INTERVENTIONAL PAIN MANAGEMENT: EVOLVING ISSUES FOR 2003

Laxmaiah Manchikanti, MD and Vijay Singh, MD

The new millennium has seen the introduction of an array of new Current Procedural Terminology® (CPT) codes and the expansion of interventional techniques. Among the many issues of interest to physicians practicing interventional pain management in 2003 are CPT coding, correct coding issues, and utilization. The CPT developed and updated by the American Medical Association, is the most important and commonly used coding system for interventional pain physicians in the United States. A recent development in the CPT system has been to include Category I. Category II. and Category III CPT codes. Inclusion of a code in Category I is generally based on the procedure being consistent with contemporary medical practice and being performed by many physicians in clinical practice in multiple locations. In contrast, CPT Category III, also known as emerging technology codes, is a set of temporary codes for emerging technology, services, and procedures. There have been many new codes since 2000, along with changes in the definitions of the codes and vignettes.

In order for the correct coding initiative to be effective, it is essential that the coding describes what actually transpires at each patient encounter. When multiple procedures are performed at the same session, the procedure and post-procedure work do not have to be repeated for each procedure, and, therefore, a comprehensive code describing the multiple services commonly performed together can be used. Thus, many activities which are integral to a procedure are considered as generic activities and are assumed to be included as acceptable medical/surgical practice and, while they couldn't be performed separately, they should not be considered as such when a code narrative is defined. Under this initiative, almost all interventional techniques are affected.

The utilization of interventional techniques in the modern era is the final issue. Utilization has been increasing gradually. Thus, it is important for interventional pain physicians to understand the utilization patterns across the nation and for various techniques.

This review will discuss the issues of CPT coding, correct coding, and utilization as they pertain to interventional techniques.

Keywords: Interventional pain management, CPT coding, correct coding issues, utilization, comprehensive code, component code.

In recent years, interventional pain management has evolved as a distinct specialty. Interventional pain management is defined as the discipline of medicine devoted to the diagnosis and treatment of pain and related disorders with the application of interventional techniques in managing subacute, chronic, persistent, and intractable pain, independently or in conjunction with other modalities of treatment. In addition, the new millennium has seen the introduction of an array of new CPT codes and the expansion of interventional techniques. Along with this progress, there has also been the threat of extinction of interventional pain management, which started in 1998 when CMS (then HCFA) proposed a drastic reduction in reimbursement for interventional procedures. With this progress, we also have inherited a multitude of problems such as controlled substance use and abuse, correct coding and billing, appropriate documentation, and the threat of fraud and abuse. A multitude of these issues are becoming a part of daily lives for interventional pain physicians. Thus, 2003 is no different. Evolving issues of 2003 include: understanding CPT coding, correct coding issues, and utilization patterns.

PROCEDURAL CODING SYSTEM

<u>Current Procedural Terminology</u>[®] (CPT), developed and updated by the American Medical Association (AMA), is the most commonly used coding system not only in the United States, but also in other countries. CPT is a tabular listing of "most known encounters" with patients. These encounters vary in location, as well as intensity, and include both "cognitive" and "procedural" services. Thus, CPT provides a uniform nomenclature and a logical sequence of codes for describing all medical encounters, including interventional pain medicine encounters, not only in an accurate and compre-

hensive manner, but also functioning as a short hand for understanding the service. Beginning in 2002, CPT also has adapted a three level coding system. The second popular coding systems is HCFA's (now known as CMS) common procedural coding system known as HCPCS. HCPCS is a three-level coding system with level I coding incorporating the CPT codes, level II incorporating the system of national alphanumeric codes that begin with a letter followed by four numbers generally used to report supplies and injections to Medicare and other payors, and level III incorporating five-digit alphanumeric codes applicable only to specific localities or states and used by local Medicare carriers for very unusual procedures for which there is no other level I or level II code available.

Nomenclature

CPT nomenclature is a listing of descriptive terms, guidelines and identifying codes for reporting medical services and procedures. The purpose of this nomenclature is to provide a uniform language

From Pain Management Center of Paducah, Paducah, KY and Pain Diagnostics Associates, Niagara, WI. Address Correspondence: Laxmaiah Manchikanti, MD, 2831 Lone Oak Road, Paducah, Kentucky 42003. E-mail: drm@apex.net

Inclusion of Category I CPT code descriptor and its associated specific fivedigit identifying code number in CPT coding is generally based on the procedure being consistent with contemporary medical practice and performed by many physicians in clinical practice in multiple locations. Inclusion of a procedure/ service in CPT coding does not represent endorsement by the American Medical Association (AMA) of any particular diagnostic or therapeutic procedure, nor does it imply any health insurance coverage or reimbursement policy.

The first edition of Current Procedural Terminology[®] published in 1966 contained primarily surgical procedures, with limited sections on medicine, radiology, and laboratory procedures. When first published, CPT coding used a fourdigit system. The second edition, published in 1970, presented an expanded system of terms and codes to designate diagnostic and therapeutic procedures in surgery, medicine and the specialties. It was at that time that the five-digit codes were introduced, replacing the former fourdigit system. Another significant change to the book was to list procedures related to internal medicine.

In the mid to late 1970s, the third and fourth editions of CPT nomenclature were introduced. The fourth edition, published in 1977, represented significant updates in medical technology, and a system of periodic updating was introduced to keep pace with the rapidly changing medical environment.

In 1983, CPT nomenclature was adapted as part of the Centers for Medicare and Medicaid Services (CMS), formerly Health Care Financing Administration (HCFA), Healthcare Common Procedure Coding System (HCPCS). With this adaptation, CMS mandated the use of HCPCS to report services for Part B of the Medicare program. In October 1986, CMS also required state Medicaid agencies to use HCPCS in the Medicaid Management Information System. In July 1987, as part of the Omnibus Budget Reconciliation Act, CMS mandated the use of CPT codes for reporting outpatient hospital surgical procedures.

Today, in addition to use in federal programs (Medicare and Medicaid), the CPT nomenclature is used extensively throughout the United States as the preferred system of coding to describe health care services. In August 2000, the CPT code was named as a national standard under the Health Insurance Portability and Accessibility Act of 1996 (HIPAA).

Level I – CPT Nomenclature

Level I, is the American Medical Association's CPT nomenclature. CPT nomenclature makes up the majority of the HCPCS coding system. Most of the procedures and services performed by physicians and other health care professionals, even with respect to Medicare patients, are reported with CPT codes.

Level II – National Codes

Level II, are the national codes which are assigned, updated, and maintained by CMS. These codes describe services and supplies not found in the CPT code set. Some examples of the procedures and services described by Level II national codes include durable medical equipment, ambulance services, medical/surgical supplies, drugs, orthotics and prosthetics, dental procedures, and vision services.

Level III – Local Codes

These codes are assigned by local Medicare carriers to describe procedures and services not identified in the other two levels of HCPCS codes. These codes are also five-character alphanumeric codes beginning with a single letter W through Z. Updates and revisions to these codes may occur at any time.

CPT nomenclature has expanded to include 3 categories of codes, namely category I, II and III.

Category I CPT Codes

Inclusion of a code in Category I, is generally based on the procedure being consistent with contemporary medical practice and being performed by many physicians in clinical practice in multiple locations. CPT codes in Category I describe a procedure or service identified with a five-digit CPT code, which also includes a descriptor nomenclature.

Category II CPT Codes

Category II codes are intended to facilitate data collection by coding certain services and/or test results that are agreed upon as contributing to positive health outcomes and quality patient care. These codes may be services that are typically included in an Evaluation and Management (E/M) service or other component part of a service and are not appropriate for regular Category I CPT codes. Thus, Category II codes are a set of optional tracking codes, developed principally for performance measurement.

Category III CPT Codes

CPT Category III (Emerging Technology) codes are a set of temporary codes for emerging technology, services and procedures. Category III CPT codes will allow data collection for these services/procedures.

An important part of the reasoning behind the development of Category III codes was the length and requirements of the CPT approval process, which conflicted with the needs of researchers for coded data to track emerging technology services throughout the research process. The CPT Editorial Panel at a minimum requires that:

- services/procedures be performed by many health care professionals across the country;
- FDA approval be documented or be imminent within a given CPT cycle; and
- the service/procedure has proven clinical efficacy.

As such, the Category III CPT codes may not conform to the usual CPT code requirements. For services/procedures to be eligible for Category III codes, the service/procedure must have relevance for research, either ongoing or planned. Another important consideration in the development of Category III codes is the elimination of local codes under HIPAA. The August 17, 2000, Final Rule supports the elimination of local codes and the transition to national standard code sets. Many of the local codes were temporary codes used by payers until services/ procedures were more fully substantiated through research and received a CPT code. Thus, Category III codes can take the place of temporary, local codes used for this purpose.

Category III codes are assigned an alphanumeric identifier with the "T" letter in the last field (0027T). These codes are located in a separate section of the CPT book. Category III CPT codes are not referred to the AMA/Specialty RVS Update Committee (RUC) for evaluation because no relative value units (RVUs) will be assigned. Payment for these services/procedures is based on the policies of payers and not on a yearly fee schedule.

These codes will be archived after 5 years if the code has not been accepted for placement in the Category I section of the CPT book, unless it is demonstrated that a Category III code is still needed. These archived codes will not be reused. Of particular interest to interventional pain physicians is development of a Category III code for spinal endoscopy (0027T) effective January 1, 2001.

THE DEFINITION OF CPT CODES

Each CPT code has its own definition. A comprehensive revision of the spinal section of the CPT nervous system section in 2000 reflected the systematic organization of a series of codes to differentiate the specific spinal anatomy and types of substances injected (2). Further clarifications and definitions also have been revised and appeared in 2002 and 2003.

The comprehensive revision to the spine injections procedures in the year 2000 included the addition of 4 new codes, the revision of 5 codes, and the deletion of 9 codes to differentiate multiple issues, including time and complexity, differences between subarachnoid and epidural routes of administration, differences relating to single injection and a continuous infusion, and differences related to injections performed at the cervical, thoracic, lumbar, or sacral levels of the spine. Differences also related to injections of various substances, including opioids, steroids, and neurolytics. CPT 2000 and 2002 also clarified the issue of unilateral and bilateral procedures. All the injection procedure codes are considered unilateral procedures. Therefore, all the spinal injection procedures are considered unilateral procedures. Hence, these codes are reported once per level, per side (right or left) regardless of the number or types of injections performed on the right or left side at a specific spinal level. If bilateral injections are performed at a specific spinal level, then the appropriate modifier-50 should be used.

CPT code 76005 identifies the use of fluoroscopic guidance to assist in accurately localizing specific spinal anatomy for placement of a needle or cathe-

ter tip for the spine or paraspinous diagnostic or therapeutic injection procedures such as epidural, transforaminal epidural, subarachnoid, paravertebral facet joint or paravertebral facet joint nerve, including neurolytic agent destruction. In addition, fluoroscopic guidance is also required to perform paravertebral facet joint nerve destruction by neurolytic agent or sacroiliac joint injections. CPT 2000, clarified the corresponding use of radiology codes, namely, the fluoroscopy guidance and localization code 76005, epidurography code 72275, sacroiliac joint arthrography code 73542, and discography supervision and interpretation codes 72240, 72255, 72265, and 72270. CPT code 76005 is not bundled in the determination of relative value units for many of the procedures where it is used. However, it is bundled with the value of adhesiolysis codes 62263 and 62264. CPT 76005 does not represent a formal contrast study.

CPT 2002 confirmed that CPT 27096 – injection procedure for sacroiliac joint, arthrography and/or anesthetic/steroid should be used only with CPT 76005. When fluoroscopy is not used, this code should not be used.

Most recently, CPT 2003 provided the following definitions and new codes relevant to interventional pain management:

- 01991 anesthesia for diagnostic or therapeutic nerve blocks and injections (when block or injection is performed by a different provider); other than the prone position
- 01992 anesthesia for diagnostic or therapeutic nerve blocks and injections (when block or injection is performed by a different provider); prone position
 - 01996 daily <u>hospital</u> management of epidural or subarachnoid <u>continuous</u> <u>drug administration</u>
- 62263 percutaneous lysis of epidural adhesions using solution injection (eg, hypertonic saline, enzyme) or mechanical means (eg, spring wound catheter) including radiologic localization (includes contrast when administered), <u>multiple</u> <u>adhesiolysis sessions; 2 or more days</u>
- 62264- one day
 62284 injection

3.

7.

- 62284 injection procedure for myelography and/or computerized axial tomography <u>computed tomography</u>, spinal (other than C1-C2 and posterior fossa) 64415 – brachial plexus, single
- 64415 brachial plexus, single
- 64416 brachial plexus, continuous infusion by catheter (including catheter

placement) including daily management for anesthetic agent administration

- 9. 64445 sciatic nerve, single
- 64446 sciatic nerve, continuous infusion by catheter, (including catheter placement) including daily management for anesthetic agent administration
- 11. 64447 femoral nerve, single
- 64448 femoral nerve, continuous infusion by catheter (including catheter placement) including daily management for anesthetic agent administration
- 96530 Refilling and maintenance of an implantable pump or reservoir <u>for drug</u> <u>delivery, systemic (eg, intravenous, intraarterial)</u>
- 95990 Refilling and maintenance of implantable pump or reservoir for drug delivery; spinal (intrathecal, epidural) or brain (intraventricular).

Vignettes

When an application is submitted for a CPT code, a vignette is submitted along with the application. Thus, what is seen in the definition of the CPT code in the CPT book may not be enough to understand the real definition of the CPT code. It may be important to look at the vignettes of each procedure. The classic example is CPT 62263, the definition of which was as follows:

percutaneous lysis of epidural adhesions using solution injection (eg, hypertonic saline, enzyme) or mechanical means (eg, spring wound catheter) including radiologic localization (includes contrast when administered).

Nowhere in the description does it mention that the procedures has to be performed on a 2 or 3-day basis. However, a multitude of questions were raised and AMA published a clarification. Essentially we were informed that we could not use 62263 for a 1-day procedure. Subsequently, the American Society of Interventional Pain Physicians obtained permission from the CPT Editorial Committee to use 62263 as a 1-day procedure with modifier-52 and bill at a reduced price for physician charges.

However, effective January 1, 2003 or April 2003, CPT 62264 is available to utilize for 1-day adhesiolysis procedure. The vignette submitted for both the procedures was of lumbar epidural adhesiolysis. The question remains if the code could be used for thoracic or cervical adhesiolysis. Physicians who would like to employ adhesiolysis in thoracic and cervical region should contact AMA for the information and use unlisted codes until they obtain approval from AMA.

CODING GUIDELINES

Separate Procedures

Separate procedures are procedures commonly carried out as an integral part of a "larger procedure" and as such should not be coded separately or in addition to the procedure of which it is a part. In the past, epidural injections were considered as separate procedures, thus, they were excluded to be coded separately or in addition to the procedure of which it is a part. However, when the epidural injection procedures were revised, this designation was eliminated. Thus, at the present time, for interventional pain medicine procedures, none of the procedures are listed as separate procedures. However, we should remember the correct coding policies which do include component and mutually exclusive procedures for each procedure.

Unlisted Procedure Service

It is common in interventional pain medicine to perform a procedure that is not listed in the current edition of the CPT manual. Thus, the CPT manual recognizes that there may be services or procedures performed by physicians that are not found in the CPT. This is more so with interventional pain medicine with the development of new procedures. Generally, CPT code development lags several years behind the technology. Hence, a number of specific code numbers have been designated for reporting such unlisted procedures. However, when an unlisted procedure code is used, the service or procedure should be described and a special report or copy of the operative report should be submitted with the appropriate claim form. The unlisted procedure codes for interventional pain medicine are at the end of each anatomic section and end in the numbers –99.

Special Report

Current Procedural Terminology also describes a "special report." It is a service that is rarely provided, unusual, variable, or new and may require a special report in determining the medical appropriateness of the service (3, 4). Hence, pertinent information in this special report should include an adequate definition or description of the nature, extent, and need for the procedure; and the time, effort, and equipment necessary to provide the service. Further, the special report may encompass complexity of symptoms, final diagnosis, pertinent physical findings, diagnostic and therapeutic procedures, concurrent problems, and follow-up care.

It is common to enclose a special report whenever an unlisted procedure or service code is utilized.

Add-on Codes

Add-on codes are codes that are never used by themselves. For example, subsequent facet joint nerve block would always be used with the facet joint nerve block, a single level. Similarly it applies to subsequent transforaminal epidural injections, and neurolytic blocks of facet joint nerves. The work values for add-on codes have been determined to represent the work of the add-on code only, and so, when an add-on code is used, the modifier -51 used to designate additional procedure or multiple procedures is not used.

While this is followed for physician services by some, it is rarely followed for surgical center services as carriers routinely apply modifier -51. In addition, most private carriers do not follow add-on code rules and they generally reduce by addition of a modifier -51, both for physician and facility services.

Starred Procedures

The "*" is used to identify certain surgical procedures. Certain relatively small surgical services involve a readily identifiable surgical procedure but include variable preoperative and postoperative services. Most of the interventional pain medicine procedures are categorized with a "*" except codes such as CPT 62263 – percutaneous lysis of epidural adhesions, CPT 62287 – aspiration or decompression procedure, implantation codes (CPT 62350 to 62368), cervical and lumbar facet joint nerve blocks (CPT 64470 to 64476), transforaminal epidural injections (CPT 64479 to 64484) and all neurolytic blocks.

Because of the indefinite pre- and post-operative services, the "usual package" concept for surgical services is not applied. Thus, when a "*" follows a surgical procedure code number, the follow-

ing rules apply:

1

2.

3.

4.

The service listed includes the surgical procedure only. Associated pre- and post-operative services are not included in the service as listed.

Preoperative services are considered as one of the following:

- When the starred procedure is carried out at the time of an initial visit (new patient) and this procedure constitutes the major service at that visit, procedure number 99025 is listed in lieu of the usual initial visit as an additional service (3, 4).
- When the starred procedure is carried out at the time of an initial or established patient visit involving significant identifiable services, the appropriate visit is listed with the modifier –25 appended in addition to the starred procedure and its follow-up care.
- When the starred procedure requires hospitalization, an appropriate hospital visit is listed in addition to the starred procedure and its follow-up care.

All postoperative care is added on a service-by-service basis.

Complications are added on a service-byservice basis.

However, in practice, almost all evaluation and management services are denied for starred procedures – while performing a procedure and billing for an E/ M service and procedure(s) is acceptable to most carriers, including Medicare and Medicaid; billing for an established patient with modifier –25, while not reimbursed, may also lead to fraud and abuse investigation(s). Definition of modifier – 25 is as follows:

 Significant, separately identifiable evaluation and management service by the same physician on the same day of the procedure or other service

Thus, E/M service has to be not only a significant service (not routine), but also a separately identifiable E/M service (separate from the evaluation required for the procedure). If a patient presents for a lumbar transforaminal epidural injection, but also presents with a new onset (onset after the last visit) neck pain (never documented on any of the evaluations), a physician may conduct an evaluation and bill for an appropriate level of E/M service, in addition to the procedure. In some circumstances, the level and complexity of E/ M service may be higher than the procedural service; in such cases the physician may only bill for E/M service, instead of the procedure.

CORRECT CODING ISSUES

Omnibus Budget Reconciliation Act (OBRA) was enacted in 1989. OBRA of 1989, Section 6102 of P.L. 101-239 amended title XVIII of the Social Security Act, dealing with payment for physicians' services. The addition of this new section (section 1848), provided a resource based relative value scale (RBRVS) fee schedule in 1992. RBRVS, thus replaced reasonable charge mechanism of actual, customary, and prevailing charges. The National Correct Coding Council was created by CMS (HCFA), which initiated the National Correct Coding Committee (NCCC) to develop strategies for HCFA's Bureau of Program Operations to control improper coding leading to inappropriate or increased payments in Part B claims. As a direct outgrowth of NCCC's work, CMS (HCFA) established the National Correct Coding Policy in 1996 and eventually implemented the Medicare Correct Coding Initiative (CCI) to identify and isolate inappropriate coding, unbundling, and other irregularities in coding. Several versions of the National Correct Coding Policies have been released in the form of National Correct Coding manuals starting with version 5.0 up to the most recent publication 9.3 in December 2002. CCI audits are developed by Adminastar Federal. In addition, HCFA also has utilized unpublished coding edits referred to as "black-box edits," which, essentially, are a system of payment denials to be used by carriers based on commercial guidelines. As a result of numerous complaints and arguments against the use of black-box edits, they were finally eliminated in the year 2000. Prior to the development of CCI edits, Medicare Part B carriers included in their claims-processing systems various computerized edits to detect improper coding of procedures, which at the time was designated as fragmentation.

NATIONAL CORRECT CODING POLICY

In consideration of the monumental changes in outpatient coding resulting from the many proposals in 1999, 2000, 2001, 2002, and 2003 by CMS (HCFA), compounded by the development of multiple new codes and revision of codes along with the deletion of codes by the AMA for *CPT 2000, 2001, 2002, and 2003*, and the use of modifiers and ambulatory payment classifications by CMS (HCFA), CMS officials have acknowledged that they have assigned over 100,000 coding edits to edit approximately 5,600 CPT codes Part B carriers use to analyze claims. These edits will be applied to physician services, services provided in ambulatory surgical centers, and hospital outpatient department claims.

The NCCC's policies are based on established coding conventions defined in the American Medical Association's (AMA's) Current Procedural Terminology (CPT) manual, national and local policies and edits, coding guidelines developed by national societies, analysis of standard medical and surgical practice, and reviews of current coding practices.

Correct coding essentially means reporting a group of procedures with the appropriate comprehensive code. Under the CCI, CMS (HCFA) has developed general policies that define the coding principles and edits that apply to procedure and service codes.

Correct coding policies have influenced the patterns of billing and coding of all facets of medicine, including interventional pain medicine. Installation of the Correct Coding edits went into effect January 1, 1996. Since then, Medicare claims of inappropriate coding by providers and, thus, rejections, have multiplied, resulting in substantial cost savings for the Medicare program. With the passage of the Health Insurance Portability and Accountability Act of 1996 (HR 3103), correct coding practices have become part of the requirement to obtain proper payment from Medicare, rather than an option. The CMS's (HCFA's) current coding policies and edits apply when the same provider bills for all the procedures involved, or when the services for the same beneficiary were provided on the same day.

Correct Coding Policies

In order for the CCI to be effective, it is essential that the coding description accurately describes what actually transpired at each patient encounter. A multitude of codes reflect the wide spectrum of services provided by various medical providers, and many medical services can be rendered by different methods and combinations of various procedures. Hence, multiple codes describing similar services are frequently necessary to accurately reflect the particular service a physician performs. However, when multiple procedures are performed at the same session, the procedure and postprocedure work do not have to be repeated for each procedure, and, therefore, a comprehensive code describing the multiple services commonly performed together can be used. Many activities which are integral to a procedure are considered as generic activities and are assumed to be included as acceptable medical/surgical practice and, while they could be performed separately, they should not be considered as such when a code narrative is defined. Hence, all services integral to accomplishing a procedure will be considered to be included in that procedure and, therefore, will be considered a component and part of the comprehensive code (7).

Standards of Medical/Surgical Practice

Many of the provider activities during a procedure are integral to a procedure and termed as generic activities, which are assumed to be included as acceptable medical/surgical practice, considered included in that procedure and considered a component of the procedure. Some generic services integral to standard medical/surgical services include:

- Cleansing, shaving, and prepping of the skin;
- Draping of the patient;
- Positioning of the patient;
- Insertion of intravenous access;
- Administration of sedation;
- Local, topical, or regional anesthetic administration;
- Identification the of surgical approach;
- Surgical cultures;
- Wound irrigation;

٠

- Insertion and removal of drains, suction devices, dressings, and pumps;
 - Application, management and removal of postoperative dressings, including transcutaneous electrical nerve stimulation units and institution of patient-controlled analgesia;
- Preoperative, intraoperative, and postoperative documentation; and
- Surgical supplies, unless excepted by existing HCFA policy.

Medical/Surgical Package

Over the years the CPT manual has grown to accommodate the expanding variety of surgical, diagnostic, and therapeutic surgical, as well as nonsurgical, procedures performed. In general, most services include associated preprocedure and postprocedure work; when perfor-med at a single patient encounter, the preprocedure and postprocedure work is relatively fixed, regardless of the number of services actually performed at each session. For interventional pain procedures, some general guidelines can be developed. Thus, the following services are considered integral to an interventional procedure and are included in the CPT code description for the primary or comprehensive procedure. Such component services are:

- Intravenous access, e.g., CPT codes 36000, 36140, 36400, 36410, 37201, 37202 and 90780 - 90784;
- Cardiopulmonary monitoring, e.g., CPT codes 31500, 93000, 93005, 93040, 93041, 94656, 94760, 94761, or 94770;
- Billing of successful service only;
- Anesthesia by physician or conscious sedation, e.g., CPT codes 99141 and 99142.

Add-on Codes

The CPT coding system identifies certain codes that are submitted with other codes. These codes are identified generally with a statement such as, "List separately in addition to code for primary procedure" in parentheses. The supplemental code is to be used only with certain primary codes that are identified in parentheses. The purpose of these CPT codes is to enable providers to separately identify a service that is performed in certain situations as an additional service (3-6). Incidental services that are necessary to accomplish the primary procedure, such as injection of contrast, are not separately reported. Iatrogenic complications arising in the course of a procedure such as a catheter kink or malfunction requiring a replacement are not separately reported.

Add-on codes relevant to interventional pain management are: subsequent transforaminal epidural injections (CPT codes 64480 and 64484), facet joint blocks (CPT codes 64472 and 64476), and facet joint neurolysis (CPT codes 64623 and 64627).

Modifiers

In order to expand the information provided by the five-digit CPT codes, a number of modifiers have been created by the AMA, CMS (HCFA), and local Medicare carriers. These modifiers, in the form of two digits, either numbers, letters, or a combination of each, are intended to convey specific information regarding the procedure or service to which they are appended (3-7). Modifiers are attached to the end of a code to indicate that a service or procedure described in the code definition has been modified by some circumstance. However, explicit understanding of the purpose of each modifier is required prior to its usage. It is also essential to recognize that modifiers may be different for each locality. In addition, it is essential to understand the specific meaning of the modifier for the payor to which a claim is being submitted before using it. For example, all modifiers described in the CPT code manual are not accepted by CMS, third-party payors, Compensation carriers, and local carriers. Similarly, modifiers developed by CMS or local Medicare carriers are not accepted by third-party carriers or Worker's Compensation carriers. Meanwhile, Compensation carriers and third-party carriers also have developed their own modifiers in some jurisdictions.

Within the context of multiple-services reporting, without the addition of an appropriate modifier, it will appear that providers are engaging in the practice of "unbundling." The appropriate use of modifiers indicates that the services were performed under circumstances which did not involve this practice at all.

The CMS (HCFA) identified modifier - 59 for use when several procedures are performed on different anatomic sites, or at different sessions on the same day. This is considered as a distinct procedural service and the specific proposed language is: "Under certain circumstances, the physician may need to indicate that a procedure or service was distinct or independent from other services performed on the same day." Modifier - 59 is used to identify procedures/services that are not normally reported together, but are appropriate under the circumstances. However, modifier - 59 should be used only when no more descriptive modifiers such as an anatomic modifier or the stagedprocedure modifier is available.

Modifier - 50 is used to report bilateral procedures. Until April 1, 2000, CMS (HCFA's) took a position that facet joint injections and neurolytic blocks and transforaminal injection codes were unilateral. However, in April 2000, CMS (HCFA) recognized that these are bilateral codes, both for physicians services and ambulatory surgical centers.

Modifiers that identify the special

circumstances in which modifiers as described above could be used are listed in Table 1.

Excluded Services

Even though Medicare program has identified some services as "excluded services," they have not been included in CCI audits.

Correct Coding in Interventional Pain Management

Many of the interventional pain management codes are subject to CCI edits. This is a dynamic process, which changes every 3 months. Table 2 shows illustrations of the most commonly used interventional techniques showing component and mutually exclusive codes.

Table 3 shows an abbreviated version of illustration of the most commonly used interventional techniques showing component and mutually exclusive codes.

Utilization of Interventional Techniques

Interventional techniques are performed by a variety of physicians.

Table 4 shows the frequency of utilization of lumbar epidural injections CPT 62311; injections(s) of tendon sheath, tendon origin, and trigger point injections (CPT 20550); and joint injections (CPT 20600, 20605, 20610) (11). This illustrates the variation in utilization patterns. Thus far, there is no special data available for either pain specialists or interventional pain specialists. Data available is based on retrospective estimations. In the future, we

Table 1. Modifiers that identify special circumstances in interventional pain management

1.	LT – left side (used to identify procedures per- formed on the left side of the body)
2.	RT – right side (used to identify procedures performed on the right side of the body)
3.	25 – significant, separately identifiable eval- uation and management service by the same physician on the same day of the procedure or other service
4.	58 – staged or related procedure or service by the same physician during the postopera- tive period
5.	59 – distinct procedural service
6.	78 – return to the operating room for a related procedure during the postoperative period
7.	79 – unrelated procedure or service by the same physician during the postoperative pe- riod

	Component Code(s)		
Comprehensive Code	Modifier I – (allowed under "special circumstances")	o (allowed under "no circumstances")	Mutually Exclusive Codes
20551/20552 –Trigger point injections	10160, 11900, 11901, 20500, 20526, 29075, 29015, 29125, 29130, 29220, 29260, 29405, 29425, 29450, 29515, 29530, 29540, 29550, 29580, 29590, 36000, 36410, 37202, 62318, 62319, 76000, 90780, 90782	69990, J2000	20552, 20553 (only for 20551)
20600 – small joint injection	10060, 10061, 10140, 10160, 11719, 20500, 20526, 20550, 20551, 20552, 20553, 25259, 26340, 29065, 29075, 29085, 29105, 29125, 29130, 29260, 29280, 29365, 29405, 29425, 29505, 29515, 29540, 29550, 29580, 29590, 36000, 36410, 37202, 62318, 62319, 64415, 64416, 64417, 64450, 64708, 72240, 72265, 76000, 90780, 90782, 95900, G0127	00400, 01380, 69990, J2000	11010
20605 –intermediate joint injection	10060, 10061, 10140, 10160, 11900, 12011, 15852, 20526, 20550, 20551, 20552, 20553, 24300, 25259, 26340, 29065, 29075, 29085, 29105, 29125, 29126, 29240, 29260, 29405, 29425, 29445, 29595, 29515, 29540, 29580, 29590, 29705, 36000, 36410, 37202, 64415, 64416, 64417, 64450, 64550, 64704, 76000, 90780, 90782, 95900	00400, 01380, 69990, J2000	11010
20610 – major joint injection	10060, 10061, 10140, 10160, 11900, 12001, 12002, 12020, 12031, 12044, 15851, 20500, 20501, 20550, 20551, 20552, 20553, 24300, 25259, 26340, 29065, 29075, 29085, 29105, 29125, 29130, 29240, 29260, 29345, 29355, 29365, 29405, 29425, 29505, 29515, 29530, 29540, 29580, 36000, 36410, 37202, 64415, 64416, 64417, 64450, 64550, 64553, 64718, 72255, 72265, 72295, 76000, 76080, 90780, 90781, 90782, 95900, G0168	00400, 01380, 69990, J2000	11010
62270 - spinal puncture, diagnostic	36000, 36410, 37202, 62273, 62311, 64415, 64416, 64417, 64450, 64470, 64475, 64483, 76000, 76001, 76003, 90780	00635, 69990	None
62272 – spinal puncture, therapeutic	36000, 36410, 37202, 62270, 62273, 62310, 62311, 64415, 64416, 64417, 64450, 64470, 66447, 66447, 664470, 66447, 664470, 66447, 664470, 66470, 6670, 6670, 6670, 6670, 6670, 6670, 6670, 6670, 6670, 6670, 6670, 66700, 66700, 66700, 66700, 66700, 66700, 66700, 6	00635	None
62273 - epidural, blood patch	36000, 36140, 36410, 37202, 62310, 62311, 64415, 64416, 64417, 64450, 64470, 64475, 64479, 64478, 76000, 76001, 76003, 90780	69990, G0001	None
62280 - subarachnoid neurolytic injection	36000, 36410, 37202, 62270, 62272, 62273, 62284, 62310, 62311, 62318, 62319, 64415, 64416, 64417, 64450, 64470, 64475, 64479, 64483, 76000, 76001, 76003, 90780	01905, 69990	None
62281 - neurolytic epidural, C/T	dural, C/T 36000, 36410, 37202, 62270, 62272, 62273, 62284, 62310, 62318, 62319, 64415, 64416, 64417, 64450, 64470, 64475, 64479, 72275, 76000, 76001, 76003, 90780		None
62282 - neurolytic epidural, L/S	36000, 36410, 37202, 62270, 62272, 62273, 62311, 62318, 62319, 64415, 64416, 64417, 64450, 64470, 64475, 64483, 72275, 76000, 76001, 76003, 90780	01905,69990	None
62287 – disc decompression	36000, 36410, 37202, 62290, 62310, 62311, 62318, 62319, 64415, 64416, 64417, 64450, 64470, 64475, 64479, 64483, 76000, 76001, 76005, 90780	69990	22224, 22558, 63005, 63017, 63030,63042, 63056
62318 - epidural or subarachnoid, catheterization, C/T	20605, 20610, 36000, 36140, 36410, 62270, 62272, 62284, 62310, 72275, 76000, 76001, 76003, 90780	01991, 01992, 01996, 69990	62273, 64479
62319 - catheterization, epidural, L/S	20605, 20610, 36000, 36140, 36410, 62270, 62272, 62284, 62311,72275, 76000, 76001, 76003, 90780	01991, 01992, 01996, 69990	62273, 64483
64415/64416 – branchial plexus, single/continuous	20550, 20551, 20552, 90780 (20553, 36000, 36410 for 64416 only)	01991, 01992, 69990 (01996 for 64416)	None
64445/64446 – sciatic nerve, single /continuous	20550, 20551, 20552, 20553, 36000, 36410, 90780	01991, 01992, 69990, (01996 for only 64446)	None
64447/64448 – femoral nerve, single/ continuous	20550, 20551, 20552, 20553, 36000, 36410, 90780	01991, 01992, 01996, 69990	None
64420 - single intercostal NB 64421 – Multiple intercostal NB	20550, 20551, 20552, 20553, 36000, 36410, 90780, (64420 only for 64421)	01991, 01992, 69990	None
62263 – adhesiolysis; 2 or 3 days	36000, 36410, 37202, 62281, 62282, 62284, 62310, 62311, 62318, 62319, 64415, 64417, 64450, 64470, 64475, 64479, 64483, 64722, 72265, 76000, 76003, 76005, 90780	00600, 00604, 00620, 00630, 00670, 62264, 69990,72275	62281, 62282
62264 – adhesiolysis; one day	36000, 36410, 37202, 62281, 62282, 62284, 62310, 62311, 62318, 62319, 64415, 64417, 64450, 64470, 64475, 64479, 64483, 64722, 72265, 76000, 76003, 76005, 90780	00600, 00604, 00620, 00630, 00670 69990, 72275	0027T, 62281, 62282
62290 – lumbar discography 62291 – cervical discography	36000, 36410, 37202, 62318, 62319, 64415, 64416, 64417, 64450, 64470, 64475, 76000, 76005, 90780, (62311, 64483 only for 62290), (62310, 64479 only for 62291)	01905, 69990	None
62310/62311 – cervical / lumbar epidural	20605, 20610, 36000, 36140, 36410, 37202, 62284, 64415, 64416, 64417, 64450, 64470, 64475, 72275, 76000, 76001, 76003, 90780, (62318 only for 62311). (62319 only for 62310)	01991, 01992, 69990	64483 for 62311 64479 for 62310
64620 – intercostal neurolysis	36000, 36410, 37202, 62311, 62318, 62319, 64415, 64417, 64420, 64421, 64450, 64470, 66427, 90780	69990	None
64622/64626 – Cervical/lumbar facet neurolysis	36000, 36410, 37202, 62311, 2318, 62319, 64415, 64416, 64417, 64450, 64470, 64475, 76000, 76001, 76003, 90780	69990	None
64640 – peripheral nerve neurolysis	36000, 36410, 37202, 62310, 62311, 62318, 62319, 64405, 64408, 64410, 64412, 64413, 64415, 64417, 64418, 64425, 64435, 64445, 64446, 64447, 64448, 64450, 64470, 64475, 00780	69990	None

Table 2. Illustrations of the most commonly used interventional techniques showing component and mutually exclusive codes

Component Codes	nt Comprehensive Code														
	20550	20551	20552	27096	62264	62281	62282	62284	62287	62290	62291	62310	62311	62318	62319
0027T					Y										
01991 & 01992												х	х	х	х
20600				х											
20605 & 20610				х								х	х	х	х
62270						Х	Х	Х						Х	Х
62273						Х	Х	Х						Y	Y
62281					Х										
62282					Х			Х							
62284					Х	Х						Х	Х	Х	Х
62310					Х	Х			Х		Х			Х	
62311					Х		Х		Х	Х					Х
62318		Х	Х	Х	Х	Х	Х		Х	Х	Х		Х		
62319		Х	Х	Х	Х	Х	Х		Х	Х	Х	Х			
64475				Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		
64479					Х	Х		Х	Х		Х	Y		Y	
64483					Х	Х	Х	Х	Х	Х			Y		Y
69990		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
76000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
76001				Х		Х	Х	Х	Х			Х	Х	Х	Х
76003	Х			Х	Х	Х	Х	Х				Х	Х	Х	Х
76005				Х	Х			Х	Х	Х	Х				

 Table 3. Illustrations of the most commonly used interventional techniques showing component and mutually exclusive codes

X - Component Codes. Y – Mutually Exclusive Codes.

0027T - spinal endoscopy; 01991 - anesthesia code; 01992 - anesthesia code; 20550 - tendon sheath injection; 20551 - tendon sheath injection; 20552 - tendon sheath injection; 20520 - tendon sheath i

will be able to obtain this data for pain management in 2002 and interventional pain management in 2003 and beyond. No data is available with new trigger point injection codes CPT 20551 and CPT 20552. Based on the available data, the highest utilization of CPT 20550 was by podiatry with 240,120 procedures, of which only 1% were performed in a facility setting, closely followed by anesthesiology with 173,058 procedures, 44% of which were performed in a facility setting, and by orthopedic surgery with 172,257, of which only 2% were performed in facility setting. Another major utilization, trigger point injections, was by family practice, rheumatology, physical medicine and rehabilitation, and internal medicine. Only a small number of joint injections were provided by anesthesiologists with an increasing number provided by physiatrists.

The majority of the large joint injections were provided by orthopedic surgeons. CPT 62311, describing lumbar epidural steroid injection, was the most commonly utilized interventional procedure, with a total utilization of 702,713, of which 81% were performed in a facility setting. The majority of them, (543,270), were performed by anesthesiologists, followed by physiatrists, orthopedic surgeons, group practice setting, and radiologists. CRNAs also have performed 16,701 procedures in 2001 on Medicare population, which is higher than neurology (9,337) and neurosurgery (8,456).

Table 5 shows the summary of frequency of utilization of various categories of interventional procedures in the Medicare population from 1998 to 2001 (8-11). However, these do not include any trig-

ger point injections or intraarticular injections except sacroiliac joint injections. Among the epidural spinal and disc injections, most of the injections are performed consistently in a facility setting, which fluctuated between 76% to 82%. Further, disc injections CPT 62290 and CPT 62291 are not approved for surgical center settings. The facet joint blocks and neurolytic blocks are also consistently performed at a higher number in facility settings varying from 62% to 73%. In contrast, other types of nerve blocks are performed less than 50% of the time in facility settings. Overall, 67% to 70% of the procedure are performed in facility settings. There also has been significant growth in interventional procedures from 1999 to 2000 and 2000 to 2001 (13% vs 17%). There was no significant growth from 1998 to 1999.

Specialty	20550*	20600*	20605*	20610*	62311*
Total (All Specialties)	1,182,148 (9%)	332,894 (3%)	409,805 (5%)	3,036,630 (5%)	702,713 (81%)
Anesthesiology	173,058 (44%)	1,256 (43%)	4,144 (45%)	40,135 (38%)	543,270 (85%)
Physical medicine rehabilitation	98,397 (5%)	2,919 (5%)	7,019 (12%)	48,005 (9%)	34,700 (62%)
Neurology	37,232 (4%)	175 (0%)	795 (2%)	4,197 (3%)	9,337 (40%)
Neurosurgery	4,015 (4%)	59 (19%)	132 (22%)	1,096 (14%)	8,456 (79%)
Orthopedic surgery	172,257 (2%)	62,777 (3%)	113,222 (4%)	1,618,552 (3%)	29,689 (45%)
Allergy/Immunology	1,283 (1%)	294 (0%)	368 (3%)	3,526 (2%)	28 (100%)
Cardiology	2,026 (2%)	297 (11%)	328 (0%)	3,436 (1%)	67(100%)
Critical care	39 (0%)	22 (0%)	45 (0%)	509 (4%)	0
CRNA	474 (89%)	76 (100%)	0	0	16,701 (98%)
Diagnostic radiology	340 (29%)	171 (63%)	651 (72%)	12,743 (77%)	17,539 (63%)
Emergency medicine	2,926 (24%)	433 (62%)	2,447 (78%)	10,965 (63%)	2,977 (98%)
Endocrinology	422 (0%)	45 (0%)	97 (0%)	915 (1%)	0
Family practice	125,315 (2%)	12,633 (3%)	37,376 (3%)	278,464 (3%)	2,190 (60%)
Gastroenterology	356 (0%)	51 (0%)	159 (0%)	1,276 (1%)	14 (0%)
General Practice	35,293 (2%)	2,111 (3%)	6,439 (3%)	62,943 (2%)	3,153 (65%)
General surgery	8,499 (5%)	958 (8%)	2,310 (6%)	18,643 (4%)	791 (52%)
Geriatric medicine	1,267 (3%)	182 (6%)	284 (11%)	3,215 (19%)	0
Group Practice	29,687 (13%)	9,661 (12%)	18,553 (11%)	131,018 (10%)	22,992 (79%)
Hand surgery	14,687 (2%)	6,123 (5%)	6,466 (4%)	4,650 (4%)	17 (100%)
Hematology/Oncology	667 (3%)	204 (5%)	460 (5%)	2,317 (3%)	96 (100%)
Infectious disease	326 (0%)	98 (24%)	219 (20%)	2,506 (7%)	0
Internal medicine	84,271 (3%)	15,479 (5%)	38,697 (5%)	305,002 (3%)	3,973 (50%)
Interventional radiology	0	10 (100%)	31 (100%)	591 (95%)	1,605 (90%)
Medical oncology	223 (0%)	29 (0%)	29 (0%)	388 (0%)	0%
Nephrology	110 (0%)	24 (0%)	104 (0%)	717 (5%)	0%
Nurse Practitioner	4,818 (9%)	418 (8%)	978 (10%)	8,304 (6%)	98 (29%)
Obstetrics/Gynecology	944 (11%)	29 (0%)	55 (0%)	414 (0%)	0
Ophthalmology	84 (0%)	0-	13 (0%)	146 (0%)	0
Oral surgery (dentists only)	1,923 (10%)	11 (0%)	210 (6%)	0	28 (100%)
Osteopathic manipulative therapy	6,549 (0%)	301 (0%)	230 (0%)	2,591 (7%)	857 (84%)
Otolaryngology	890 (0%)	15 (0%)	101 (0%)	90 (0%)	0
Pain Management	974 (26%)	0	0	194 (27%)	1,065 (63%)
Pathology	1,606 (0%)	47 (0%)	27 (0%)	874 (3%)	23 (100%)
Pediatric medicine	283 (0%)	104 (0%)	276 (0%)	2,030 (2%)	14 (0%)
Peripheral vascular disease	23 (0%)	11 (0%)	0	284 (0%)	0
Physician Assistant	5,439 (5%)	1,033 (13%)	2,180 (11%)	29,983 (7%)	201 (33%)
Plastic & reconstructive surgery	5,998 (8%)	1,091 (17%)	985 (%)	146 (8%)	0
Podiatry	240,120 (1%)	179,581 (1%)	110,894 (1%)	1,146 (1%)	0
Preventive medicine	1,013 (0%)	0	11 (0%)	135 (0%)	89 (11%)
Psychiatry	1,271 (1%)	36 (0%)	119 (0%)	796 (6%)	797 (55%)
Pulmonary disease	1,348 (4%)	84 (0%)	314 (0%)	2,277 (3%)	0
Rheumatology	115,154 (1%)	33,868 (3%)	52,775 (5%)	429,345 (3%)	1,814 (11%)
Thoracic surgery	28 (0%)	20 (0%)	57 (0%)	792 (1%)	53 (0%)
Urology	101 (0%)	37 (0%)	54 (0%)	496 (3%)	0
Vascular surgery	44 (0%)	0	29 (0%)	249 (0%)	0

Table 4. Frequency of utilization of trigger point injections, intraarticular injections, and lumbar epidural injections by various specialties for 2001, in Medicare recipients

Source: 2001 Procedure Code Utilization By Specialty from CMS (11).

Specialties using less than 100 procedures of any CPT code are not included in this table, but included in the total.

() = Percentage of procedures utilized in facility settings. * Not approved for ASC settings

Table 5. Summary of the frequency of utilization of various categories ofinterventional procedures in the Medicare population from 1998-2001

	1998	1999	2000	2001
Epidural, spinal, and disk injections	934,713 (79%)	929,027 (76%)	999,602 (82%)	1,166,996 (80%)
Facet joint blocks and neurolytic blocks	274,130 (73%)	304,564 (72%)	424,796 (67%)	543,509 (62%)
Other types of nerve blocks	329,552 (33%)	313,415 (33%)	324,320 (35%)	343,277 (35%)
Total	1,538,395 (68%)	1,547,006 (67%)	1,748,718 (70%)	2,053,782 (68%)

Source: 1998-2001 Procedure Code Utilization By Specialty from CMS (11). () = Percentage of procedures utilized in facility settings.

Table 6 shows the frequency of utilization of various types of epidural spinal and disc injection procedures in the Medicare population for years 1998 – 2001 by location of the performance of the procedure for all specialties (8-11). CPT 62318 and CPT 62319 are mainly utilized for anesthesia. Thus, these are not truly interventional procedures utilized in pain management. However, these are always included for statistical analysis purposes by CMS. CPT 62290 and CPT 62291 are not approved for ASC settings, and even if they are performed in an ASC setting, the ASCs are not reimbursed for these. These

statistics may include a small number of procedures on the Medicare population being performed in ASC settings. While there was no increase in the number of the procedures from 1998 to 1999, there was a significant increase from 1999 to 2000 (8%) and 2000 to 2001 (17%).

Table 7 shows the frequency of utilization of facet joint injections and neurolytic blocks in the Medicare population for years 1998 – 2001 for all specialties (8-11). These statistics also include sacroiliac joint injections, a procedure not approved for ASC settings. Thus, most of the facility procedures include hospitals. Overall,

the majority of the procedures are performed in a facility setting even though they have declined overall to 62% in 2001. Part of this decline is due to the growth of sacroiliac joint blocks which are increasingly performed in the office setting. Surprisingly, CPT 64470 cervical facet joint block, is performed in the Medicare population more frequently in an office setting than in a facility setting. In contrast, CPT 62272, which is an add-on code for CPT 64470 is performed with a higher frequency in facility settings. This may be due to poor coding habits. It would be unlikely that cervical facet joint blocks, if they were appropriately performed under fluoroscopy, would be performed in office settings more than in facility settings. It is a requirement in many states that they be performed under fluoroscopy (12). A similar phenomenon is also observed with the add-on code for cervical/ thoracic transforaminal epidural with 53% being performed in office settings. It would be even more difficult to perform transforaminal cervical epidurals in an office setting considering the recent flurry of complications in office settings (13). Hence, we further analyzed cervical, thoracic, and lumbar transforaminal epidural injections; and cervical, thoracic, and

Table 6. Comparison of the frequency of utilization of various types of epidural spinal and disc injection procedures in Medicare recipients from 1998-2001

СРТ	Description	1998	1999	2000	2001
62263	Epidural lysis of adhesions	1,001 (88%)	1,558 (80%)	8,778 (91%)	10,463 (88%)
62280	Subarachnoid neurolysis	226 (91%)	233 (68%)	197 (89%)	242 (89%)
62281	Cervical epidural neurolysis	1,719 (80%)	1,569 (72%)	1,199 (83%)	1,320 (73%)
62282	Lumbar epidural neurolysis	9,543 (58%)	10,883 (51%)	11,139 (48%)	11,990 (55%)
62290*	Lumbar discography	8,784 (85%)	11,422 (84%)	12,683 (87%)	14,717 (93%)
62291*	Cervical discography	1,372 (72%)	1,222 (77%)	1,544 (83%)	1,695 (85%)
62310	Cervical/Thoracic epidural	64,563 (86%)	69,381 (81%)	75,741 (83%)	84,385 (80%)
62311	Lumbar/Sacral epidural	608,453 (85%)	619,543 (80%)	618,362 (83%)	702,713 (81%)
62318**	Cervical continuous epidural	4,382 (86%)	4,785 (80%)	25,115 (98%)	36,643 (98%)
62319**	Lumbar continuous epidural	117,440 (99%)	108,520 (94%)	99,473 (99%)	100,892 (98%)
64479	C/T Transforaminal epidural – single	3,292 (34%)	3,213 (32%)	13,454 (52%)	14,732 (52%)
64480	C/T Transforaminal epidural – Add.	17,066 (22%)	12,931 (26%)	9,434 (60%)	8,537 (47%)
64483	L/S Transforaminal – single	45,385 (34%)	44,751 (32%)	85,006 (66%)	125,534 (72%)
64484	L/S Transforaminal – each additional	51,487 (23%)	39,016 (26%)	37,477 (63%)	53,133 (69%)
Total		934,713 (79%)	929,027 (76%)	999,602 (82%)	1,166,996 (80%)

Source: 1998-2001 Procedure Code Utilization data By Specialty from CMS (8-11).

() = Percentage of procedures utilized in facility settings.

* CPT 62290 and CPT 62291 Not approved for ASC settings. ** CPT 62318 & CPT 62319 are mainly utilized for Anesthesia.

CPT	Code Description	1998	1999	2000	2001
27096	SI joint blocks	2,374 (86%)	2,281 (81%)	49,554 (59%)	85,664 (51%)
64470	C/T facet joint block – single	6,286 (65%)	6,438 (65%)	24,751(48%)	34,500 (43%)
64472	C/T facet joint block – additional	349 (90%)	574 (82%)	33,573 (62%)	47,684 (55%)
64475	Lumbar/Sacral facet joint block – single	84,854 (64%)	87,395 (65%)	101,539 (61%)	121,234 (59%)
64476	Lumbar/Sacral facet joint block additional	145,267 (75%)	163,170 (73%)	153,252 (71%)	175,854 (67%)
64622	L/S facet neurolysis – single	10,371 (84%)	13,079 (80%)	15,117 (84%)	18,792 (79%)
64623	L/S facet neurolysis – additional	24,255 (88%)	31,018 (85%)	38,206 (88%)	47,632 (81%)
64626	C/T facet neurolysis – single	25 (100%)	35 (100%)	2,750 (83%)	3,815 (77%)
64627	C/T facet neurolysis – additional	349 (90%)	574 (82%)	6,054 (87%)	8,334 (77%)
Total		274,130 (73%)	304,564 (72%)	424,796 (67%)	543,509 (62%)

 Table 7. Comparison of the frequency of utilization of facet joint injections and neurolytic blocks in Medicare

 recipients from 1998-2001

Source: 1998-2001 Procedure Code Utilization data By Specialty from CMS (8-11).

() = Percentage of procedures utilized in facility settings.

* CPT 27906 - Not approved for ASC settings. Facility includes only Hospital.

lumbosacral facet joint injections to isolate these anomalies. with 43% of them in a facility. However, there were 47,684 CPT 64472 (which

As is illustrated in Table 8, CPT 64470, cervical/thoracic facet joint injections, were provided on 34,500 occasions

with 43% of them in a facility. However, there were 47,684 CPT 64472 (which is add-on code of CPT 64470) with 55% of them performed in a facility setting. Of these, 21,793 procedures or 63% were performed by recognized pain specialists, which include anesthesiology, physical medicine and rehabilitation, and neurologists. Additional procedures accounting for 3,192 or 9% of the total were per-

Table 8. Frequency of utilization of Facet joint injections and transforaminal epidural injections by various specialties for 2001, in Medicare recipients

Specialty	64470	64472	64475	64476	64479	64480	64483	64484
All Specialties	34,500 (43)	47,684 (55%)	121,234 (59%)	175,854 (67%)	14,732 (52%)	8,537 (47%)	125,534 (72%)	53,133 (69%)
Anesthesiology	16,168 (74%)	30,072 (68%)	67,006 (74%)	119,122 (74%)	7,718 (70%)	5,304 (57%)	73,212 (79%)	35,882 (73%)
Physical medicine rehabilitation	2,973 (29%)	3,210 (51%)	9,686 (50%)	12,283 (60%)	1,738 (43%)	788 (20%)	20,367 (70%)	6,139 (65%)
Neurology	2,652 (10%)	1,905 (16%)	5,572 (22%)	5,450 (35%)	688 (11%)	484 (7%)	2,421 (33%)	1,302 (20%)
Neurosurgery	552 (64%)	787 (65%)	2,860 (63%)	3,764 (70%)	630 (19%)	195 (69%)	1,108 (64%)	573 (79%)
Orthopedic surgery	1,928 (24%)	1,339 (38%)	9,940 (40%)	8,694 (63%)	651(27%)	118 (62%)	6,395 (64%)	1,976 (80%)
CRNA	19 (100%)	0	89 (100%)	81 (100%)	39 (100%)	0	333 (100%)	111 (100%)
Diagnostic radiology	685 (67%)	633 (55%)	5,307 (76%)	3,769 (70%)	695 (68%)	169 (64%)	6,929 (70%)	1,003 (85%)
Family practice	905 (3%)	742 (11%)	2,744 (8%)	1,917 (15%)	413 (9%)	65 (0%)	1,417 (26%)	372 (31%)
General Practice	843 (8%)	458 (20%)	2,473 (7%)	1,641 (13%)	213 (0%)	36 (0%)	1,617 (29%)	268 (37%)
General surgery	90 (42%)	141 (49%)	655 (39%)	1,234 (30%)	63 (70%)	21 (0%)	551 (80%)	104 (72%)
Group Practice	1,196 (65%)	2,794 (60%)	4,193 (71%)	8,278 (72%)	661 (61%)	682 (60%)	5,486 (70%)	2,814 (63%)
Internal medicine	934 (19%)	479 (49%)	2,560 (22%)	1,706 (55%)	611 (16%)	145 (29%)	1,884 (31%)	744 (46%)
Interventional radiology	27 (100%)	20 (100%)	281 (93%)	168 (88%)	42 (100%)	0	429 (98%)	91 (100%)
Nurse Practitioner	0	0	87 (23%)	24 (100%)	0	0	314 (26%)	67 (100%)
Osteopathic manipulative therapy	103 (13%)	280 (8%)	518 (20%)	1,452 (19%)	30 (0%)	65 (0%)	137 (58%)	121 (19%)
Pain Management	184 (60%)	292 (54%)	589 (67%)	994 (68%)	28 (50%)	12 (0%)	328 (54%)	178 (53%)
Physician Assistant	41 (0%)	53 (0%)	95 (0%)	167 (13%)	0	0	14 (0%)	0
Psychiatry	65 (58%)	95 (61%)	133 (76%)	199 (63%)	77 (16%)	66 (0%)	717 (75%)	242 (45%)
Rheumatology	4,815 (1%)	3,970 (1%)	5,867 (1%)	4,120 (1%)	411 (0%)	209 (0%)	1,521 (3%)	908 (3%)

Source: 2001 Procedure Code Utilization By Specialty from CMS (11). () = Percentage of procedures utilized in facility settings.

Specialties using less than 300 procedures of any CPT code are not included in this table, but included in the total.

CPT	Code Description	1998	1999	2000	2001
64400-412	Nerve Blocks	38,654 (38%)	36,119 (31%)	36,363 (32%)	40,223 (33%)
64413	Cervical plexus block	10,014 (21%)	6,963 (32%)	5,738 (36%)	5,677 (38%)
64415	Brachial plexus block*	9,037 (69%)	15,061(79%)	18,771 (89%)	23,662 (92%)
64417	Axillary N.B.*	1,750 (66%)	1,834 (73%)	2,002 (84%)	2,225 (90%)
64418	Suprascapular N.B.	9,961 (24%)	9,705 (21%)	10,657 (21%)	12,365 (16%)
64420-21	Intercostal N.B *	27,421 (59%)	25,449 (53%)	24,703 (59%)	24,348 (58%)
64425-35	Nerve Blocks	8,240 (44%)	7,524 (42%)	8,109 (44%)	8,397 (41%)
64445	Sciatic N.B.	22,513 (14%)	19,488 (16%)	19,883 (17%)	22,195 (16%)
64450	Peripheral N.B.	127,904 (17%)	122,147 (17%)	124,154 (19%)	119,234 (22%)
64505	Sphenopalatine ganglion block	6,532 (08%)	5,894 (06%)	5,606 (08%)	4,862 (7%)
64510	Stellate ganglion block*	12,968 (81%)	11,626 (82%)	9,950 (80%)	9,473 (81%)
64520	Lumbar/Thoracic sympathetic block*	14,637 (68%)	12,903 (63%)	12,254 (73%)	12,522 (69%)
64530	Celiac plexus block*	1,538 (88%)	1,329 (90%)	1,348 (92%)	1,334 (89%)
64600-10	Trigeminal neurolysis*	1,505 (75%)	1,661 (73%)	1,338 (75%)	1,194 (73%)
64613	Chemodenervation Cer. spinal muscle	16,606 (18%)	11,988 (25%)	14,136 (25%)	18,957 (24%)
64620-30	Neurolytic Blocks*	1,768 (86%)	1,771 (86%)	2,171 (87%)	1,959 (86%)
64640	Peripheral neurolysis	17,375 (46%)	20,933 (31%)	25,910 (28%)	31,529 (22%)
64680	Celiac plexus neurolysis*	1,129 (94%)	1,020 (90%)	1,227 (88%)	1,247 (77%)
	Total	329,552 (33%)	313,415 (33%)	324,320 (35%)	343,277 (35%)

Table 9. Comparison of frequency of utilization of various types of nerve blocks excluding epidurals, disc injections, and facet joint blocks in Medicare recipients for 1998-2001

Source: 1998-2001 Procedure Code Utilization data By Specialty from CMS (8-11)

() = Percentage of procedures utilized in facility settings

* Approved in ASC settings all others show only Hospital settings.

formed by neurosurgeons, orthopedic surgeons, and radiologists. Thus, 28% of these procedures are performed by other physicians and providers. Among the pain specialists, anesthesiologists performed 74% in a facility setting, whereas, physical medicine and rehabilitation specialists performed only 29% and neurologists performed only 10% in facility settings. Similarly, orthopedic surgeons also performed only 24% in facility setting. Many of the procedures performed by other specialties were performed predominantly in office settings. The appropriateness of these procedures with medical necessity criteria has to be evaluated for further identification of the factors. A significant number of lumbar facet joint injections are also performed by other specialties in an office setting. Thus, the criteria of medical necessity and utilization patterns are not clear at this point. CPT 64479 describes cervical transforaminal epidural injection with only 52% performed in facility setting. Further analysis shows that 31% of these procedures are performed by non-pain specialists. Analysis also shows that physiatrists and neurologists perform these procedures more in office setting than do anesthesiologists.

Table 9 shows the frequency of utilization of various types of nerve blocks excluding epidurals, disc injections and facet joint blocks in the Medicare population for the years 1998 – 2001 by all specialists (8-11). As shown in this table, only 33% to 35% of the procedures are performed in a facility setting. The most common procedure in this category is the peripheral nerve block.

We also analyzed the frequency of utilization of non ASC approved procedures which are most commonly performed in the facility setting by interventionalists (Table 10). For these procedures, we have included hip injection with or without anesthesia (CPT 27093 and 27095), sacroiliac joint injection (CPT 27096), lumbar discography (CPT 62290), and cervical discography (CPT 62291).

The summary shows that many of the interventional techniques are performed by non-interventionalists and also non-pain specialists. Further more, the utilization patterns show that the number of procedures performed have been increasing gradually.

CONCLUSION

In 2003, an array of evolving issues will face interventionalists including the understanding of CPT coding, correct coding issues, and utilization patterns. In recent years, there have been substantial changes in the definition of CPT codes, along with the development of new vignettes to describe the codes. Thus, it is of paramount importance for an interventionalist to follow these changes in the CPT codes appropriately.

The second issue for interventionalists relates to the correct coding and understanding of the national correct coding policies. The most recent publication of the national correct coding policies was released in October 2002, to be effective January 1, 2003. There are numerous changes involving interventional techniques with comprehensive, component, and mutually exclusive codes.

Specialty	27093	20795	27096	62290	62291
All Specialties	7,339 (80%)	2,280 (84%)	85,664 (51%)	14,717 (87%)	1,695 (85%)
Anesthesiology	190 (45%)	503 (53%)	62,183 (58%)	5,813 (82%)	715 (86%)
Physical medicine rehabilitation	276(42%)	84 (79)	6,245 (36%)	992 (83%)	73 (82%)
Neurology	0	0	1,354 (25%)	158 (100%)	66 (100%)
Neurosurgery	21 (100%)	0	704 (37%)	675 (100%)	96 (100%)
Orthopedic surgery	1699 (85%)	603 (100%)	3,558 (25%)	2,489 (98%)	172 (100%)
Diagnostic radiology	4216 (85%)	939 (90%)	1,446 (72%)	3,333 (83%)	517 (74%)
Family practice	63 (27%)	0	872 (10%)	97 (76%)	0
General Practice	20 (100%)	0	490 (26%)	84 (48%)	0
Group Practice	514 (64%)	46 (100%)	2,680 (63%)	410 (94%)	30 (100%)
Internal medicine	62 (16%)		1,301 (30%)	76 (59%)	0
Interventional radiology	227 (100)	92 (86%)	160 (100%)	460 (95%)	26 (100%)
Pain Management	0	0	426 (48%)	37 (100%)	0
Rheumatology	12 (0%)	13 (100%)	3,662 (1%)	0	0

Table 10. Frequency of	$^{ m f}$ utilization of non-ASC	? procedures by various s	pecialties for 2001,	, in Medicare recipients
------------------------	----------------------------------	---------------------------	----------------------	--------------------------

Source: 2001 Procedure Code Utilization By Specialty from CMS (11)

() = Percentage of procedures utilized in facility settings

Specialties using less than 200 procedures of any CPT code are not included in this table, but included in the total

Finally, utilization of interventional techniques, which has been gradually increasing, is a concern to federal authorities. Thus, it is essential to understand the utilization patterns and follow appropriate medical necessity guidelines in providing interventional pain management services.

Author Affiliation:

Laxmaiah Manchikanti, MD Medical Director, Pain Management Center of Paducah, 2831 Lone Oak Road, Paducah, KY, 42003 E-mail drm@apex.net.

Vijay Singh, MD

Medical Director, Pain Diagnostics Associates, 1601 Roosevelt Road, Niagara, WI 54151, E-mail vijsin@netnet.net

References

- Manchikanti L, Fellows B. Procedural coding systems. In Manchikanti L (ed.), *Interventional Pain Medicine: Documentation, Billing and Coding*. ASIPP Publishing, Paducah, KY 2002; pp 37-50.
- Manchikanti L. Definitions of interventional procedures. In Manchikanti L (ed.), Interventional Pain Medicine: Documentation, Billing and Coding. ASIPP Publishing, Paducah, KY 2002; pp 155-168.
- 3. Current Procedural Terminology. CPT 2000, <u>American Medical Association</u>, Chicago, 2000.
- Current Procedural Terminology. CPT 2001, <u>American Medical Association</u>, Chicago, 2001.
- Current Procedural Terminology. CPT 2002, <u>American Medical Association</u>, Chicago, 2002.
- Current Procedural Terminology. CPT 2003, American Medical Association, Chicago, 2003.

Manchikanti L. General correct coding policies. In Manchikanti L (ed.), Interventional Pain Medicine: Documentation, Billing and Coding. ASIPP Publishing, Paducah, KY 2002; pp 51-56.

7.

8.

9.

- 1998 Procedure Code Utilization By Specialty from CMS
- 1999 Procedure Code Utilization By Specialty from CMS
- 10. 2000 Procedure Code Utilization By Specialty from CMS
- 11. 2001 Procedure Code Utilization By Specialty from CMS
- 12. Adminastar Federal Paravertebral Facet Joint Nerve Block (Diagnostic or Therapeutic) Policy. Policy Number AC-02-034.
- Manchikanti L, Staats P, Singh V, et al. Evidence-based practice guidelines for interventional techniques in the management of chronic spinal pain. *Pain Physician* 2003; 6: 3-82.