385 or 77386&lt;br&gt;• IGRT code: <strong>G6001</strong>, <strong>G6002</strong>, <strong>G6017</strong> and/or <strong>77014</strong> (global)</td>
<td><strong>Hospital bills</strong>&lt;br&gt;• IMRT code: <strong>77385</strong> or <strong>77386</strong></td>
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<td><strong>Physician bills</strong>&lt;br&gt;• IGRT code: <strong>G6001</strong>, <strong>G6002</strong>, <strong>G6017</strong> and/or <strong>77014</strong> with -26 PC modifier.&lt;br&gt;Some payers accept 77387-26; please consult your local payer&lt;br&gt;Note: G6017 is a technical component only and cannot be billed with the -26 PC modifier.</td>
<td><strong>Note: When performing conventional treatment delivery with IGRT, 77387-TC is not separately reimbursable. However, it is extremely important to still report 77387-TC separately for tracking purposes and non-HOPPS payers.</strong>&lt;br&gt;<strong>Physician bills</strong>&lt;br&gt;• IGRT code: <strong>G6001</strong>, <strong>G6002</strong>, <strong>G6017</strong> and/or <strong>77014</strong> with -26 modifier (PC)&lt;br&gt;• Some payers accept 77387; please consult your local payer</td>
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<td>Conventional Treatment Delivery with IGRT</td>
<td><strong>Office bills</strong>&lt;br&gt;• Treatment delivery code: <strong>G6003-G6014</strong>&lt;br&gt;• IGRT code: <strong>G6001</strong>, <strong>G6002</strong>, <strong>G6017</strong> and/or <strong>77014</strong> (global)&lt;br&gt;<strong>Physician bills</strong>&lt;br&gt;• IGRT code: <strong>G6001</strong>, <strong>G6002</strong>, <strong>G6017</strong> and/or <strong>77014</strong> with -26 modifier (PC)</td>
<td><strong>Hospital bills</strong>&lt;br&gt;• Treatment delivery code: <strong>77402, 77407 or 77412</strong>&lt;br&gt;• IGRT code: <strong>77387</strong> with –TC modifier</td>
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<td>Conventional Treatment Delivery without IGRT</td>
<td><strong>Office bills</strong>&lt;br&gt;• Treatment delivery code: <strong>G6003-G6014</strong></td>
<td><strong>Hospital bills:</strong>&lt;br&gt;• Treatment delivery code: <strong>77402, 77407 or 77412</strong></td>
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