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From The President's Desk

State of Interventional Pain Medicine

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"**Every profession is a conspiracy against the laity**," the famous playwright George Bernard Shaw once said. His observation, though fitting for some professions, does not describe the field of interventional pain medicine. In the last issue of Pain Physician, I explored various issues related to interventional pain medicine and interventional pain physicians (1). Despite a growing number of so-called "pain clinics" in the United States, organizations representing pain physicians and practitioners, and pain management journals, interventional pain medicine continues to suffer from a lack of proper recognition, as well as from misconceptions and malaise among interventional pain physicians. Of course, this is true for all specialties, as physicians are known to be reactive rather than proactive. Winston Churchill said, "True genius resides in the capacity for evaluation of uncertain and conflicting information." Interventional pain medicine is full of conflicting and uncertain information; however, the question remains: is there a true genius out there to sort out all these questions? This is not said with arrogance or with disrespect to pain specialists. However, pain medicine has been largely dominated and essentially taken over by physicians who believe in the biopsychosocial model, utilizing predominantly psychosocial approaches. While the biopsychosocial model is generally accepted and should be accepted by all interventional pain medicine specialists, we must also realize that the psychosocial approach is not the only way of managing these patients; interventions are an integral part of such an approach. Further, it has been stated by rulemakers in pain management that interventional pain medicine is a procedural specialty, rather than a field of pain medicine that is primarily a non-procedural specialty, and pain is always subjective and always a psychological state (1,2). Of course, there is plenty of criticism of interventional pain medicine for excessive use and abuse of the interventions, lack of demonstration of medical necessity, lack of outcomes, and lack of cost effectiveness. This mostly anecdotal criticism, fair or unfair, not only stems from non-physicians, but also from physicians. More interestingly, much controversy stems from the inability of shortsighted pain specialists with differing philosophies and understanding of economics and medicine to assimilate facts and from overaggressive attitudes. This is not to say interventionalists are always above board. Thus, practice guidelines and the practice of conservative interventional medicine will go a long way in the new era of documentation and compliance.

It is beyond any question that neither pain management nor interventional pain medicine has specific recognition. While I was not surprised to find that interventional pain medicine has no recognition, I was somewhat taken aback to learn that pain management is generally not recognized as a specialty. Above all, I was shocked to see that specialists providing interventional pain medicine fall into 33 separate groups, as listed in Tables 1 and 2, though neither interventional pain medicine nor pain management makes the list. Pain management as a subspecialty is recognized by the American Board of Medical Specialties, which designates specialists from the three specialties of anesthesiology, physical medicine and rehabilitation, and neurology to qualify for subspecialty of pain management. Yet there is no subspecialty recognition for either pain management or interventional pain medicine by either public or private health care programs, such as Medicare, Medicaid, Blue Cross Blue Shield, AETNA, or United Health Care. In contrast, there is no shortage of subspecialty recognition by HCFA and others for multitude of others (Table 1). Thus, neurology and psychiatry have separate identities with psychiatrists having a subspecialty of neuropsychiatry. In radiology there are four specialty recognitions: diagnostic radiology, interventional radiology, radiation oncology, and nuclear medicine. In addition, recognition is offered to critical care medicine, preventive medicine, and emergency medi-

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Table 1. *Provider specialty designations assigned by HCFA for multiple medical and surgical specialties*

Numerical Designation	Name Of Specialty	Numerical Designation	Name Of Specialty
01	General practice	37	Pediatric medicine
02	General surgery	38	Geriatric medicine
03	Allergy/Immunology	39	Nephrology
04	Otolaryngology	40	Hand surgery
05	Anesthesiology	41	Optometry
06	Cardiology	44	Infectious disease
07	Dermatology	46	Endocrinology
08	Family practice	48	Podiatry
10	Gastroenterology	66	Rheumatology
11	Internal medicine	76	Peripheral vascular disease
12	Osteopathic manipulative therapy	77	Vascular surgery
14	Neurosurgery	78	Cardiac surgery
16	Obstetrics/Gynecology	79	Addiction medicine
18	Ophthalmology	81	Critical care
19	Oral surgery (dentists only)	82	Hematology
20	Orthopedic surgery	83	Hematology/Oncology
22	Pathology	84	Preventive medicine
24	Plastic & reconstructive surgery	85	Maxillofacial surgery
25	Physical medicine rehabilitation	86	Neuropsychiatry
26	Psychiatry	90	Medical oncology
28	Colorectal surgery	91	Surgical oncology
29	Pulmonary disease	92	Radiation oncology
30	Diagnostic radiology	93	Emergency medicine
33	Thoracic surgery	94	Interventional radiology
34	Urology	98	Gynecological oncology
35	Chiropractor	99	Unknown physician specialty
36	Nuclear medicine		

cine. Further, general practice can be identified as general practice, family practice, internal medicine, and osteopathy. Of course, multiple internal medicine subspecialties include geriatric medicine, nephrology, infectious diseases, endocrinology, cardiology, pulmonology, rheumatology, preventive medicine, hematology, hematology/oncology, addiction medicine and critical care medicine. In addition, numerous surgical specialties include a multitude of subspecialties. This shows the gravity of the situation with regards to the non-recognition of pain management in general and interventional pain medicine in particular, especially in the face of the recognition of addiction medicine, critical care medicine, neuropsychiatry, and various radiological subspecialties.

Recognition of a specialty is an extremely important aspect of the practice of medicine for reimbursement purposes as practice relative values are developed separately for each recognized specialty. Practice expense values for most interventional procedures are derived from anesthesiology, even though a large proportion of the procedures is performed by other specialists. In fact, hourly practice expense data for all physicians is $68, dermatology is $115, pathology is $47, neurology is $59, physical medicine rehabilitation is $88, in contrast ti aneshestology practice expense per hour of $27 as per physician fee schedule. Lack of subspecialty recognition also results in lack of representation on Medicare carrier committees. At the present time, the three specialties — anesthesiology, physical medicine and rehabilitation — and neurol-

Table 2. *Frequency of utilization of lumbar epidural injections (CPT 62311) by various specialties for 1998, in Medicare population*

Specialty	No. of Procedures		
	Facility	Office	Total
Nurse practitioners	10	0	10
Urology	0	15	15
Radiation oncology	15	0	15
OB/GYN	11	17	28
Endocrinology	0	29	29
Gastroenterology	0	30	30
Cardiology	37	0	37
Pathology	0	43	43
Nuclear Medicine	51	0	51
Oral surgery(dentists only)	0	68	68
Preventive medicine	74	0	74
Nephrology	0	84	84
Critical Care	86	0	86
Allergy/Immunology	121	0	121
Ambulatory surgery center	160	0	160
Thoracic surgery	14	150	164
Osteopaths	439	48	487
Psychiatry	181	352	533
Emergency medicine	543	103	646
Interventional radiology	1162	0	1162
General surgery	1135	383	1518
Rheumatology	287	1245	1532
Family practice	1804	957	2761
General practice	1816	1359	3175
Internal medicine	2175	1898	4073
Neurology	3126	3582	6708
Neurosurgery	5587	1672	7259
Clinic or other group	7068	1823	8891
CRNA/AA*	9511	644	10155
Diagnostic radiology	6506	4547	11053
Physiatry	16461	7112	23573
Orthopedic surgery	12350	14569	26919
Anesthesiology	445048	51563	496611
Total	515778	92293	608071

Source: HCFA utilization file 1998
*CRNA/AA Certified Registered Nurse Anesthetist/Anesthesia Assistant

ogy are represented, in many cases, on local Medicare carrier review committee with issues of interventional pain medicine being represented by the anesthesiology representative. In approximately 90% of the cases, the anesthesiologist, who is also a representative of the State Society of Anesthesiologists, practices anesthesiology, and at best, practices pain management on an occasional or part-time basis. Thus, interventional pain medicine basically has no representation as anesthesiology representatives are mostly concerned with operating room anes-

thesia and, specifically in recent years, with the issue of nurse anesthetists and supervision by anesthesiologists. This should not underrate any of the issues represented by these professionals, but the fact remains that interventional pain medicine basically does not have any representation.

The next issue is who is practicing interventional pain medicine? A recent review of utilization statistics for 1998 provided by HCFA for all types of services also includes specific involvement of the specialties in providing interventional pain procedures. For the purpose of this review, I considered anesthesiologists, physical medicine rehabilitation specialists, and neurologists practicing pain management as interventional pain practitioners. The remaining groups were considered as non-pain practitioners, even though orthopedic surgeons, neurosurgeons, interventional radiologists, and diagnostic radiologists performed a number of interventional pain procedures. As per the American Board of Medical Specialties, these specialties are not recognized for subspecialty in pain management. Similarly, these physicians are not practicing pain as their primary subspecialty and their interests mainly revolve, not only around their specialty, but also around the diagnostic aspects of pain rather than total interventions related to pain. One of the surprising results of the 1998 utilization of procedures on Medicare recipients showed that HCFA has decided to utilize 2000 codes for 1998, codes which were not available at the time or even proposed by extrapolating or cross-walking some of the procedures actually performed in 1998. Thus, while many of the epidural codes are grouped together into one epidural code, statistics are also available, whether they accurately represent the prevalence of these procedures or not, for epidural lysis of adhesions (CPT 62263), cervical and thoracic facet joint nerve blocks (CPT 64470 and CPT 64472), cervical and thoracic facet neurolysis (CPT 64626 and CPT 64627), cervical/thoracic transforaminal epidurals (CPT 64479 and CPT 64480), lumbosacral transforaminal epidural injections (CPT 64483 and CPT 64484), and sacroiliac joint injections. As shown in Table 2, lumbar epidural injections are performed mainly by 33 specialties, with anesthesiologists doing the procedures most frequently, followed by orthopedic surgeons, physical medicine and rehabilitation physicians, diagnostic radiologists, certified registered nurse anesthetists, procedures performed in a clinic or other group practices, neurosurgery, and neurology. As shown in Table 2, a substantial number of procedures are also performed by physicians practicing internal medicine, general practice, family practice, and rheumatology. Surprisingly, epidural injections were performed by emergency room physicians, psychiatrists, osteopaths, thoracic surgeons, allergy/immunology physicians, critical care medicine physicians, nephrologists, preventive medicine physicians, dentists practicing oral surgery, cardiologists, urologists, and nurse practitioners.

Even more surprising than the performance of epidural injections is the evidence demonstrated for trigger point and various types of joint injections (Table 3). Approximately 75% of trigger point injections were performed by non-pain physicians. Understandably, intraarticular injections are performed mainly by non-pain physicians.

Table 3. *Frequency of utilization of trigger point injections and intraarticular injections by pain management and other specialties for year 1998, in Medicare population*

		Anesthesiology		Neurology		Physiatry		Others		Total		
		Facility	Office	Facility	Office	Facility	Office	Facility	Office	Facility	Office	Total
20550	Trigger point injection	105383	94016	1911	31507	6559	74505	24663	850232	138516	1050260	1188776
20600	Small joint injection	1508	821	14	214	196	2117	7796	402133	9514	405285	414799
20605	Intermediate joint injection	3520	1993	52	660	780	5823	16940	438277	21292	446753	468045
20610	Large joint injection	30523	15853	61	2230	4102	26070	102417	2288918	137103	2333071	2470174
27096	Sacro-iliac joint injection	276	16	0	0	57	12	1719	294	2052	322	2374
Total		141210	112699	2038	34611	11694	108527	153535	3979854	308477	4235691	4544168

Source: HCFA utilization file 1998

Table 4. *Frequency of utilization of various types epidural spinal and disc injection procedures in Medicare population for 1998, by pain management and other specialties*

		Anesthesiology		Neurology		Physiatry		Others		Total		
		Facility	Office	Facility	Office	Facility	Office	Facility	Office	Facility	Office	Total
62263	Epidural lysis of adhesions	661	84	0	10	19	0	203	24	883	118	1001
62280	Subarachnoid neurolysis	161	21	0	0	0	0	44	0	205	21	226
62281	Cervical epidural neurolysis	1266	225	23	62	0	0	53	65	1342	352	1694
62282	Lumbar epidural neurolysis	4343	1349	83	286	246	1124	862	1180	5534	3939	9473
62290	Lumbar discography	1928	337	66	55	258	111	4022	2007	6274	2510	8784
62291	Cervical discography	355	226	15	0	0	19	620	137	990	382	1372
62310	Cervical/Thoracic epidural	50442	6848	352	444	1121	329	3411	1616	55326	9237	64563
62311	Lumbar/Sacral epidural	445048	51538	3126	3582	16461	7112	51143	30036	515778	92268	608046
62318	Cervical continuous epidural	3517	514	23	12	93	19	154	50	3787	595	4382
62319	Lumbar continuous epidural	108790	298	151	34	92	16	7275	210	116308	558	116866
Total		616511	61440	3839	4485	18290	8730	67787	35325	706427	109980	816407

Source: HCFA utilization file 1998

As shown in Table 4, a substantial number of procedures — 76,517, or 9% of 816,417, epidural injections, subarachnoid injections, epidural lysis of adhesions, and discography — were performed by non-pain physicians. However, the statistics become blurry as we proceed to facet joint blocks and facet joint neurolysis, of which 62,057, or 23% of 270,437, were performed by non-pain physicians (Table 5). Since a substantial number of these procedures are performed by physicians with no training in pain management and in office settings, the issue of

Table 5. *Frequency of utilization of facet joint injections and neurolytic blocks in Medicare population for 1998, by pain management and other specialities*

		Anesthesiology		Neurology		Physiatry		Others		Total		
		Facility	Office	Facility	Office	Facility	Office	Facility	Office	Facility	Office	Total
64470	C/T facet joint block - single	2978	592	54	192	238	305	788	1139	4058	2228	6286
64472	C/T facet joint block - additional	264	34	0	0	0	0	51	0	315	34	349
64475	Lumbar/Sacral facet joint block - single	39593	7963	717	2561	3207	4079	11040	15547	54557	30150	84707
64476	Lumbar/Sacral facet joint block - additional	84233	16512	1074	1579	6218	5293	15650	13524	107175	36908	144083
64622	L/S facet neurolysis - single	7229	1037	117	21	256	260	1108	343	8710	1661	10371
64623	L/S facet neurolysis - additional	18289	1976	196	29	719	242	2257	559	21461	2806	24267
64626	C/T facet neurolysis - single	25	0	0	0	0	0	0	0	25	0	25
64627	C/T facet neurolysis - additional	264	34	0	0	0	0	51	0	315	34	349
Total		152875	28148	2158	4382	10638	10179	30945	31112	196616	73821	270437

Source: HCFA utilization file 1998

correct coding will justifiably show its ugly head in this case. Subsequently, in Table 6, which shows the number of various nerve blocks (other than the ones described above), performed on Medicare recipients during 1998 it is shown that 211,282, or 50% of 423,942, procedures were performed by non-pain physicians and many of them in the offices and by physicians with no formal or informal training in interventional pain medicine. Finally, Table

Table 6. *Frequency of utilization of various types of nerve blocks excluding epidurals, disc injections, and facet joint blocks in Medicare population for 1998, by pain management and other specialists*

		Anesthesiology		Neurology		Physiatry		Others		Total		
		Facility	Office	Facility	Office	Facility	Office	Facility	Office	Facility	Office	Total
64400	Trigeminal N.B.	2695	680	31	369	87	526	597	4092	3410	5667	9077
64402	Facial N.B.	466	275	0	54	0	48	916	764	1382	1141	2523
64405	Greater occipital N.B.	8255	3316	295	5611	170	1004	692	5405	9412	15336	24748
64408	Vagus N.B.	0	0	0	78	0	0	0	180	0	258	258
64410	Phrenic N.B.	35	0	0	0	0	0	0	0	35	0	35
64412	Spinal accessory N.B.	322	268	0	63	0	83	0	402	322	816	1138
64413	Cervical plexus block	1162	1187	12	445	18	261	142	3820	1334	5713	7047
64415	Brachial plexus block									0	0	0
64417	Axillary N.B.	1090	330	0	103	0	53	73	101	1163	587	1750
64418	Suprascapular N.B.	2241	2110	0	379	12	559	94	4348	2347	7396	9743
64420	Intercostal	2943	812	17	152	25	152	419	3474	3404	4590	7994
64421	Intercostal N. Blocks	11280	2911	16	174	64	269	1445	3326	12805	6680	19485
64425	Ilio-Inguinal N.B.	2599	891	0	95	38	82	405	1	3042	1069	4111
64430	Pudendal N.B.	163	114	0	0	0	0	121	1447	284	1561	1845
64435	Paracervical N.B.	43	17	0	0	0	0	271	1622	314	1639	1953
64445	Sciatic N.B.	2170	3688	10	2256	40	2092	288	9677	2508	17713	20221
64450	Peripheral N.B.	14487	11478	159	2250	842	2642	6020	90026	21508	106396	127904
64479	C/T transforaminal epidural - single	759	291	10	218	76	230	264	1444	1109	2183	3292
64480	C/T transforaminal epidural - each additional	3094	2247	45	901	329	1587	351	8512	3819	13247	17066
64483	L/S transforaminal - single	10087	3923	181	2914	1010	3145	3954	20161	15232	30143	45375
64484	L/S transforaminal - each additional	9304	6756	134	2702	985	4759	1223	19675	11646	33892	45538
64505	Sphenopalatine ganglion block	407	379	0	20	27	71	56	5562	490	6032	6522
64510	Stellate ganglion block	10014	1618	29	183	141	54	340	589	10524	2444	12968
64520	Lumbar/Thoracic sympathetic block	9352	501	0	523	102	544	551	1823	10005	3391	13396
64530	Celiac plexus block	1164	175	16	0	0	0	183	0	1363	175	1538
64600	Trigeminal neurolysis	283	23	0	29	21	37	121	221	425	310	735
64605	Trigeminal neurolysis	107	45	0	0	0	0	32	25	139	70	209
64610	Trigeminal neurolysis	112	0	20	0	0	0	461	0	593	0	593
64613	Chemodenervation cervical spinal muscle	372	90	2075	12478	118	276	368	829	2933	13673	16606
64620	Intercostal neurolysis	1408	192	0	0	12	0	93	47	1513	239	1752
64630	Pudendal nerve neurolysis	16	0	0	0	0	0	0	0	16	0	16
64640	Peripheral neurolysis	3947	770	910	2209	2170	3600	1021	2748	8048	9327	17375
64680	Celiac plexus neurolysis	767	71	0	0	101	0	190	0	1058	71	1129
Total		101144	45158	3960	34206	6388	22074	20691	190321	132183	291759	423942

Source: HCFA utilization file 1998

Table 7. *Summary of frequency of utilizations of various categories interventions in Medicare population for 1998, by pain management and other specialists*

	Anesthesiology		Neurology		Physiatry		Others		Total		
	Facility	Office	Facility	Office	Facility	Office	Facility	Office	Facility	Office	Total
Epidural, spinal, and disk injections	616511	61440	3839	4485	18290	8730	67787	35325	706427	109980	816407
Facet joint blocks	152875	28148	2158	4382	10638	10179	30945	31112	196616	73821	270437
Other types of nerve blocks	101144	45158	3960	34206	6388	22074	20691	190321	132183	291759	423942
Total	870530	134746	9957	43073	35316	40983	119423	256758	1035226	475560	1510786

Source: HCFA utilization file 1998

7 shows the summary of epidural, spinal, and disc injections; facet joint blocks, including neurolysis; and all other types of nerve blocks, obviously excluding trigger-point injections and joint injections that 376,181, or 25% of 1,510,786, were performed by non-pain physicians with a substantial number in office setting, once again raising the questions of legitimacy and accuracy of these procedures.

These facts demonstrate the sad reality of present and proposed coverage for interventional pain medicine if practiced on a legitimate basis with appropriate performance. HCFA, in its ambulatory surgery center proposed rule, eliminated all interventional pain medicine procedures, except for epidural and subarachnoid injections. Subsequently, HCFA also agreed to incorporate multiple new CPT codes into the fee schedule of physicians, as well as hospital outpatients for interventional pain procedures (3-6). Unfortunately, these codes were not extended to ambulatory surgery centers. In a program memorandum it issued, HCFA delineated certain services with replacement codes for pain management procedures but refused to include new procedures based on various technical limitations. We have been told that these services, which include percutaneous lysis of adhesions, transforaminal epidural injections, cervical facet joint nerve blocks, and neurolytic blocks, simply are not available to ambulatory surgery center patients, pending the final implementation of the ASC final rule in April 2001. However, even if HCFA does approve these new procedures and incorporate them into ambulatory surgery center approved procedure listing at a later date, the process would, we fear, take about three years. If HCFA publishes a new rule for ASCs in 2000, with an implementation date of April 2001, the next publication for a proposed rule would likely be in the year 2002, with final publication and its implementation sometime in 2002 or even 2003. It is the responsibility of all concerned to address the issue of fairness of these proposals, not only to ambulatory surgery centers, but, more importantly, to Medicare beneficiaries.

Now the question is are these so-called new codes really new? As literature dictates, a number of CPT 2000 pain management codes are just replacement codes for the other codes (ex. epidural injection codes) (3). It is surprising to note the definitions of **new**, **replacement**, **revised**, and **substitution** in Webster's Dictionary of the English Language. **New** is defined as "made, discovered, known, heard or seen for the first time." **Replacement** is defined as "replacing or being replaced." **Revised** is defined as "to reexamine, especially in order to discover and amend errors." Finally, **substitute** is defined as "a person or thing taking the place of another person or thing." In addition, **synonyms** for **new** include: modern, late, recent, contemporary, fresh, current, original, imaginative, creative, unique, authentic, unexampled, unfamiliar, strange, unusual, unheard of, extraordinary, unused, unhandled, untouched, unexplored, untested, unknown, untried, and experimental. Further, these synonyms also include: refreshed, renewed, restored, reinvigorated, revivified, reborn, regenerated, changed, rebuilt, recreated, reconstructed, and modernized. Thus, the family of codes, which are branded as new codes by American Medical Association and Health Care Financing Administration, essentially do not fit the description of **new**; rather, they fit the definitions of **replacement**, **revised**, and **substitute**. The emphasis should be laid on the fact that these procedures were, even though recorded for the first time, not discovered for the first time, not heard of for the first time, not seen for the first time, not known for the first time, and definitely not created for the first time; rather, a numerical number was awarded for these procedures for the first time.

Lumbar Transforaminal Epidural Injections (CPT Codes 64483 and 64484)

The earliest use of epidural steroids was surprisingly by a transforaminal route (7-17). This involved transforaminal passage of a needle through first dorsal sacral foramen in order to gain access to the first sacral nerve roots. The procedure was popularized in the 1950s by various authors (7, 8). Following this, lumbar transforaminal epidural steroid injections were developed. Three approaches available to access the epidural space in the lumbar area are lumbar interlaminar, caudal, and transforaminal. The perceived disadvantages of interlaminar epidural injections include:

- Extradural placement or placement of the needle outside the epidural space goes unrecognized without fluoroscopic guidance and occurs in as many as 35% of patients (18-23).
- The erroneous missing of the targeted interspace by one or two levels without fluoroscopic guidance, specifically in the thoracic or lumbar regions (19, 23, 24).
- The possible necessity to position the needle one level below the site of suspected pathology due to preferential cranial flow of solutions in the epidural space (19, 24, 25).
- The possible deviation of the needle toward the nondependent side. Difficulty may be encountered with the placement or delivery of the injection or medication below L5 for S1 nerve root involvement, an issue with nearly half of all disc herniations (19, 22, 26-28).
- The potential trauma of the needle to the spinal cord may become a major issue in the upper lumbar regions (29-31).
- The potential risks of dural puncture and postdural puncture, headache, as well as total spinal block are significant with interlaminar epidural injections (19, 20).

Similar to the interlaminar entry, there are significant complications and risks associated with a caudal epidural injection approach through sacral hiatus:

- There is a need to inject high volumes of fluid into the epidural space, creating the potential for serious complications (19-21, 32).
- Similar to interlaminar lumbar epidural injections, unrecognized placement of the needle outside the epidural space is seen in a substantial number of cases, in perhaps as many as 35% of patients (18-20, 22, 23, 32-36).

All of these disadvantages are essentially eliminated with a transforaminal epidural injection (18-20, 37-44). Transforaminal epidurals are considered to be the precise and preferred route of delivery of the medication to the target site for the following reasons:

- The other two approaches of lumbar interlaminar or caudal epidural steroids do not guarantee that whatever drug is injected will reach the perceived or involved target site.
- Once a drug is injected into the epidural space, the operator has no control over its dispersal, which is governed by the pressure of the injection, the amount or volume of the injection, and the anatomy of the epidural space.
- Normal epidural ligaments and epidural scarring may obstruct the passage of medication from reaching the desired site.
- The main or cardinal site of inflammation or pathology is the interface between the back of an intervertebral disc and the front of the dural sac or a nerve root sleeve. It is extremely unusual and difficult to reach this point with interlaminar or caudal epidural injections.
- The appropriate injection is, by contrast, delivered exactly to this location with a transforaminal epidural approach.
- With other approaches, the physician is totally at the mercy of the epidural anatomy and the resistance to spread that will determine whether or not the medication will pass around to the front of the dural sac and produce the desired effect.

Lumbar and sacral transforaminal epidural injections have long been performed by physicians practicing interventional pain techniques. However, these procedures have been coded utilizing the lumbar epidural injection codes, with or without steroids, CPT codes 62278 or 62289. The statistics HCFA has derived from ambulatory surgery centers, hospitals, and offices showing the number of epidural injections performed in these settings includes transforaminal injections. Essentially, the transforaminal epidural injection is just another approach similar to interlaminar lumbar and caudal epidural steroid injections, procedures that HCFA concedes it must offer in an ASC setting. The idea that transforaminal injections are not covered, when other approaches to the

same epidural space are covered is, in our view, indefensible.

Significantly, the codes at issue were cross-walked to lumbar facet injection codes, 64442 and 64443. These are precisely the codes that HCFA acknowledged in the program memorandum that are covered, of course, with replacement codes 64475 and 64476. In assigning the relative values for these codes, RUC and HCFA used the reimbursement values for lumbar epidural injections.

Above all, review of 1998 utilization data showed that a significant number of procedures were performed utilizing CPT code 64483 and CPT code 64484. We are not sure how this data was derived. We suspect that the deleted codes for lumbar paravertebral nerve blocks 64440 single, and 64441 multiple, were used to convert these. Apparently this conversion does not reflect either the crosswalk used by AMA, RUC, and HCFA, or the definition and description of transforaminal epidural codes, which is a great disservice. In addition, CPT code 64483 is described as a transforaminal lumbar or sacral epidural, which always requires x-ray visualization for accuracy (accuracy will be less than 1% without x-ray). The same description applies for CPT 64484 with the same limitations. HCFA's 1998 statistics show, rather unfortunately, that the procedure has been mislabeled, with statistics yielding a large number of procedures. These statistics should not be utilized for transforaminal injections. These staggering numbers show that of 45,395 procedures for CPT 64480, only 47%, or 21,280, were performed by interventional pain specialists with subspecialty recognition, namely, anesthesiology, physical medicine rehabilitation, and neurology; whereas 24,115 were performed by non-pain management specialists. Surprisingly, a great number were performed by general practitioners, family practitioners, internists, and rheumatologists in their offices. Unfortunately, the same statistics are true for CPT 64484. However, this essentially indicates HCFA's willingness to accept the so-called "new coding" to incorporate the old coding, even though it is inaccurate. Still, this does not explain HCFA's reluctance to do the right thing and include these codes in the program memorandum as approved procedures for ambulatory surgical centers.

Cervical Transforaminal Epidural Injections (CPT Codes 64479 and 64480)

The information provided for lumbar/sacral transforaminal epidural injections also applies to cervical transforaminal epidural injections. Cervical transforaminal epidural injections have long been employed. Because the complication rate is much higher for interlaminar cervical epidural injections, with or without fluoroscopy, than it is for transforaminal epidural injections, it is a disservice to Medicare beneficiaries to not provide coverage for this service, which has a lower risk for complications (18, 45-48).

Cervical transforaminal epidural injections are not a new procedure and have long been billed, based on guidance from various carriers, under cervical epidural injection using CPT code 62275; this code has been substituted by CPT 62310. In addition, HCFA was also liberal in providing approval for an ASC code for ambulatory surgery center setting, 62318, which is a continuous cervical epidural with catheter placement, a code that was not present in the previous surgical center approved listing. Once again, the statistics HCFA has derived from ambulatory surgical centers, hospitals, and offices showing the number of epidural injections performed in these settings includes transforaminal injections. Essentially, the transforaminal epidural injection is just another approach that is similar to interlaminar cervical epidural injections, procedures that HCFA considers it must offer in an ASC setting. Once again, the idea that transforaminal injections will not be covered while other approaches to the same epidural space are covered is indefensible.

Significantly, the codes at issue were cross-walked to lumbar facet injection codes, 64442 and 64443. These are precisely the codes that HCFA acknowledged in the program memorandum that are covered, of course, with replacement codes 64475 and 64476. In assigning the relative values for these codes, RUC and HCFA used the reimbursement values for lumbar epidural injections.

Above all, review of 1998 utilization data showed a significant number of procedures were performed utilizing CPT code 64479 and CPT code 64480. Unfortunately, the misconceptions of CPT 64483 and 64484 were carried to CPT 64479 and 64480.

Cervical Facet Joint Nerve Blocks and Cervical Facet Joint Neurolysis (CPT Codes, 64470, 64472, 64626, and 64627)

Like lumbar facet joint mediated pain with its approved codes, cervical facet joint mediated pain and its treatments have been used widely for several years. Cervical pain syndromes are some of the most common patient com-

plaints. They include neck pain, headaches, and arm pain similar to low back and lower extremity pain (48). The first discussion of facet joint as a potential source of neck pain, headache, or upper extremity pain emerged in 1986 and 1988, with facet joint injections themselves described in the 1970s (48-51).

The rationale for diagnostic neural blockade in the management of neck pain stems from the following facts:

- No clinical features, imaging, or neurophysiologic studies permit the accurate diagnosis of causation of neck pain and referred pain.
- Structural and morphological changes do not predict levels of pain or disability.
- The cervical facet joints have been shown capable of being a source of neck pain and referred pain in the head or upper extremity and normal volunteers.
- Controlled studies have shown that among patients with chronic neck pain after whiplash, for which no other cause is evident, the prevalence of cervical facet joint pain is significant.
- The existence of cervicogenic headache originating from various structures in the neck (49-66).

Based on the present literature, facet joint mediated pain may be the single most common source of chronic pain and perhaps one of the most overlooked diagnoses in medicine.

Similarly, the rationale for facet joint nerve blocks and neurolysis for therapeutic purposes is based on a multitude of considerations:

- The cardinal source of neck pain — namely facet joints, atlanto-axial and atlanto-occipital joints — are accessible to facet joint blocks and neurolysis.
- Correction of structural abnormalities of the cervical spine may fail to cure and, at times, may even worsen painful conditions.
- Degenerative processes of the cervical spine and the origin of the spinal pain are extremely complex phenomenon.
- Failure of a multitude of interventions to show effectiveness unequivocally.

Further, the rationale is also based on the philosophy that if a particular joint is determined to be the source of pain generation, long-term relief can be sought by directing intervention or treatment at that joint. In fact, long-term improvement has been reported from the anesthetic and corticosteroid injections into the facet joints, or by denervation of the medial branches (18, 48, 51, 55-59). Various studies describing injections of facet joints, medial branch blocks, and radio frequency neurotomy have been very encouraging (18, 48, 51, 58-72).

Historically, cervical facet joint injections and cervical facet joint neurolysis have been performed for as long as lumbar facet joint injections and lumbar facet joint neurolysis, if not longer. The lumbar facet joint injection and lumbar facet joint neurolysis codes were used to cover injections in the cervical spine with a cervical spine diagnosis based upon guidance from Medicare carriers.

The 2000 codes are not “new codes.” The AMA simply expanded the existing definitions and provided a code with a new number. Cervical facet joint injections and cervical facet neurotomy are significantly effective in managing neck pain, as well as headaches and upper extremity pain. They should not be denied to Medicare beneficiaries.

Once again, the codes at issue are cross-walked to lumbar facet joint injection codes 64442 and 64443 and lumbar facet neurolysis codes 64475 and 64476. These are precisely the codes that HCFA acknowledged in the program memorandum as the codes that are covered, with, of course, replacement codes 64475 and 64476 for lumbar facet joint injections, whereas neurolytic codes remained the same. Assigning the relative values for these codes, RUC and HCFA used the reimbursement values for lumbar facet joint injections and lumbar neurolysis procedures.

Above all, review of 1998 utilization data showed a significant number of procedures were performed utilizing CPT codes 64470, 64472, 64626, and 64627. The majority of these were performed in facility settings. While we are not aware of the conversion criteria used by HCFA in this utilization file, these numbers show that cervical facet joint injections were performed using CPT codes 64470 and 64472 6,746 times, with 4,433 of these performed in facility settings (66%) and the remainder in non-facility settings. Similarly, CPT codes 64626 and 64627 for cervical facet neurolysis were used on 374 occasions, with 34 of these procedures performed in facility settings (91%) and the remainder performed in non-facility settings (Table 8). This essentially indicates HCFA’s willingness

Table 8. *The utilization statistics for proposed deleted procedures based on utilization data on Medicare recipients by HCFA for 1998*

		Number of Procedures				
		Facility		Non-facility		
CPT	Description	Number	Percent	Number	Percent	Total
64420	Intercostal nerve block, single	3,404	42.9	4,536	57.1	7,940
64421	Intercostal nerve block, multiple	12,688	65.6	6,659	34.4	19,347
64475	L/S facet joint block, single level	54,557	64.4	30,150	35.6	84,707
64476	L/S facet joint block, each additional level	107,175	74.4	36,908	25.6	144,083
64622	L/S facet neurolysis, single level	8,710	84	1,661	16	10,371
64623	L/S facet neurolysis, each additional level	21,461	88.4	2,806	11.6	24,267
64510	Stellate ganglion block	10,524	81.2	2,444	8.8	12,968
64520	Lumbar/thoracic sympathetic block	10,005	74.8	3,368	25.2	13,373
64530	Celiac plexus block	1,363	88.6	175	11.4	1,538
64605	Trigeminal neurolysis	139	66.5	70	33.5	209
64610	Trigeminal neurolysis	593	100	0	0	593
64620	Intercostal neurolysis	1,513	86.4	2390	13.6	1,752
64680	Celiac plexus - neurolysis	1,058	93.7	71	6.3	1,129

Source: HCFA utilization file 1998

to accept the so-called "new coding" to incorporate into the old coding. However, this does not explain HCFA's reluctance to include these codes in the program memorandum as approved procedures for ambulatory surgical centers. Once again, we would like to emphasize that these do not reflect actual numbers, since the majority probably are included or incorporated with CPT codes 64475, 64476, 64622, and 64623, which describe lumbar facet injections and neurolytic blocks.

Percutaneous Lysis of Adhesions (CPT Code 62263)

Percutaneous lysis of epidural adhesions has been performed since the early 1990s by pain management practitioners. Based on guidance from Medicare carriers, the procedure was reimbursed under CPT code 62282, a lumbar neurolysis code or lumbar plexus neurolysis code. The procedure has been shown to be clinically effective, demonstrating cost effectiveness with safety when performed in an outpatient surgical setting (73-78).

Percutaneous lysis of adhesions has been performed since the 1970s. Significantly, the code at issue was cross-walked to 62282, which is the code that precisely continues to be approved for ambulatory surgery centers. In assigning the relative value for this code, RUC and HCFA used the reimbursement value for 62282, which is a lumbar neurolytic code, even though the definition has been revised for 2000.

Above all, review of 1998 utilization data showed a significant number of procedures were performed utilizing CPT code 62282. The majority of these were performed in a facility setting. While we are not aware of the conversion criteria utilized by HCFA in this utilization file, these numbers show that the number of times percutaneous lysis of adhesions was performed utilizing CPT 62263 was 1,001, with 883 of these performed in facility settings (88%) and the remainder in non-facility settings. Similarly, CPT code 62282, the old code for lysis of adhesions, was used on 9,473 occasions, with 5,534 of these performed in facility settings and the remainder in non-facility settings. Once again this is an indication of HCFA's willingness to accept the so-called "new coding" to incorporate the old coding. Again, this does not explain HCFA's reluctance to include this code in the program memorandum as approved procedures for ambulatory surgical centers.

Surprisingly, though, the present list of approved ambulatory surgical center procedures includes some procedures that are neither indicated nor utilized to a level to be re-

ported in the statistics, as some are performed infrequently. These include phrenic nerve block (CPT 64410), pudendal nerve block (CPT 64430), neurolysis of pudendal nerve (CPT 64630), axillary nerve block (CPT 64417), brachial plexus block (CPT 64415), drainage of spinal fluid (CPT 62272), cervical/thoracic continuous epidural (CPT 62318), cervical/sacral continuous epidural (CPT 62319), and lumbar epidural neurolytic injection (CPT 62282).

Further, 1998 utilization statistics also were in favor of interventional pain medicine specialists to do these procedures in a facility setting. This is not to say that these should not be performed in an appropriate office setting, but to reiterate that they should not be coded as such unless the procedure was performed appropriately with demonstrated medical necessity. As shown in Table 8, all the procedures, except for intercostal nerve, single level (CPT 64420), were largely performed the in facility settings, indicating that they should be retained as ASC-approved procedures.

In summary, review of 1998 utilization data shows some dangerous trends, with many of the procedures performed nearly 50% of the time by non-pain specialists, including general practice, family practice, internal medicine physicians; certified registered nurse anesthetists; and nurse practitioners. Thus, the dangers of either inappropriate coding, as well as medical necessity and quality of care provided in these situations, is of paramount concern. This will become much more apparent and prevalent since paravertebral nerve block codes CPT 64440 and 64441 have been deleted from CPT coding 2000, thus leading practitioners to code either deep trigger-point injections or other types of injections as facet joint injections. Thus, interventional pain medicine is not only on an un-level playing field, but also at a substantial disadvantage due to unclear and, at best, ambiguous regulations that will only take away from Paul to pay Peter.

Further, the sad news does not stop here. The deleterious effects of the prospective payment for hospital outpatient services are only beginning to surface. The rule released on April 7th, 2000, and which is expected to be implemented August 1, 2000, is already showing its effect (6, 79). As per this rule, hospital payments for many pain management services have been drastically reduced. This ranges from $102 for trigger point injections, and various types of joint injections to $161 for transforaminal cervical, thoracic, lumbar and sacral epidurals, lumbar and cervical facet injections, as well as facet neurolysis and various other types of nerve blocks; $176 for percutaneous epidural adhesiolysis, cervical and thoracic, lumbar and caudal epidural injections; $245 for epidurography; no reimbursement for SI joint injection, cervical, thoracic or lumbar discography; $773 for implantation of neurostimulator, pulse generator or removal of these; and, finally $1235 for implantation or replacement of drug infusion reservoir programmable or non-programmable pump. While implementation is not scheduled until August 1st, fireworks have already started. In a recent newsletter for anesthesiologists (80), the heading read "OPPS: No More Outpatient Pain Injections?" It went on to say:

> Pain practitioners working in outpatient clinics may find themselves opening private pain clinics soon. That was the consensus of Anesthesia practice managers at the AAA meeting. Hospitals' facility fees under the new OPPS will be so low, some "will tell pain groups, 'don't bring your work here'.

In a "dear colleague" letter, Roberta L. Hines, Professor and Chairman, J. Steven Naulty, Medical Director, Center for Pain Management, Yale University School of Medicine, Department of Anesthesiology, described the closure of the Center for Pain Management, effective June 30, 2000 (81). They stated:

> As you are aware, the present health care environment is a challenging and dynamic one. Recent changes in the fiscal aspects of pain management services have forced the department to close the Center for Pain Management, effective June 30, 2000. This has been a difficult but necessary step. I can assure you that this move was not taken without exploring all alternative options for fiscal support.

Additionally, onerous medicare regulations are being implemented at an exponential rate. Under these regulations, physician autonomy is being lost. These regulations significantly limit or even curtail choices of interventional pain procedures. The most recent example of such regulations is the classification of percutaneous lysis of adhesions as an investigational procedure by many medicare intermediaries . This, in spite of the fact that HCFA central's review of the problem resulted in the as-

signment of a new code and relative value.

It appears that we may be looking at more of these in the near future once hospital outpatient department prospective payment rule and final ambulatory surgery rule hits the interventional pain specialists and providers of hospital and ambulatory surgical center services.

So what needs to be done, and how can it be achieved? Following the precedent of AMA, which asks physicians: "While you are looking out for your patients, who is looking out for you?" I would like to ask interventional pain physicians: "While you are complaining and worried about regulations and taking care of your patients, who is looking out for your interests?" It is the responsibility of each and every interventional pain physician to not only represent the interests of interventional pain medicine, but also promote these interests, as is done by almost every other specialty, including behavioral pain specialists. At this time, all interventional pain specialist should ask themselves what their societies are doing for them and what they can do to improve the state of the affairs of interventional pain medicine. As executive director and president of AOPMA, I believe that interventional pain physicians are strong but fragmented, and therefore appear weak. Interventional pain medicine specialists often forget their interests and loyalties, which leads to factions and fighting, mainly due to a lack of knowledge of the present-day state of affairs and, in certain circumstance, inflated egos. As a group, we interventional pain medicine physicians must not only unite, but show a strong force with the one and only goal of preserving the specialty of interventional pain medicine. Of course, to achieve this goal, we need recognition for interventional pain medicine as a specialty, appropriate reimbursement for practice expenses, preservation of the procedures to be performed in ambulatory surgery centers, and clear delineation and guidelines to incorporate interventional pain procedures in the clinical management of patients suffering with chronic pain.

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