

# Advanced Coding For Complex Spine Cases

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AANS Neurosurgical Coding One-day Seminars

# Disclosure

- ▶ We have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.
- ▶ We will not discuss an unapproved or investigative use of a commercial product or device in this presentation.

# Learning Objectives


- ▶ Upon completion of this educational activity, participants should be able to:
  - Explain the origins of CPT Codes, RVUs and RUC
  - Identify implications of quality payment program to neurosurgical practice.
  - Differentiate CPT codes used in adult deformity cases and other reconstructive spine procedures
  - Understand rationale and utilization of new codes being developed.
  - Indicate essential documentation requirements for reimbursement of complex spine procedures

***\*There is an assumption that participants have a strong foundation in CPT coding and the processes of reimbursement.***



## **AGENDA (9:30A-4:00P)**

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- **MACRA: Quality Payment Program**
  - **CPT Code and RVU Development**
  - **Impact of the Medicare FY19 Proposals**
  - **CPT 2018/2019 Updates**
  - **Spine CPT Coding: Advanced Review**
  - **Practical Application: Attendee Case Reviews**
  - **Q&A**
  - **Break (10:30am – 10:45am)**
  - **Lunch (12:15pm - 1:15pm)**
- 

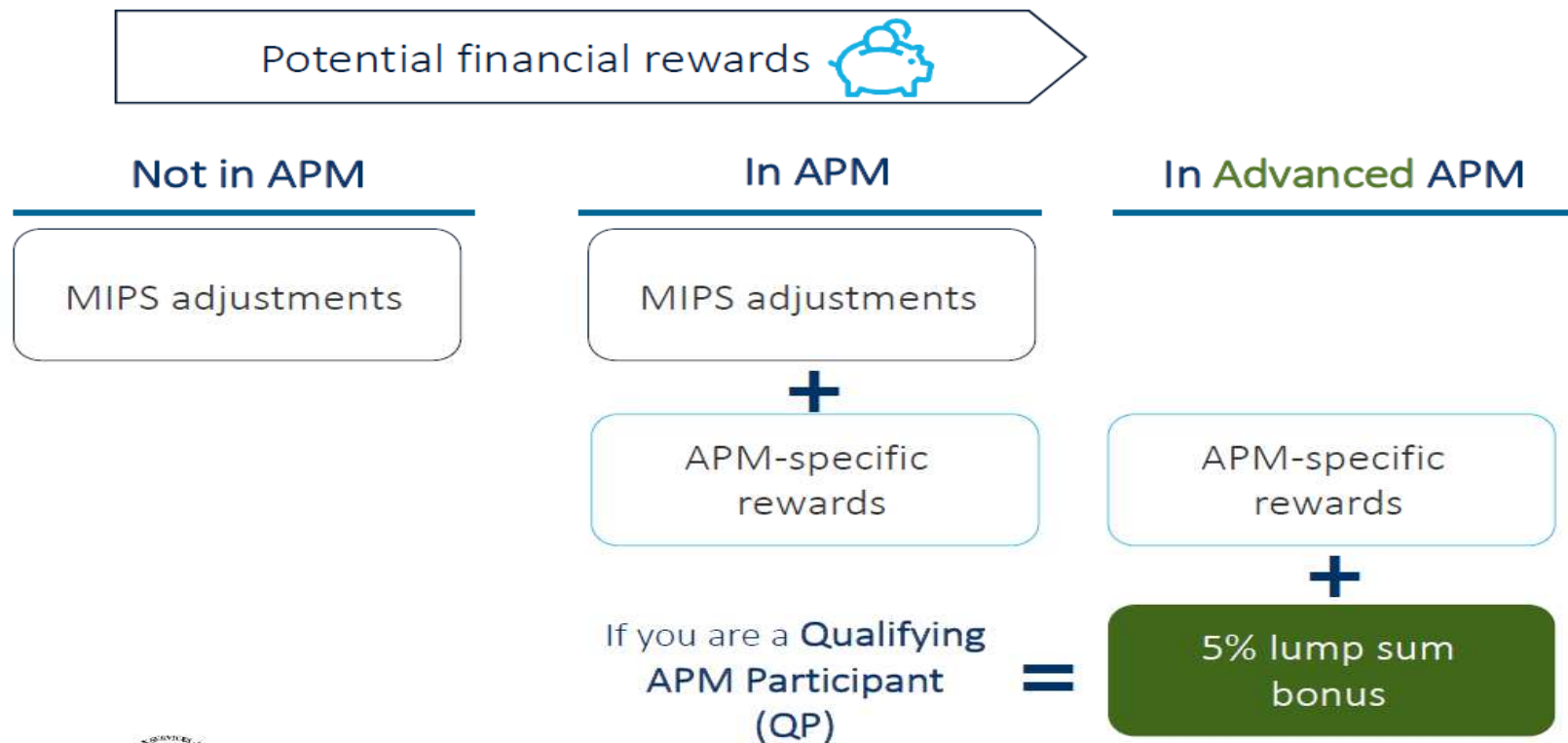
# MACRA: QUALITY PAYMENT PROGRAM

## MIPS, BPCI, APMs

# MIPS, MIPS APM, ADVANCED APM

## Quality Payment Program

The Quality Payment Program provides **additional** rewards for participating in APMs.



# MIPS 2017 PAYMENT ADJUSTMENTS

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- **2017 Performance Year impacts 2019 payments**
- **Access your report on QPP.Gov**
- **Payment Adjustment range -4% to +4%++**
- **Upside lower than originally projected**
  - Greenville Health System achieved a 95% MIPS score
  - +1.59% payment adjustment
  - \$7-8M investment; 60% ROI

# MIPS ELIGIBILITY 2018

## MIPS Eligibility and Exemptions

*No change* in the types of clinicians eligible to participate in 2018.

MIPS eligible clinicians include:



Physicians



Physician Assistants



Nurse Practitioners



Clinical Nurse Specialists



Certified Registered Nurse Anesthetists



# WHO IS EXEMPT?

*Change* to the Low-Volume Threshold for 2018. Includes MIPS eligible clinicians billing more than \$90,000 a year in allowed charges for covered professional services under the Medicare PFS **AND** furnishing covered professional services to more than 200 Medicare beneficiaries a year.



Voluntary reporting remains an option for those clinicians who are exempt from MIPS.

# 2018 MIPS

## MIPS Performance Categories for Year 2 (2018)



# 2018 MIPS

## Year 2 (2018) Final

Final Score 2018	Change Y/N	Payment Adjustment 2020
≥70 points	N	<ul style="list-style-type: none"> <li>Positive adjustment greater than 0%</li> <li>Eligible for exceptional performance bonus— minimum of additional 0.5%</li> </ul>
15.01-69.99 points	Y	<ul style="list-style-type: none"> <li>Positive adjustment greater than 0%</li> <li>Not eligible for exceptional performance bonus</li> </ul>
15 points	Y	<ul style="list-style-type: none"> <li>Neutral payment adjustment</li> </ul>
3.76-14.99	Y	<ul style="list-style-type: none"> <li>Negative payment adjustment greater than -5% and less than 0%</li> </ul>
0-3.75 points	Y	<ul style="list-style-type: none"> <li>Negative payment adjustment of -5%</li> </ul>

# Advanced APMs

Advanced APMs in Year 2 (2018)



- Bundled Payments for Care Improvement (BPCI) Advanced\*
- Comprehensive ESRD Care (CEC) – Two-Sided Risk
- Comprehensive Primary Care Plus (CPC+)
- Medicare Accountable Care Organization (ACO) Track 1+ Model
- Next Generation ACO Model
- Shared Savings Program – Track 2
- Shared Savings Program – Track 3
- Oncology Care Model (OCM) – Two-Sided Risk
- Comprehensive Care for Joint Replacement (CJR) Payment Model (Track 1-CEHRT)

\*BPCI Advanced is scheduled to begin in October 2018, and participants will have an opportunity to achieve QP status, or be scored under the APM scoring standard for MIPS, starting in performance year 2019.

# BPCI ADVANCED - OVERVIEW

- **Begins October 1, 2018**
- **Replaces current BPCI program**
- **Qualifies as Advanced APM and automatic 5% bonus**
- **Potential program rewards – also potential **repayment** to Medicare**
- **29 Inpatient Episodes**
  - Combined Anterior Posterior Spinal Fusion
  - Spinal Fusion (Non-Cervical)
  - Cervical Spinal Fusion
  - Back and Neck Except Spinal Fusion
- **3 Outpatient Episodes**
  - Back and Neck Except Spinal Fusion

# BPCI ADVANCED – HOW DOES IT WORK?

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- **Indicate episode(s) in which practice intends to participate**
- **CMS sets Target Price for Anchor Procedure and following 90 days**
  - Based on provider's prior performance
  - Includes all Part A and Part B costs
  - Each patient has an adjusted target based on hospital and patient comorbidities/complexity
- **Also assessed on Quality**
  - All Cause Readmission
  - Advance Care Plan
- **Opt out period**

***For more information: [innovation.cms.gov](https://www.cms.gov/innovation)***

# BPCI ADVANCED – KEYS FOR SUCCESS

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- **Data Aggregation - Conveners**
- **Cost Control**
  - Low Readmissions
  - Low Reoperations
  - Post Acute Care – IRF, SNF, Home Health
  - Appropriate Patient Selection and Preparation
  - Care Navigation?
    - Pre-op – Expectations? Patient residence? Care team?
    - Post-op – 30-60 days for avoidable readmissions

# MIPS GAMEPLAN

## DECISION #1: HOW TO REPORT

### Individual or Group?

Individual	Group (2+ NPI)
Payment adjustment at the individual NPI level.	Payment adjustment at the group (tax ID) level.
Poor performer doesn't penalize entire group.	Group performance may protect poor performers.
Medicare reimbursement may vary for each provider in the group.	Medicare reimbursement the same for all providers in the group.



# MIPS: AM I REQUIRED TO REPORT?

- <https://qpp.cms.gov/>

## MIPS Participation Status

Enter your 10-digit National Provider Identifier (NPI) [↗](#) number to view your MIPS participation status by Performance Year (PY).

**NATIONAL PROVIDER IDENTIFIER (NPI)**

**Check All Years** >

# MIPS GAMEPLAN

## DECISION #2: METHOD OF REPORTING

### Claims, Registry, EHR, QCDR

Method	Pros	Cons
Claims	Familiar; No additional cost.	Can't retroactively fix claims. Staff time.
Registry	Reported in 1 <sup>st</sup> Qtr 2018. Opportunity to fix any problems.	Additional cost and possibly effort to load data to registry.
EHR	No additional work*. Bonus for electronic reporting.	Additional cost to EHR vendor or DSV.
QCDR	Clinically relevant.	Additional cost and possibly effort to load data to registry. Limited measures.

# **MIPS GAMEPLAN**

## **DECISION #3: QUALITY MEASURES**

### **Action Items**

- **Select Measures**
- **Download Benchmarks**
- **Download Specifications**
- **Implement Processes**
- **Monitor Performance**

# MIPS GAMEPLAN

## DECISION #4: PI MEASURES

GOAL: 100 Points

- **Must satisfy the Base Measures – 50 points**
- **Maximize score on the Performance Measures**
- **Different Measures depending on 2014 or 2015\* CEHRT (EHR certification).**

***\* Required beginning in 2019.***

# MIPS GAMEPLAN

## DECISION #4: PI MEASURES

### Action Items

- **Download Specifications**
- **Implement Processes**
- ***Involve IT, Operations, Clinical as needed***
- **Monitor Performance**

# **MIPS GAMEPLAN**

## **DECISION #5: IMPROVEMENT ACTIVITIES**

**GOAL: 40 Points**

- **Medium (10 pt) and High (20 pt) activities.**
- **Attest to up to 4\* activities for minimum 90 days.**
- **Groups < 15 eligible clinicians, 2 activities.**
- **Certain APM participants receive full or half credit.**
- **Understand the measures:**

<https://qpp.cms.gov/mips/improvement-activities>



# MIPS Gameplan

## Decision #5: Improvement Activities Action Items

- **Select Activities**
- **Download Documentation Requirements**
- **Implement Processes**
- **Monitor Performance**

# **MIPS GAMEPLAN**

## **DECISION #6: COST**

**10% in 2018**

- ❖ **Download QRUR (Quality Resource and Use Report) – from Value Modifier Program.**
- ❖ **Understand cost drivers for Per Capita and Medicare Spending Per Beneficiary.**



# MIPS GAMEPLAN

## DECISION #6: COST

### Medicare Spending Per Beneficiary

Inpatient Hospital	Inpt Hospital Readmit
Prof Svcs – Your TIN	Prof Svcs – Other TIN
Home Health	SNF
Inpt Rehab or LTCH	ER Services
Outpt Rehab	Lab/Path/Imaging
Chemo/Drugs	DME

# MIPS Gameplan

## Decision #6: Cost

### Action Items

- **Obtain QRURs**
- **Analyze Attributed Beneficiaries for Per Capita**
- **Analyze Costs on MSPB**
- **Take Action to Impact Cost: Care Navigation? Patient Selection?**

# **MIPS GAMEPLAN - 2018**

- **Achieve minimum of 15 points to avoid penalty.**
- **Select and implement processes for Quality and PI Measures.**
- **Monitor Performance.**
- **Download 2016 QRUR Reports (and 2017 when released) to understand Cost and take corrective action, where possible.**
- **Upgrade to 2015 CEHRT, if currently on 2014 CEHRT.**
- **Subscribe to CMS QPP ListServ to stay current on QPP.**

## **CMS Empowers Patients and Ensures Site-Neutral Payment in Proposed Rule**

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<b>Date</b>	2018-07-25
<b>Title</b>	CMS Empowers Patients and Ensures Site-Neutral Payment in Proposed Rule
<b>Contact</b>	press@cms.hhs.gov

### **CMS Empowers Patients and Ensures Site-Neutral Payment in Proposed Rule**

*Outpatient Prospective Payment System (OPPS) & Ambulatory Surgical Center (ASC) proposed rule advances CMS commitment to increasing transparency and lowering drug prices*


If finalized, this proposal is projected to save patients about \$150 million in lower copayments for clinic visits provided at an off-campus hospital outpatient department. CMS is also proposing to close a potential loophole through which providers are billing patients more for visits in hospital outpatient departments when they create new service lines.

Additionally, CMS is giving patients more options on where to obtain care, in order to improve access and convenience and ensure that CMS policies are not favoring any particular provider type from the start. The proposed rule aims to address other payment differences between sites of service, so that patients can choose the setting that best meets their needs among safe and clinically appropriate options. For 2019, CMS is proposing to:

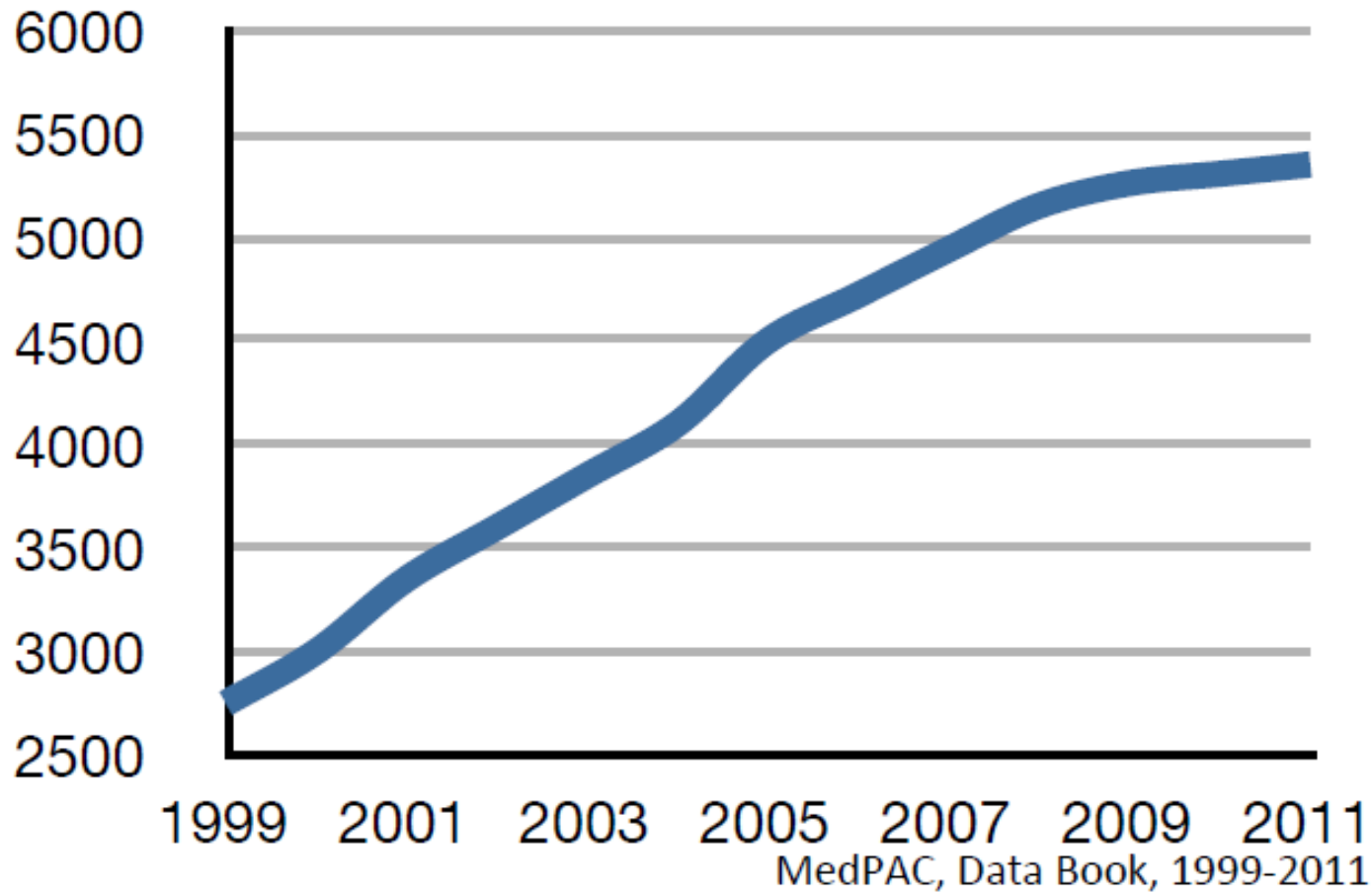
- Expand the number of procedures payable at ASCs to include additional procedures that can safely be performed in that setting;
- Ensure ASC payment for procedures involving certain high-cost devices parallels the payment amount provided to hospital outpatient departments for these devices; and
- Help ensure that ASCs remain competitive by stabilizing the differential between ASC payment rates and hospital outpatient department payment rates.

# WHAT IS A SURGICENTER?

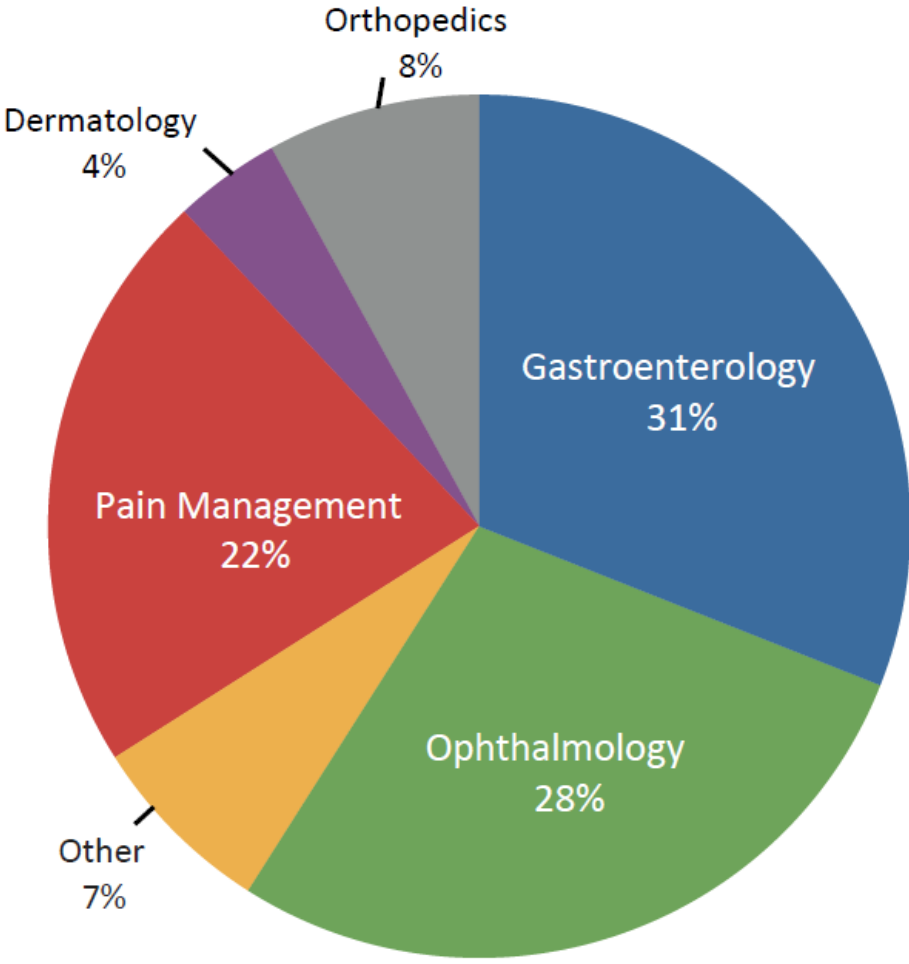
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- **AKA: ASC, outpatient surgery center, same day surgery center, surgicenter, etc.**
  - **Not requiring an overnight hospital stay**
  - **Procedures more intensive than in doctor's office but not so intensive as to require a hospital stay**
  - **ASC and a specialty hospital often provide similar facilities**
  - **Do not routinely provide emergency services**
- 

## Number of Medicare Certified ASCs



# Medicare Case Volume by Specialty




ASCA Analysis of CMS Claims Data 2010



# ASC VERSUS HOPD

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- **ASC, outpatient surgery center, same day surgery center, surgicenter, etc.**
    - Not requiring an overnight hospital stay
    - Procedures more intensive than in doctor's office but not hospital
    - ASC and a specialty hospital often provide similar facilities
  - **HOPD 100% owned by hospital**
    - ASC aligns with physicians financial interests
    - Co-management agreements with physicians
    - Lower acuity, lower reimbursing cases
    - Free up the hospital's operating rooms (ORs) for higher acuity, higher reimbursing cases
- 



# HOPD REIMBURSED ~81% MORE THAN ASC

2018 Payment Rate Update	ASC	HOPD
Inflation update factor	1.7%	2.7%
Productivity reduction mandated by the ACA	0.5 percentage points	0.6 percentage points
Additional reduction mandated by the ACA	n/a	0.75 percentage points
Effective update	1.2%	1.35%
Conversion factor	\$45.575	\$78.636

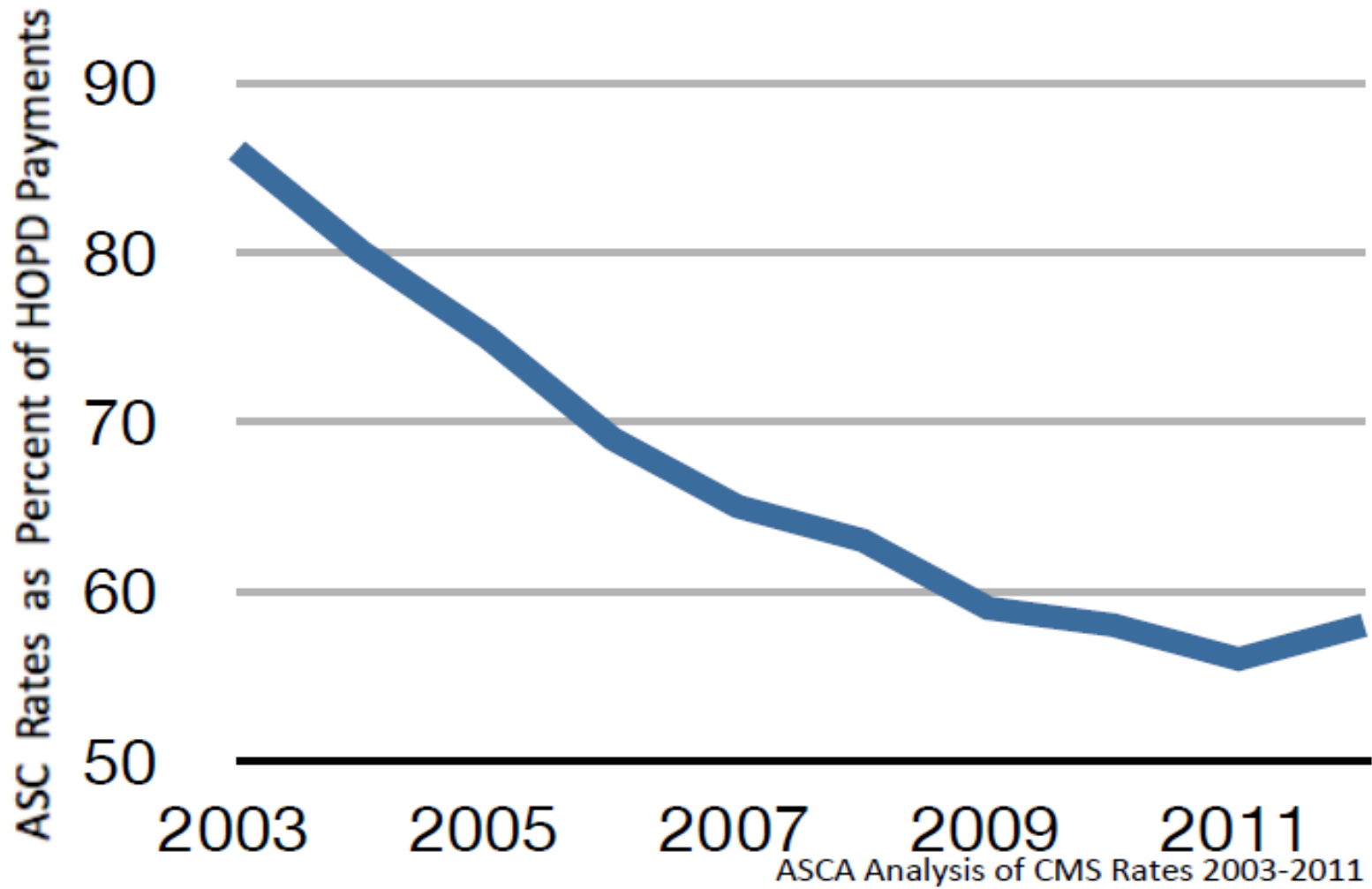
## Cost Comparison: ASC v. Hospital Outpatient Department

	Patient Cost		Medicare Cost	
	ASC Co-pay	HOPD Co-pay	Total Procedure Cost ASC	Total Procedure Cost HOPD
Cataract	\$193	\$490	\$964	\$1,670
Upper GI Endoscopy	\$68	\$139	\$341	\$591
Colonoscopy	\$76	\$186	\$378	\$655

ASCA Analysis of CMS Rates Effective 1 Jan. 2012



## The Gap Between ASC and HOPD Payments Has Widened Significantly



# INPATIENT ONLY CODES

## How a push to cut costs and boost profits at surgery centers led to a trail of death

By Christina Jewett, Kaiser Health News, and Mark Alesia, IndyStar - USA TODAY NETWORK

Published 6:00 a.m. ET March 2, 2018 | Updated 10:19 a.m. ET March 5, 2018



A USA TODAY/Kaiser Health News investigation of public records found that surgery centers have risked lives by operating on frail patients, by skimping on life-saving training and equipment and by sending patients home too soon. USA TODAY



(Photo: Michael Zamora, The Register via USA TODAY Network)

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The surgery went fine. Her doctors left for the day. Four hours later, Paulina Tam started gasping for air.

Internal bleeding was cutting off her windpipe, a well-known complication of the spine surgery she had undergone.

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# OPPS AND ASC PAYMENTS

DEPARTMENT OF HEALTH AND  
HUMAN SERVICES

Centers for Medicare & Medicaid  
Services

42 CFR Parts 416 and 419

[CMS-1695-P]

RIN 0938-AT30

Medicare Program: Proposed Changes to Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems and Quality Reporting Programs; Requests for Information on Promoting Interoperability and Electronic Health Care Information, Price Transparency, and Leveraging Authority for the Competitive Acquisition Program for Part B Drugs and Biologicals for a Potential CMS Innovation Center Model

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Proposed rule.

- **CMS is concerned because of the negative press on ASC injuries and deaths.**
  - “Medicare beneficiaries tend to be frailer and exhibit a higher number of comorbidities than other populations”
- **Proposing to review all 38 procedures that were added to the ASC CPL for CYs 2015, 2016, and 2017 to reassess safety, effectiveness, and beneficiary experience when performed in the ASC setting.**
- **May be placing back on the inpatient only list due to “a significant safety risk to a Medicare beneficiary when performed in an ASC”.**
- **Affects surgeons ability to choose what they think is in the best interest of their patient.**



37046

# QUESTIONS?

# CPT Code and RVU Development

# Current Procedural Terminology

- ▶ Medical code set developed and maintained by the American Medical Association
  - CPT Editorial Panel
  - CPT code set is copyright protected by AMA
- ▶ Designed to communicate uniform information about medical services and procedures
- ▶ New editions released each October



# Healthcare Common Procedure Coding System

- ▶ Originally stood for HCFA Common Procedure Coding System
  - Prior to 2001, Centers for Medicare and Medicaid Services (CMS) was known as the Health Care Financing Administration (HCFA)
- ▶ HCPCS was established in 1978 to provide a standardized coding system for the delivery of health care

# Healthcare Common Procedure Coding System

- ▶ CMS metrics from Oct 1 through Oct. 27
  - 4.6 million claims submitted per day
  - 2 percent rejected due to incomplete or invalid information
  - 0.11 percent rejected due to invalid ICD–9 codes
  - Of total claims processed, 10.1 percent denied, on par with historical baseline
- ▶ Coding necessary to ensure that insurance claims are processed in an orderly and consistent manner

# Healthcare Common Procedure Coding System

- ▶ Codes voluntary until Health Insurance Portability and Accountability Act of 1996:
  - Level I: AMA CPT (numeric)
  - Level II: Ambulance services, prosthetic devices, items and supplies, and non-physician services with no CPT codes (Level I)(Alphanumeric)
  - Level III codes: “Local codes” developed by state Medicaid, Medicare contractors, and insurers for specific programs and jurisdictions
    - HIPAA discontinued Level III on December 31, 2003, replaced by Category III codes.

# Temporary HCPCS codes

- ▶ C codes (Pass–Through)
  - Drugs, MRA, devices, etc. used by OPPS hospitals
  - Device categories, new technology, drugs, etc. that do not have other HCPCS code assignments
- ▶ G codes
  - Procedures and services with no CPT–4 codes
  - No CMS application process for “G” codes
- ▶ Q codes
  - Services that would not be given a CPT–4 code, but for which codes are needed for claims processing purposes

# Temporary HCPCS codes

- ▶ K codes
  - For DME MACs needed to implement a medical review policy
- ▶ S codes
  - Used by private insurers to report drugs, services, and supplies for which there are no national codes but needed for policies, programs, or claims
- ▶ H codes
  - Used by State Medicaid agencies mandated by law to identify mental health services
- ▶ T codes
  - Used by Medicaid State agencies to identify items without a national codes

# Category I CPT Codes

- ▶ Five-digit CPT code and descriptor
  - Based on contemporary medical practice by many clinical physicians in multiple US locations
- ▶ Criteria for category I CPT codes are:
  - FDA approved
  - Distinct service by many physicians across US
  - Clinical efficacy is well established and documented in the U.S. peer review literature
  - Not a fragmentation of existing procedure/service nor reportable by one or more existing codes
  - Not an extraordinary circumstance related to service with a CPT code

# Who reviews and sets the criteria for codes?

- ▶ The CPT Editorial Panel (17 members)
  - 11 physicians from Medical Specialty Societies
  - 1 physician from BCBS, AHAIP, AHA, CMS
  - 5 members of panel's Executive Committee
  - 1 Performance Measures representative (not member)
- ▶ CPT advisors of the CPT Advisory Committee
  - Nominated by the national medical specialty societies represented in the AMA House of Delegates
  - Resource to the CPT Editorial Panel

# Who Ultimately Sets The RVUs?

- ▶ Centers for Medicare and Medicaid
- ▶ Section 1848(c) of the Act
  - Requires the Secretary to determine relative values for physicians' services based on three components: the work, practice expense (PE), and malpractice components





# How is an RVU Calculated?

## MEDICARE FEE SCHEDULE FORMULA

$$[(RVU_w \times GPCI_w) + (RVU_{pe} \times GPCI_{pe}) + (RVU_m \times GPCI_m)] = \text{Total RVU}$$



$$\text{Total RVU} \times \$CF = \$\text{Medicare Allowable (local)}$$

### Fee schedule key:

$$MFS = [(RVU_w \times GPCI_w) + (RVU_{pe} \times GPCI_{pe}) + (RVU_m \times GPCI_m)] \times CF$$

RVU =	Relative Value Unit (weight assigned to the code)
GPCI =	Geographic Practice Cost Index (adjustment for geographic cost of living)
W =	Work (physician time/intensity)
PE =	Practice Expense (overhead)
M =	Malpractice
\$CF =	Conversion Factor (the dollar amount paid for a single RVU)

Source: AANS Coding Syllabus (2009 KZA, Inc.)



# RVU Battles



- **Section 3134(a) of the Affordable Care Act mandates looking for misvalued services**
- **Achieving a Better Life Experience (ABLE) Act of 2014, Congress set a target for adjustments**
  - **1% for 2016, 0.5% for 2017 and 2018.**
- **CMS misvalued code changes achieved 0.32%, missing target, thus requiring an adjustment.**
- **2017 PFS conversion factor \$35.99 (2008 was \$38.09)**

# MPFS 2019 Summary

- ▶ Conversion factor is \$36.05 (2018 \$35.99)
- ▶ Collapse E&M with new patient \$135 (99202–99205) and established \$93 (99212–99215)
  - New add-on codes for specific specialties (\$9) and primary care physicians (\$5)
  - Replace existing documentation guidelines
  - 50% multiple procedure reduction if report both E/M service and a procedure on the same date
- ▶ New CPT codes and payment for remote monitoring and interprofessional consultations.
- ▶ CMS updated supplies and equipment pricing.
  - 6% reduction in allergy and immunology payments.

# Global Period Issue History

- ▶ 2015 MPFS notes that the Office of the Inspector General has identified a number of surgical procedures that include more visits in the global period than are being routinely furnished
- ▶ Solution? Eliminate the global period

# Example of 22600

Pre-Service Package:	<input type="text"/>	Critical Care:	<input type="text"/>
Pre-Service Evaluation Time:	<input type="text" value="90.0"/>	Other Hospital:	<input type="text" value="158"/>
Pre-Service Positioning:	<input type="text"/>	Office Visits:	<input type="text" value="92"/>
Pre-Service Scrub, Dress, Wait Time:	<input type="text"/>	IWPUT:	<input type="text" value="0.0416"/>
Intra-Service:	<input type="text" value="120"/>	Total Time:	<input type="text" value="490.0"/>
Immediate Post Service:	<input type="text" value="30"/>	Source:	<input type="text" value="RUC"/>

OR Time

Level 3 Post-op Office Visits

In-patient Post-op Visits

30 minute discharge visit

99204:	<input type="text"/>	99211:	<input type="text"/>	99231:	<input type="text" value="6"/>	99238:	<input type="text" value="1"/>	99291:	<input type="text"/>
		99212:	<input type="text"/>	99232:	<input type="text"/>	99239:	<input type="text"/>	99292:	<input type="text"/>
		99213:	<input type="text" value="4"/>	99233:	<input type="text"/>				
		99214:	<input type="text"/>						
		99215:	<input type="text"/>						



# 2017 MPFS Requirement for Global Surgery Codes

- ▶ Prong One
  - Claims-based data collection (7/1/2017) in Florida, Kentucky, Louisiana, Nevada, New Jersey, North Dakota, Ohio, Oregon and Rhode Island
  - 10- and 90-day global periods
- ▶ Prong Two
  - Survey of just under 10,000 physicians on post-operative activities to supplement the claims-based data collection method
  - RAND asked AANS/CNS WC for neurosurgeons to review questions
    - Luis M. Tumialan and Clemens M. Schirmer selected to participate
- ▶ Prong Three
  - Information about global surgery services from accountable care organizations (ACOs).

# 2019 MFS Global

- ▶ On 7/1/2017 groups =>10 in 9 states (Florida, Kentucky, Louisiana, Nevada, New Jersey, North Dakota, Ohio, Oregon, and Rhode Island) to use 99024
- ▶ July 1, 2017 through December 31, 2017
  - 990,581 postoperative visits reported, ~45% of based on Tax ID claims
  - Neurosurgery had 83% reporting with 75% matched claims
- ▶ Very small number of matched visits during 10-day global periods, might be reasonable to assume that visits included in the 10-day global packages are not being furnished
- ▶ 87% of 90-day global periods had one or more associated post-operative visits
  - RAND piloted the post-operative visit survey in a small subsample of practitioners and found a very low response rate.
- ▶ CMS is refocusing on a survey to collect information on post-operative visits and non-face-to-face services associated with a small number of high-volume procedure codes.

# Code Valuation Challenges

- ▶ Magnitude estimation is hard
  - Requires a valid means of assessing value (surveys)
  - Labor intensive
  - The best methodology we have
  - Times estimated based upon survey results (hospital stay, number of clinic visits, etc.)
- ▶ Building block method is easy
  - Just add or subtract based on the value of your blocks
  - Non-sense results if applied to the entire schedule, many codes with negative value based on their component elements



# Example

- ▶ *61697 Surgery of complex intracranial aneurysm, intracranial approach; carotid circulation*
- ▶ Data from RUC database

AMA AMERICAN MEDICAL ASSOCIATION Home Search

Find CPT

61697 Find

CPT CODE	DUP	SHORT DESCRIPTOR
61697		BRAIN ANEURYSM REPR COMPLX
61698		BRAIN ANEURYSM REPR COMPLX
61700	*	BRAIN ANEURYSM REPR SIMPLE
61700	*	BRAIN ANEURYSM REPR SIMPLE
61702	*	INNER SKULL VESSEL SURGERY

« prev next »

General Information RVU History Vignette/Service RUC Rationale RUC Survey Data Physician Time Claims Data PE Inputs

Long Descriptor:  
Surgery of complex intracranial aneurysm, intracranial approach; carotid circulation

PERC/PEAC Review:  
When Reviewed What Reviewed  
Global 90 day Std

	Global	26	TC
Work RVU/Base Units:	63.40		
Non Facility PE RVU:	NaN		
Facility PE RVU:	35.85		
Liability Insurance RVU:	21.54		
Non Facility Total RVU:	NA		
Facility Total RVU:	120.79		
Medicare Non Facility Pay:	NA		
Medicare Facility Pay:	\$4,327.04		
Medicare Status:	A		
Policy Indicators:	C+ M		

CPT Publication Yr: 3rd- 5 Year I

CPT Mtg Date:

CPT Mtg Agenda Tab:

RUC Meeting Date: Aug05

RUC Agenda Tab: 16

MPC:

Tracking Number:

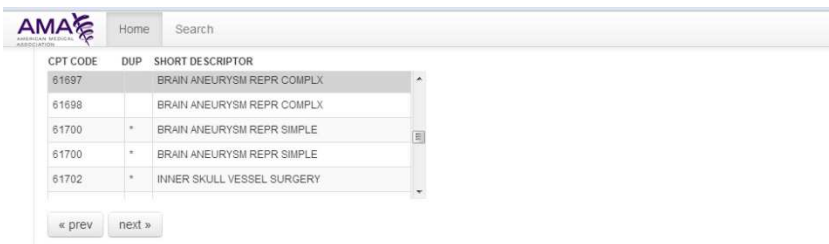
Global: 090

New Technology List:

Moderate Sedation:



# Present wRVU: 63.40



A screenshot of the AMA website showing a list of CPT codes. The table has columns for CPT CODE, DUP, and SHORT DESCRIPTOR. The codes listed are 61697, 61698, 61700, 61700, and 61702. The descriptions are related to brain aneurysm resection and skull vessel surgery.

CPT CODE	DUP	SHORT DESCRIPTOR
61697		BRAIN ANEURYSM REPR COMPLX
61698		BRAIN ANEURYSM REPR COMPLX
61700	*	BRAIN ANEURYSM REPR SIMPLE
61700	*	BRAIN ANEURYSM REPR SIMPLE
61702	*	INNER SKULL VESSEL SURGERY

▶ What are the time breakdowns?

- Intra time: 300 minutes

- Hospital stay? 17 days

  - 5 99233's, 6 99232's, 5 99231's and 1 99238

- Post-op visits? 1 99214 and 2 99213

▶ Total time? 1194 minutes

General Information RVU History Vignette/Service RUC Rationale RUC Survey Data Physician Time Claims Data PE Inputs

Specialty: American Association of Neurological Surgeons/Congress of Neurological Surgeons

Sample Size: 275 Length Of Hospital Stay:

Number of Respondents: 41 Med Post Zzz Xxx 000:

Median Rvw: 57.31 Day Of Proc 090 010:

Median Pre Service Time: Immediate Post Service Time: 50.00

Median Intra Service Time: 300.00 Median Post Service Time:

Pre-Evaluation Time: 60.00

Pre-Positioning Time: 30.00

Pre-Service Scrub, Dress, Wait Time: 15.00 Total Ruc Time: 1194.00

99231: 5.00 99291: 99238: 1.00 99204: 99214: 1.00  
99232: 6.00 99292: 99239: 99211: 99215:  
99233: 5.00 99296: 99212:  
99297: 99213: 2.00



# Building blocks

- ▶ 99233 2 wRVUs  
times 5 = 10 wRVUs
- ▶ 99232 1.39 wRVUs  
times 6 = 8.34 wRVUs
- ▶ 99231 0.76 wRVUs  
times 5 = 3.8 wRVUs
- ▶ 99238 1.28 wRVUs
- ▶ 99213 0.97 wRVUs  
times 2 = 1.94 wRVUs
- ▶ 99214 1.50 wRVUs

- ▶ Hospital stay value:
  - 23.42 wRVUs
- ▶ Post-op care value:
  - 3.44 wRVUs

Total: 26.86 wRVUs

43% of total code value

# ICD-10

- ▶ W55.21 – bitten by a cow
- ▶ W61.33 – pecked by a chicken
- ▶ Z63.1 – problems in relationship with in-laws
- ▶ Y92.253 – hurt at the opera
- ▶ W56.22 – struck by orca, initial encounter

# Understanding Code Valuation for the Rest of Us

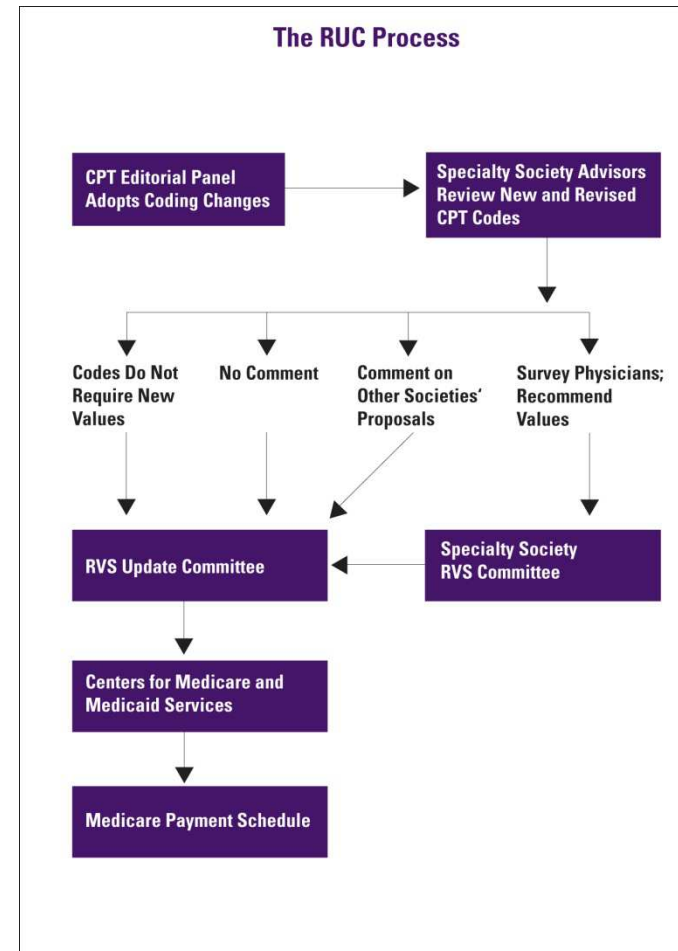
How are CPT codes valued?

# RBRVS

- ▶ Physician work: 52% (48%) of whole value
  - The rest is made up of practice expense reimbursement and medicolegal
- ▶ Initially determined by Harvard University study (“Harvard codes”)
  - Based on time, technical skill, physical effort, mental effort, and stress
  - Arbitrary
- ▶ Legislation mandated reviewing entire code set every 5 years

# How the RUC Process Works

- ▶ CPT Editorial Panel sets coding terminology, refers to the RUC
- ▶ Relevant specialty society surveys its membership to value the procedure, brings that data back to the RUC
- ▶ RUC recommends value for individual services to CMS



# RUC

- ▶ Membership represents whole body of medicine
- ▶ Appointed members sit on committee proper
- ▶ Each specialty appoints advisors who present code data, make recommendations
- ▶ RUC makes recommendations to CMS, who make final decision

## RVS Update Committee (RUC)

Chair

American Medical Association

CPT Editorial Panel

American Osteopathic Association

Health Care Professionals Advisory Committee

Practice Expense Subcommittee

Anesthesiology

Cardiology

Cardiothoracic Surgery

Colon and Rectal Surgery\*

Dermatology

Emergency Medicine

Family Medicine

General Surgery

Infectious Disease\*

Internal Medicine

Nephrology\*

Neurology

Neurosurgery

Obstetrics/Gynecology

Ophthalmology

Orthopaedic Surgery

Otolaryngology

Pathology

Pediatrics

Plastic Surgery

Psychiatry

Radiology

Urology

(\*Indicates rotating seat)



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# Surveys

- ▶ Provide the foundation specialty society recommendations to the RUC...
- ▶ Which are the foundations for CMS to set the Medicare fee schedule...
- ▶ Which is generally adopted by all payers...
- ▶ Which is how we get paid
  
- ▶ **They are very important!**

# Survey Methodology

- ▶ Sent out by specialty societies by email
- ▶ Response rates usually dismal, ~10%
  - Conflicts of interest
- ▶ Provide basis for society recommendations for code valuation

# General Tenets about Surveys

- ▶ **Be honest!**
  - Do not overestimate or underestimate how long a procedure takes
- ▶ **Imagine a routine patient**
  - Neither an easy nor hard case
- ▶ **Complete in a timely fashion!**
  - Deadlines usually very tight!

# Physician Time

- ▶ Not just time spent doing surgery
- ▶ Considers time spent in pre-procedure assessment, positioning, post-operative evaluation
- ▶ Pre-service
  - Seeing patient in hospital day of procedure
  - Obtaining consent (clinic visit or in hospital)

# Physician Time

- ▶ Intra-service
  - “skin to skin” time
  - Not a time to ‘show off’ your best time
  
- ▶ Post-service
  - Seeing patient in hospital, including immediate postop, before discharge, and then in clinic for the 90 day global period
  - Uses E&M codes to value post-op visits

# Survey Content

- ▶ Financial disclosure/potential conflicts of interest are the first item reviewed
- ▶ Question 1: Which of the reference services on the attached list is most similar to the survey code descriptor and typical patient/service described on the cover of this questionnaire?
  - Survey will give a list of potential reference codes, surgeon filling out the survey picks one

# Survey Content

- ▶ Question #2: How much of your own time is required per patient treated for each of the following steps in patient care related to this procedure?
  - a) Day preceding procedure Survey Code
    - Pre-service evaluation time: \_\_\_\_\_ minutes
  - b) Day of procedure
    - Pre-service evaluation: \_\_\_\_\_ minutes
    - Pre-service positioning time: \_\_\_\_\_ minutes
    - Pre-service scrub, dress, wait time: \_\_\_\_\_ minutes
    - Intra-service time: \_\_\_\_\_ minutes
    - Immediate post-service time\* \_\_\_\_\_ minutes

# Survey Content

- Post-operative work:
  - Do you typically (> 50%) perform this procedure in a hospital, ASC or in your office?
  - If you typically perform this procedure in a hospital, is your patient discharged the same day, kept overnight but less than 24 hours, or admitted to the hospital?
  - If your patient is typically kept overnight in a hospital, will you perform an E&M service later on the same day?



# Survey Content

- ▶ Pre-op and post-op times are now bundled into packages
  - Decreases variability
- ▶ Hospital and clinic times remain important for global period cases
  - This is an example of the survey instrument used to capture post-op care

	Day of Surgery	Day 1	Day 2	Day 3	Day 4	Days 5-10	Days 11-30	Days 31-60	Days 61-90
<b>Hospital visits*</b>									
99231	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99232	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99233	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99291	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99292	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Discharge day management*</b>									
99217	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99238	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99239	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Office visits*</b>									
99211	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99212	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99213	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99214	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99215	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Subsequent observation care*</b>									
99224	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99225	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99226	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Prolonged services</b>									
99354	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99355	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99356	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99357	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Defined on next page

CPT five-digit codes, two-digit modifiers, and descriptions only are copyright by the American Medical Association.

# Survey Content

- ▶ Question 3: Compare INTENSITY COMPONENTS of the survey code(s) relative to the corresponding reference code(s) you selected in Question 1
- ▶ Asks about diagnostic difficulty, degree of record analysis needed, urgency of decision making, technical skill required, physical effort, risk of complications, and risk of a malpractice suit
  - Compares each of these to the key reference code
  - Is the key reference easier or harder than the surveyed code?

# Survey Content

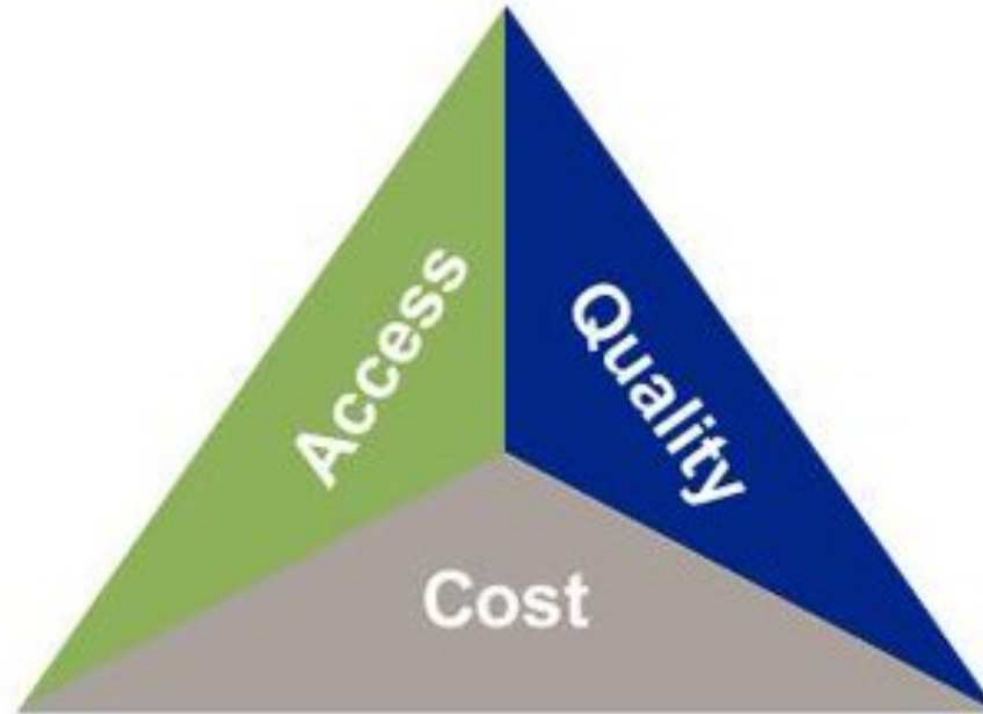
- ▶ Question 4: Compare OVERALL intensity/complexity of all physician work you perform for the survey code(s) relative to the corresponding reference code(s) you selected in Question 1.
- ▶ Question 5: How many times have you personally performed these procedures in the last year?
- ▶ Question 6: Is the procedure done with moderate sedation in the ASC or office?

# Survey Content

- ▶ Question 7: Based on your review of all previous questions, please provide your estimate work RVU (to the hundredth decimal point) for the survey code
- ▶ Probably single most important question

# Hospitals And Payors Have a Different Payment Model to Physicians

*IRON TRIANGLE*



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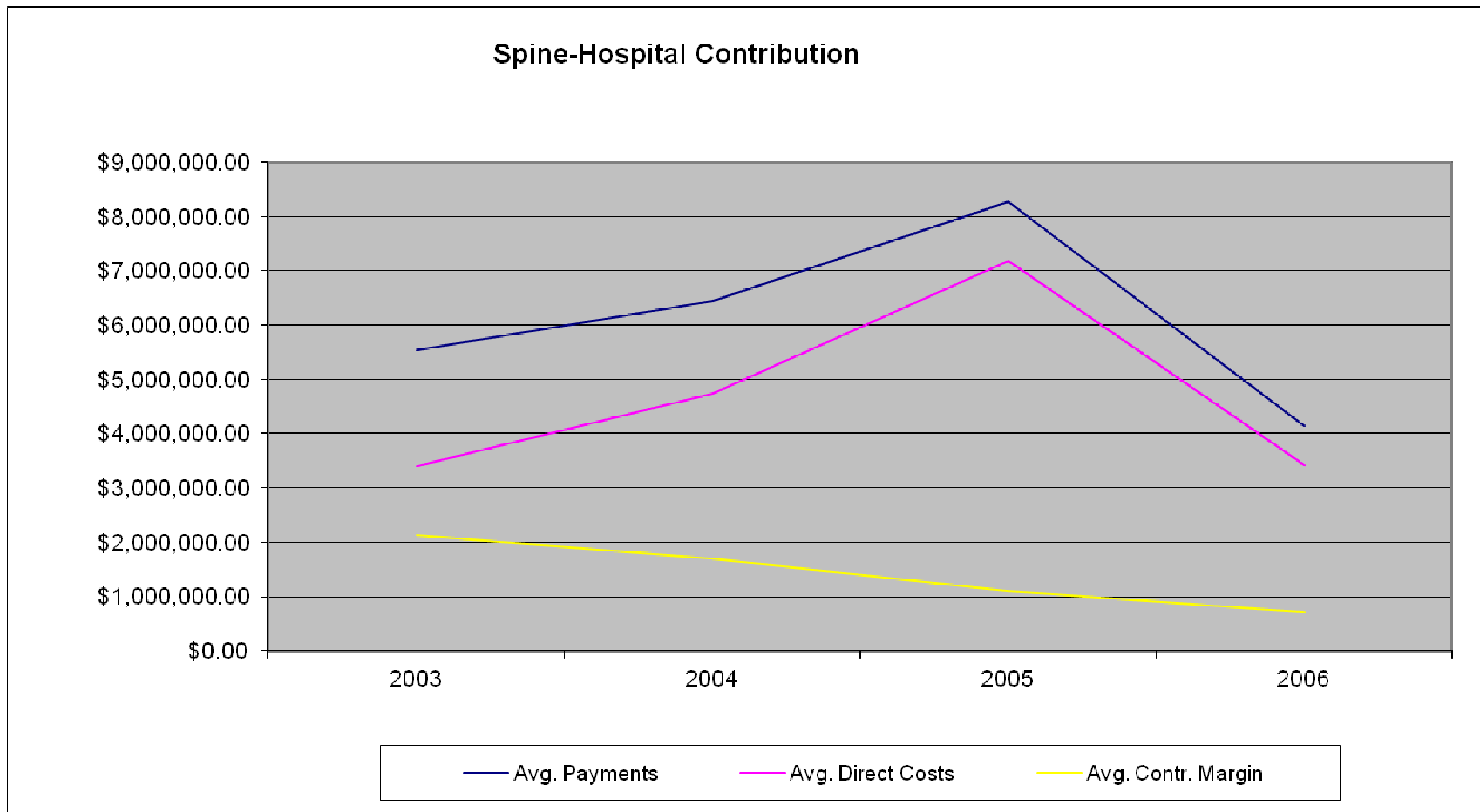
SOURCE: © McKinsey and Company

# “Bundled Payments” To Hospital

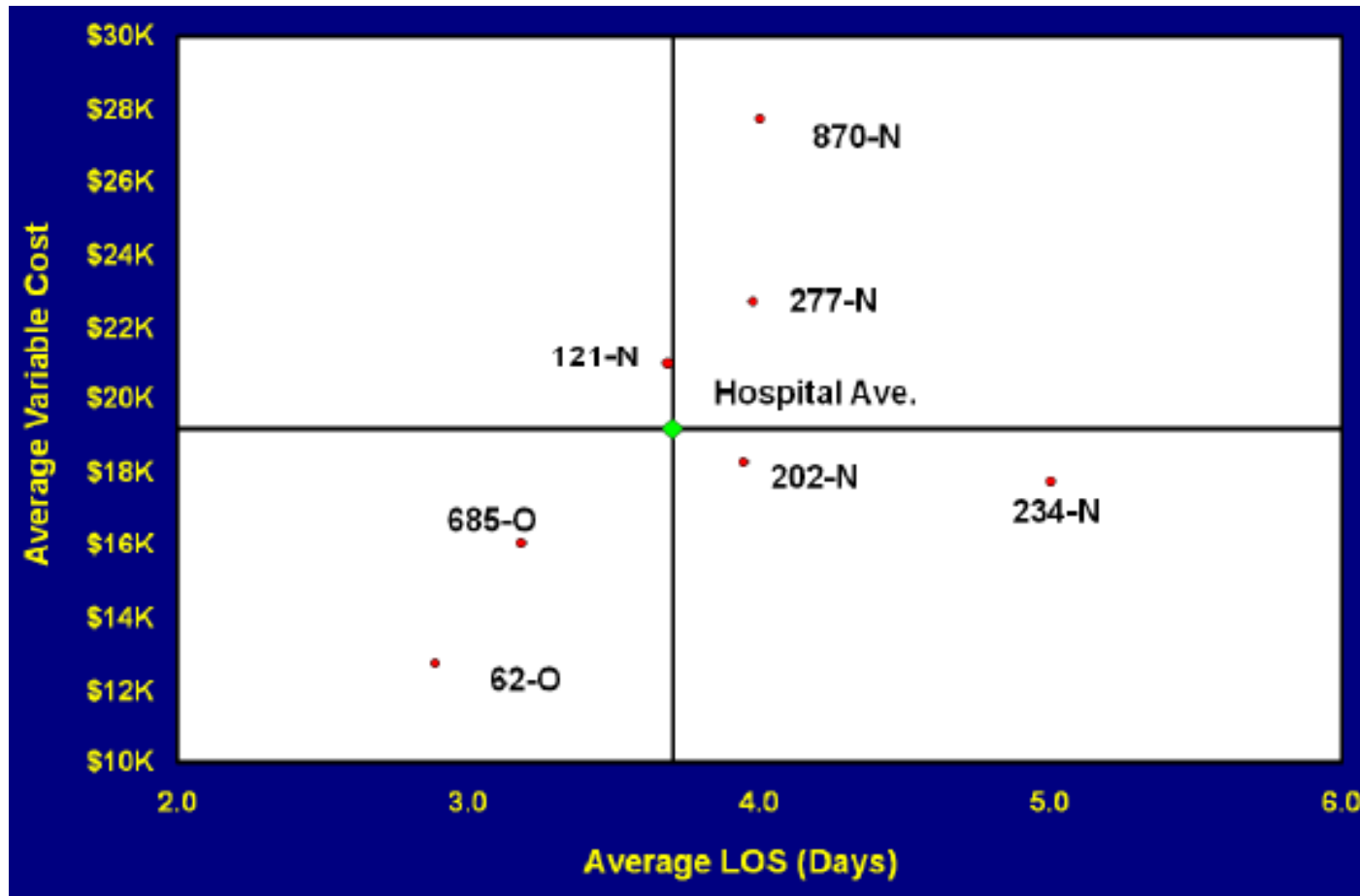
## 2017 Medicare Severity—Diagnosis Related Group (MS-DRG) Assignment

MS-DRG	Description*	MDC	Relative Weight*	2017 Medicare Payment*
028	Spinal Procedures with MCC	1	5.5439	\$33,058
029	Spinal Procedures with CC or Spinal Neurostimulator	1	3.1882	\$19,011
030	Spinal Procedures without CC/MCC	1	1.9008	\$11,334
453	Combined Anterior/Posterior Spinal Fusion with MCC	8	10.8459	\$64,673
454	Combined Anterior/Posterior Spinal Fusion with CC	8	8.1210	\$48,425
455	Combined Anterior/Posterior Spinal Fusion without CC/MCC	8	6.3467	\$37,845
456	Spinal Fusion except Cervical with Spinal Curvature/Malignancy/ Infection or Extensive Fusions with MCC	8	6.3467	\$59,127
457	Spinal Fusion except Cervical with Spinal Curvature/Malignancy/ Infection or Extensive Fusions with CC	8	7.0523	\$42,052
458	Spinal Fusion except Cervical with Spinal Curvature/Malignancy/ Infection or Extensive Fusions without CC/MCC	8	5.3389	\$31,835
459	Spinal Fusion Except Cervical with MCC	8	6.5532	\$39,076
460	Spinal Fusion Except Cervical without MCC	8	3.9894	\$23,789

# Service Line Contribution Margin



# Surgeon Analysis MS-DRG 460





# Ongoing Professional Practice Evaluation

Name	Metrics Based on Discharge or Procedures*	Cases	LOS			Cost			CMI	
			Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	Mean Direct Cost (Obs)	Mean Direct Cost (Exp)	Direct Cost Index	Medicare CMI	Non-Medicare CMI
Focus Physician Group	D	1,287	5.40*	5.80	0.93	17,271	16,779	1.03	3.11	3.03
US News Top Hospitals 2015	D	523,736	5.94**	5.64	1.05	12,799**	11,164	1.15	2.30	1.80
	D	198	3.44*	3.97	0.87	12,598**	15,698	0.80	3.24	3.00
	D	42	5.29	5.31	1.00	15,909**	23,851	0.67	4.27	3.65
	D	85	4.99	5.26	0.95	13,099*	16,614	0.79	2.98	3.31
	D	38	6.58	6.05	1.09	16,441	14,275	1.15	4.19	2.27
	D	86	5.12	5.46	0.94	26,086**	19,561	1.33	3.37	3.95

Cigna Corp. (CI) - NYSE

[+ Add to Portfolio](#) [Like](#) 12

**73.17** ↓0.73(0.99%) Oct 24, 4:00PM EDT | After Hours : **74.00** ↑0.83 (1.14%) Oct 24, 4:50PM EDT

### Income Statement

Get Income Statement for:  [GO](#)

View: [Annual Data](#) | [Quarterly Data](#)

All numbers in thousands

Period Ending	Dec 31, 2012	Dec 31, 2011	Dec 31, 2010
Total Revenue	29,119,000	21,865,000	21,128,000
Cost of Revenue	17,900,000	12,490,000	12,233,000
Gross Profit	11,219,000	9,375,000	8,895,000

Aetna Inc. (AET) - NYSE

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**61.70** ↓0.65(1.04%) Oct 24, 4:00PM EDT | After Hours : **62.44** ↑0.74 (1.19%) Oct 24, 4:50PM EDT

### Income Statement

Get Income Statement for:  [GO](#)

View: [Annual Data](#) | [Quarterly Data](#)

All numbers in thousands

Period Ending	Dec 31, 2012	Dec 31, 2011	Dec 31, 2010
Total Revenue	36,595,900	33,779,800	34,246,000
Cost of Revenue	25,737,000	23,530,000	24,733,000
Gross Profit	10,858,900	10,249,800	9,513,000

WellPoint Inc. (WLP) - NYSE

[+ Add to Portfolio](#) [Like](#) 35

**83.60** ↓1.88(2.20%) Oct 24, 4:00PM EDT | After Hours : **84.04** ↑0.44 (0.53%) Oct 24, 5:48PM EDT

### Income Statement

Get Income Statement for:  [GO](#)

View: [Annual Data](#) | [Quarterly Data](#)

All numbers in thousands

Period Ending	Dec 31, 2012	Dec 31, 2011	Dec 31, 2010
Total Revenue	61,711,700	60,710,700	58,698,500
Cost of Revenue	48,213,600	47,647,500	44,930,400
Gross Profit	13,498,100	13,063,200	13,768,100



# WellPoint 2012 Annual 10-K Reports to Securities and Exchange Commission

- ▶ 2012 total revenue was \$61.7 billion.
  - \$56.5B from premium revenues
  - \$3.9B administering employers who self-insure
- ▶ Revenue From “Float” Money \$297.7M
  - Premium payments before claims outlays.
  - High interest rates a major source of revenue.

# WellPoint 2012 10-K

- ▶ 2012 saw \$14.5B gross profit
- ▶ Selling, General, And Administrative Expenses (S.G.&A)
  - 2012 was \$8.7B (14.1% of total revenue)
  - In 2008 was \$9B or 14.7% of total revenue

# WellPoint 2012 Health Benefit Ratio

- ▶ Medical Loss Ratio (MLR) by actuaries
- ▶ 2012 health benefits was \$48.2B
- ▶ 85% of premium revenue compared to 84.4% in 2008
- ▶ Represents what insurers “lose” to doctors, hospitals and other providers of health care.

# Fiduciary Responsibility

Anthem, Inc. (ANTM) ★ Watchlist  
**141.49** +2.75(+1.98%) NYSE - As of 4:02PM EST

Beat the market  
Get the app



# “Hidden” Healthcare Costs

## ANTM Shares Outstanding Range, Past 5 Years

Minimum	261.03M	Sep 30 2015
Maximum	325.19M	Jul 12 2012
Average	278.49M	

## Anthem, Inc. Dividend Date & History

**ANTM \$176.41 \* 0.28 ↓ 0.16%**

\*Delayed - data as of May 19, 2017 - [Find a broker to begin trading ANTM now](#)

Ex/Eff Date	Type	Cash Amount	Declaration Date	Record Date	Payment Date
6/7/2017	Cash	0.65	4/26/2017	6/9/2017	6/23/2017
3/8/2017	Cash	0.65	2/22/2017	3/10/2017	3/24/2017
12/1/2016	Cash	0.65	11/2/2016	12/5/2016	12/21/2016
9/7/2016	Cash	0.65	7/27/2016	9/9/2016	9/26/2016
6/8/2016	Cash	0.65	4/27/2016	6/10/2016	6/24/2016
3/8/2016	Cash	0.65	2/19/2016	3/10/2016	3/25/2016
12/2/2015	Cash	0.625	10/28/2015	12/4/2015	12/21/2015
9/8/2015	Cash	0.625	7/29/2015	9/10/2015	9/25/2015
6/8/2015	Cash	0.625	4/29/2015	6/10/2015	6/25/2015
3/6/2015	Cash	0.625	1/28/2015	3/10/2015	3/25/2015



# Questions?



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# CPT 2018 Updates



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# 2018 Changes

20225

deep (eg, vertebral body, femur)

➔ *CPT Changes: An Insider's View 2002*

➔ *CPT Assistant* Winter 92:17, Jul 98:4, Jun 12:10, Jan 15:8

➔ *Clinical Examples in Radiology* Fall 10:8, Winter 17:5

(Do not report 20225 in conjunction with 22510, 22511, 22512, 22513, 22514, 22515, 0200T, 0201T, when performed at the same level)

▶ (For bone marrow biopsy[ies] and/or aspiration[s], see 38220, 38221, 38222) ◀

(For radiologic supervision and interpretation, see 77002, 77012, 77021)

20225

deep (eg, vertebral body, femur)

➔ *CPT Changes: An Insider's View 2002*

➔ *CPT Assistant* Winter 92:17, Jul 98:4, Jun 12:10, Jan 15:8

➔ *Clinical Examples in Radiology* Fall 10:8

(Do not report 20225 in conjunction with 22510, 22511, 22512, 22513, 22514, 22515, 0200T, 0201T, when performed at the same level)

~~(For bone marrow biopsy, use 38221)~~

(For radiologic supervision and interpretation, see 77002, 77012, 77021)



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# 2018 Changes (Not Final)

## +● 20939

Bone marrow aspiration for bone grafting, spine surgery only, through separate skin or fascial incision (List separately in addition to code for primary procedure)

➔ *CPT Changes: An Insider's View 2018*

▶(Use 20939 in conjunction with 22319, 22532, 22533, 22534, 22548, 22551, 22552, 22554, 22556, 22558, 22590, 22595, 22600, 22610, 22612, 22630, 22633, 22634, 22800, 22802, 22804, 22808, 22810, 22812)◀

▶(For bilateral procedure, use 20939 with modifier 50)◀

▶(For aspiration of bone marrow for the purpose of bone grafting, other than spine surgery and other therapeutic musculoskeletal applications, use 20999)◀

▶(For bone marrow aspiration[s] for platelet-rich stem cell injection, use 0232T)◀

▶(For diagnostic bone marrow aspiration[s], see 38220, 38222)◀



# 2018 Changes

- **15730** Midface flap (ie, zygomaticofacial flap) with preservation of vascular pedicle(s)  
➔ *CPT Changes: An Insider's View 2018*
  
- 15731** Forehead flap with preservation of vascular pedicle (eg, axial pattern flap, paramedian forehead flap)  
➔ *CPT Changes: An Insider's View 2007*  
➔ *CPT Assistant Dec 12:6*  
  - ▶ (For muscle, myocutaneous, or fasciocutaneous flap of the head or neck, use 15733) ◀
  - ▶ (15732 has been deleted. To report myocutaneous or fasciocutaneous flap, use 15733) ◀
  
- **15733** Muscle, myocutaneous, or fasciocutaneous flap; head and neck with named vascular pedicle (ie, buccinators, genioglossus, temporalis, masseter, sternocleidomastoid, levator scapulae)  
➔ *CPT Changes: An Insider's View 2018*  

(For forehead flap with preservation of vascular pedicle, use 15731)

  - ▶ (For anterior pericranial flap on named vascular pedicle, for repair of extracranial defect, use 15731) ◀

## Surgery of Skull Base

The *repair/reconstruction procedure(s)* is reported separately if extensive dural grafting, cranioplasty, local or regional myocutaneous pedicle flaps, or extensive skin grafts are required.

For primary closure, see the appropriate codes (ie, 15732, 15756-15758).

When one surgeon performs the approach procedure, another surgeon performs the definitive procedure, and another surgeon performs the repair/reconstruction

# 2018 Changes

► For vertebral corpectomy, the term **partial** is used to describe removal of a substantial portion of the body of the vertebra. In the cervical spine, the amount of bone removed is defined as at least one-half of the vertebral body. In the thoracic and lumbar spine, the amount of bone removed is defined as at least one-third of the vertebral body. ◀

## **Rationale:**

A definition for partial vertebral corpectomy has been added to the Anterior or Anterolateral Approach for Extradural Exploration/Decompression guidelines in the Spine and Spinal Cord section.

The addition of this definition was prompted by a need identified by the AMA Specialty Society Relative Value Scale (RVS) Update Committee (RUC) and Relativity Assessment Workgroup (RAW) to review lumbar arthrodesis code 22558 and vertebral corpectomy code 63090. During this review, it was noted that 22558 and 63090 may have been reported together inappropriately because partial vertebral corpectomy is not defined. This may have resulted in an overutilization of code 63090.

The new definition provides clarity of partial corpectomy in the cervical spine, in the thoracic spine, and in the lumbar spine by providing a threshold of the amount of bone removed. This will make it easier for users to determine whether or not it is appropriate to report partial corpectomy, potentially reducing overutilization of code 63090.



# 2018 Changes

► Codes 64553, 64555, and 64561 may be used to report both temporary and permanent placement of percutaneous electrode arrays. Code 64550 describes application of surface (transcutaneous) neurostimulator (eg, TENS unit) at any anatomical site. ◀

▲ **64550** Application of surface (transcutaneous) neurostimulator (eg, TENS unit)

➔ *CPT Changes: An Insider's View 2018*

➔ *CPT Assistant* Jan 02:11, Apr 02:18

**64553** Percutaneous implantation of neurostimulator electrode array; cranial nerve

➔ *CPT Changes: An Insider's View 2000, 2012*

➔ *CPT Assistant* Nov 99:38, Apr 01:9

► (64565 has been deleted) ◀

► (For percutaneous electrical neuromuscular stimulation or neuromodulation using needle[s] or needle electrode[s] [eg, PENS, PNT], use 64999) ◀



# 2018 Changes

**64910** Nerve repair; with synthetic conduit or vein allograft (eg, nerve tube), each nerve

➔ *CPT Changes: An Insider's View 2007*

➔ *CPT Assistant Nov 07:4, Apr 15:10, Aug 15:8*

**64911** with autogenous vein graft (includes harvest of vein graft), each nerve

➔ *CPT Changes: An Insider's View 2007*

➔ *CPT Assistant Nov 07:4*

(Do not report 69990 in addition to 64910, 64911)

● **64912** with nerve allograft, each nerve, first strand (cable)

➔ *CPT Changes: An Insider's View 2018*

+● **64913** with nerve allograft, each additional strand (List separately in addition to code for primary procedure)

➔ *CPT Changes: An Insider's View 2018*

▶ (Use 64913 in conjunction with 64912) ◀

▶ (Do not report 64912, 64913 in conjunction with 69990) ◀

## Rationale:

Codes 64X91X and 64X92X have been added to describe nerve repair with nerve allograft. Prior to 2018, four types of grafts used for nerve repair were described in the CPT code set: nerve autograft (64885-64907), vein allograft (64910), vein autograft (64911) and synthetic conduit (64910). Nerve repair using nerve allograft was reported with unlisted nervous system procedure code 64999.

Code 64X91X is reported for each nerve repaired, and the first strand of nerve fiber used. Code 64X92X is an add-on code and is reported with 64X91X for each additional strand. Strands are part of the graft and are sutured to the ends of the damaged nerve cable. Nerve repair with allograft is a microsurgical procedure that includes use of the operating microscope; therefore code 69990 is not reported separately.



# 2018 Changes

## Operating Microscope

► The surgical microscope is employed when the surgical services are performed using the techniques of microsurgery. Code 69990 should be reported (without modifier 51 appended) in addition to the code for the primary procedure performed. Do not use 69990 for visualization with magnifying loupes or corrected vision. Do not report 69990 in addition to procedures where use of the operating microscope is an inclusive component (15756-15758, 15842, 19364, 19368, 20955-20962, 20969-20973, 22551, 22552, 22856-22861, 26551-26554, 26556, 31526, 31531, 31536, 31541, 31545, 31546, 31561, 31571, 43116, 43180, 43496, 46601, 46607, 49906, 61548, 63075-63078, 64727, 64820-64823, 64912, 64913, 65091-68850, 0184T, 0308T, 0402T). ◀

- + 69990** Microsurgical techniques, requiring use of operating microscope (List separately in addition to code for primary procedure)
  - *CPT Changes: An Insider's View 2002*
  - *CPT Assistant* Nov 98:20, Apr 99:11, Jun 99:11, Jul 99:10, Oct 99:10, Oct 00:3, Oct 02:8, Jan 04:28, Mar 05:11, Jul 05:14, Aug 05:1, Nov 07:4, Sep 08:10, Mar 09:10, Dec 11:14, Mar 12:9, Jun 12:17, Dec 12:13, Oct 13:14, Jan 14:8, Apr 14:10, Sep 14:13-14, Feb 16:12

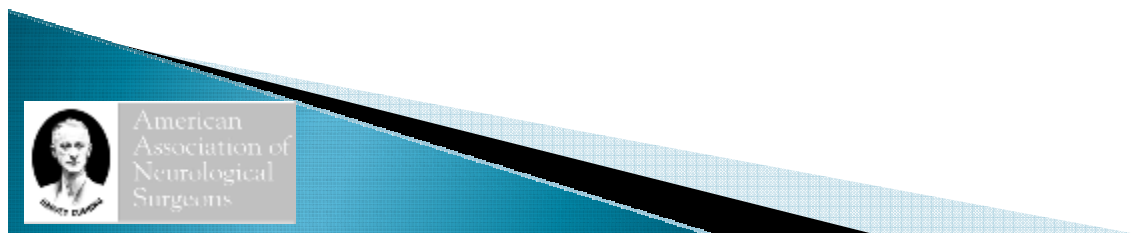




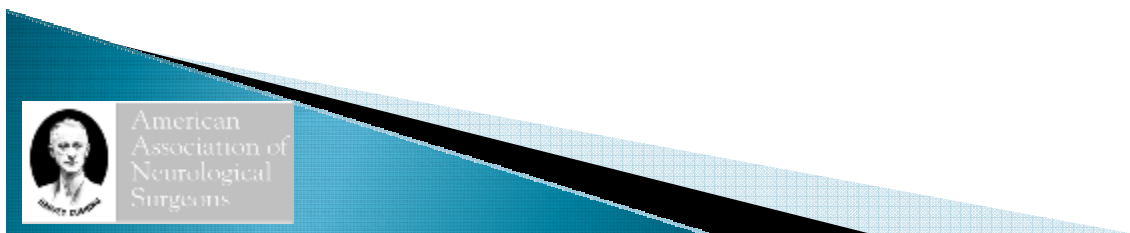
# CPT 2019 Updates (Not Final)



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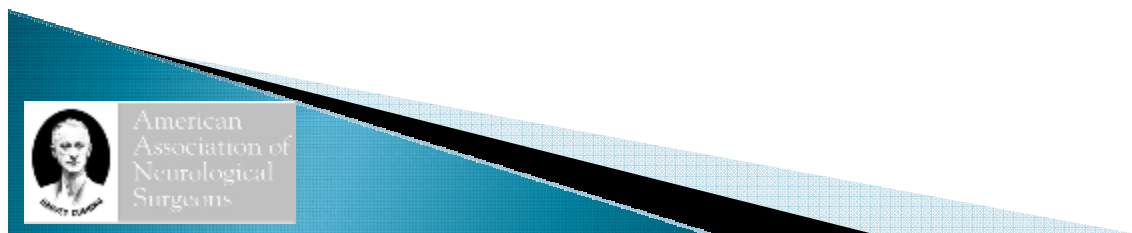


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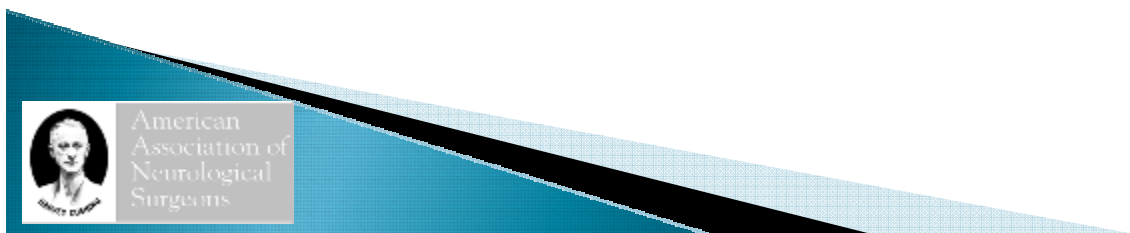
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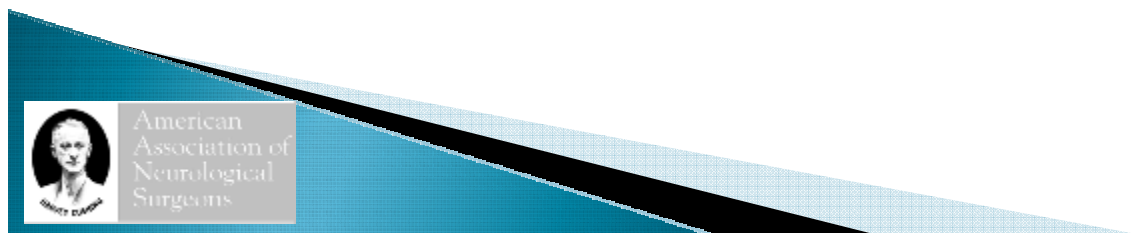
<i>angiography, and fluoroscopic guidance for the balloon dilatation)</i>
<i>(Do not report 61640, 61642 in conjunction with 61650 or 61651 for the same vascular territory)</i>

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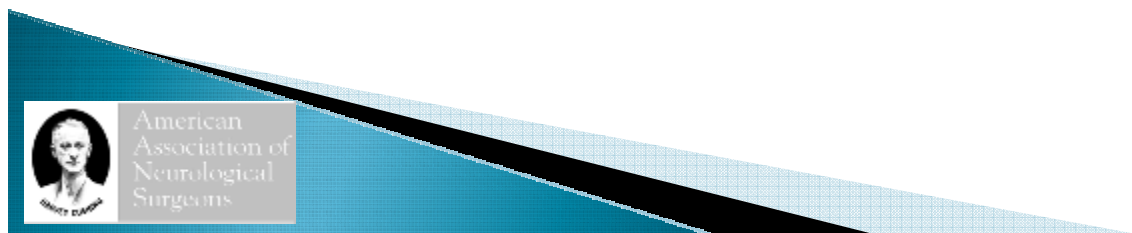


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# Questions?



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# Spine Reconstructive Procedures With Cases

# Definitions of MIS

- ▶ Percutaneous Discectomy
- ▶ Endoscopic Discectomy
- ▶ Endoscopically Assisted Discectomy
- ▶ Minimally Invasive Discectomy
- ▶ Microscopic Discectomy
- ▶ Open Discectomy

# Disc Decompression

- ▶ Laminotomy, facetectomy, foraminotomy
  - 90 Day Global
  - “And/Or Excision of Herniated Disc”
  - 63020 Cervical, 63030 Lumbar
  - 63035 C/L add’l level (No -51)
  - Includes use of endoscope
    - Do not refer to as “Percutaneous”
  - Unilateral codes, -50 for bilateral

*This has created problems!*

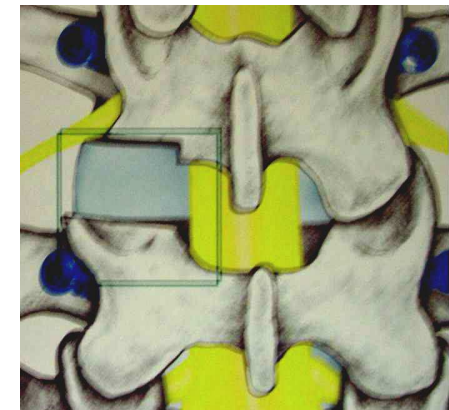
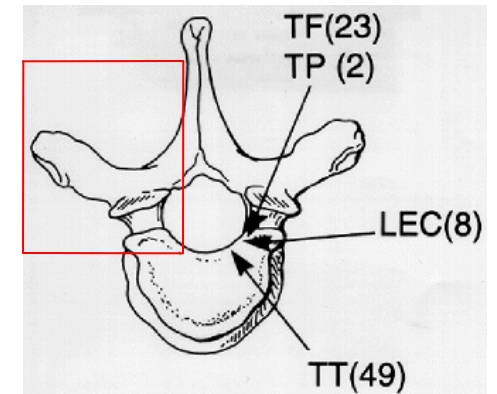


# How to Code?

- ▶ Minimally Invasive TLIF (Transforaminal Lumbar Interbody Fusion)
  - Using specialized retractors and endoscope, microscope, or loupes/headlight can be used.
  - Also known as MAST™ Transforaminal Lumbar Interbody Fusion (TLIF), ATAVI™, and other trade names of the tools and implants for the TLIF.
  - ***AANS Recommends:*** Use CPT 22630. Do not separately bill fluoroscopy (e.g., 77003).

# TLIF Does Not Use 63056

- ▶ Transpedicular decompression
  - Is inherent to the procedure and should be billed seperately
- ▶ If used for a decompression alone...
  - Bilateral code, disk or body
  - 63055 Thoracic
  - 63056 Lumbar
  - 63057 Each additional level (T/L)

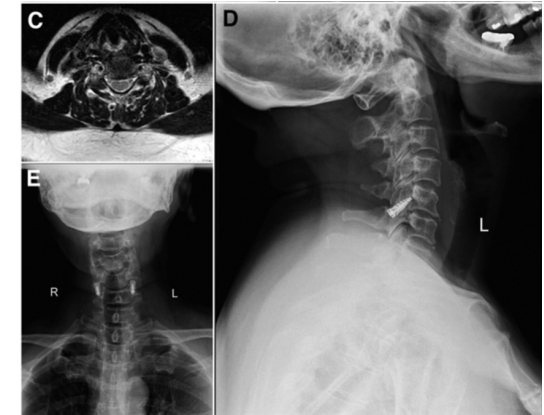


# How To Code?

- ▶ Extreme Lateral Interbody Fusion (XLIF, DLIF, etc.) – Procedure through the side of the body (retroperitoneal).
  - *AANS Recommends:* Use CPT 22558. Do not separately bill fluoroscopy (e.g., 77003). Do not use the lateral extracavitary codes for these procedures.

# How to Code?

- ▶ TruFUSE® Facet Fusion, DTRAX® Facet System
  - Bone dowels, cages into facet joints.
  - *AANS Recommends:* Category III codes (1/1/10)
  - 0219T Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; cervical
  - 0220T for thoracic, 0221T for lumbar level
  - +0222T for each additional level.
  - Do not report 0219T–0221T with any radiological service. Do not report 0219T–0221T with 20930, 20931, 22600–22614, 22840, 22853 at the same level.



# How to Code?

- ▶ Aspen™ Posterior Spinous Process Plating
- ▶ SPIRE™ Spinal System
  - Spinous process plate as a supplement to a rod and screw system not intended as a stand-alone device.
  - *AANS Recommends:* Can use CPT 22899 (Unlisted) or +22841 (0 RVUs) in addition to the usual arthrodesis and bone graft CPT code(s).
    - Do not separately report +22841 if also reporting +22840 or +22842–+22844.
    - CPT Assistant, February 1996.

# How to Code?

- ▶ Dynesys® Dynamic Stabilization System
- ▶ PEEK Rod Systems
  - Dynamic stabilization system
  - *AANS Recommends:* Use CPT +22840 or +22842 as appropriate as add-on code to a stand-alone procedure code. Use an unlisted code (e.g., 22899) if this is the only procedure performed.
  - Do not separately bill fluoroscopy (e.g., 77003).

*Check payer medical coverage policies.*

# How to Code?

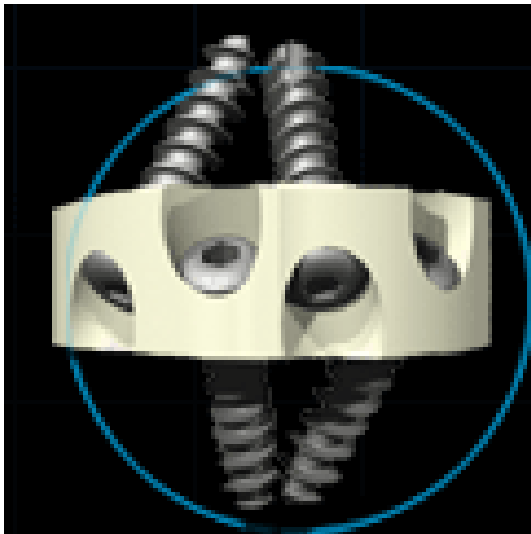
- ▶ Interbody Implants with Attached Plate/Screws
  - Intervertebral body cage with attached anterior plate or screws that insert into the vertebral bodies.
  - Examples: Zero-P, Mosaic, STALIF
  - ***AANS Recommends:*** Use +22853 alone and not +22845. If the purpose of the fixation (e.g., “plate” or buttress screw) is to hold the interbody device in place then +22845 is not separately coded (it is incidental).

# CPT Code?





# CPT Code?



# Manufacturers Recommendations

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ANTERIOR LUMBAR DISKECTOMY			STALIF	LT	XLIF	FRA	PEEK
CPT Code	Description	RVUs					
84999	L4-L5 (Unlisted Code Letter required)						
84999	L5-S1						
22558	L4-L5 Fusion	38.7	Yes	Yes	Yes	Yes	Yes
22585	L5-S1 Addtl Level	9.57	Yes	Yes	Yes	Yes	Yes
22845	Anterior Segmental Instrumentation	20.88	Yes	No	No	No	No
22851	Appl. Of Cage in vertebral defect or interspace	11.58	Yes	Yes	Yes	Yes	Yes
38220	Bone Marrow Aspirate (if Done)	4.86	Yes	Yes	Yes	Yes	Yes
82351	Epidural Catheter w/ Iami (if Done)		Yes	Yes	Yes	Yes	Yes
Est. Total		85.57	85.57	64.69	64.69	64.69	64.69

Note: RVUs typically pay approximately \$50.00 per RVU point (This will vary depending on insurance carrier).

**\*\*DISCLAIMER\*\***

Our company DOES NOT recommend codes for billing. The above information is strictly for educational purposes only. The responsibility for coding correctly ultimately lies with the healthcare provider and we urge you to consult with your coding advisors to resolve any billing questions you may have.



# How to Code?

- ▶ X-Close™
  - Tissue repair system for closing the annulus after a discectomy.
  - *AANS Recommends:* This is part of the global surgical package for performing a discectomy and not separately billable. Do not report an unlisted code such as 22899 for this activity.

# How to Code?

## ▶ NuSheild

- Protective patch that overlies laminectomy site, ALIF, XLIF, etc
- *AANS Recommends:* This is part of the global surgical package for performing a discectomy and not separately billable. If you do this as part of a CSF repair, it should be reported as part of 63710

# How to Code?

- ▶ Spineology OptiMesh® Grafting System
  - Mesh pouch containing bone graft that is percutaneously implanted into a skeletal defect then deployed (or expanded) to full size.
  - *AANS Recommends:* Use a vertebral augmentation code (e.g., 22513, 22514) for this procedure.
  - Report 22899 (unlisted code) if performed during an open approach such as with a decompression.

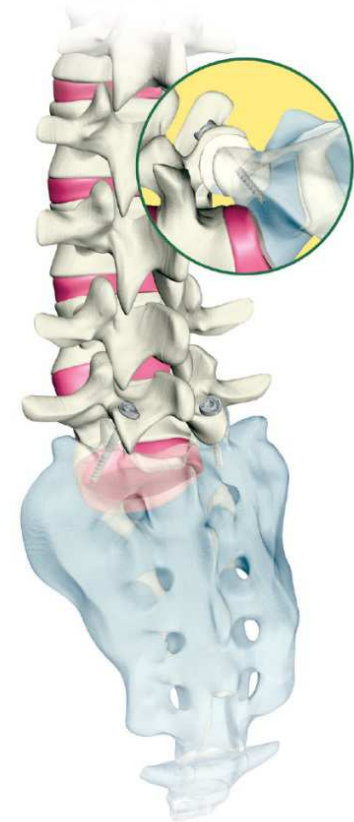
# How to Code?

- ▶ Baxano iO-Flex
  - Thin instrument that acts to decompress neural foramina
  - Code for the decompression
  - No additional coding



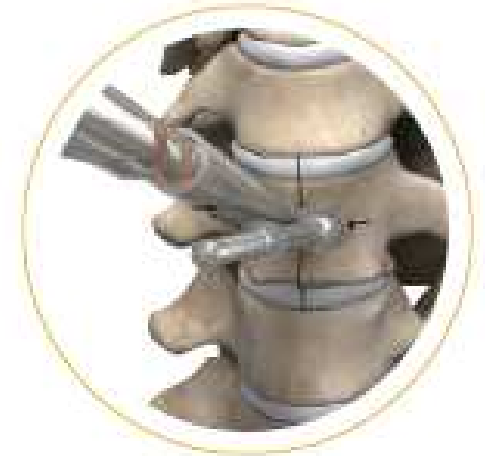
# How to Code?

- ▶ **RENEW**
  - Interspinous allograft
  - Use allograft codes (+20931)
  
- ▶ **Perpos**
  - Percutaneous facet screws
  - Unlisted code if percutaneous (22899), instrumentation code if open



# How to Code?

- ▶ TransCorp TransCorporeal MicroDecompression (TCMD)
  - Make a window through the vertebral body to access a disc herniation
  - Not really removing all of the disc
    - So not 63075
    - Less than 50% of the body removed
      - So not 63081
  - Therefore, use unlisted code (64999)





# DISC-FX Perc Discectomy System



▶ 62287



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# Can I code 63685? No.

## freedom Spinal Cord Stimulators™

The Freedom Stimulator, the “implant” comes with both a “stimulator” and a “micro-receiver”. The stimulator and the micro-receiver and both covered with a protective casing. The stimulator has small metal electrodes near the tip that create an electrical field of energy when power is applied. The electrical field aids in blocking the pain signals coming from certain nerves. The receiver receives energy wirelessly from an external unit and couples the energy to the stimulator providing a variety of programming options.

### freedom-8A



#### Stimulator Specs:

Length: 45 cm

Diameter: 1.3 mm

Electrodes: 8

Polarity Configurable: Anode/Cathode/Off

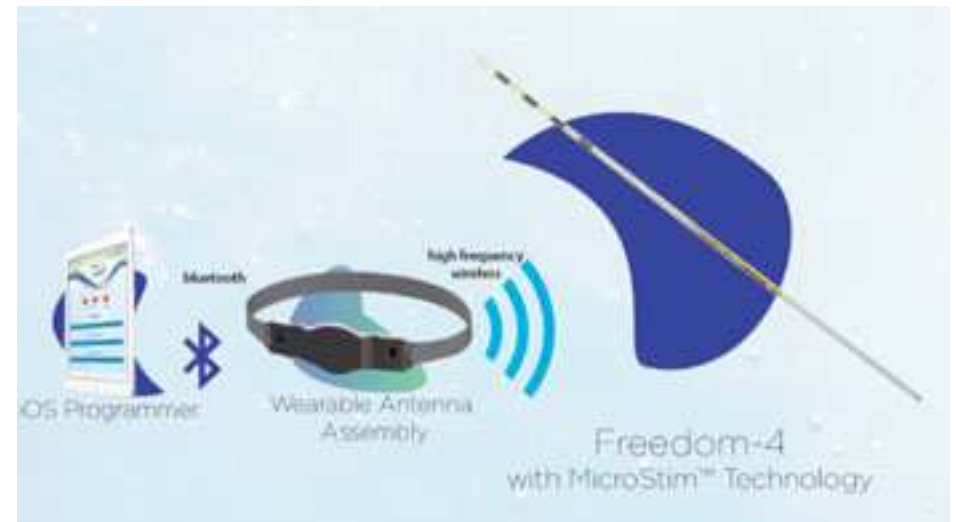
Shape: Cylindrical

Length: 3mm

Spacing: 4mm

Array Length: 45 mm

Anchor: Suture Sleeve Cap

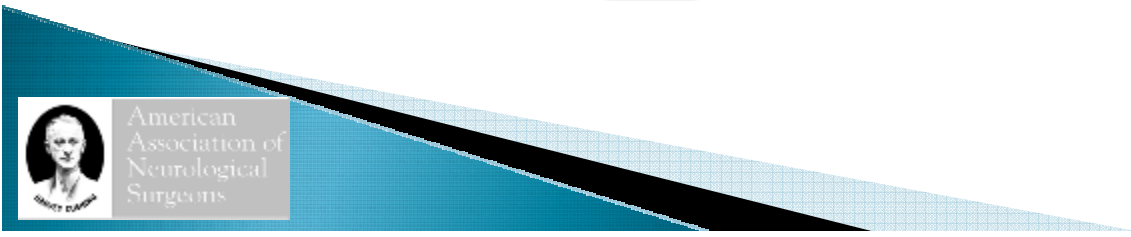


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# 63685 Insertion or replacement of spinal neurostimulator pulse generator or receiver, direct or inductive coupling

Pre-Service Package:	<input type="text"/>	Critical Care:	<input type="text"/>
Pre-Service Evaluation Time:	<input type="text" value="33.0"/>	Other Hospital:	<input type="text" value="19"/>
Pre-Service Positioning:	<input type="text" value="10"/>	Office Visits:	<input type="text" value="23"/>
Pre-Service Scrub, Dress, Wait Time:	<input type="text" value="5"/>	IWPUT:	<input type="text" value="0.0355"/>
Intra-Service:	<input type="text" value="60"/>	Total Time:	<input type="text" value="170.0"/>
Immediate Post Service:	<input type="text" value="20"/>	Source:	<input type="text" value="RUC"/>

99204:	<input type="text"/>	99211:	<input type="text"/>	99231:	<input type="text"/>	99238:	<input type="text" value="0.5"/>	99291:	<input type="text"/>
		99212:	<input type="text"/>	99232:	<input type="text"/>	99239:	<input type="text"/>	99292:	<input type="text"/>
		99213:	<input type="text" value="1"/>	99233:	<input type="text"/>				
		99214:	<input type="text"/>						
		99215:	<input type="text"/>						



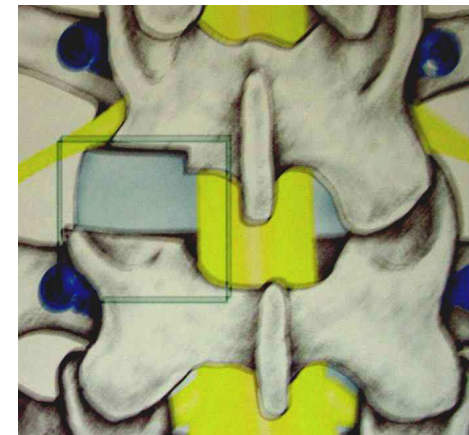
# Spine CPT Coding Advanced Review



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# Principles of Spine Coding

- ▶ Five principal components
  - Decompression (Primary)
    - 63000 Series (Diagnosis based)
    - 22000 Series (Osteotomy, Fracture Care)
  - Arthrodesis (Primary)
    - 22000 Series (Technique based)
  - Instrumentation (Add-on)
    - 22800 Series
  - Bone Graft Harvest (Add-on)
    - 2093X Series
  - Guidance (Microdissection, Stereotactic Nav)



# Choosing the Final Code

- ▶ Location (Spinal Segment)
  - Cervical, Thoracic, Lumbar, Sacral
- ▶ Surgical Approach
- ▶ Entry into Dura/Cord
  - Extradural, Intradural, Intramedullary
- ▶ Pathology
  - Consider purpose of surgery
  - Disc, Stenosis, Neoplasm, Non-neoplasm, Vascular

# Let's Code!

1. Bilateral laminectomy facetectomy, foraminotomy for stenosis L4–5
2. Laminotomy L5–S1, right, for herniated disc
3. Microdissection

Answer:

63047

63030–59

69990

# Let's Code!

1. Re-exploration discectomy and hemilaminectomy, L5-S1 right
2. Discectomy and hemilaminectomy, L5-S1 left

63042, 63030 OR 63042-50?

Answer: 63042-50



# Let's Code!

1. Laminectomy L1, L2, L3
2. Microdissection

63047, 63048 OR 63005 OR 63017  
Microdissection billable?

Answer

63017, 69990

# Let's Code!

1. Laminectomy, facetectomy, and foraminotomy L3-4
2. Laminectomy L5, S1

63047, 63048 x 2 OR 63047, 63005

Answer

63047, 63048 x 2

# Let's Code!

1. C3 Corpectomy – 60%
2. Anterior Discectomy & Fusion C2–3, C3–4
3. ACDF C4–5

Answer:

63081 C3 Corpectomy

22554, 22585 C2–4 Fusion

22551–59 C4–5 ACDF

**Caution:** Anthem bundling 63081 with  
22554

# Case Question

- ▶ I was involved in an ALIF, which had to be aborted because the vascular access surgeon encountered bleeding from a venous tear and found it unsafe to continue.

I planned the procedure, positioned the patient and guided him on the placement of the incision. Furthermore, I stayed around for hours waiting for him to expose (in the expectation of doing the spinal portion fo the procedure) and then for him to control the bleeding.

What codes could I use in order to bill for my participation?

# 22558 –53 –62

- ▶ 22558 Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
- ▶ Modifier 53 Discontinued Procedure
- ▶ Modifier 62 Two Surgeons

# Coding Guidelines

- ▶ Modifier 53 created in 1997
  - Distinguish between procedures which are reduced at the physician's discretion (-52) and procedures which are stopped mid-stream because the patient experienced a life-threatening condition (-53).
- ▶ *CPT Assistant* (December 1996)
  - “CPT Modifier -53 should be appended to a procedure code to report those circumstances when a patient experiences an unexpected response, (eg, arrhythmia or hypotensive/hypertensive crisis) causing the procedure to be terminated. This modifier differs from CPT modifier -52 (which describes a procedure that was reduced at the physician' discretion) because the patient's life-threatening condition precipitates the terminated procedure.”

# General Documentation

- ▶ Surgical or diagnostic procedure, not E&M service.
- ▶ Cancellation prior to procedure starting is E/M code.
  - CPT Assistant (September 2003): after the induction of anesthesia (eg, local, regional block(s), or general anesthesia) or after the procedure was started (incision made, intubation started, scope inserted).
- ▶ Submit an operative report
  - Document why and when procedure was discontinued.
  - Percentage of the procedure performed.
- ▶ Reimbursed for one CPT code with modifier 53.
  - No planned procedure completed.
  - Otherwise report completed procedure(s) only.

# Let's Code!

1. TLIF L4–5, L5–S1
2. Posterolateral Fusion L1–S1

Answer:

22633 L4–5

22634 L5–S1

22614 x 3 L1–2, L2–3, L3–4

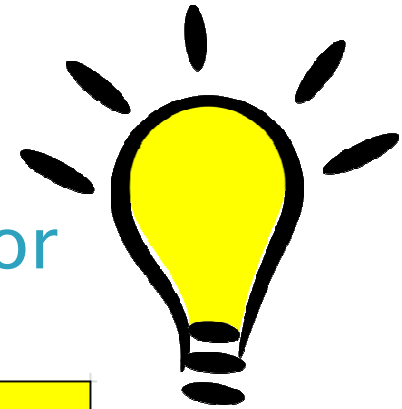


# Let's Code!

Total diskectomy at L2-3 and L3-4 from a direct lateral approach with interbody fusion with a structural cage and packed with allograft and removal of pedicle screws at L5-S1, placement of new pedicle screws bilaterally at L2, L3, L4, L5 and S1. Total decompressive facetectomy and laminectomy on the right at L2-3, on the right at L3-4, and a total facetectomy on the right at L5-S1, diskectomy and interbody fusion with a structural cage packed with allograft. Posterolateral intertransverse fusion at L5-S1 with allograft and autograft and microdissection.

# Let's Code!

Procedure	CPT
DLIF, L2-3, L3-4	22558, 22585
Lam and facetectomy, L2-3, L3-4	63047-51(59), 63048
Facetectomy, discectomy, interbody fusion, L5-S1	22633-51(59)
Posterolateral fusion L2-S1	22614 x 3 (L5-S1 incl in 22633)
Placement of pedicle screws L2, L3, L4, L5, S1	22842
Removal of pedicle screws L5, S1	Included in 22842
Structural cages L2-3, L3-4, L5-S1	22853 x 3
Morselized allograft and autograft	20930, 20936
Microdissection	69990



# Practice Tip

Payers are increasingly strict with **prior authorization** coding.

- ✓ Develop a surgery checklist.

<b>Fusion:</b>	<b>Level(s)</b>	
ACDF		
PLIF/TLIF		
Posterior/Posterolateral		
ALIF		Co-surgeon
XLIF/DLIF		
AxialIF		
SI Fusion	Bilateral	
<b>Decompression:</b>	<b>Level(s)</b>	
Discectomy		Bilateral
Re-do Discectomy		Bilateral
Bony Decompression		
Synovial Cyst		
Corpectomy		
<b>Osteotomy:</b>	<b>Level(s)</b>	
Smith Peterson		
Pedicle Subtraction		

# Practice Tip



Payers are increasingly strict with **prior authorization** coding.

- ✓ Create a surgery cheat sheet for the most common types of surgeries.

1	ACDF (Anterior Cervical Discectomy & Fusion), plate, using allograft strut - 1 level	22551, 22845, 20931
2	ACDF (Anterior Cervical Discectomy & Fusion), plate, using PEEK cage and BMP - 1 level	22551 22845 22853 20930

- ✓ Have a coder review the prior authorization coding on more complex cases.
- ✓ Be as accurate as possible (e.g. synovial cyst or bony decompression?)

# Practice Tip



Create **coding edits** in your practice management system or with your clearinghouse.

- ✓ If 63081 is billed, 22554 and 22585 should also be billed.
- ✓ If 63101 is billed, 22532 and 22534 should also be billed.
- ✓ If 63035 is billed, 63020 or 63030 should also be billed.

# Practice Tip



- ✓ Humana's Spinal Fusion Policy indicates that implants and instrumentation are covered *if used in accordance with the device's FDA Indications.*
  - Many cages require morselized autograft
  - May be a limit on # of levels
- ✓ Aetna limits use of cages for cervical fusions to *3 or more levels*

# Computer-Assisted Navigation +61783

- ▶ **Computer-assisted Navigation +61783**
  - Add-on code if activity is not an inclusive component (i.e., stereotactic procedures)
  - Used once per claim when the physician's pre-  
incision work is performed and documented  
along with intraoperative use of the system
  - Requires a stereotactic navigation system
    - Not for just intraoperative imaging such as fluoroscopy, intraoperative CT scans, MRI scans (with the exception of 70557-70559), and 3-D fluoroscopy (O-arm, Iso-C, FluoroNav)
  - No CPT code for placement of fiducial markers, and use unlisted code if appropriate

## +61783 Involves:

- Discussion with the patient about procedure with additional time discussion regarding the use of stereotactic computer navigation.
- Explaining the rationale for the use of the system, how and why it is helpful to the surgeon.
- Describing to the patient the placement of the devices on the spine and identification of structures.
- Bringing system into the OR, activating the navigation software, entering patient specific information (e.g., patient info, surgeon info, area/level of procedure).
- Loading of radiographic images that will be used for the navigation (new or previous).
- Assessment on the workstation of the images in the three dimensions.
- Analysis of the surgical anatomy/pathology in relationship to surrounding anatomy.
- Developing the final operative plan for the approach to procedure.
- Ensuring intra-operative trackers are in the field of view of the cameras so the surgeon can see the computer monitor screen.
- Navigation trackers are attached to spine and to key instruments and registration of landmarks takes place identifying specific landmarks such as the spinous processes, facet joints and transverse processes.
- Using the navigation system to identify placement of drill holes with appropriate alignment.
- Checking the drill bit orientation and depth of penetration frequently with periodic images as the drill is carefully and slowly advanced.
- Obtaining repeated navigation images to ensure correct positioning of screw. The work is repeated for each screw or implant placed.
- The navigation verification and subsequent correction of starting points and trajectory involve extra time and work.

**REMEMBER:** Medicare bundles +61783 with many decompression codes. Append modifier 59 (or a Medicare subset modifier) to show the navigation was not used for the decompression but it was used for the instrumentation placement.



# Microdissection + 69990 (Microsurgery add-on)

- ▶ Report directly beneath the primary procedure to prevent bundling into non-applicable codes
- ▶ Not for loupes, corrected vision, or endoscope
- ▶ Do not report if an inclusive component
  - 22551–22552 Anterior cervical discectomy/decompression/fusion
  - 22856–22861 Total disc arthroplasty
  - 63075–63078 Anterior decompression (cervical and thoracic)
  - 64727 Internal neurolysis requiring use of operating microscope
  - 64910–64911 Nerve repair

# Fracture Treatment

- ▶ 22318–9...Open treatment of odontoid fx, anterior, including internal fixation,
  - ▶ 22325...Open treatment vertebral fx, **posterior**; lumbar
  - ▶ 22326...cervical
  - ▶ 22327...thoracic
  - ▶ 22328...additional vertebra
- 
- For **anterior** treatment, see anterior fusion and corpectomy codes.
  - Posterior decompression and fusion may be coded.

# Let's Code!

**Q1: What is the topic of your case?**

question about coding for spine fractures

---

**Q2: Please provide a description of your case.**

L5 burst fracture

---

**Q3: What is the CPT code(s) in question?**

what is the code for an anterior lumbar corpectomy? or for that matter, anterior reduction of spinal fracture for a particular region. i can only find the posterior coding



# Let's Code!

## ▶ 63090 is the code for anterior lumbar corpectomy, which is used for fractures.

**22325** Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; lumbar  
➔ *CPT Assistant* Sep 97:8, Jun 12:10, Jul 13:3  
(Do not report 22325 in conjunction with 22511, 22512, 22514, 22515 when performed at the same level)

**22326** cervical  
➔ *CPT Assistant* Sep 97:8, Jul 13:3  
(Do not report 22326 in conjunction with 22510, 22512, when performed at the same level)

**22327** thoracic  
➔ *CPT Assistant* Sep 97:8, Jun 12:10, Jul 13:3  
(Do not report 22327 in conjunction with 22510, 22512, 22513, 22515 when performed at the same level)

**+ 22328** each additional fractured vertebra or dislocated segment (List separately in addition to code for primary procedure)  
➔ *CPT Assistant* Feb 96:6  
(Use 22328 in conjunction with 22325-22327)

(For treatment of vertebral fracture by the anterior approach, see corpectomy 63081-63091, and appropriate arthrodesis, bone graft and instrument codes)

(For decompression of spine following fracture, see 63001-63091; for arthrodesis of spine following fracture, see 22548-22632)

# Let's Code!

1. ALIF L5–S1 (with co–surgeon), PEEK Cage
2. DLIF L4–5, PEEK Cage
3. Posterolateral Fusion L4–S1
4. Stereotactic Placement of Pedicle Screws with rods L4–S1
5. Allograft and local autograft

Answer:

22558–62 L5–S1 ALIF

22585 L4–5 DLIF

22612, 22614 L4–S1 Posterolateral Fusion

22842 Screws and rods

22853 x 2 Cages

20930, 20936 Grafts

*What is billable for your PA assisting on the case?*



# Let's Code!

1. ALIF L2-3, L3-4, L4-5, L5-S1 (with co-surgeon), PEEK Cages filled with Allograft
2. Anterior Plate L2-S1
3. SSEP, EMG Monitoring
4. Intraoperative Fluoroscopy

Answer:

22558-62 L2-3 ALIF

22585-62 x 3 L3-4, L4-5, L5-S1

22846 Anterior Plate

22853 x 4 Cages

20930 Allograft

Monitoring and Fluoroscopy No separate billing by NS

*What is billable for your PA assisting on the case?*



# Primer on Spinal Deformities



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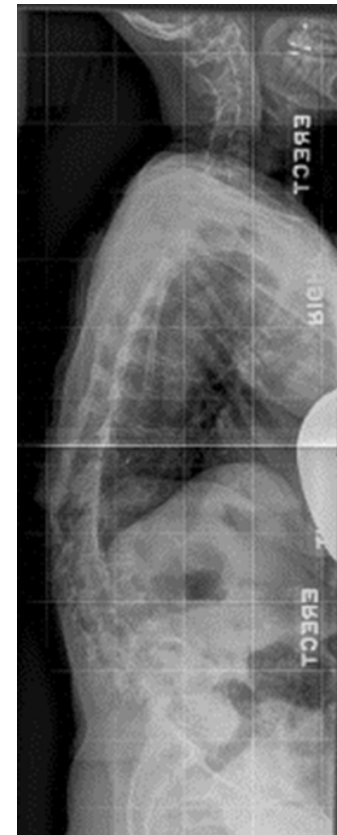




# Defining Adult Spinal Deformity

- ▶ Adult spinal deformity encompasses spinal disorders that involve a malalignment:

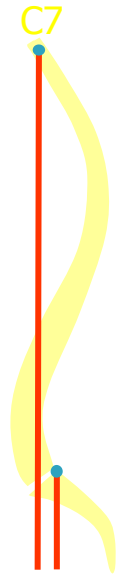
- ▶ Global
- ▶ Regional
- ▶ Segmental level



# Goals of Realignment Determine Choice of Procedure

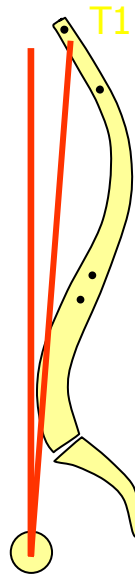
- ▶ Segmental Realignment
  - Restoration of trapezoidal intervertebral disc space
- ▶ Restoration of Regional Alignment
  - Lumbar Lordosis matching Pelvic Incidence
  - Realignment of chin–brow angle
- ▶ Restoration of Global Sagittal Balance
  - Shift C7 plumb line to within 3cm of sacral promontory
  - Correction of Pelvic Tilt
- ▶ Coronal Plane Correction
  - Truncal Translation

# Sagittal Plane Alignment Objectives



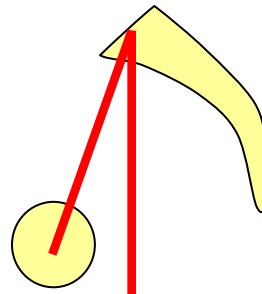
SVA

**<5cm**



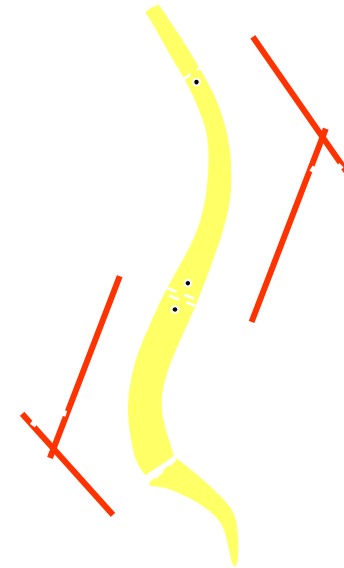
T1 Tilt

**<0°**



PT

**<25°**



Proportional:  
**LL=PI +/- 9°**



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**Frank Schwab**

# Specific Techniques for Deformity Correction

- ▶ Sagittal Plane
  - Combined Anterior and Posterior Surgery
  - Posterior-based osteotomies
- ▶ Coronal Plane
  - Translation of the Spine
  - Rod Rotation
- ▶ Axial Plane
  - Derotation



# Pediatric (Flexible) Spinal Deformity (AIS)

<b>Location</b>	<b>CPT Code</b>		
<i>Anterior</i>	22808 (2 to 3 segments)	22810 (4 to 7 segments)	22812 (8 or more segments)
<i>Posterior</i>	22800 (up to 6 segments)	22802 (7 to 12 segments)	22804 (13 or more segments)

<b>Location</b>	<b>CPT Code</b>	
<i>Anterior</i>	+22845-+22847	
<i>Posterior</i>	+22840 (non-segmental)	+22842-+22844 (segmental)
<i>Intervertebral</i>	+22851	
<i>Pelvic</i>	+22848	

<b>Type</b>	<b>Morselized</b>	<b>Structural</b>
<i>Allograft</i>	+20930	+20931
<i>Autograft</i>	+20936 (local) +20937 (separate incision)	+20938

**22818** Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); single or 2 segments

➔ *CPT Assistant* Nov 97:14

**22819** 3 or more segments

➔ *CPT Assistant* Nov 97:14

(To report arthrodesis, see 22800-22804 and add modifier 51)

# 22800 Arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments

## Vignette

A 20-year-old achondroplastic dwarf presents with scoliosis and progression. Using a posterior approach, a midline incision with bilateral subperiosteal retraction of muscle is performed. A bony bed over lamina and transverse process to accept a bone graft is prepared, and bone graft material is applied to the prepared bony surfaces with or without application of a cast. [Instrumentation and/or bone grafting is to be prepared separately using the appropriate code(s).]

## Intra-Service

A mid-line incision is made over the vertebrae proposed for arthrodesis. Intraoperative x-ray confirms the level. Fascia and muscles are subperiosteally dissected from the lateral surfaces of the spinous processes and from the posterior surfaces of the laminae and facets and transverse processes. All soft tissue is carefully removed from the exposed areas of the bone, including the interspinous ligaments, but excluding the ligamentum flavum. Capsules of the facets are removed. The cortices of all exposed bone surfaces are removed and/or cut and shingled to provide for exposed cancellous bone over all of the posterior bony surfaces of the vertebrae to be arthrodesed. Bone cutting instruments are used to remove cartilage and subchondral bone from the facet joints. (Instrumentation and/or bone grafting, if used, are coordinated at this point, and are coded separately.) The bone graft material, is applied to the prepared bony surfaces. The muscles and fascia, subcutaneous tissues, and skin are all sutured in layers. A drain is inserted through a separate stab wound. Sterile dressings are applied. Cast or other form of immobilization is added as required.





# Adult Deformity Correction – Osteotomies

<i>Location</i>	<i>Cervical</i>	<i>Thoracic</i>	<i>Lumbar</i>	<i>Additional Level</i>
<i>Anterior</i>	22220	22222	22224	+22226
<i>Posterior</i>	22210	22212	22214	+22216
<i>Three Column</i>	NA	22206	22207	+22208

- ▶ Posterior: Smith–Petersen, Chevron, Ponte
- ▶ 3 Column: Pedicle Subtraction, Heinig, Thomassen

# Posterior Osteotomies

## ▶ Ponte



## ▶ Suk

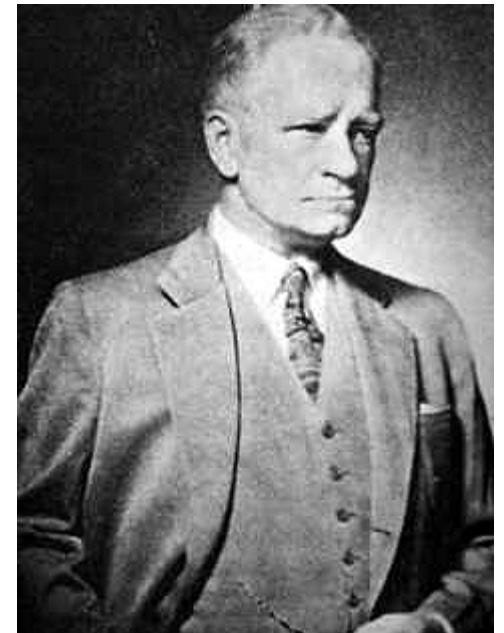


## ▶ Smith–Petersen

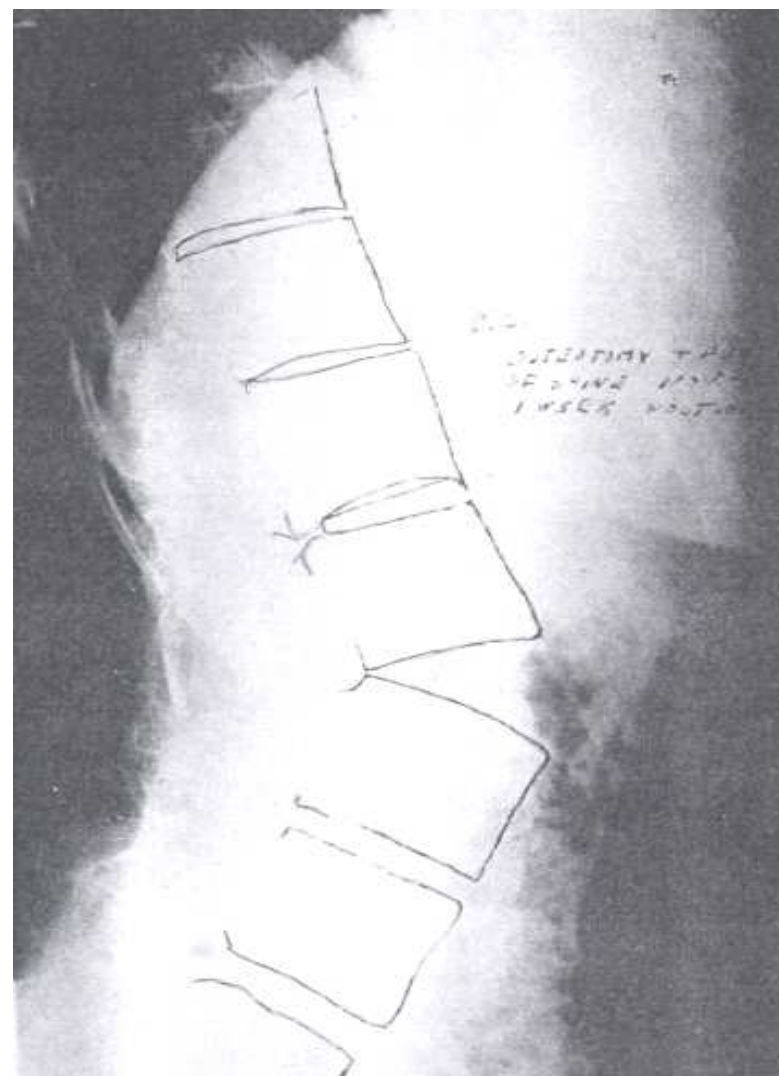
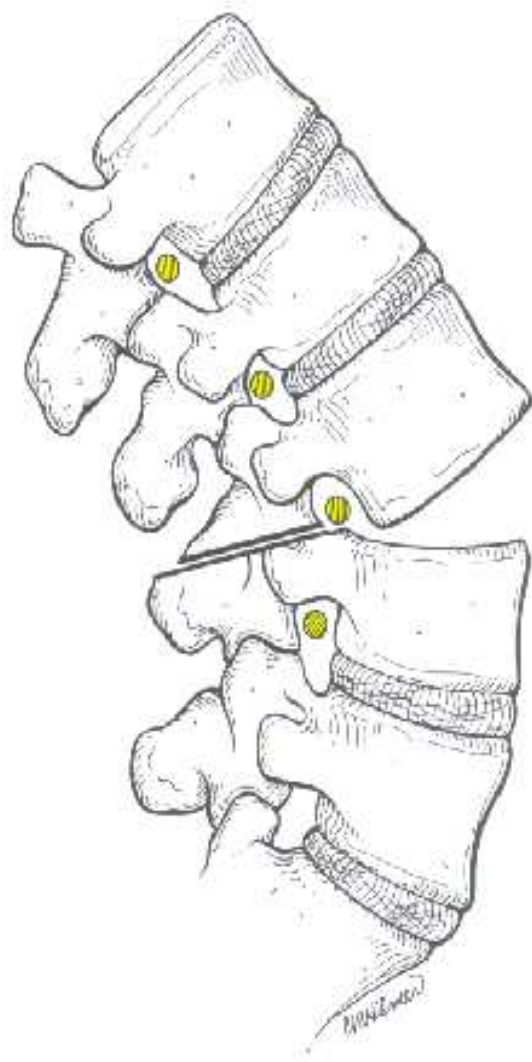


# Marius Nygaard Smith–Petersen

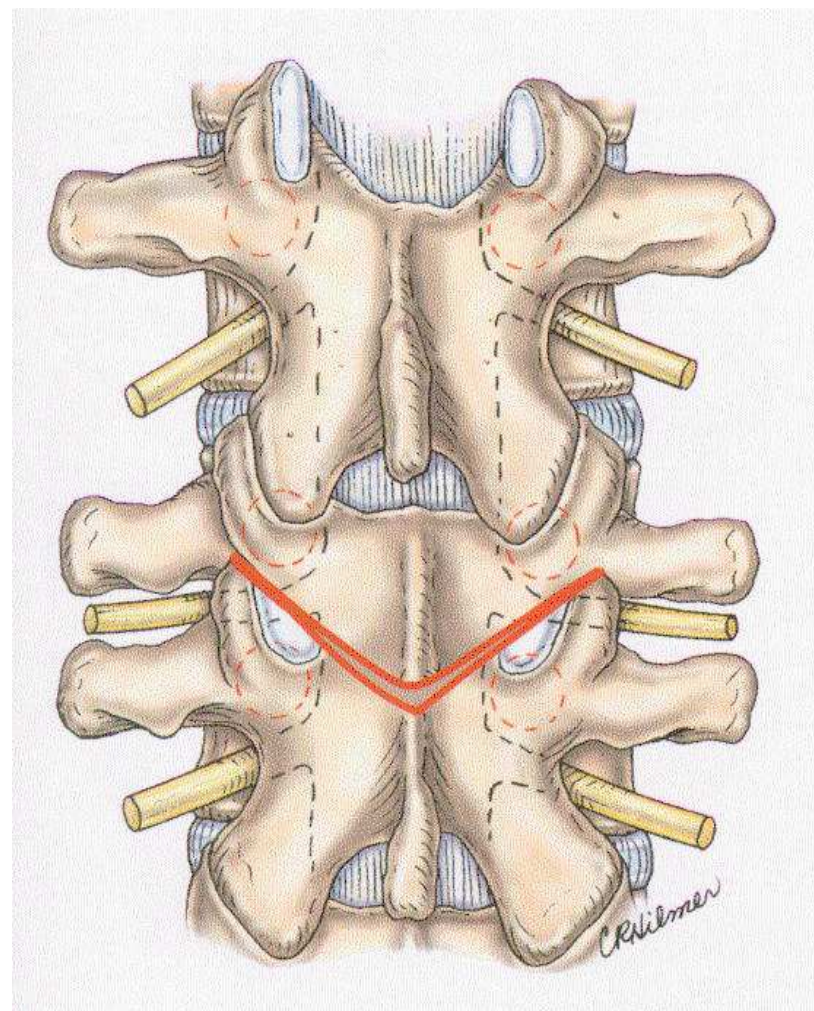
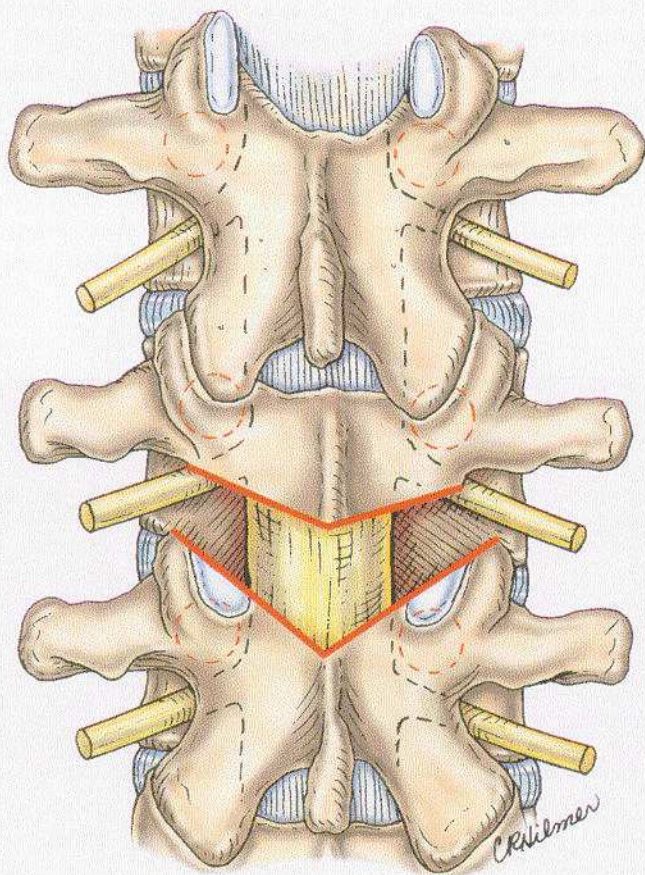
- ▶ 1886–1953
- ▶ Emigrated from Grimstad to Wisconsin in 1902
- ▶ Chief of Orthopaedics at MGH in 1925
- ▶ Hip approach
- ▶ Hip Nail
- ▶ Spinal osteotomy for rheumatoid spondylitis



# Smith–Petersen Osteotomy



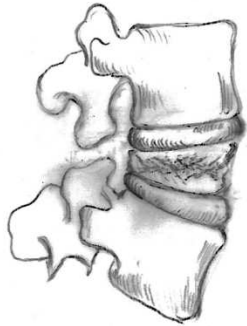
# Posterior Column Osteotomy





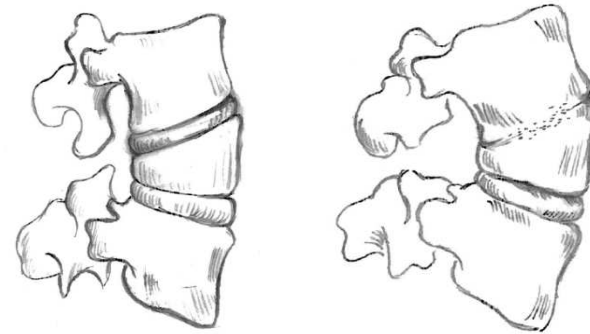
# Three Column Osteotomies

- ▶ Heinig

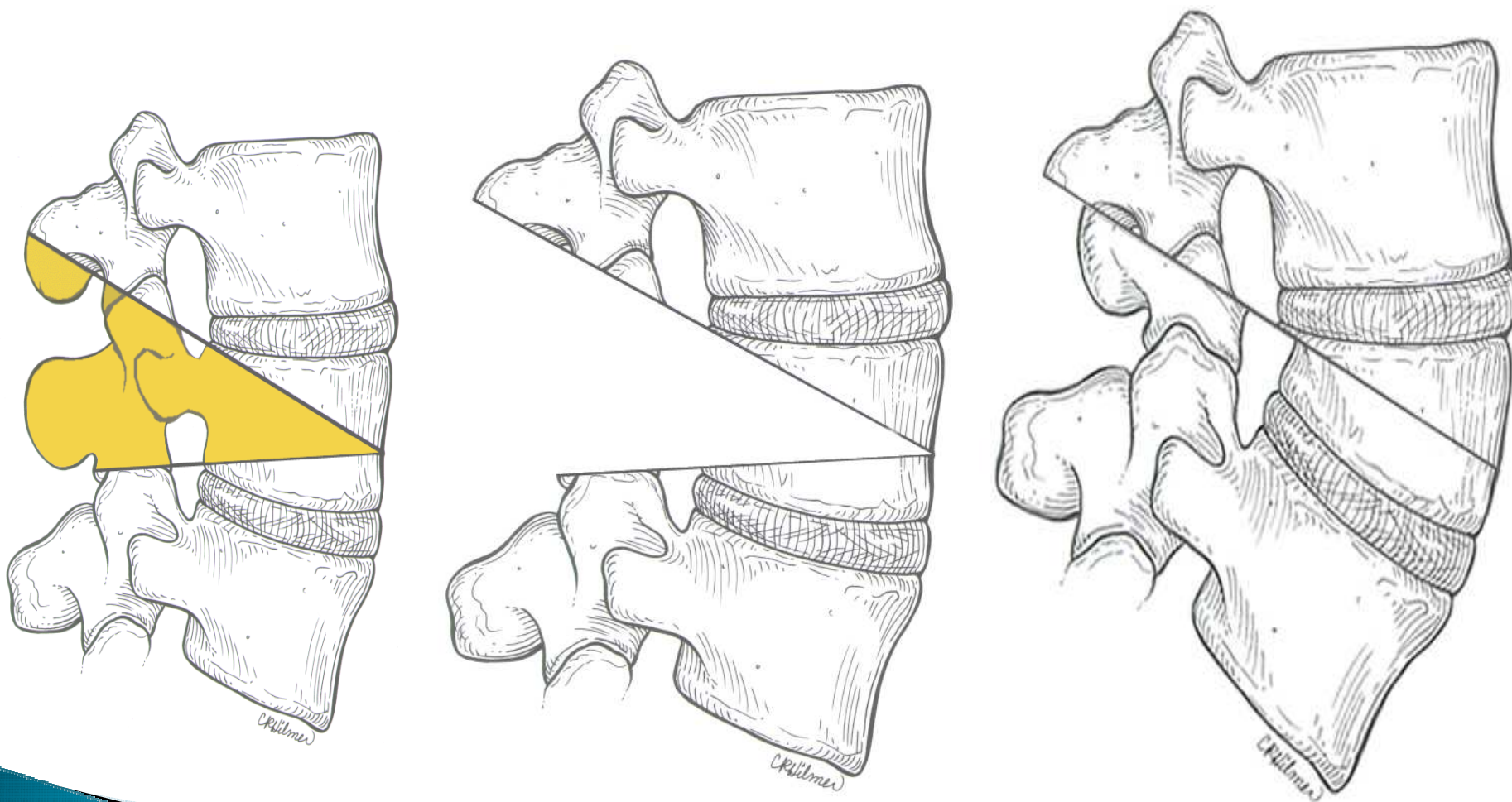


- ▶ Thomassen

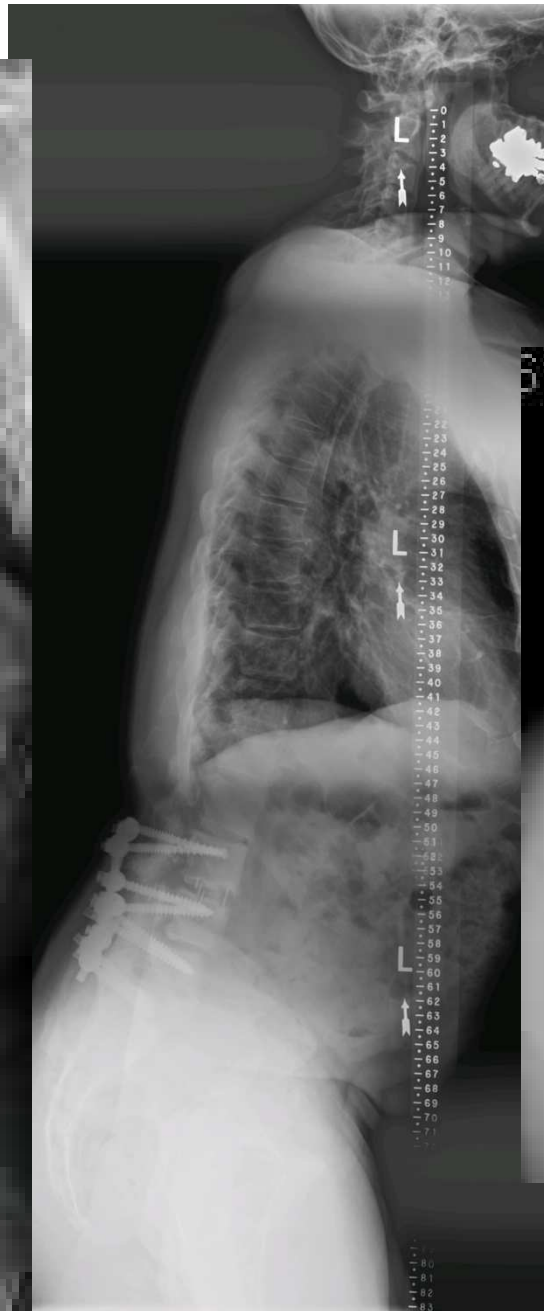
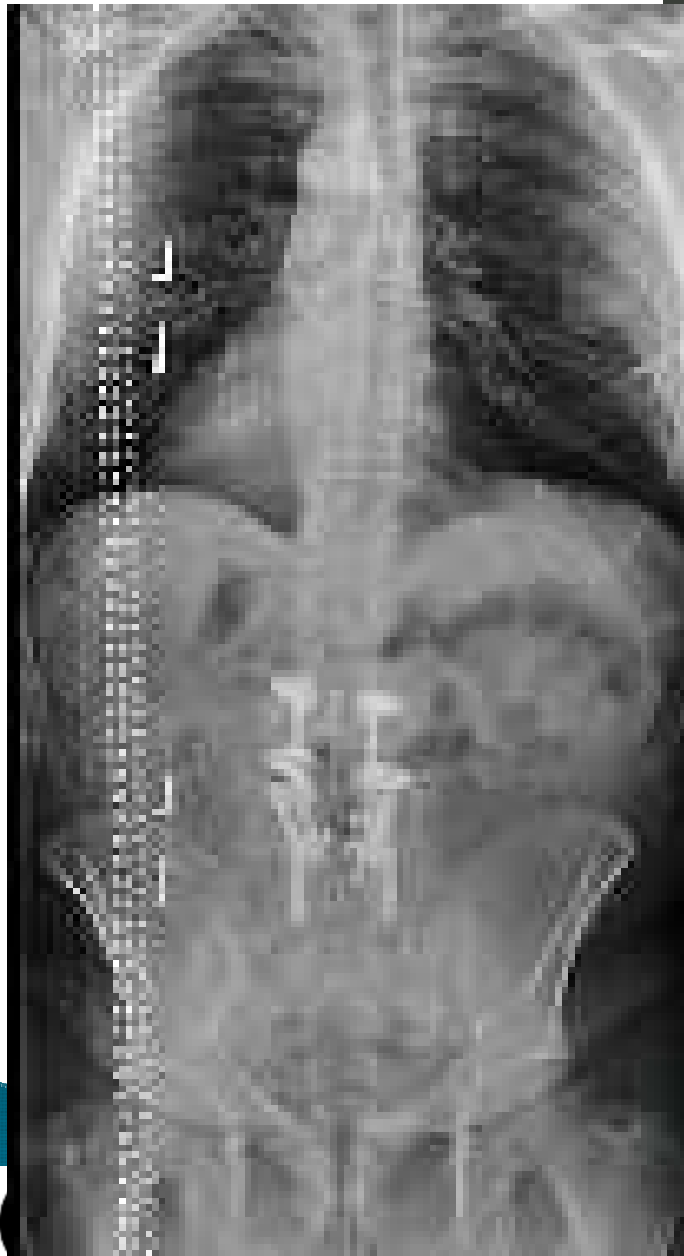
- ▶ Modified-Thomassen



# Thomassen Osteotomy- Technique









# Let's Code!

# Case #1



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# Lumbar Scoliosis

- ▶ 63-year-old woman with progressively worsening axial back pain and incapacitating left radicular leg pain.
- ▶ Previously managed with an occasional epidural
- ▶ Now completely unresponsive to exhaustive nonoperative measures
- ▶ Cobb angle 31 degrees

# Procedure

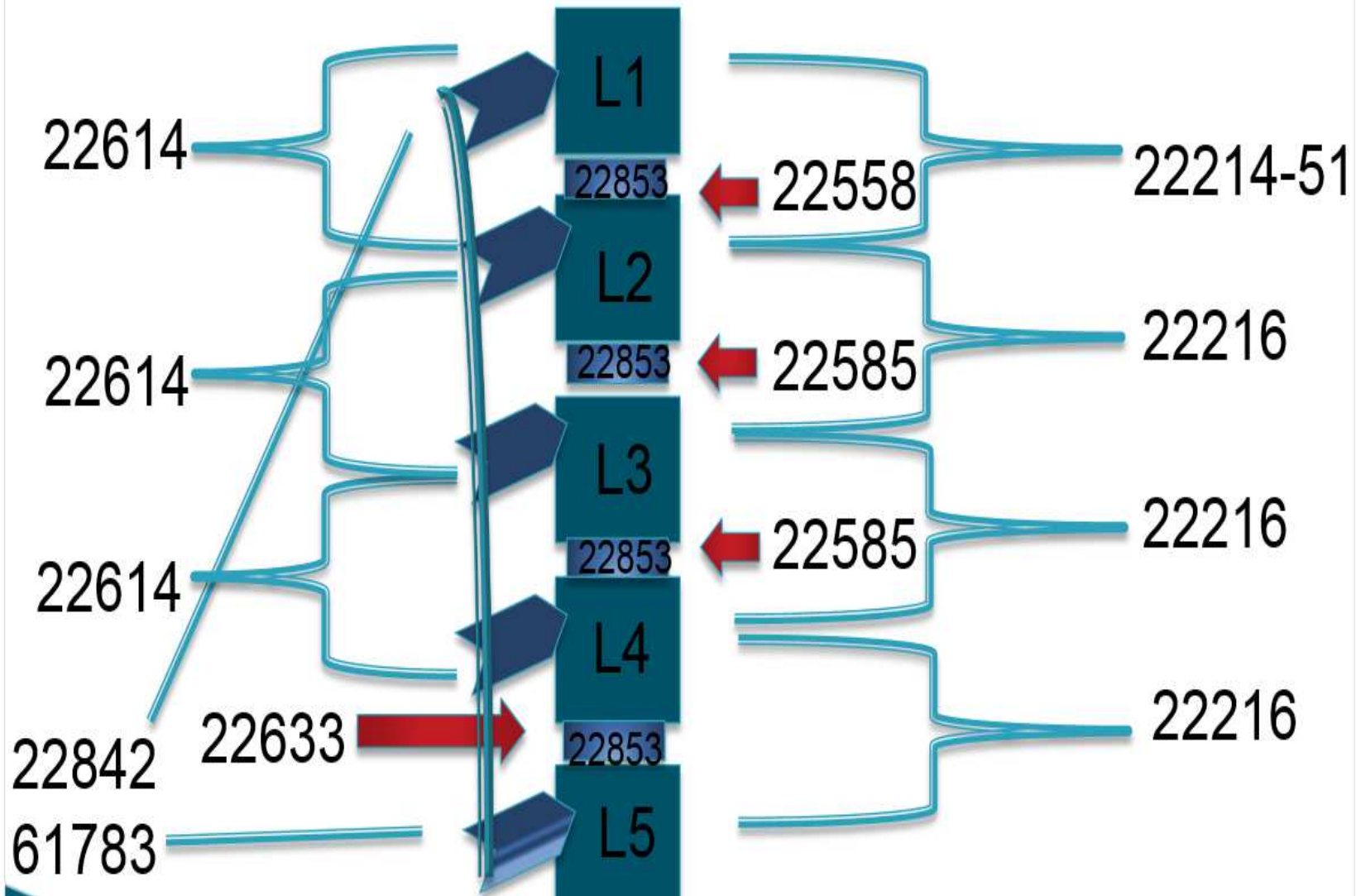
- ▶ Lateral approach to the lumbar spine, L1-2, L2-3, L3-4
- ▶ Placement of PEEK interbody spacers at L1-2, L2-3 and L3-4
- ▶ Posterior approach to the lumbar spine L1-L5
- ▶ L4-5 TLIF
- ▶ Smith-Petersen Osteotomies at L1-2, L2-3, L3-4, L4-5
- ▶ Segmental instrumentation L1-5 with computer assisted navigation
- ▶ Postero-lateral fusion L1-L5
- ▶ L1-2, L2-3, L3-4, L4-5 arthrodesis

# Postoperative Imaging



# Case #1

CPT	Description
22558	Transpsoas L1-2
22585 x2	Transpsoas additional segments, L2-3, L3-4
22633	L4-5 TLIF, with posterolateral fusion at L4-5
22853 x 4	PEEK spacers at L1-2, L2-3, L3-4, L4-5
22842	Segmental instrumentation L1-5
61783	Computer assisted navigation
22214-51	Smith-Petersen osteotomies L1-2
22216 x 3	Additional segments of osteotomies L2-3, L3-4, L4-5
22614 x 3	Additional levels of posterolateral fusion L1-2, L2-3, L3-4
20936	Morselized allograft





# Let's Code!

## Case #2



American  
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Surgeons

**Q1: What is the topic of your case?**

Posteriolateral fusion laminectomies, correction of kyphosis

---

**Q2: Please provide a description of your case.**

T10-L1 posterolateral fusion, T11/T12 laminectomies, Correction of kyphotic deformity Intraoperative spinal guidance

---

**Q3: What is the CPT code(s) in question?**

MD wants 22610 22614 X 2 63003 22845...wouldn't 63046 be used instead of 63003 as facetectomy is documented?

---

**Q4: Please provide any other information about your case here (Op notes, history, description, etc):**

Implants: Medtronic spine, Legacy 5.5 titanium, T10 LT/RT 5.5X45, T11 LT/RT 5.5x40, T12 LT/RT 5.0x40, L1 LT/RT 5.5x45. Bilateral Titanium alloy rods, 110cm, Grafton matrix DBM 36mm transverse connector at T11/12

**PROCEDURE:**

Levels from T10-L1 localized and incision made, O-arm brought in for intraoperative CT> the images were uploaded into the Stealth planner and pedicle screw trajectories and sizes were planned.

We started placing screws at T10. On the left we used a pointer to choose a starting point into the pedicle and high speed drill used to puncture the cortex. the navigated awl used to further puncture the cortex. a navigated tap used to prepare the pedicle screw holes. the hold was then palpated with a feeler probe, which demonstrated good bony purchase. a 5.5x45 screw placed. The same procedure steps were taken on the right at T10. The same steps at T11 RT/LT, T12 bilaterally and L1 bilaterally.

We then performed T11/T12 laminectomies using a combination of Leksell, high-speed drill and Kerrison rongeurs. Bilateral 110cm titanium alloy rods were placed. the caps were finally tightened. the incision was copiously irrigated with antibiotic irrigation. The exposed bone was decorticated. Grafton matrix was applied and the native bone from the laminectomy and facetectomy was placed through the bone mill and prepped. this was mixed with 30cc crushed cancellous chips and applied to the decorticated bone. 1 g of vancomycin powder was placed in the wound. a 7F flat JP drains placed and tunneled below the fascia, all incisions were closed.



# Case #2

Procedure	CPT
Posterolateral fusion, T10–11	22610
Posterolateral fusion T11–12, T12–L1	22614 x 2
Laminectomy T11–12	63003–51
Posterior instrumentation T10–L1	22842
Stereotactic navigation	61783
Morselized allograft and autograft	20930, 20936

- ▶ 22845 is anterior instrumentation; 22842 is the correct code.
- ▶ Attendee also questioned 63046 vs 63003. Surgeon does not indicate facetectomy or foraminotomy. Noted native bone used from the facetectomy, but there is no mention of the facetectomy being performed – only lam. Clarify with surgeon. If facetectomy was performed, addendum is required and then 63046 could be billed in place of 63003.

# Let's Code!

## Case #3



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**Q1: What is the topic of your case?**

Posterolateral Fusion, Discectomy, Laminectomies, Neuronavigation

---

**Q2: Please provide a description of your case.**

T9-S1 Posterolateral Fusion, RT T11 Transpedicular Discectomy, T10/11 Laminectomies, L1-L5 Laminectomies, Neuronavigation of Pedicle Screws

---

**Q3: What is the CPT code(s) in question?**

MD coded as 63055 22612 22614X 4 63017 22843..Questioning if 22633/4 should be coded instead of the 63017

---

**Q4: Please provide any other information about your case here (Op notes, history, description, etc):**

Implants:Legacy T9 T10 T11 T12 L1 L2 L3 L4 L5 S1. Solera CoCR Rods 41 mm transverse connector L1/2 Grafton matrix DBM 30 cc crushed cancellous chips

**PROCEDURE:**

The levels from T9-S1 localized with fluoro. Proposed incision drawn, Patient prepped and draped in sterile fashion. Incision made and carried down to spinous processes and laminae with electrocautery ensuring meticulous hemostasis. One adequate exposure we proceeded to place a spinous process frame clamp at the most inferior part of incision. The O Arm brought out for intraoperative CT> The images were uploaded into the Stealth planner and pedicle screw trajectories and sizes were planned. We started placing screws at T9. On the left we used a pointer to choose a starting point into the pedicle. the high speed drill was used to puncture the cortex. The navigated awl was used to further puncture the cortex. A navigated tap was used to prepare the pedicle screw holes. The hold was then palpated with a feeler probe, which demonstrated good bony purchase. A 5.5x50 screw was placed. the same procedural steps were taken on the right at T9 and a 5.5x45 screw was placed. The same procedure steps were taken at T10 where a 5.5x45 screw on the left and a 6.5x45 screw on the right. At T11, same procedure steps taken and 6.5x45 screw on the left. No screw was placed on the right at T11 in order to do a transpedicular approach for at T10/11 discectomy. At T12 same procedural steps taken and a left 6.5x50 screw was placed on the left and a 6.5x45 screw on the right. At L1, same steps taken and 6.5x50 on left and 6.5x45 screw on right. At L2, L3, L4, L5 and S1 bilaterally 6.5x45 screws placed at each.

T10 and T11 laminectomies performed with high speed drill. T11 on right we began to perform a transpedicular discectomy by drilling the right T11 facet, exposing the T11 nerve root. The T10/11 discspace was encountered and canal was decompressed until the cord was palpated anteriorly to be free from compression.

We then performed decompression from L1-L5 widely ensuring decompression of nerve roots at each level using a combination of Leksell, high speed drill and Kerrison.

At this point two rods were measured, cut, bent and placed into the screw heads with caps. The caps were finally tightened. a cross link between levels L1 and L2 was placed and finally tightened.

The incision was copiously irrigated with antibiotic irrigation.

The exposed bone was decorticated. Grafton matrix DBM was applied, the native bone from the laminectomy was mixed with 30 cc crushed cancellous chips and applied to the decorticated bone. 2g of vancomycin powder was placed in the wound. Two 7F JP drains were placed and tunneled below the fascia inferiorly to the wounds. The fascia was closed in watertight fashion with vicryl sutures.

# Case #3

Procedure	CPT
Transpedicular discectomy T11-12	63055
T9-S1 instrumentation	22843
Laminectomy L1-L5	63017-51
Posterolateral Fusion L5-S1	22612-51
Posterolateral Fusion T9-L5	22614 x 8
Stereotactic navigation	61783
Morselized allograft and autograft	20930, 20936

- ▶ Attendee questioned use of 22633/4 vs 63017. There is no documentation of an interbody fusion (no end plate prep, no cage or structural graft). 22845 is anterior instrumentation; 22843 is the correct code.
- ▶ Surgeon needs to specify levels of posterolateral fusion in the body of the operative report.
- ▶ L1-5 decompression is vague. Assumed laminectomy only. Query surgeon.

# Let's Code!

## Case #4



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Surgeons

## What is the topic of your case?

Laminectomy, Fusion, Osteotomy

## Q2: Please provide a description of your case.

see op note below

## Q3: What is the CPT code(s) in question?

MD wishes to bill 22633 63047-59 22842 22634 22614 22848 63048-59 20931 20936 20930. My thought was to code: 63047-59 L3-L4, 22633- L4-L5, 22634- L5-S1 22214- L2-L3, 22216- L4-L5, 22216- L5-S1, 22842, 20931 20936 20930

## Q4: Please provide any other information about your case here (Op notes, history, description, etc):

PROCEDURE: 1. Posterior spinal fusion, lateral transverse process technique, lumbar L1 to L5-S1 utilizing allograft autograft together with Infuse. 2. Posterior lumbar interbody fusion, L4-5, complete resection of disk at 4-5, recreation of disk site, decompression foramen, interbody fusion with allograft autograft infuse together, custom cut milled femoral allograft interbody bone graft. 3. Posterior lumbar interbody fusion, L5-S1, lumbar spine, interbody fusion 5-1 unit utilizing custom cut, milled femoral allograft interbody bone graft, together with Infuse allograft and autograft bone graft. 4. Laminectomy of L2 with complete resection of facet joints at L2-3, decompression exiting L2 nerve roots. 5. Laminectomy of L3 with complete resection of facet joints at L3-4 with complete decompression L3 nerve root bilaterally. Complete foraminotomy, complete facetectomy. 6. Laminectomy of L4 lumbar spine, again, with resection of facet joints, decompression of existing IV nerve root bilaterally, complete facetectomy, complete foraminotomy bilaterally. 7. Laminectomy of L5 again with resection of facet joints, L5-S1, decompression of exiting V nerve root bilaterally to include complete facetectomy, complete foraminotomy. 8. Osteotomy L2-3 for extension of lumbar spine, recreation of lordosis 9. Osteotomy L3-4, lumbar spine, resection of facet joints, and complete foraminotomy, complete decompression all nerve roots exiting. 10. Osteotomy of L4-5 level, and osteotomy at number 11 osteotomy, L5-S1. 11. Posterior spinal and instrumentation from L1 to S1 utilizing Medtronic Legacy screws, rods from hooks at 1, screws at 2, 3, 4, 5 and S1. 12. Use of allograft bone graft to femoral heads, plus local bone graft 13. Tens use and Infuse 14. Closure over drains Postoperative Diagnosis: SPinal stenosis, multiple levels L2 to sacrum, end-stage DJD multiple levels disk 4-5 and 5-1. Back, Leg pain Neurogenic claudication OPERATIVE



# Case #4

Procedure	CPT
PLIF/posterolateral fusion L4-5	22633
PLIF/posterolateral fusion L5-S1	22634
Posterolateral fusion L1-2, L2-3, L3-4	22614 x 3
Lam, facet, foram L2-3	63047-59,51
Lam, facet, foram L3-4, L4-5, L5-S1	63048-59 x 3
Posterior instrumentation L1-S1	22842
Morselized allograft and autograft	20930, 20936
Structural allograft for PLIFs	20931

- ▶ If Medicare, 63048 only billed once. Not billable for L4-5, L5-S1.
- ▶ Is this a s-p osteotomy for L2-L5 or is this just a normal decompression 63047, 63048s and over documented by the surgeon?.

MD wishes to bill 22633 63047-59 22842 22634 22614 22848 63048-59 20931 20936 20930. My thought was to code: 63047-59 L3-L4, 22633- L4-L5, 22634- L5-S1 22214- L2-L3, 22216- L4-L5, 22216- L5-S1, 22842, 20931 20936 20930

- ▶ Where is the deformity diagnosis?
  - Postoperative Diagnosis: Spinal stenosis, multiple levels L2 to sacrum, end-stage DJD multiple levels disk 4-5 and 5-1. Back, Leg pain Neurogenic claudication
- ▶ How many times can you remove the same piece of bone?
  - Laminectomies 2, laminectomy 3, 4 and 5.
  - We then had larger 6 kerrison which we utilized to undercut the pars, and fully decompress the foramen 2-3, 3-4, 4-5 and 5-1. We could palpate the pedicle to 2, 3,4,5 and S1.
  - Osteotomies was performed to the inferior surface of 4, superior surface of 5, relected, anteriorly on top of which we placed Infuse allograft and autograft bone graft.
  - Osteotomies at 2-3, 3-4, 4-5 and 5-1 so could lordose and extend the spine.

# Let's Code!

## Case #5



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Surgeons

**Q1: What is the topic of your case?**

scoliosis/deformity cases

---

**Q2: Please provide a description of your case.**

when you do Smith Peterson osteotomies, how does one code for this as well as when to use arthrodesis for scoliosis codes

---

**Q3: What is the CPT code(s) in question?**

22214  
22800

---

**Q4: Please provide any other information about your case here (Op notes, history, description, etc):**

- 1 t8-pelvis instrumentation and arthrodesis
- 2 fluoro
- 3 spinal navigation
- 4 aspiration of bone marrow
- 5 autograft
- 6 allograft
- 7 TLIF L4-S1
- 8 laminectomy l3-4
- 9 smith peds osteotomy l1-4
- 10 cement augmented screws t8-9
- 11 open si fusion
- 12 bone growth stimulator (internal)



# Case #5

Procedure	CPT
TLIF and posterolateral fusion L4-5	22633
TLIF and posterolateral fusion L5-S1	22634
Posterolateral fusion T9-S1	22614 x 7
Smith-Petersen osteotomy L1-2	22214-51
Smith-Petersen osteotomy L2-4	22216 x 2
Posterior instrumentation T8-pelvis	22843, 22848
Morselized allograft and autograft	20930, 20936
Structural allograft for TLIFs?	20931
Stereotactic navigation?	61783
Open SI fusion	27280-51
Bone growth stim - internal	20975

- ▶ L3-4 laminectomy not separately billable when osteotomy billed at same level.
- ▶ Fluoro not separately billable.
- ▶ Bone marrow aspirate billable if separate incision - 20939.
- ▶ No additional coding for cement augmentation of screws.
- Query surgeon - was an open SI fusion performed?



# Let's Code!

## Case #6



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# 2 Stage Deformity Correction

## (Thoracolumbar kyphoscoliosis)

### Stage 1

#### POSTOPERATIVE DIAGNOSES:

1. Lumbar pseudoarthrosis at L3-4, L4-5, and L5-S1.
2. Recurrent lumbar spinal stenosis.
3. Degenerative thoracolumbar kyphoscoliosis.

#### OPERATION AND PROCEDURES:

1. Anterior lumbar retroperitoneal approach to L3-4, L4-5, and L5-S1 for discectomy and arthrodesis.
2. Placement of carbon fiber interbody cages packed with Infuse bone graft into the L3-4, L4-5, and L5-S1 interspaces.

# Case #6 – Stage 1

Procedure	CPT
ALIF L3-4, L4-5, L5-S1	22558-62, 22585-62 x 2
Interbody cages	22853 x 3
Morselized allograft	20930

- ▶ Co-surgery modifier 62 on ALIF codes only.



# 2 Stage Deformity Correction

## (Thoracolumbar kyphoscoliosis)

### Stage 2

#### OPERATION AND PROCEDURES:

1. Posterior approach to the thoracolumbopelvic spine with placement of clamped pedicle screw and rod construct segmentally from T9 through S1.
2. Placement of bilateral iliac wing fixation screws.
3. Redo bilateral decompressive laminectomies and foraminotomies at L3-4, L4-5, and L5-S1.
4. Transforaminal lumbar interbody fusion at L2-3.
5. Placement of PEEK interbody cage packed with locally harvested autograft bone into the L2-3 interspace.
6. Smith-Petersen osteotomies at T12-L1 and L1-L2.
7. Harvest and morselization of local corticocancellous autograft bone.
8. Posterolateral arthrodesis using morcellized corticocancellous autograft and allograft bone from T9 through S1.

## Case #6 – Stage 2

Procedure	CPT
TLIF and posterolateral fusion L2–3	22633–58
Posterolateral fusion T9–S1	22614–58 x 8 (exclude L2–3)
Smith–Petersen osteotomy T12–L1	22214–58,51
Smith–Petersen osteotomy L1–2	22216–58
Bilateral lam and foraminotomy L3–4	63047–58,59,51
Bilateral lam and foraminotomy L4–5, L5–S1	63048–58,59 x 2
Posterior instrumentation T9–S1	22843–58
Iliac wing fixation	22848–58
Peek interbody cage	22853–58
Morselized allograft and autograft	20930, 20936

# Let's Code!

## Case #7



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# 2 Stage Deformity Correction

## (Thoracolumbar kyphoscoliosis)

### Stage 1

#### **POSTOPERATIVE DIAGNOSES:**

1. Iatrogenic flat back deformity with associated recurrent spinal stenosis.
2. Lumbar pseudoarthrosis at L4-5.

#### **OPERATION AND PROCEDURES:**

1. Anterior lumbar retroperitoneal approach to L4-5 and L5-S1 for discectomy and arthrodesis.
2. Placement of carbon fiber interbody cages packed with Infuse bone graft into the L4-5 and L5-S1 interspaces.



# Case #7 – Stage 1

Procedure	CPT
ALIF L4–5, L5–S1	22558–62, 22585–62
Interbody cages	22853 x 2
Morselized allograft	20930

- ▶ Co-surgery modifier 62 on ALIF codes only.

# 2 Stage Deformity Correction

## (Thoracolumbar kyphoscoliosis)

### Stage 2

**POSTOPERATIVE DIAGNOSIS:** Thoracolumbar kyphoscoliotic deformity.

**OPERATION AND PROCEDURES:**

1. Posterior approach to the thoracolumbar pelvic spine for placement of pedicle screw and rod construct segmentally from T5 through S1.
2. Placement of bilateral iliac wing fixation screws.
3. Use of frameless image-guided spinal stereotaxis and intraoperative CT scanning.
4. Redo bilateral decompressive laminotomies and foraminotomies at L1-2 and L2-3.
5. Pedicle subtraction osteotomy of the L2 vertebrae.
6. Smith-Petersen osteotomies at T9-10, T10-11, and T11-12.
7. Microdissection using operating room microscope.
8. Harvest and morselization of local corticocancellous autograft bone.
9. Posterolateral arthrodesis from T5 through S1 using morcellized corticocancellous autograft and allograft bone.

# Case #7 – Stage 2

Procedure	CPT
Pedicle Subtraction Osteotomy L2	22207-58
Smith-Petersen osteotomy T9-10	22212-58,51
Smith-Petersen osteotomy T10-11, T11-12	22216-58 x 2
Posterolateral fusion T5-S1	22610-58,51; 22614-58 x 12
Posterior instrumentation T5-S1	22844-58
Iliac wing fixation	22848-58
Stereotactic navigation	61783-58
Morselized allograft and autograft	20930, 20936
Microdissection	69990-58

- Bilateral decompressive laminectomies and foraminotomies at L1-2, L2-3 are included with L2 pedicle subtraction osteotomy.

# Let's Code!

## Case #8



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## **What is the topic of your case?**

**T10 T11 laminectomy,  
left T10 extracavitary transpedicular approach for partial corpectomy  
placement of expandable cage for anterior column reconstruction  
correction of kyphotic deformity  
placement of pedicle screws T7, T8, T9, T11, T12.  
Posterolateral fusion T7-T12  
Use of intraoperative fluoroscopy.  
-22 extra difficulty due to large size, difficult anatomy, ankylosing spondylitis**

---



## Case #8

Procedure	CPT
Lateral Extracavitary Corpectomy T10	63101
Expandable cage for reconstruction	22859 (no interbody fusion?)
Posterior instrumentation T7-12	22842
Posterolateral fusion T7-12	22610-51; 22614 x 4
Stereotactic navigation	61783
Morselized allograft and autograft	20930, 20936
Microdissection	69990

- T10 was fractured due to the deformity. LECA 63101 vs 3 column osteotomy? Use LECA due to fracture.
- T10, T11 laminectomy included with corpectomy.
- Interbody fusion following corpectomy not documented. Query surgeon. If performed, add 22532-51, 22534.
- Modifier 22 not documented - time, skill, risk. Query surgeon.
- Stereotactic placement of pedicle screws documented.

# Let's Code!

## Case #9



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**Q2 Please provide a description of your case.**

My physician thinks we can bill per nerve root, not interspace. For instance 1. Bilateral L1 and redo bilateral L2 decompression with foraminotomies through a left unilateral transmedian approach.

---

**Q3 What is the CPT code(s) in question?**

He is stating this should be 63047 and 63048 because he is decompressing each nerve root.

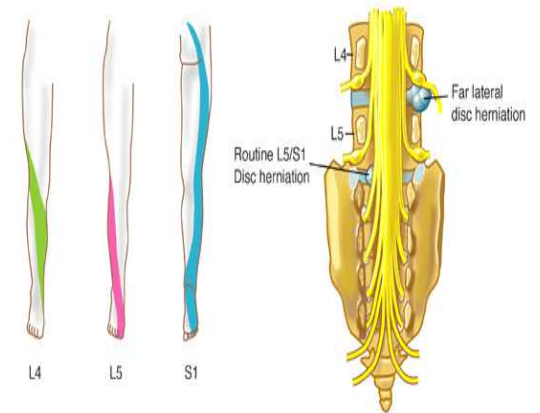


- ▶ Left L1 and L2 laminotomy with L1–2 medial facetectomy
- ▶ Left L1 neuroforamen opened with microforaminotomy Kerrison
- ▶ Left L2 foraminotomy also performed with microforaminotomy Kerrisons
- ▶ Undersurface of Right L1 and L2 lamina partially drilled down
- ▶ L1 and proximal L2 foraminotomies performed
- ▶ Microdissection

# Case #9

Procedure	CPT
Bilateral Lam and Foraminotomy L1	63047
Bilateral Lam and Foraminotomy L2	63048 (Poor documentation)
Microdissection	69990

- Nerve root versus interspace coding
- No redo bony decompression codes
- Clarify with surgeon if L2 nerve root was the traversing nerve root or the exiting nerve root. If traversing nerve root, then only 63047 is billed. If exiting nerve root, then 63048 is correctly coded.



# Let's Code!

## Case #10



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POSTOPERATIVE DIAGNOSIS(ES): Unstable L1 burst fracture.

PROCEDURE(S) PERFORMED:

1. Posterior open reduction and internal fixation of unstable L1 burst fractures.
2. Placement of Synthes pedicle screw and rod construct from T12-L2.
3. Posterolateral arthrodesis from T12-L2 using morselized cortical cancellous allograft and autograft bone.





# Case #10

Procedure	CPT
Open reduction L1 burst fracture	22325-51
Posterolateral fusion T12-L2	22612; 22614
Posterior instrumentation T12-L2	22842
Morselized allograft and autograft	20930, 20936



# Let's Code!

# Case #11



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Q2

**Please provide a description of your case.**

**Pt with a history of posterior lateral L4-S1 pedicle screw fusion now comes in with pseudarthrosis at those levels and adjacent level disease at L3-4. Plan in to do L4-S1 ALIF with an access surgeon, Lateral inter body fusion at L3-4 through a transposes approach (no access surgeon), Remove and revise posterior instrumentation at L4-S1 and extend to L3.**

---

Q3

**What is the CPT code(s) in question?**

**How would we report the Anterior Fusion code with a co surgeon and the lateral fusion codes without a co-surgeon.**

---

# Case 11

Procedure	CPT
ALIF L4-5, L5-S1	22558-62, 22585-62
Transposas interbody fusion L3-4	22585
Posterior instrumentation L3-S1	22842

- Removal of L4-S1 instrumentation included with the placement of new instrumentation at L3-S1.
- Other codes, including cages, instrumentation, and graft codes would also be billed (full op note not provided).

# Let's Code!

## Case #12



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Q2

**Please provide a description of your case.**

**Minimally invasive left L4-L5 decompressions with L4-L5 TLIF, Exploration of previous L5-S1 TLIF with removal of fusion hardware, Stryker SpineMask Neuronavigation, bone marrow aspiration from L4-5 vertebra.**

---

Q3

**What is the CPT code(s) in question?**

**22633, 63047-59, 22840-51, 22853, 61783, 38220  
22830-51, 22852-51**

**Want guidance if this is the correct coding and modifiers for optimizing reimbursement.**



### **Postoperative diagnosis:**

**History of minimally invasive L5-S1 decompression with instrumented fusion.  
Acute left L4 5 lateral and far lateral disc herniation with nerve root compression.  
Left lower extremity radiculopathy.**

### **Procedure performed:**

**Removal of existing L5-S1 fusion and instrumentation.  
Exploration confirming L5-S1 fusion.  
Open left L4 5 far lateral discectomy.  
L4 5 transforaminal lumbar interbody fusion using a titanium Cascadia cage from K2M.  
L4 5. L5-S1 pedicle screw fusion using titanium Solera screws from Medtronic.  
Intraoperative neuro navigation using the Stryker spine mask unit.  
Intraoperative electrophysiologic monitoring.  
L4 bone marrow aspiration via left L4 pedicle cannulation.**

# Case 12

Procedure	CPT
TLIF L4-5	22630
Titanium cage L4-5	22853
Posterior instrumentation L4-S1	22842
Morselized allograft and autograft	20930, 20936
Stereotactic navigation	61783

Proposed coding: 22633, 63047-59, 22840-51, 22853, 61783, 20939, 22830-51, 22852-51

- **22633** – Posterolateral fusion not documented, so 22630 is the correct code. Query surgeon?
- **63047-59** – Bony decompression not well documented. Patient had large far lateral disc displacement, but this removal (63056) is included in 22630. Query surgeon about bony decompression and possible addendum?
- **22840-51** – Instrumentation is at L4, L5, S1, which is segmental – 22842. No modifier 51 with an add-on code.
- **20939** – Do not report bone marrow aspirate harvested from same incision (L4 pedicle).
- **22830-51** – Do not report exploration of fusion if solid.
- **22852-51** – Removal of posterior instrumentation at L5-S1 overlaps with the new placement at L4-S1 and is not separately coded.



# Let's Code!

## Case #13



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**Q1** What is the topic of your case?

Coding T9-S1 correctly with modifiers

---

**Q2** Please provide a description of your case.

Exploration of fusion L3-S1

Replacement of Pedicle screw instrumentation L3-S1

T9, T10, T11, T12, L1, L2 Pedicle screw fixation with attachment to replace screws L3-S1

Placement of Iliac screws to supplement Iliac Fixation

L2-3 SPO and laminectomy for decompression and correction of Deformity

L2-L3 PLF PLIF

L2-3 Interbody cage placement

L5-S1 Reoperative posterior lateral fusion

T9-T10 Posterior and posterolateral fusion

T10-T11 Posterolateral Fusion

T11-T12, T12-L1, L1-L2 Posterior and posterolateral fusion



# Case 13

Procedure	CPT
PLIF PLF L2-3	22633
Smith-Petersen osteotomy L2-3	22214-51 ( <b>Warning!</b> )
Posterior and/or posterolateral fusion T9-10, T10-11, T11-12, T12-L1, L1-2, L5-S1	22614 x 6
Instrumentation T9-L2 and replacement L3-S1	22843
Interbody cage L2-3	22853
Iliac Fixation	22848
Graft Codes?	

Proposed coding: 22830-59, 22849, 22848-59, 22214, 22633, 22853-59, 22610, 22614, 22614-59x4, 22843-59

- ▶ **22830-59** - Pseudoarthrosis not documented. Not billable, included.
- ▶ **22849** - Code placement only when overlap or connecting to new structure
- ▶ **22610** - Not billable because 22633 billed for L2-3. Use 22614.

# Let's Code!

## Case #14



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- ▶ TLIF L4–5
- ▶ Facet osteotomy L4–5
- ▶ Interbody cage L4–5
- ▶ Pedicle screw fixation L4–5
- ▶ Posterolateral fusion L4–5
- ▶ Morselized same incision autograft and allograft
- ▶ Microdissection

# Case 14

Procedure	CPT
TLIF and posterolateral fusion L4-5	22633
Interbody cage L4-5	22853
Pedicle screw fixation L4-5	22840
Microdissection	69990
Grafts	20930, 20936

- ▶ Question:  
Can you code the facet osteotomy?  
If yes, what is the code?

Note: Osteotomy codes should be used with deformity diagnoses, not with stenosis or spondylolisthesis diagnoses. Do not use osteotomy codes to circumvent CCI edits on 63047. This “facet osteotomy” is likely a facetectomy and would be coded as 63047 only if separate decompression is fully documented. Otherwise, it is included with the TLIF 22633. Even if decompressive, do not bill to Medicare.

# Let's Code!

# Case #15



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**Q1** What is the topic of your case?

Spinal metastatic disease with spinal canal compromise with myelopathy.

---

**Q2** Please provide a description of your case.

T11 and partial T12 laminectomy for spinal canal decompression and removal of epidural tumor.

2. T11 foraminotomy on the left.

3. T9 through L1 posterior segmental spinal stabilization with pedicle screw instrumentation.

4. Use of intraoperative neuromonitoring.

5. Use of intraoperative fluoroscopy.

6. Use of O-arm 3D CT-like imaging.

7. Use of spinal neuronavigation

---

**Q3** What is the CPT code(s) in question?

what to code for neuromonitoring?





# Case 15

Procedure	CPT
T11-12 laminectomy for epidural tumor	63276
Posterior segmental instrumentation T9-L1	22842
Stereotactic navigation?	61783

- Foraminotomy included with 63276.
- Per the AANS Guide to Coding: Mastering the Global Service Package for Neurological Services, neuromonitoring is not billable by the operating surgeon.
- Fluoroscopy and O-arm also not separately billable.
- Stereotactic navigation should be fully documented.

# Let's Code!

## Case #16



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**Q1** What is the topic of your case?

ROSA-Guided Biopsy and placement of laser catheters with laser ablation

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# Case 16

Procedure	CPT
Rosa guided biopsy with placement of laser catheters and laser ablation	64999

- LITT (Laser Interstitial Thermal Therapy) for tumors does not have a CPT code. Use 64999.
- Comparison code?

# Q&A



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## AANS Neurosurgical Coding One-day Seminars

# Thank you for attending!

Joseph S. Cheng, M.D., M.S.  
Professor & Chair of Neurological Surgery  
University of Cincinnati

Jene Skelly, CPC, CPA (inactive)  
Mayfield Brain & Spine

