AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves
Executive Committee Meeting

JW Marriott Desert Ridge, Grand Canyon Ballroom, Salons 4-5, Phoenix, AZ
Wednesday, March 5, 2015 8:00 am – 1:00 pm

AGENDA

ATTENDEES:

Executive Committee Officers and Voting Members:	John Hurlbert. MD, Chair; Michael Groff, MD, Past Chair, Nominating Committee & Strategic Planning; Praveen Mummaneni, MD, Chair Elect & MOC; Marjorie Wang, MD, Secretary; Charles Kuntz, MD, Treasurer
Other Voting Executive Committee Members:	Michael Wang, MD, Annual Meeting Chair; Zoher Ghogawala, MD, Scientiific Program Chair; Daniel Hoh, MD Exhibits Chair; John Ratcliff, MD, Media Chair
Non Voting Executive Committee Members:	Michael Steinmetz, MD, Member at Large; Pat Jacob, MD, Member at Large; Eric Potts, MD, Member at Large & Website Committee; Jack Knightly, MD, Ex Officio & Washington Committee Liaison
Standing Committee Chairs:	Frank LaMarca, MD, Education; Michael Groff, MD, Nominating; Michael Wang, MD, Annual Program Committee Chair; John Ratcliffe, MD, Media Chair; John Chi, MD, Research/Awards; Justin Smith, MD, Rules/Regulations; Joseph Cheng, MD, Payor Response Committee
Ad Hoc Committees:	Richard Fessler, AANS PDP; CME; Luis Tumialan, MD, CPT; Jean Valery Coumans, MD, ASTM/FDA; Adam Kanter, Fellowship; Chris Wolfla, Future Sites; John O'Toole, MD, Guidelines; Kurt Eichholz, MD, Membership; Praveen Mummaneni, MD, MOC; Eric Woodard, MD, NeuroPoint Alliance; Christopher Shaffrey, MD, NREF; Paul Park, MD, Outcomes; Langston Holly, MD, Publications; Sanjay Dhall, MD, Public Relations; Kai-ming Fu, MD, Spinal Deformity Training; Michael Groff, MD Strategic Planning; Jack/ Knightly MD/Katie Orrico, JD, Washington Committee; Eric Potts, MD, Website; Laura Snyder, MD/Khoi Than, MD, YNC Committee
Liaisons:	Deborah Benzil, MD, AANS Board Liaison; Michael Rosner, MD, Intersociety Liaison

AGENDA TOPICS

	AGENDA ITEM	DISCUSSANT
	Executive Committee Meeting Wednesday, March 5, 2014 0800 to 1300 Hrs	
1	Call to Order Reflection: Charles Kuntz IV	Dr. R. John Hurlbert
2	Approval of Minutes: Motion	
3	Treasurer's Report : 3. TreasurersReport14.12.31.pdf	Dr. R. John Hurlbert
4	Standing Business: • NREF Administration to come to DSPN EC meeting in Phoenix re: restructuring and accounting for prior contributions to NREF (old and new). • Hurlbert and Kuntz to follow up in regards to past and future contributions and any contractual obligations the DSPN might have. • Research and Awards Committee: Asterisk to be added to our listing of the amounts dispersed per award. John Chi to go back to CMTE to decide what awards would have funding "held back" to foster completion of research. • Outcomes Committee: Paul Park to approach Kevin Foley to discuss making a module within NPA/N2QOD. Proposal to evaluation impact of ACGME work hour restrictions in regards to re-- admission, morbidity, mortality using UHC database: Paul Park to convene subcommittee to further develop. • Public Relations: Possible response re: NSQIP paper about ortho vs neuro surgeons – Sanjay to craft a response to the paper and run by EC officers.	Gary Rejebian
5	New Business:	

	A. University of Calgary: The Appropriateness of Lumbar Fusion – Panelist Nominations for RAND Expert Panel Meeting 5.A.1 AANS CNS Joint Spine Section. Appropriateness of Lumbar Spine Fusion.pdf and 5.A.2 Nomination Form. AANS CNS Spine Section.pdf • RAND Final Report on AUC Project 5.C.1 15.01.27 CSRF RAND AUC.pdf and 5.C.2 Letter to SRS and AANS-JSS 1 20 15.pdf and 5.C.3 Rand Final Report on AUC Project-1.pdf	Dr. R. John Hurlbert
6	Standing Committee Reports: A. Annual Meeting Committee: 6.A Spine Summit Update 2015.pdf and 6.A.b Registration.xlsx B. Education Committee: C. Nominating Committee: I) Correspondence from Nominating Committee 6.C.1.a AANS Request for Nominations and 6.C.1.b Call for Nominations 2016.pdf D. Newsletter Committee: 6.D Newsletter report 2015-1.pdf E. Research and Awards Committee: 6.E Funding for Research & Fellowship Awards.pdf and 6.E.1 2015 Research Awards and Fellowships Committee Update.pdf - discussion to follow F. Rules and Regulations Committee: I) Revised Rules and Regulations have passed CNS and AANS review. G. Payor Response Committee: 6.G Rapid Response Update (Feb15).ppt	Dr. Michael Wang & Dr. Zoher Ghogawala Dr. Frank LaMarca Dr. Michael Groff Dr. John Ratliff Dr. John Chi Dr. Justin Smith Dr. Joseph Cheng
7	Ad Hoc Committee Reports: A. ASTM and FDA Drug and Devices Committee B. CME Committee: 7.B.1 AANS Spine Section Session Draft 2015.pdf and 7.B.2 DSPN Sessions for LO 2 6 15.pdf	Dr. Jean Coumans Dr. Frank LaMarca

	C. CPT Committee: 7.C.1 EC -- CPT Report.pdf and 7.C.2. AANS-- CNS CPT Dr Rosen re Spine CCI Edits 020315-- 1.pdf	Dr. Luis Tumialan
	D. Exhibits Committee: 7.D Exhibits Committee Report	Dr. Daniel Hoh
	E. Fellowships Committee: 7.E.1 Spine Fellowship Report.pdf and 7.E.2 CAST letter DSPN recs.pdf	Dr. Adam Kanter
	F. Future Sites Committee: 7. F Future Sites Report	Dr. Christopher Wolfla
	G. Guidelines Committee: I) C-spine Trauma Guidelines Survey of CNS Membership (Potts, Brooks, O'Toole: II) SRS/RAND AUC Surgery for Scoliosis (O'Toole) III) ACOEM Guidance to the Medical Evaluation of Law Enforcement Officers (Hoh) IV) ACOEM Back Pain Guideline (O'Toole) V) Metastatic Spinal Tumors (Ryken) VI) Thoracolumbar Trauma (Kaiser, O'Toole) VII) Cervical spondylosis guideline update (O'Toole) 7.G TLTrauma GL PICO questions 02 01 2015b.pdf	Dr. John O'Toole
	H. Membership Committee: 7.I Membership Committee Report	Dr. Kurt Eichholz
	I. Maintenance of Certification (MOC) Committee: Neurosurgery Knowledge Update – MOC Prep – Chapters 74- 76. Total chapters edited 157, Publication date May, 2015. Thieme Publishers.	Dr. Praveen Mummaneni
	J. NeuroPoint Alliance (AANS)/N2QOD:	Dr. Jack Knightly
	K. NREF:	Dr. Christopher Shaffrey
	L. Outcomes: I) Last meeting discussed potential collaboration with SMISS on minimally invasive spine registry. EC members suggested separate MIS module with N2QD.	Dr. Paul Park

	a) Discussed with Kevin Foley, Praveen Mummaneni, Clinton Devin and Tony Asher. Decided best action is to modify existing degenerative/deformity modules to better capture MIS procedures. Currently working on modifying existing modules. Per Clint, N2QOD will likely be renamed to S2QOD. II) Last meeting discussed obtaining access to UHD database for various studies including evaluating impact of ACGME work hour restrictions in regards to re-admission, morbidity, mortality using UHC database. b) Discussed with Sam Hohmann of UHC for past several months. UHC recently had meeting for new policy on release of data for research which was approved. It does appear that access will be allowed.	
	N. Peripheral Nerve Task Force: 7.N Peripheral Nerve Division.pdf	Dr. Linda Yang
	O. Public Relations:	Dr. Sanjay Dhall
	P. Publications Committee: I) Oral Meeting abstracts will be published in March Neurosurgical Focus II) Platform speakers were sent manuscript solicitation letters from both JNS and Neurosurgery III) We need to determine journal solicitation plan going forward – eg. Both journals every year, rotation of journals, etc.	Dr. Langston Holly
	Q. Strategic Planning Committee:	Dr. Michael Groff
	R. Washington Committee and COSS: I) Washington Update – Report of December 2014 7.R December 2014 Washington Update.pdf	Dr. Katie Orrico/ Dr. Jack Knightly
	S. Website Committee:	Dr. Eric Potts
	T. Young Neurosurgeons Committee:	Dr. Laura Synder/ Dr. Khoi Than

	I) Although the RRC milestones have been initiated, members of the YNC have proposed creating more succinct guidelines for resident expectations in various sub-specialties, so that residents have a better sense of what they should be working to achieve in a given residency year. II) Even if they are not partially adopted by the RRC, these guidelines would still be valuable to distribute to residents and meaningful for the RRC to consider going forward. Expectations for residents seem to be an evolving target, and expectations for junior residents unfortunately may need to be set at a lower level than in previous years due to work hour regulations. III) For the spine and peripheral nerve sub-specialties, such mile-stones for a given residency year may be along the lines of comfort with given procedures such as lumbar microdiscectomy or lumbar fusion, or understanding of certain concepts such as pelvic parameters, sagittal imbalance and correction of scoliosis. If members of the section have input as to what these parameters should and might be, please contact me at Laura.Snyder@bnaneuro.net.	
8	Liaison Reports A. Intersociety Liaison: 8.A Intersociety Liaison Report 2015.pdf B. AANS Board Liaison/PDP: I) NS PQRS a big issue for 2015 given changes. Washington Committee working hard to educate NS and provide some options to fulfill criteria for those who need. II) neurosurgeryblog.org going strong. Please follow everyone. Spine section will need to submit two guest blogs/year. Have two reps on CPR committee but all are welcome to contribute if have ideas. Please send them directly to me if unable to write but think worthy of including. III) Completing time as AANS Board Director, will have new liaison starting after April. C. Spinal Deformity Training:	Dr. Michael Rosner Dr. Deborah Benzil Dr. Kai Ming Fu
9	Spine Summit Overview	Dr. R. John Hurlbert

10	Spine Section History	Dr. Daniel Resnick

American Association of Neurological Surgeons

AANS/CNS Section on Disorders of the Spine and Peripheral Nerves
Statement of Financial Position
For the Six Months Ending Wednesday, December 31, 2014

	Current Year 12/31/2014	Prior Year 12/31/2013
Assets		
Checking & Short Term Investments	1,044,167	916,613
Accounts Receivable, net of Allowa... Uncollectible Accounts	82,875	125,925
Long-Term Investment Pool, at Mar...	2,927,896	2,889,948
Dues To/From AANS	0	0
Total Assets	**4,054,937**	**3,932,487**
Liabilities and Net Assets		
Liabilities		
Accounts Payable and Current Liabi...	47,500	85,000
Deferred Dues	95,100	97,800
Deferred Contribution Revenue	0	40,000
Total Liabilities	**142,600**	**222,800**
Net Assets		
Unrestricted	3,733,477	3,405,215
Unrestricted- Peripheral Nerve Task...	(791)	1,217
Unrestricted- Fellowships	57,788	4,322
Net Revenue (Expense)	121,863	298,932
Total Net Assets	**3,912,337**	**3,709,687**
Total Liabilities and Net Assets	**4,054,937**	**3,932,487**

American Association of Neurological Surgeons

AANS/CNS Section on Disorders of the Spine and Peripheral Nerves
Statement of Activities
For the Six Months Ending Wednesday, December 31, 2014

	FY '13 Final	FY '14 Final	YTD FY '14	YTD FY '15	FY '15 Budget
Revenues					
Membership Dues	70,996	94,136	94,136	38,700	94,600
Mailing List Sales	345				0
Fellowship/Award Sponsorship	165,000	190,000	190,000	115,000	210,000
Contributions for Operating Expenses	7,903	8,176	8,176	3,498	8,235
Annual Meeting Revenue	944,155	992,495	992,495	0	992,495
Total Revenues & Support	**1,188,399**	**1,284,807**	**1,284,807**	**157,198**	**1,305,330**
Expenses					
Audio Visual	6,964	7,526	7,526		7,500
Bank Fees	889	1,028	1,028	275	1,050
Contributions and Affiliations	140,000	140,000	140,000		140,000
Decorating	405	613	613		500
Food & Beverage	5,977	8,755	8,755		8,700
Gifts and Gratuities	439				1,000
Honoraria & Awards	216,773	197,269	197,269	0	239,000
Office & Other Supplies	272	98	98		550
Photocopy				12	25
Postage & Distribution	731	1,164	1,164	182	1,500
Printing/Typesetting	250	275	275	224	0
Other Personal Service Fees		5,876	5,876	2,727	20,000
Newsletter Professional Fees	900	875	875	900	1,000
Staff Travel	832				1,000
Telephone	147	61	61	27	2,200
Volunteer Travel	2,254				4,000
Website	2,388	590	590		12,500
Staff Coordination	8,791	8,224	8,224	4,394	9,413
Guidelines Development	36,973	27,900	27,900		10,000
Annual Meeting Expense	706,976	793,999	793,999	0	783,999
Total Expense	**1,131,962**	**1,194,254**	**1,194,254**	**8,742**	**1,243,937**
Investment Earnings	214,397	243,057	243,057	(26,593)	0
Net Excess (Loss)	**270,834**	**333,610**	**333,610**	**121,863**	**61,393**

American Association of Neurological Surgeons

AANS/CNS Section on Disorders of the Spine and Peripheral Nerves
Annual Meeting
For the Six Months Ending Wednesday, December 31, 2014

	FY '13 Final	FY '14 Final	YTD FY '14	FY '15 Budget
Revenues				
Registration Fees	269,430	286,465	286,465	237,085
Exhibitor Fees	672,500	248,200	248,200	248,200
Exhibitor Sponsorship Revenue	0	456,930	456,930	456,930
Special Event Revenue	2,225	900	900	50,280
Total Revenue	944,155	992,495	992,495	992,495
Expenses				
Scientific Program	275,924	448,289	448,289	418,807
Abstract Management	12,145			12,509
Program Book	26,846			27,651
Opening Reception	65,673			0
Social Events/General	0	116,824	116,824	116,824
Committee Dinners/Events	59,015			0
Exhibit Program	70,517	58,670	58,670	48,670
Advanced Registration	62,369			50,199
Annual Meeting Promotion	13,128			0
On-Site Coordination	16,751	20,017	20,017	9,339
Annual Meeting Planning Cmte	4,608	50,199	50,199	0
Staff Coordination	100,000	100,000	100,000	100,000
Total Expenses	706,976	793,999	793,999	783,999
Net Excess (Loss)	237,179	198,496	198,496	208,496

Sponsorship Update - 12/31/14
Spine Section

Budgeted Sponsorships:		Budgeted Amount	Date Received	Amount Received
H. Alan Crockard Int'l Fellowship	DePuy Spine	$5,000.00	6/30/14	$ 5,000.00
Sanford Larson Research Award	DePuy Spine	$35,000.00	6/30/14	$ 30,000.00
Ronald Apfelbaum Research Award	Aesculap	$20,000.00		
David Cahill Fellowship	DePuy Spine	$30,000.00	6/30/14	$ 30,000.00
David Kline Research Award	Integra Foundation	$20,000.00	10/10/14	$ 15,000.00
David Kline Lectureship	Integra Foundation	$5,000.00		
David Kline Lectureship Dinner	Integra	$5,000.00		
Ralph Cloward Fellowship	Medtronics	$30,000.00	10/1/14	$ 30,000.00
Sonntag International Fellowship	Nuvasive	$5,000.00	10/1/14	$ 5,000.00
Regis W. Haid, Jr. MD Adult Deformity Research Award	Globus Medical	$30,000.00		
Greenwich Hospital	Clinical Trial Fellowhship	$25,000.00		
Spine Match	Clinical Trial Fellowhship			
Total Received in FY15		**$ 210,000.00**		**$ 115,000.00**

AANS/CNS SPINE AND PERIPHERAL NERVE SECTION

2/11/15

		FY '09 Final	FY '10 Final	FY '11 Final	FY '12 Final	FY '13 Final	FY '14 Final	FY'15 Budget	FY '15 Final
SPINE AND PERIPHERAL NERVE SECTION									
SECTION INCOME									
Dues (AANS)		49,300	52,550	52,903	48,290	70,996	94,136	94,600	38,700
Mailing List Sales		2065	1180	885	690	345	0	0	0
SPONSORSHIP REVENUE	Historical Sponsors								
H. Alan Crockard Int'l Fellowship	DePuy Spine	5,000	5,000	5,000	5,000	5,000	10,000	5,000	5,000
Sanford Larson Research Award	DePuy Spine	30,000	30,000	30,000	30,000	30,000	60,000	35,000	30,000
Ronald Apfelbaum Research Award	Aesculap	15,000	15,000	15,000	15,000	15,000	20,000	20,000	0
David Cahil Fellowship	Synthes	30,000	0	30,000	0	30,000	60,000	30,000	30,000
Ralph Cloward Fellowship	Medtronic -> Nuvasive 2013 and on	0	30,000	30,000	0	30,000	30,000	30,000	30,000
David Kline Research Award	Integra	15,000	15,000	15,000	15,000	15,000	15,000	20,000	20,000
David Kline Lectureship	Integra	5,000	5,000	5,000	5,000	0	5,000	5,000	0
David Kline Lectureship Dinner	Integra	N/A	N/A	3,000	0	5,000	0	5,000	0
Clinical Trials Fellowship Award	Wallace Foundation/Spine Section	50,000	0	52,000	0	0	50,000	25,000	0
Sonntag International Fellowship	Medtronic -> Nuvasive 2013 and on	5,000	5,000	5,000	0	5,000	5,000	5,000	0
Regis W. Haid, Jr., MD Adult Deformity Research Award	Globus Medical	N/A	N/A	N/A	30,000	30,000	0	30,000	0
Returned Unused Sanford Larson		0	0	0	0	0	0	0	0
Return of Un-expended Kline Research Award (ok to keep per Integra)		0	0	0	6,895	0		0	
Contributions for Operating Expenses		7,977	7,893	8,439	6,189	7,903	8,173	8,235	3,498
Miscellaneous Revenue		0	0	104	0	0	0	0	0
Total Income		214,342	166,623	252,331	162,064	244,244	357,309	312,835	157,198
SECTION EXPENSES (AANS)									
Audio Visual		1,971	1,499	1,724	1,197	6,964	7,526	7,500	0
Bank Fee		648	470	604	498	889	1,028	1,050	275
Contributions & Affiliations		90,000	187,500	75,000	191,500	140,000	140,000	140,000	0
Decorating		205	607	540	385	405	613	500	0
Food & Beverage		4,827	3,994	5,914	7,023	5,977	8,755	8,700	0
Gifts & Gratuities			0	0	164	439	0	1,000	0
HONORARIA & AWARDS (AANS)	Historical Sponsors								
H. Alan Crockard Int'l Fellowship	DePuy Spine	5,000	5,000	0	5,000	5,000	5,000	5,000	0
Sanford Larson Research Award	DePuy Spine	30,000	30,000	30,000	30,000	30,000	30,000	35,000	0
Ronald Apfelbaum Research Award	Aesculap	15,000	15,000	15,000	15,000	15,000	15,000	20,000	0
David Cahil Fellowship	Synthes	30,000	30,000	30,000	30,000	30,000	30,000	30,000	0
Ralph Cloward Fellowship	Medtronic -> Nuvasive 2013 and on	30,000	30,000	30,000	30,000	30,000	30,000	30,000	0
David Kline Research Award	Integra	15,000	15,000	15,000	15,000	15,000	15,000	20,000	0
Clinical Trials Fellowship Award**	Wallace Foundation/Spine Section	0	50,000	50,000	0	50,000	25,000	50,000	0
David Kline Lectureship	Integra	5,000	0	5,000	1,457	0	5,000	5,000	0
Sonntag International Fellowship	Medtronic -> Nuvasive 2013 and on	10,000	5,000	5,000	5,000	5,000	5,000	5,000	0
Mayfield Clinical Award**	Spine & PN Section	3,000	0	2,000	2,000	2,000	2,000	2,000	0
Mayfield Basic Science Award**	Spine & PN Section	3,000	4,000	2,000	2,000	2,000	2,000	2,000	0
Outcomes Committee Award**	Spine & PN Section	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0
Regis W. Haid, Jr., MD Adult Deformity Research Award	Globus Medical	0	0	0	30,000	30,000	30,000	30,000	0
Clinical Trial Proposal Award**	Spine & PN Section	1,500	1,500	0	1,500	1,500	1,000	500	0
Travel for Clinical Trials Awardee		1,834	0	0	0	0	0	0	0
Plaques for 14 Awards @ $325 each**	Spine & PN Section	270	997	273	287	273	269	2,500	0
Office & other Supplies		592	135	335	387	522	98	550	0
Photocopy		0	1	2	3	0	0	25	12
Postage & Distribution		1,284	1,146	1,073	1,163	731	1,164	1,500	182
Printing		1,966	0	0	0	0	275	0	224
Newsletter Professional Fees		0	0	7	0	900	875	1,000	900
Staff Travel		0	0	0	0	832	0	1,000	0
Telephone		487	30	143	1,193	147	61	2,200	27
Volunteer Travel		60	0	19,966	0	2,254	0	4,000	0
Website		3,354	436	908	0	2,388	28,490	12,500	0
Other Personnel Service Fees		0	0	0	0	0	5,876	20,000	2,727
Staff Coordination		7,977	7,893	8,439	6,189	8,791	8,224	9,413	4,394
Miscellaneous		12,398	0	7,500	0	0	0	0	0
Guidelines Development		297	10,010	4,420	27,303	36,973	0	10,000	0
Spine Section History Project		7,968	15,952	0	0	0	0	0	0
SubTotal Expenses		285,638	418,170	312,848	406,249	425,985	400,254	459,938	8,741
Net=Total Income - Total Expenses		(71,296)	(251,547)	(60,517)	(244,185)	(181,741)	(42,945)	(147,103)	148,457

Investment Revenue		(183,399)	120,394	175,898	85,875	214,397	243,057	0	(26,593)
Net Income Including Investment Revenue		(254,695)	(131,153)	115,381	(158,310)	32,656	200,112	(147,103)	121,864
SPINE AND PERIPHERAL NERVE ANNUAL MEETING (CNS)									
ANNUAL MEETING INCOME (CNS)									
Registration		228,710	230,295	216,570	222,890	224,440	237,085	237,085	
Exhibits		427,225	372,240	360,155	331,125	304,925	248,200	248,200	
Contributions/Sponsorships		337,500	389,159	342,500	347,500	367,500	456,930	456,930	
Social Events		2,300	2,000	2,000	2,600	2,300	900	900	
Special Courses/Luncheon Symposia		47,900	44,110	38,000	47,460	44,990	49,380	49,380	
Total Income		1,043,635	1,037,804	959,225	951,575	944,155	992,495	992,495	0
ANNUAL MEETING EXPENSES (CNS)									
Scientific Program/Special Courses		233,994	237,007	251,810	234,240	275,924	400,428	390,428	
Abstract Management		0	0	0	0	12,145	30,361	30,210	
Program Book		0	0	0	0	26,846	27,500	27,651	
Opening Reception		0	0	0	0	65,673	0	0	
Social Events		145,927	141,475	156,186	154,396	0	116,824	116,824	
Committee Dinners/Events		0	0	0	0	59,015	0	0	
Exhibit Hall Program		43,188	49,057	48,660	49,600	70,517	48,670	48,670	
AM Registration		47,826	50,598	54,585	52,149	62,369	50,199	50,199	
Annual Meeting Promotion		63,870	67,929	52,463	60,624	13,128	0	0	
Onsite Coordination & Offices		12,213	9,423	12,810	18,024	16,751	20,017	20,017	
Annual Meeting Planning Cmte		1,016	2,145	0	2,528	4,608	0	0	
Staff Coordination		80,000	100,000	100,000	100,000	100,000	100,000	100,000	
Total Expenses		628,034	657,635	676,514	671,560	706,976	793,999	783,999	0
Net=Total Income - Total Expenses		415,601	380,169	282,711	280,015	237,179	198,496	208,496	0
Net Income Including Annual Meeting		160,906	249,016	398,092	121,706	269,835	398,608	61,393	121,864
Crockard Fellowship Payment for FY09 received in FY10		(5,000)	5,000						
Sanford Larson Award Payment for FY09 received in FY10		(30,000)	30,000						
Apfelbaum Award Sponsorship for FY10 received in FY11			(15,000)	15,000					
Crockard Fellowship Sponsorship for FY12 received in FY13 (January)					(5,000)				
Sanford Larson Award Sponsorship for FY12 received in FY13 (January)					(30,000)				
Sanford Larson FY12 Not Yet Paid					15,000				
2nd half of Apfelbaum Award paid in FY14 - Liau									
Stopped Payment on 2 Clinical Trials Proposal Award Checks - reissued in FY14 - checks were lost in the mail						1,000			
Crockard Fellowship Award for FY15 received in FY14							(5,000)		
Sandford Fellowship Award for FY15 received in FY14							(30,000)		
Cahill Fellowship Award for FY15 received in FY14							(30,000)		
Total Adjustments		(35,000)	20,000	15,000	(20,000)	1,000	(65,000)	0	0
Net Income per Audit		125,906	269,016	413,092	101,706	270,835	333,608	61,393	121,864

September 23, 2006

Dr. Marty Weiss
Chair
NREF Executive Council

Dear Marty,

I am delighted to report to you that the Executive Committee of the Section on Disorders of the Spine and Peripheral Nerves has voted to approve the establishment and funding of the Young Clinician Investigator Award for Spine through the NREF.

The details of this proposal are described in the revised document from Michele Gregory dated July 14, 2006, also attached to the electronic transmission of this document. We understand that upon this directive that appropriate signatures from the parent organizations will memorialize this decision and initiate the transfer of funds from the long term investment pool of the Section, the details of which will be determined by Mr. Engelbreit, AANS Treasurer and Dr. Wolfla, Section Treasurer.

It is our pleasure to participate in this very significant way in the NREF. We appreciate and understand that the NREF Executive Council will receive nominations from the Section and include a qualified member or members of our Section on the Council so that the true breadth of Neurosurgery will be represented in this important research enterprise. We also appreciate and understand that the NREF Scientific Advisory Committee has accepted our nomination of Dr. Jim Guest to that committee and will maintain a qualified member or members of the Section on that committee as well.

The Section leadership recognizes the great value of a Neurosurgery research initiative, and the great value of the subspecialty area of Spine to Neurosurgery and visa versa. We also recognize that in some areas, spinal research in Neurosurgery has been limited and it is our intent with this and other initiatives to grow our research base and our participation in Neurosurgery research leadership.

Thank you and Michele for your efforts to make this particular iniative successful. I personally look forward to continuing our work together in the future.

With kindest regards,

Charles L. Branch, Jr., M.D.
Chairperson
AANS/CNS Section on disorders of the Spine and Peripheral Nerves

Cc: Michele Gregory
Don Quest
Tom Marshall
Rich Ellenbogen
Laurie Behncke
Joe Alexander
Dan Resnick
Chris Wolfla

American Association of Neurological Surgeons

Celebrating 25 Years of Research

NREF EXECUTIVE COUNCIL CHAIRMAN

Martin H. Weiss, MD, FACS
LAC-USC Medical Center
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Executive Director

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Neurosurgery Research and Education Foundation

NREF/Spine and Peripheral Nerves Section Young Clinician Investigator Award

The AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves (the "Section") wishes to provide the Neurosurgery Research and Education Foundation (NREF) (the "Institution") of the American Association of Neurological Surgeons (AANS) with an endowment totaling $500,000, which will be apportioned as follows: $400,000 in a permanent endowment and $100,000 in a temporarily restricted account. The temporarily restricted account will be spent down over five (5) years and, along with the interest income of both accounts, will fund a full YCI award of $40,000 in each of the five years (the "Grant")

Provided a qualified fellowship application is received and awarded each year, the last of the five (5) Grants will be awarded in February 2011.

The purpose of this agreement is to set forth the terms and conditions pursuant to which the Section shall provide the Grant to the Institution.

Scope of Grant Support

1. Potential grant recipients will apply to the Institution between July 1st and June 30th of said year.

1.2 The Scientific Advisory Committee of the NREF will review all applications and will render its recommendations to the NREF Executive Council (EC). The NREF EC will make the decision and will forward its selection(s) onto the Section.

1.3 The Section's designated grant will be available only for applications dealing with topics related to spine and/or peripheral nerve. For the NREF/Spine and Peripheral Nerves Section Young Clinician Investigator Award, the NREF SAC shall review, score and rank only those applications that meet the aforementioned requirements.

Terms and Conditions

1. The Grant shall be used by the Institution to support an endowment, an annual NREF/ Spine and Peripheral Nerves Section Young Clinician Investigator Award.

2. The Institution and Section acknowledge and agree that the Institution shall have sole and complete control over the review and selection process for the Grant (see 1.1 to 1.4 above for more detail).

3. The Institution shall remit to the Section a detailed accounting of the manner in which the Grant proceeds were disseminated to the beneficiaries and otherwise expended. Additionally, as requested by the Section, the Institution shall permit the Section to review accounting records, which are related to the Grant.

4. The Institution and Section acknowledge and agree that the Grant has not been determined in a manner which takes into account the volume or value of business otherwise generated between the Institution and the Section and shall not obligate the Institution to purchase, use, recommend, or arrange for the use of any product of or service provided by the Section.

5. The Institution or the Section in the event of a material breach may immediately terminate this agreement by the other, which breach is not cured by said party within thirty (30) days after written notice thereof from the other. In the event that this agreement is terminated by the Section for cause, as provided in this paragraph, and the termination is approved by the Section's two parent organizations (AANS and CNS), the Institution shall immediately return to the Section the endowment funds and any remaining funds in the pay-down portion of the grant that has not been expended as of the effective date of the termination.

6. The Institution and Section agree that this agreement shall be governed by and interpreted under the laws of the State of Illinois. Any controversy or claim arising out of or relating to this agreement or the validity, inducement in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA") then pertaining. The Institution and Section hereby consent to the jurisdiction of the federal district court for the Northern District of Illinois and the entry of judgment on any award rendered hereunder. The Institution and Section further agree that this agreement sets forth the entire understanding regarding the subject matter hereof, supercedes all prior agreements or understandings, whether written or oral, between the Institution and Section, and can only be modified upon the prior mutual written agreement of the Institution and Section.

If the terms of this agreement are acceptable to the Section, please acknowledge the Section's agreement to the terms of this agreement by countersigning the attached three (3) copies and returning two (2) copies to AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves c/o Michele S. Gregory, Director of Development, AANS, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, one of which will be forwarded to the Executive Director of the CNS. Should there be any questions or a need for clarification, please contact the AANS at (847) 378-0500.

AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves

American Association of Neurological Surgeons (AANS)

By: _____
Thomas A. Marshall, Executive Director

Date: 24 OCT 06

Congress of Neurological Surgeons (CNS)

By: _____
Laurie Behncke, Executive Director

Date: 30 OCT 06

Neurosurgery Research and Education Foundation of the American Association of Neurological Surgeons (NREF)

By: _____
Ronald W. Engelbreit, CPA

Date: 25 OCT 06

SPINE SECTION FUNDING of NREF SPINE RESEARCH

	Restricted	Unrestricted	DSPN Funding	NREF Funding
FY 2006	400,000	100,000		
FY 2007				
FY 2008				80,000
FY 2009				
FY 2010				
FY 2011		(68,000)	68,000	40,000
Fy 2012			40,000	40,000
FY 2013			40,000	40,000
FY 2014			40,000	
	400,000	32,000	188,000	200,000

32,000

NREF
Spine Related
Fellowships/Grants/Awards

TYPE	TYPE DESCRIPTION	FELLOW	INSTITUTION	AREA
RG-YCI	2007-08 Young Clinician Investigator Award	Jason Huang	Univ of Rochester	Spine Trauma
~~RG-YCI~~	~~2007-08 Young Clinician Investigator Award~~	~~Uzma Samadani~~	~~New York University~~	~~Head Trauma, Spine Trauma, Birth Defects, Hydrocephalus~~
RG-YCI	2007-08 Young Clinician Investigator Award	Eve Tsai	Univ of Ottawa	Spine Tauma
RG-YCI	2010-11 Young Clinician Investigator Award	Michael Steinmetz, MD	Cleveland Clinic	Spine
RG-YCI	2010-11 Young Clinician Investigator Award	Hongyan Jenny Zou, MD	Mount Sinai School of Medicine	Spine
~~RG-YCI~~	~~2011-12 Young Clinician Investigator Award~~	~~Nader Sanai, MD~~	~~Barrow Neurological Institute~~	~~Spine~~
RG-YCI	2012-13 Young Clinician Investigator Award	Neil Rainer Malhotra, MD	University of Pennsylvania	Spine Trauma, Pain & Other: Spine Tumor
~~RG-YCI~~	~~2013-14 Young Clinician Investigator Award~~	~~Jon T. Willie, MD~~	~~Emory University~~	~~Spine & Functional~~

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Dr Steve Casha
Department of Clinical Neurosciences
Foothills Medical Centre
Phone: (403) 944-4776
Fax: (403) 283-2270
Email: scasha@ucalgary.ca

January 2, 2015

R. John Hurlbert, MD, PhD, FRCSC, FACS
President, AANS/CNS Section of Disorders of the Spine and Peripheral Nerves
Director of the Neurosurgical Residency Program
Associate Professor of Neurosurgery, Department of Clinical Neurosciences
University of Calgary
Foothills Medical Centre
1403 29th Street NW, Calgary, AB, T2N 2T9

Dear Dr. Hurlbert,

Re: The Appropriateness of Lumbar Fusion - Panelist Nomination

As you are well aware the use of spinal fusion surgery in the management of degenerative spine disease has met considerable controversy. In spite of published guidelines, significant heterogeneity in the use of this surgical intervention remains.
We therefore aim to develop a clinical decision tool to guide the identification of patients with degenerative disease of the lumbar spine who are appropriate for surgical fusion. The tool will be developed using the RAND/UCLA appropriateness methodology and will be based on best available evidence. This project is funded in part by the University of Calgary Cummings School of Medicine, Alberta Innovates Health Solutions, the Canada Research Chair Program and the Canadian Institutes of Health Research.

We are currently looking to recruit North American experts who will take part in our panel meeting. We are asking relevant society Presidents to nominate members who would be able to contribute content expertise. Nominee's attributes should include experience in the clinical management of degenerative disease of the lumbar spine as well as the ability to collegially develop consensus through discussion. ***We are contacting you to ask you to identify three potential panellists with the necessary content expertise who may be interested in participating in our expert panel meeting***. Please find attached a panellist nomination form.

Thirteen international experts including spinal neurosurgeons, orthopaedic spine surgeons, a general neurosurgeon, a general orthopaedic surgeon, a neurologist, a family medicine specialist, a physiatrist, and a chronic pain specialist will be invited to participate on the expert panel. Panellists will be selected from the pool of nominated members based on their qualifications, location of practice, and interest in our study.

Benefits of participation include:

1. All expenses paid (flight, accommodation, meals, taxi);
2. The choice of an honorarium or co-authorship on the paper summarizing the results of the appropriateness ratings;
3. The opportunity to review a literature synthesis on lumbar fusion;
4. Finally, prior experience with RAND appropriateness and necessity rating studies suggest that expert panel members find the experience very rewarding and informative process.

In the spring/summer, panel members will be sent a summary of the relevant literature on surgical fusion of the lumbar spine and a list of clinical scenarios one may encounter in day-to-day practice. Panellists will be asked to rate each scenario on a scale of 1-9 indicating how appropriate surgical fusion may be (1 = inappropriate, 9 = most appropriate). In the fall, the panel will meet in person in Calgary, Alberta to discuss these ratings and re-rate indications. This information will then be used to develop a clinical decision tool that clinicians will be able to use in their practice.

We thank you in advance for your assistance with this endeavour. We ask that you submit your nominations by January 15, 2015.

Sincerely,

Nathalie Jetté, MD, MSc, FRCPC
Principal Investigator
Associate Professor Clinical Neurosciences and
Community Health Sciences, University of Calgary
Hotchkiss Brain Institute & O'Brien Institute for Public Health

Steve Casha, MD, PhD, FRCSC
Co-Principal Investigator
Assistant Professor Clinical Neurosciences, Division of Neurosurgery
University of Calgary

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UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE

CLINICAL NEURO SCIENCES
CALGARY CANADA

AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves

Nominations for RAND Expert Panel Meeting

Nominees should be selected based upon their ability to work well in a group setting as well as their knowledge of the management of degenerative disease of the lumbar spine. If available, please attach nominees' academic curriculum vitae.

SPINAL NEUROSURGEON

	Name	Institution	Email	Telephone
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

ADULT GENERAL NEUROSURGEON WITH AN INTEREST IN SPINE SURGERY

	Name	Institution	Email	Telephone
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

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AANS/CNS SECTION ON DISORDERS OF THE SPINE AND PERIPHERAL NERVES

American Association of Neurological Surgeons

A Section of the
American Association of Neurological Surgeons
and
Congress of Neurological Surgeons

January 27, 2015

Charles Branch, MD
Chairman and President
Collaborative Spine Research Foundation
9400 W. Higgins Rd. Suite 215
Rosemont, IL 60018-4975

Dear Dr. Branch:

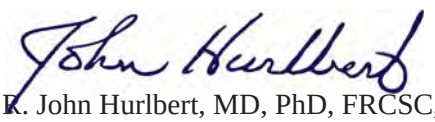
On behalf of the AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves please let me congratulate you and your team on facilitating such a significant initiative. I don't think the importance of this type of collaborative evidence-based reporting can be overstated. It is indeed a document that we can all stand behind. The downstream effect on guiding principles of practice and reimbursement are palpable. Hopefully the stage has now been set for many more similar projects to come. It is with pleasure and pride that I provide the full approval of the Joint Spine Section for the process, final content, and dissemination of the AUC project.

We too believe dissemination to be of critical importance. In this regard we would be happy to assist in whatever ways possible within our existing infrastructure. For example we can circulate electronically to our membership and post on our website. In addition we can engage our Public Relations, Washington, and Rapid Response committees to circulate as well. It will of course be important to also reach out to our Orthopedic Spine Surgery colleagues through our sister societies such as SRS. Dissemination by industry should likely occur at a date respectfully delayed from surgical societies.

To finish $80,000 under budget is a second very distinctive achievement. Further congratulations are in order for this type of responsible execution. Without meaning to be intrusive, I wonder if I might make a recommendation? Rather than re-investing $50,000 back into the CSRF, the Joint Spine Section would respectfully suggest these moneys be directed towards additional spine surgery-related RAND initiatives. We see this as a worthy investment towards delivering the highest standard of care to our patients. In return we would be more than happy to work with you and other partner societies in helping to identify alternate funding strategies to manage CSRF overhead.

Thank-you in advance for considering our request. And congratulations again on such important work.

With kind regards,



R. John Hurlbert, MD, PhD, FRCSC, FACS
Chair, AANS/CNS Section on Disorders of the
Spine and Peripheral Nerves

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Collaborative Spine
RESEARCH FOUNDATION
Partnering to advance clinical spine research

January 20, 2015

Dear Dr. Hurlbert and Dr. Dormans,

The Collaborative Spine Research Foundation has received the final report from Rand Corporation on "The Appropriateness of Surgical Treatment Approaches for Lumbar Degenerative Scoliosis", informally referred to as the "AUC project". The report is very good and has produced high quality findings such that their manuscript has been submitted to the Annals of Internal Medicine for review and hopefully for publishing. Their report is included with this letter along with their final financial report. The AUC project was completed $79,508.91 under budget which is remarkable considering the quality of the work they produced.

The Rand Corporation has expressed to us that they feel the findings in their report should be disseminated to the spine physician community. The Collaborative Spine Research Foundation strongly supports such action. Thus we seek your feedback on the value of such dissemination. If you feel the dissemination of the Rand findings will be beneficial to the spine community, we will share that information with the other three funders of the AUC project when we send them their copy of the final AUC reports. It would also be helpful if you could let us know your opinion on the best organization to conduct this work, SRS, AANS-CNS Joint Spine Section, Collaborative Spine Research Foundation, Rand, or another organization.

To fund a dissemination project of the AUC project's findings, the Collaborative Spine Research Foundation will commit $30,000 of the unused AUC funding of $79,508.91. The remaining $49,508.91 would be retained by us to cover grant management costs.

It would be helpful to receive your responses by **February 14, 2015** so that we can send the appropriate communications regarding a dissemination project to the other funders: Medtronic, DePuy Spine and K2M, along with copies of the AUC project reports. We will ask the other funders for their responses on the value and desire for a dissemination project by **February 28, 2015** so that the process of creating a dissemination project can begin soon after.

I look forward to hearing from you by or before February 14, 2015 and am happy to discuss any aspects of this proposed dissemination project with you between now and then too.

Collaborative Spine
RESEARCH FOUNDATION
Partnering to advance clinical spine research

My best,

Charles Branch, MD
Chairman and President
Collaborative Spine Research Foundation

Cc: Tressa Goulding, SRS Executive Director
AANS-CNS Joint Spine Section Executive Director
Board of Directors of the Collaborative Spine Research Foundation:
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- Zoher Ghogawala, MD
- Richard Haynes, MD
- James Heckman, MD
- Paul McCormick, MD
- Peter Rose, MD
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- Jeffrey Wang, MD

Staff Liaisons:
- Thomas Marshall, AANS Executive Director
- Sharon Mellor, OREF Chief Executive Officer
- Peter Kuhn, AANS CFO
- Donna Rebeck, OREF CFO

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Comparative Appropriateness of Five Surgical Procedures for Degenerative Lumbar Scoliosis: An Adaptation of the RAND/UCLA Appropriateness Method

Running title: Surgery for Degenerative Lumbar Scoliosis

Authors:
Peggy Guey-Chi Chen, [1] Michael Daubs, [2] Laura Raaen, [1] Ashaunta Tumblin Anderson, [1, 3] Steven M. Asch, [4, 5] Teryl K. Nuckols, [1, 6] *and the Degenerative Lumbar Scoliosis Appropriateness Group*[7]

1. RAND Corporation, 1776 Main Street, Santa Monica, CA 90407
2. Division of Orthopaedic Surgery, Department of Surgery, University of Nevada School of Medicine, 2040 W Charleston Blvd, Suite 601, Las Vegas, Nevada 89102
3. University of California Riverside School of Medicine, Division of Clinical Sciences, 900 University Ave., School of Medicine Research Building, Riverside, California 92521
4. VA Palo Alto Health Care System, 795 Willow Road, Menlo Park, California, 94025
5. Stanford University, Palo Alto, CA. 94305
6. Cedars-Sinai Medical Center, Division of General Internal Medicine, 8700 Beverly Blvd, Becker 113, Los Angeles, California 90048;
7. *Degenerative Lumbar Scoliosis Appropriateness Group*: Samuel Bederman, MD, PhD; Sigurd Berven, MD; Harsimran S. Brara, MD; Julie Fritz, PhD, PT, ATC; Standiford Helm, II, MD, MBA; Kenneth Lyles, MD; John O'Toole, MD, MS; Charles A. Reitman, MD; Christopher Shaffrey, MD; Gwendolyn Sowa, MD, PhD; Christopher Standaert, MD.

Corresponding Author/Reprints: Peggy Guey-Chi Chen; 1776 Main Street; Santa Monica, CA 90407; tel: 310 393 0411 x 6305; fax: 310 393 0418; email: pchen@rand.org

Financial support: This study was funded by the Collaborative Spine Research Foundation

Text Word Count: 3339

Comparative Appropriateness of Five Surgical Procedures for Degenerative Lumbar Scoliosis: An Adaptation of the RAND/UCLA Appropriateness Method

Running title: Surgery for Degenerative Lumbar Scoliosis

Authors:
Peggy Guey-Chi Chen, [1] Michael Daubs, [2] Laura Raaen, [1] Ashaunta Tumblin Anderson, [1, 3] Steven M. Asch, [4, 5] Teryl K. Nuckols, [1, 6] *and the Degenerative Lumbar Scoliosis Appropriateness Group*[7]

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4. VA Palo Alto Health Care System, 795 Willow Road, Menlo Park, California, 94025
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7. *Degenerative Lumbar Scoliosis Appropriateness Group*: Samuel Bederman, MD, PhD; Sigurd Berven, MD; Harsimran S. Brara, MD; Julie Fritz, PhD, PT, ATC; Standiford Helm, II, MD, MBA; Kenneth Lyles, MD; John O'Toole, MD, MS; Charles A. Reitman, MD; Christopher Shaffrey, MD; Gwendolyn Sowa, MD, PhD; Christopher Standaert, MD.

Corresponding Author/Reprints: Peggy Guey-Chi Chen; 1776 Main Street; Santa Monica, CA 90407; tel: 310 393 0411 x 6305; fax: 310 393 0418; email: pchen@rand.org

Financial support: This study was funded by the Collaborative Spine Research Foundation

Text Word Count: 3339

Abstract 274 (limit 275)

Background: For degenerative lumbar scoliosis (DLS), a common spinal deformity related to aging, the use of surgery varies and several alternative spinal procedures can be used.

Objective: To compare the appropriateness of five surgical approaches for specific subpopulations of patients with DLS.

Design: RAND/UCLA Appropriateness Method, which includes a systematic review of the literature and ratings by a multidisciplinary panel of national experts.

Patients: Adults with DLS and combinations of seven different clinical characteristics (scenarios).

Interventions: Five procedures that involved combinations of three components, decompression, posterior fusion, and deformity correction.

Measurements: Ratings of scenario-procedure pairs for which surgery was judged to be appropriate, of uncertain appropriateness, or inappropriate; and necessary or not.

Results: Across 260 clinical scenarios, panelists rated at least one procedure appropriate in 139 scenarios (53.5%) and all five inappropriate in 48 scenarios (18.5%). At least one procedure was judged necessary in 117 scenarios (45.0%). Decompression plus fusion and deformity correction was considered appropriate in 94 scenarios (36.2%), decompression plus fusion in 29 (11.2%), fusion plus deformity correction in 32 (12.3%), posterior fusion alone in two (0.8%), and decompression alone in 13 (5.0%). Decompression plus fusion was preferred when patients had spinal stenosis but smaller curves ($<30^{o}$), no imbalance, and no evidence of progression. Fusion alone and decompression alone were inappropriate in 89.8% and 80.8% of scenarios, respectively. Panelists frequently found definitive procedures preferable to more limited ones due to the risks associated with reoperation in elderly patients.

Limitations: Studies were generally small or used weak designs, such as case series.

Conclusions: Surgery for DLS is appropriate and even necessary in many situations. When surgery is appropriate, definitive procedures are often preferred.

Introduction

Degenerative lumbar scoliosis (DLS) represents a curvature of the spine exceeding ten degrees that results from osteoarthritis of the facet joints and age-related deterioration of the intervertebral discs. It affects 6-8% of adults over 65 (1, 2), particularly women and those with osteoporosis (2). Patients with DLS often develop lumbar spinal stenosis. DLS can cause additional narrowing of the neural foramina or central spinal canal, or cause imbalance of the spine in the sagittal or coronal plane (1, 2). Symptoms range from stiffness and back pain to neurogenic claudication, neurological deficits in the lower extremities, and cauda equina syndrome. Imbalance can lead to difficulty standing upright and an impaired gait. Surgical approaches include relatively limited procedures, such as decompression alone, as well as extensive ones, such as decompression plus posterior fusion and procedures to correct the spinal deformity.

The use of surgery for DLS varies greatly (3-5). Such variation may, in part, be due to a lack of rigorously developed information to guide clinical decision making. Each surgical approach has potential benefits, such as improvements in pain and function, as well as shorter- and longer-term risks, such as nerve injury, infection, pseudoarthrosis, and further destabilization of the spine (6, 7). Yet little high-quality information exists on when surgery is appropriate or inappropriate, and which procedures are preferable for specific populations of patients (8).

A lack of information on the comparative effectiveness of alternative surgical procedures is common, for several reasons. First, randomized

controlled trials are costly and surgical procedures, unlike medications, do not need to undergo rigorous testing before widespread use. Second, observational studies, such as those based on administrative databases, can be affected by bias, such as confounding by indication. Some conditions, including DLS, are coded inconsistently in administrative data sets. Finally, systematic review methods have limited ability to reach definitive conclusions when the primary literature largely represents studies that are small or that do not make comparisons. Additional methods are, therefore, needed for comparing the effectiveness of alternative surgical procedures.

Appropriateness criteria are quantitative tools designed to assess the appropriateness of care for well-defined populations of patients, and to be concrete, specific, and actionable. They are similar to but distinct from guidelines, which include recommendations intended to optimize, but not to evaluate, patient care (9, 10). Neither appropriateness criteria nor clinical practice guidelines appear to exist for surgery for DLS.

This study sought to compare the appropriateness of common surgical approaches for patients with DLS, including decompression alone, posterior fusion alone, fusion plus decompression, fusion plus deformity correction, and decompression plus fusion and deformity correction. To achieve this objective, we adapted the RAND/UCLA Appropriateness Method (11), a well-established method for developing appropriateness criteria by synthesizing the best available evidence with the nuanced experience of expert clinicians. The method involves a multidisciplinary, modified-Delphi process that quantitatively assesses the

expert judgment of a group regarding clinical appropriateness. Researchers have applied it to at least 16 different surgical procedures (12).

Methods

The RAND/UCLA Appropriateness Method has reproducibility consistent with well-accepted diagnostic tests, as well as content, construct, and predictive validity. Panel recommendations have been consistent with the results of subsequent randomized trials, and, in multiple studies, and adherence to panel recommendations was associated with improved outcomes (11, 13-18).

The current study involved: (1) systematically searching for published literature and guidelines, and synthesizing this information into an evidence report; (2) creating hypothetical subgroups of patients (clinical scenarios) by combining characteristics that influence the risks and benefits of surgery; and (3) having an expert panel rate the appropriateness of each procedure for each scenario.

Literature Search

The investigative team, including a reference librarian, searched PubMed, citations from a recent systematic review (8), citations from relevant publications, and articles from personal reference collections. Search terms included "degenerative lumbar scoliosis," "lumbar degenerative scoliosis," "de novo scoliosis", "adult scoliosis", "adult onset scoliosis", and "lumbar scoliosis". Additional searches addressed factors potentially affecting outcomes of spine surgery in general, including age, comorbidity, obesity, osteoporosis, and chronic opioid use.

Articles were eligible if they addressed the relationship between surgery for DLS, or the procedures under consideration, and a patient-important outcome. Articles addressing children, animals, and cadavers were ineligible, as were case series and studies of 50 or fewer patients. Two investigators reviewed titles, abstracts, and articles to reach agreement on eligibility.

A search for relevant guidelines included PubMed, the National Guidelines Clearinghouse, websites of relevant professional societies, and other sources. None was identified.

Clinical Scenario-Procedure Combinations

Developing the clinical scenarios was an iterative process that involved collaboration among an orthopedic spine surgeon, four physician investigators with expertise in quality measurement, and a research assistant. To identify factors potentially affecting surgical risks, we reviewed the published literature and interviewed physicians representing specialty societies and insurance payers (an advocacy group for patients with scoliosis was also invited).

This process suggested that seven patient characteristics were likely to influence surgical risks and benefits. We combined these to create the clinical scenarios, excluding scenarios that were logically inconsistent, implausible, or extremely rare.

Modified RAND/UCLA Appropriateness Panel Method

Selecting Panelists

To recruit panelists, we asked specialty societies and two large integrated healthcare organizations to nominate leaders with experience treating DLS. We

reviewed curriculum vitae, interviewed candidates, and contacted references. Panelists represented a variety of reimbursement models, geographic locations, expertise, and both academic and community practice settings.

The 11-member panel included: three orthopedic-trained spine surgeons, three neurosurgery-trained spine surgeons, two physiatrists, one anesthesiologist who specializes in pain management and performs spinal injection procedures, one geriatrician, and one PhD physical therapist who conducts research on spine surgery. Several panelists had been involved with guideline or appropriateness criteria development. This balance of specialties included individuals experienced in both the operative and non-operative approaches to treating DLS, and substantive experience using the alternative surgical approaches. The RAND Human Subjects Protection Committee approved this study.

Rating Process

The first round of ratings involved panelists rating clinical scenario-procedure combinations at home. Panelists received the evidence report, rating forms, and instructions.

During the second round, panelists met in person for one day. We used a modified-Delphi panel method, rather than a consensus method that forces agreement, to allow different opinions to be expressed and contend with one another and true agreement or disagreement to emerge. Panelists suggested modifications to definitions of key terms; these were adopted when a majority voted to do so. Research team members moderated discussions of clinical scenario-procedure combinations, associated evidence, and first-round ratings.

Each panelist received a summary of the first-round ratings for each scenario-procedure combination, including the median, standard error, his/her rating relative to the distribution, and the analytic interpretation. After all opinions had been voiced for a set of scenarios, panelists marked private, equally weighted rating forms.

In the first two rounds, panelists rated the appropriateness of surgery on a 9-point scale (9 = highest). An appropriate procedure was defined as: "The expected health benefit (e.g., increased life expectancy, relief of pain, reduction in anxiety, improved functional capacity) exceeds the expected negative consequences (e.g., mortality, morbidity, anxiety, pain, time lost from work) by a sufficiently wide margin that the procedure is worth doing, exclusive of cost." An inappropriate procedure is when expected harms outweigh expected benefits (11).

After analyzing second-round ratings, the research team identified scenario-procedure combinations that were judged appropriate. Panelists met again by telephone and rated the necessity of surgery (9-point scale) for each appropriate scenario-procedure combination. Necessity was defined as: (1) the procedure is appropriate, i.e., the health benefits exceed the risks by a sufficient margin to make it worth doing; (2) it would be improper care not to offer the procedure to a patient; (3) there is a reasonable chance that the procedure will benefit the patient; and (4) the magnitude of the expected benefit is not small (11).

Although seeking to compare procedures, we instructed panelists to rate each scenario-procedure combination without considering the relative appropriateness or necessity of the alternative procedures because multiple procedures could be equally appropriate in a given scenario. Rating procedures relative to each other could create the appearance of disagreement when none existed.

Because weight-bearing radiographs and advanced imaging (CT or MRI) of the spine seemed to be prerequisites for evaluating the appropriateness of surgery for DLS, we created quality measures describing these requirements, and asked panelists to rate validity using methods analogous to those for appropriateness.

Analysis

For each scenario-procedure combination, we identified the median rating and evaluated disagreement among panelists. Ratings interpretations for the first two rounds included: inappropriate = median of 1–3 without disagreement; uncertain appropriateness = median of 4–6 or any median with disagreement; appropriate = median of 7–9 without disagreement. Disagreement existed when four or more panelists rated in the 1–3 range and four or more in the 7–9 range (11). For the third round, surgery was considered necessary if the median was 7-9 without disagreement.

To assess this method's ability to compare procedures, we conducted Chi-square tests to ascertain whether ratings differed significantly across the five procedures.

Role of Funding Source

The Collaborative Spine Research Foundation funded this study. The research team had complete discretion in the execution of the research and reporting of results. The funders have not promised additional funding for future work.

RESULTS

Literature Search

The search yielded 5,843 unique records, including 5,542 titles and abstracts selected for further screening; 65 full-text articles met selection criteria (**Appendix 1**, PRISMA flow diagram). Overall, the quality of the primary literature was relatively low. No eligible studies were identified for certain situations. When this occurred, the evidence report described small studies and case series (25 articles). The highest quality data were from an observational and as-treated sub-analysis of 654 patients with lumbar spinal stenosis but not scoliosis from the Spine Patient Outcomes Research Trial (SPORT) trial; health status measures improved significantly more at four years among patients who underwent decompressive laminectomy as compared to those who did not (19).

Clinical Scenario-Procedure Combinations

After panelist modifications, there were five alternative procedures and 260 scenarios based on combinations of seven clinical characteristics, yielding 1300 scenario-procedure pairs. See **Appendix 2** and below for panelist-approved definitions.

DLS is a lateral curvature of the spine of more than 10 degrees that affects vertebrae from L1 to S1, has an onset in adulthood (age >=18), and is not attributable to neuromuscular disorders, tumors, infection, trauma, or other processes unrelated to aging. Decompression involves excising bone or soft tissue with the intention of alleviating the compression of spinal nerve roots that occurs with foraminal stenosis or central spinal stenosis. Posterior fusion procedures are intended to permanently join together two or more vertebrae so there is no movement between them. Deformity correction procedures are intended to correct the coronal or sagittal misalignment of vertebrae; these include insertion of interbody devices; *in situ* rod bending, compression, and distraction; posterior column osteotomy; three-column pedicle-subtraction osteotomy; and vertebral column resection.

The seven clinical characteristics comprising the scenarios included: (1) severity of self-reported symptoms (none to mild, moderate to severe); (2) severity of any central spinal or foraminal stenosis (none to mild, moderate, severe); (3) progression of the degree of curvature or certain other radiographic abnormalities (yes, no); (4) presence of sagittal imbalance (yes, no); (5) severity of any risk factors for suboptimal outcomes (none to mild, moderate, severe); (6) degree of curvature (10-19^{o}, 20-29^{o}, 30-39^{o}, $\geq$40^{o}); and (7) when applicable, number of levels with at least moderate central or foraminal stenosis (1-2, $\geq$3).

Panel Ratings

Panelists agreed that weight-bearing radiographs and advanced imaging must be performed when surgery is under consideration. All ratings assume that such imaging has been performed.

In Which Clinical Scenarios Is Surgery Appropriate?

Panelists rated one or more of the five alternative procedures as appropriate in 139 scenarios (53.5%, **Table 1**). In 48 scenarios (18.5%), all five procedures were judged inappropriate. For the remaining 73 scenarios (28.1%), no overall conclusion about the overall appropriateness of surgery could be drawn.

For surgery to be judged appropriate, patients had to have moderate to severe symptoms. In addition, they generally need moderate or severe stenosis or at least one of the following: a larger curve ($\geq 30^{o}$), evidence of progression, and or imbalance. Surgery was rated appropriate less frequently for patients with severe risk factors for suboptimal outcomes.

Panelists considered surgery inappropriate for subpopulations of patients with no to mild symptoms, no more than moderate stenosis, and no progression. Surgery was also inappropriate for patients with no to mild symptoms, moderate stenosis, severe risk factors for suboptimal outcomes, and progression.

Panelists found one or more of the five procedures to be necessary for 117 of the appropriate scenarios (45.0% of all scenarios, **Table 2**). Panelists generally considered surgery necessary when patients have severe stenosis. For patients with moderate stenosis, surgery was judged necessary when patients have progression or imbalance. For patients with no stenosis or mild

stenosis, surgery was often considered necessary when patients have no more than moderate risk factors for suboptimal outcomes, and two or more of the following: progression, imbalance, and a larger curve ($\geq 30^{o}$).

Which Procedures Are Preferable?

Overall, panelists frequently found performing a more definitive procedure preferable to performing decompression alone or posterior fusion alone. These more limited procedures, particularly decompression alone, can destabilize the spine and increase the likelihood of future reoperation, but advancing age and worsening comorbidities can add significant risk to reoperation.

The most comprehensive procedure, decompression plus fusion and deformity correction, was judged appropriate in 94 (36.2%, **Table 3**) scenarios, and necessary in 82 (31.5%, **Table 5**). With rare exceptions, this was the only procedure considered appropriate or necessary for patients with moderate or severe stenosis, and either imbalance or higher degrees of curvature ($\geq 30^{o}$). For patients with severe stenosis and smaller curves ($<30^{o}$), a procedure involving decompression and fusion—with or without deformity correction—was generally necessary.

Decompression plus fusion (without deformity correction) was rated appropriate in 29 scenarios (11.2%) and necessary in 26 (10.0%). It was the only procedure judged appropriate or necessary when patients have moderate or severe stenosis affecting three or more levels, smaller curves ($<30^{o}$), no progression or imbalance, and no more than moderate risk factors for suboptimal outcomes.

Fusion plus deformity correction (without decompression) was considered appropriate in 32 scenarios (12.3%) and necessary in in 21 (8.1%). This tended to be the only procedure rated appropriate or necessary when patients have no more than mild stenosis, no more than moderate risk factors, and one or more of the following: imbalance, progression, or larger curves ($\geq 30^{o}$).

Posterior fusion alone was rated appropriate in two scenarios (0.8%) and necessary in one (0.4%). Fusion alone was rated appropriate or necessary for patients with moderate to severe symptoms, curves have that have progressed to 20-29^{o}, up to moderate risk factors, and neither stenosis nor imbalance. For such subpopulations, fusion with deformity correction was equally appropriate or necessary.

Decompression alone was rated appropriate in 13 scenarios (5.0%) and necessary in 9 (3.5%) scenarios. It was the only procedure judged appropriate or necessary for patients with moderate stenosis affecting up to 2 spinal levels, and smaller curves ($<30^{o}$), provided that there is no evidence of progression or imbalance. In analogous situations involving severe stenosis, decompression alone can be an equally appropriate alternative to decompression and fusion with or without deformity correction.

The five specific procedures were inappropriate in a variety of different scenarios (**Table 5**). Decompression alone and fusion alone were inappropriate in 210 (80.8%) and 233 (89.6%) of scenarios, respectively. Surgery was more likely to be inappropriate for patients with no to mild symptoms or severe risk factors for suboptimal outcomes. The three procedures involving decompression

were all inappropriate for patients with only mild stenosis. Fusion with deformity correction was generally inappropriate for patients with moderate to severe stenosis, with smaller curves ($<30^{o}$), and no imbalance. Fusion with decompression was frequently inappropriate for patients with imbalance in addition to moderate to severe stenosis. In contrast, fusion with both decompression and deformity correction was often judged necessary for the two preceding groups of patients.

Chi-square tests confirmed the notion that panelists' appropriateness ratings differed significantly ($p<0.0001$) across the five procedures (**Appendix 2)**.

DISCUSSION

In this study, we adapted the well-established RAND/UCLA Appropriateness Method to compare the appropriateness of five alternative surgical procedures commonly performed for patients with degenerative lumbar scoliosis. Across 260 clinical scenarios, performing one or more of the procedures was judged appropriate about half of the time, and necessary nearly as often. All of the procedures were judged inappropriate in about one in five scenarios. Moderate to severe symptoms were required for surgery to be appropriate, and surgery was less likely to be appropriate when patients had severe risk factors for suboptimal outcomes, such as multiple serious comorbidities. When surgery was appropriate, panelists preferred definitive procedures over limited ones due to the risks associated with reoperation in elderly patients. Decompression with both fusion and deformity correction was judged appropriate and necessary in over a third of scenarios, the largest

percentage for any of the five procedures. Omitting the deformity correction component was preferable when patients have spinal stenosis but smaller curves ($<30^{o}$), and no evidence of progression or imbalance. Omitting the decompression component was preferable in patients without stenosis. Aside from a few specific clinical circumstances, decompression alone and fusion alone were usually inappropriate.

Previous studies do not appear to have examined the appropriateness of surgery for DLS. Of the most commonly performed inpatient and outpatient procedures, appropriateness criteria currently exist for 16. Lawson et al. found, in a 2011 systematic review, 17 studies that had developed appropriateness criteria and 27 that had applied them to U.S. populations. Among studies applying such criteria, several examined rates of inappropriate surgery (overuse), which has varied from 0-70%. Rates of underuse has been studied only for coronary artery bypass grafting, and ranged from 24-57% (12).

This study differs from most previous work in that we compared the appropriateness of alternative procedures performed for a single condition (20). One challenge we faced was ensuring that the number of ratings was within the maximum suggested by experts in the RAND/UCLA Appropriateness Method (2000) (11); our panelists rated 1300 scenario-procedure pairs. In terms of the validity of using this method to compare treatments, we found that panelists' appropriateness ratings differed qualitatively and quantitatively across the five procedures, and that panelists reached high degrees of agreement about appropriateness and necessity. The ultimate test of the validity of this application

is whether variations in adherence to panel recommendations are associated with differences in clinical outcomes.

Associations with clinical outcomes will be tested through future work applying these criteria to populations with DLS. The criteria can be applied retrospectively to ascertain rates of overuse and underuse. They can also be used prospectively to support surgical decision-making. For example, it would be possible to determine, for specific subpopulations of patients, when surgery should be performed or avoided, and, if it is considered, which procedures offer the most favorable risk-benefit profile. Individual surgeons, specialty societies, accountable care organizations, integrated healthcare organizations, payers—and patients—are likely to be interested in improving the provision of appropriate surgery for patients with DLS, particularly given the high cost of the procedures and the even higher costs associated with suboptimal surgical outcomes.

This work has limitations. First, published evidence was limited. However, multiple previous studies have shown that, in similar situations, adherence to appropriateness criteria has been associated with better clinical outcomes (16-18). Second, the patient perspective was not formally incorporated. Nonetheless, this method reflects a patient-centered approach by placing a floor and ceiling on what providers can reasonably offer.

In conclusion, previous work has demonstrated that the RAND/UCLA Appropriateness Method can produce valid and reliable recommendations about the appropriateness of care for specific subpopulations of patients, despite limited evidence, and that adhering to such recommendations yields more

favorable clinical outcomes. It can also be used, we found, to compare the appropriateness of alternative procedures that are performed for a common and disabling condition. Panelists judged surgery for DLS to be appropriate and even necessary in many situations. When surgery is appropriate, definitive procedures were often preferred.

Acknowledgements

We would like to acknowledge the substantial contributions of Lance Tan to all phases of this project.

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Appendix 1: Definitions of Terms (Revised during Panel Meeting)

Eligibility: Does patient have DLS?	
	DLS: Has all three of the following characteristics: (1) Affects at least some of the vertebrae from L1 to S1; (2) Has its onset in adulthood (age >=18) or unknown onset; AND (3) Is not attributable to neuromuscular disorders, tumors, infection, trauma, or other processes unrelated to aging.
	Scoliosis: Lateral curvature of the spine of more than 10 degrees on imaging studies performed with the patient weight bearing (i.e., in the upright / standing position).
	Magnitude of Lateral Curvature: Angle measured in degrees using the Cobb method, where: (1) The inferior line within the angle connects the most caudal vertebra with a tilted inferior endplate to the vertebra at the point of maximum curve convexity, AND (2) The superior line within the angle connects the most cephalad vertebra with a tilted superior endplate to the vertebra at the point of maximum curve convexity.
Clinical Characteristics:	
1. Symptoms: How severe are the patient's self-reported symptoms?	
	None to Mild:
	None: The patient denies discomfort, pain, fatigue, functional limitations, or other symptoms.
	Mild: The patient reports discomfort, pain, fatigue; these symptoms have been described as mild; and they do not interfere with performing usual activities.
	Moderate to Severe:
	Moderate: The patient reports discomfort, pain, fatigue, functional limitations, or other symptoms; the symptoms interfere with performing usual activities; and either the symptoms or functional impairment has been described as bothersome but not severe.
	Severe: The patient reports discomfort, pain, fatigue, moderate or severe functional limitations, or other symptoms, those symptoms interfere with performing usual activities, and either the symptoms or functional impairment has been described as severe. Patient reports significant progression of symptoms.
2. Stenosis: How severe is any central spinal stenosis or foraminal stenosis?	
	None to Mild: BOTH (1) Normal imaging studies or studies showing narrowing of one or more lumbar or sacral canals or neural foramen, AND (2) No to mild neurogenic or stenotic symptoms or signs.
	Mild neurogenic / stenotic symptoms include leg pain or neurogenic claudication described mild
	Mild neurogenic / stenotic signs include no loss of sensation or motor function and no decreased reflexes

	Moderate: BOTH (1) Imaging studies showing narrowing of one or more lumbar levels or neural foramina AND encroachment/compression of the nerve roots within the foramen or canal by surrounding bone and soft tissue, AND (2) Moderate neurogenic / stenotic symptoms or signs.
	Moderate neurogenic / stenotic symptoms include leg pain or neurogenic claudication described as moderate.
	Moderate neurogenic / stenotic signs may include loss of sensibility in L1 to S1 dermatomes, or decreased reflexes. (Motor weakness is absent.)
	Severe: BOTH (1) Imaging studies showing narrowing of one or more lumbar levels or neural foramina AND encroachment/compression of the nerve roots within the canals or foramen by surrounding bone and soft tissue, AND (2) Severe neurogenic / stenotic symptoms or signs.
	Severe neurogenic / stenotic symptoms include leg pain or neurogenic claudication described as severe, or cauda equina syndrome.
	Severe neurogenic/stenotic signs include motor weakness (loss of sensibility and loss of reflexes may or may not be present)
	Leg Pain: A clinical condition characterized by pain or discomfort anywhere distal to the upper gluteal fold posteriorly or inguinal ligament anteriorly.
	Neurogenic Claudication: A pattern of clinical symptoms characterized by EITHER of the following: (1) Symptoms related to neural compression that are aggravated with standing or walking and often relieved by sitting or being in a flexed position; such as of leg pain, numbness, weakness, paraesthesias, AND/OR heaviness in one or both legs; OR (2) A decrease in the ability to walk distances compared with an earlier point of time due to neural compression.
	Cauda Equina Syndrome: A clinical syndrome characterized by at least the FIRST TWO of the following: (1) Radiologic Evidence: Imaging studies showing severe compression of lumbosacral nerve roots within the neural canal by bone or soft tissue; AND (2) Symptoms such as new bowel or bladder incontinence, urinary retention, paresthesias, numbness, AND/OR decreased strength in the lower extremities; AND POSSIBLY (3) Signs increase the probability that the diagnosis is correct but are not required: Signs may include sensory loss, neurologic deficit in lower extremities, loss of anal wink, AND/OR decreased rectal tone.

3. Progression: Have the degree of curvature or other radiographic abnormalities worsened to a substantial degree?	
	No Progression: Stable, meaning no evidence of change, including EITHER: (1) Patient was not monitored, OR **(2)** Patient was monitored and experienced no more than a minimal change in radiographic parameters including curve magnitude, segmental olisthesis or rotatory subluxation, or sagittal imbalance**.**
	Progression: BOTH of the following are true: (1) Patient was monitored, AND (2) There was evidence of significant change in radiographic parameters including degree of lateral curvature (>=20 degrees), segmental olisthesis, rotatory subluxation, or sagittal imbalance.
	Monitoring: The patient was evaluated during two or more visits at least 12 weeks apart during which they had radiographic images taken and non-operative therapies or no treatment.
4. Imbalance: Does the patient have sagittal imbalance?	
	No: NONE OF THE FOLLOWING: (1) Less than 5 cm offset on full-length, weight-bearing lateral radiographs; AND (2) No significant spino-pelvic imbalance (LL-PI < 15 degrees or PT < 25 degrees); AND (3) No to minimal loss of lumbar lordosis on lumbar weight-bearing lateral radiographs.
	Yes: ONE OR MORE OF THE FOLLOWING: (1) At least 5 cm offset (in anterior direction) on full-length, weight-bearing lateral radiographs; OR (2) Significant spino-pelvic imbalance (LL-PI > 15 degrees or PT > 25 degrees); OR (3) Loss of lumbar lordosis on weight-bearing lumbar lateral radiographs AND clinical evidence of imbalance documented on physical exam.
5. Risk Factors: How severe are any risk factors for a suboptimal outcome, including advanced age, medical comorbidity, or psychosocial factors?	
	None to Mild: No moderate or severe risk factors.
	Moderate: ONE OR TWO moderate risk factors, including advanced age, moderate medical comorbidity, or psychosocial factors.
	Severe: THREE OR MORE moderate medical comorbidities or severe medical comorbidity.
	Advanced Age: Age 75 or above.
	Psychosocial Factors: ONE OR MORE of the following: (1) Psychiatric Issues: Self-reported depressed mood, history of depression or anxiety requiring treatment, history of suicidality, history of psychosis, history of schizophrenia or schizoaffective disorder, history of bipolar disorder; (2) Litigation: Workers' compensation claim or litigation related to back issues; (3) Chronic Opioid Use: Use of >= 30 mg equivalents of morphine per day for at least the past three months; (4) Current smoking: Actively smoking at the time of evaluation.

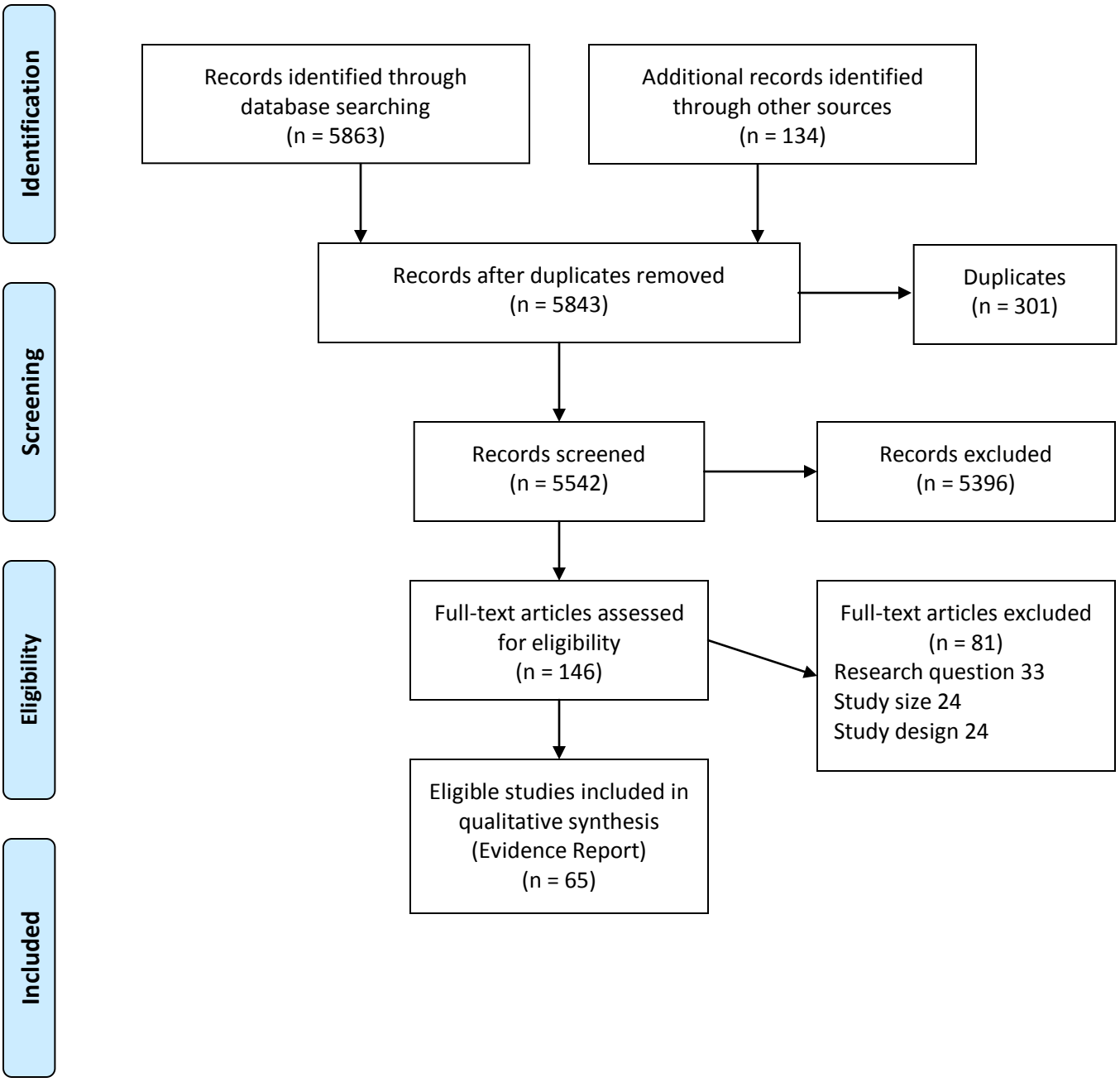
	Moderate Medical Comorbidity: ANY of the following: diabetes with or without complications, coronary artery disease or history of myocardial infarction, heart failure, peripheral vascular disease, cerebrovascular disease, dementia, mild chronic pulmonary disease, moderate to severe chronic kidney disease, connective tissue disease, HIV, hemiplegia, chronic liver disease without cirrhosis, malignancy, osteoporosis, use of steroids (prednisone equivalent of > 10 mg / day), obesity, poor nutrition (albumin < 3.2 or > 10% weight loss in last year), dementia.
	Severe Medical Comorbidity: ANY of the following: cirrhosis, malignancy with metastatasis, AIDS, severe cardiomyopathy, severe valvular heart disease, symptomatic cardiac dysrrythmia, or severe chronic pulmonary disease.
6. Curvature: What is the degree of curvature?	
	Mild: 10 to 19 degrees at time of current evaluation.
	Moderate: 20 to 29 degrees
	Moderately Severe: 30 to 39 degrees
	Severe: 40+ degrees
7. Levels: How many lumbar and sacral spinal levels have at least moderate central spinal stenosis or foraminal stenosis?	
	0 Levels: The patient does not have moderate or severe central spinal stenosis or foraminal stenosis at the lumbar level. (*No scenarios were rated that included this row because patients without these findings were classified as such under stenosis.)*
	1-2 Levels: The patient has one or two lumbar levels affected by central spinal stenosis or foraminal stenosis that is at least moderate.
	3+ Levels: The patient has three or more lumbar levels affected by central spinal stenosis or foraminal stenosis that is at least moderate.
Procedure: What is the appropriateness of each of the following operative approaches?	
	Decompression: Procedures that involve excising bone or soft tissue with the intention of alleviating the compression of spinal nerve roots that occurs with foraminal stenosis and central spinal stenosis.
	Posterior Fusion: Procedures that are intended to permanently join together two or more vertebrae so there is no movement between them.
	Deformity Correction: Procedures that are intended to correct the coronal or sagittal misalignment of vertebrae. ANY ONE of the following: (1) Insertion of interbody devices; (2) *In situ* rod bending, compression, and distraction; (3) Posterior column osteotomy; (4) Three-column pedicle-subtraction osteotomy; OR (5) Vertebral column resection.

Appendix 2: Comparison of Appropriateness Ratings across Five Surgical Approaches for DLS

	Appropriateness of Surgery			P value
	Inappropriate	**Uncertain**	**Appropriate**	
	N (%)	N (%)	N (%)	
Overall (260 Scenarios)				
Decompression Alone	210 (81%)	37 (14%)	13 (5%)	<0.0001
Fusion Alone	233 (90%)	25 (10%)	2 (1%)	
Fusion plus Decompression	165 (63%)	66 (25%)	29 (11%)	
Fusion plus Deformity Correction	101 (39%)	127 (49%)	32 (12%)	
Fusion plus Decompression and Deformity Correction	99 (38%)	67 (26%)	94 (36%)	
Selected Indications				
Symptoms: Moderate to Severe (176 Scenarios)				
Decompression Alone	126 (72%)	37 (21%)	13 (7%)	<0.0001
Fusion Alone	152 (86%)	22 (13%)	2 (1%)	
Fusion plus Decompression	82 (47%)	65 (37%)	29 (16%)	
Fusion plus Deformity Correction	24 (14%)	120 (68%)	32 (18%)	
Fusion plus Decompression and Deformity Correction	48 (27%)	34 (19%)	94 (53%)	
Stenosis: Severe (46 Scenarios)				
Decompression Alone	36 (78%)	10 (22%)	0 (0%)	<0.0001*
Fusion Alone	46 (100%)	0 (0%)	0 (0%)	
Fusion plus Decompression	21 (46%)	13 (28%)	12 (26%)	
Fusion plus Deformity Correction	0 (0%)	46 (100%)	0 (0%)	
Fusion plus Decompression and Deformity Correction	0 (0%)	0 (0%)	46 (100%)	
Imbalance: Present (104 Scenarios)				
Decompression Alone	92 (88%)	12 (12%)	0 (0%)	<0.0001*
Fusion Alone	100 (96%)	4 (4%)	0 (0%)	
Fusion plus Decompression	82 (79%)	22 (21%)	0 (0%)	
Fusion plus Deformity Correction	22 (21%)	60 (58%)	22 (21%)	
Fusion plus Decompression and Deformity Correction	32 (31%)	22 (21%)	50 (48%)	
Lateral Curvature: >30 ^{o} (117 Scenarios)				
Decompression Alone	108 (92%)	9 (8%)	0 (0%)	<0.0001
Fusion Alone	102 (87%)	15 (13%)	0 (0%)	
Fusion plus Decompression	87 (74%)	30 (26%)	0 (0%)	
Fusion plus Deformity Correction	40 (34%)	59 (50%)	18 (15%)	
Fusion plus Decompression and Deformity Correction	48 (41%)	27 (23%)	42 (36%)	

* = Fisher's Exact test used

PRISMA 2009 Flow Diagram



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

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Table 1. Clinical Scenarios for Which Surgery Was Judged Appropriate or Inappropriate

Clinical Characteristics Influencing Appropriateness of Surgery							
1. Symptom Severity	**2. Degree of Spinal or Foraminal Stenosis**	**3. Progression**	**4. Imbalance**	**5. Risk Factors for Suboptimal Outcome**	**6. Degree of Curvature**	**7. Number of Levels Affected by Stenosis**	**Number of Scenarios Grouped Together**
Appropriate: Benefits Outweigh Risks							
Moderate to Severe	Severe	Any	Any	Any	Any	Any	64
Moderate to Severe	Moderate	Any	Any	Moderate, or none to mild	Any*	Any	38
Moderate to Severe	Moderate	Yes	Yes	Severe	Any	Any	6
Moderate to Severe	Moderate	No	No	Severe	10-19o	.1-2	1
Moderate to Severe	Moderate	Yes	Yes	Moderate, or none to mild	Any	Any	8
Moderate to Severe	None to mild	Yes	No	Moderate, or none to mild	.≥20o	Any	6
Moderate to Severe	None to mild	No	Yes	Any	Any	Any	12
Moderate to Severe	None to mild	No	No	Moderate, or none to mild	.≥30o	Any	4
						Total	139
Inappropriate: Risks Outweigh Benefits							
None to Mild	None to Mild	No	No	Any	Any	Any	12
None to Mild	None to Mild	Yes	No	Severe	.≥30o	Any	2
None to Mild	Moderate	No	No	Any	.<30o	Any	12
None to Mild	Moderate	No	No	None to mild	.30-39o	.1-2	1
None to Mild	Moderate	No	No	Moderate	.30-39o	Any	2
None to Mild	Moderate	No	No	Severe	.≥30o	Any	4
None to Mild	Moderate	Yes	No	Severe	.≥20o	Any	6
None to Mild	Moderate	Yes	Yes	Severe	Any	Any	8
Moderate to Severe	None to Mild	No	No	Severe	10-19o	Any	1
						Total	48

*Exception: For patients with moderate to severe symptoms, moderate stenosis, progression, no imbalance, none to moderate risk factors, curve of 10-19 degrees, and 1-2 levels affected by stenosis, no procedure was rated appropriate (2 scenarios).

Table 2. Clinical Scenarios for Which Surgery Was Judged Necessary (Would Be Improper Not to Offer)

Clinical Characteristics Influencing Appropriateness of Surgery							
1. Symptom Severity	**2. Degree of Spinal or Foraminal Stenosis**	**3. Progression**	**4. Imbalance**	**5. Risk Factors for Suboptimal Outcome**	**6. Degree of Curvature**	**7. Number of Levels Affected by Stenosis**	**Number of Scenarios Grouped Together**
Moderate to Severe	Severe	Yes	Yes	Any	Any	Any	14
Moderate to Severe	Severe	Yes	No	Any	Any	Any	18
Moderate to Severe	Severe	No	Yes	Any	Any	Any	14
Moderate to Severe	Severe	No	No	Moderate, or none to mild	Any	Any	12
Moderate to Severe	Severe	No	No	Severe	10-19o	Any	2
Moderate to Severe	Severe	No	No	Severe	20-29o	.1-2	1
Moderate to Severe	Moderate, or none to mild	Yes	Yes	Moderate, or none to mild	Any	Any	16
Moderate to Severe	Moderate	Yes	Yes	Severe	20-29o	.3+	1
Moderate to Severe	Moderate	Yes	Yes	Severe	.≥30o	Any	2
Moderate to Severe	Moderate	Yes	No	Moderate, or none to mild	.≥20o	Any	8
Moderate to Severe	Moderate	Yes	No	Moderate, or none to mild	10-19o	.3+	2
Moderate to Severe	Moderate	No	Yes	Moderate, or none to mild	Any	Any	8
Moderate to Severe	Moderate, or none to mild	No	No	None to mild	.≥30o	Any	4
Moderate to Severe	Moderate	No	No	Moderate, or none to mild	10-19o	.1-2	2
Moderate to Severe	Moderate	No	No	Moderate, or none to mild	20-29o	.3+	2
Moderate to Severe	None to mild	Yes	No	Moderate, or none to mild	.≥30o	Any	4
Moderate to Severe	None to mild	Yes	No	None to mild	20-29o	Any	1
Moderate to Severe	None to mild	No	Yes	None to mild	Any	Any	4
Moderate to Severe	None to mild	No	Yes	Moderate	.≥30o	Any	2
						Total	117

Table 3. Scenario-Procedure Pairs for which Sugery Was Judged Appropriate (Benefits Outweigh Risks)

Clinical Characteristics Influencing Appropriateness of Surgery							
1. Symptom Severity	**2. Degree of Spinal or Foraminal Stenosis**	**3. Progression**	**4. Imbalance**	**5. Risk Factors for Suboptimal Outcome**	**6. Degree of Curvature**	**7. Number of levels affected**	**Number of Scenarios Grouped Together**
Posterior Fusion, Decompression & Deformity Correction							
Moderate to severe	Moderate to Severe	Yes	Any	Any	Any	Any	46
Moderate to severe	Severe	No	Yes	Any	Any	Any	14
Moderate to severe	Moderate	No	No	Moderate, or none to mild	≥ 30°	Any	4
Moderate to severe	Severe	No	No	Any	≥ 30°	Any	6
Moderate to severe	Severe	No	No	Moderate, or none to mild	10-29 °	3+	4
Moderate to severe	Severe	No	Yes	None to mild	20-29 °	1-2	1
Moderate to severe	Severe	No	No	Severe	20-29 °	3+	1
Moderate to severe	Moderate	Yes	No	Moderate, or none to mild	≥ 20°	Any	8
Moderate to severe	Moderate	Yes	No	Moderate, or none to mild	10-19 °	3+	2
Moderate to severe	Moderate	No	Yes	Moderate, or none to mild	Any	Any	8
Posterior Fusion & Deformity Correction							
Moderate to severe	None to mild	Any	No	Moderate, or none to mild	≥ 30°	Any	8
Moderate to severe	None to mild	Yes	No	Moderate, or none to mild	20-29 °	Any	2
Moderate to severe	None to mild	No	Yes	Any	Any	Any	12
Moderate to severe	None to mild	Yes	Yes	Moderate, or none to mild	Any	Any	8
Moderate to severe	Moderate	Yes	Yes	None to mild	10-29 °	Any	2
Posterior Fusion & Decompression							
Moderate to severe	Moderate	No	No	Moderate, or none to mild	10-29 °	3+	4
Moderate to severe	Moderate	Yes	No	Moderate, or none to mild	10-19 °	3+	2
Moderate to severe	Moderate	Yes	No	Moderate, or none to mild	20-29 °	1-2	2
Moderate to severe	Moderate	Yes	No	Moderate	20-29 °	3+	2
Moderate to severe	Severe	No	No	Moderate, or none to mild	20-29 °	Any	4
Moderate to severe	Severe	No	No	Any	10-19 °	3+	3
Moderate to severe	Severe	No	No	Moderate	10-19 °	1-2	1
Moderate to severe	Severe	Yes	No	Any	10-29 °	Any	12
Posterior Fusion							
Moderate to severe	None to mild	Yes	No	Moderate, or none to mild	20-29 °	Any	2
Decompression							
Moderate to severe	Moderate or Severe	No	No	Moderate, or none to mild	10-29 °	1-2	8
Moderate to severe	Moderate	No	No	Severe	10-19 °	1-2	1
Moderate to severe	Severe	No	No	Severe	10-29 °	Any	4

Table 4. Scenario-Procedure Pairs for Which Sugery Was Judged Inppropriate (Risks Outweigh Benefits)

Clinical Characteristics Influencing Appropriateness of Surgery							
1. Symptom Severity	**2. Degree of Spinal or Foraminal Stenosis**	**3. Progression**	**4. Imbalance**	**5. Risk Factors for Suboptimal Outcome**	**6. Degree of Curvature**	**7. Number of levels affected**	**Number of Scenarios Grouped Together**
Posterior Fusion, Decompression & Deformity Correction							
Any	None to mild	Any	Any	Any	Any	Any	66
None to mild	Moderate	Any	Any	Severe	Any	Any	22
None to mild	Moderate	No	No	Moderate, or none to mild	10-29 °	Any	8
None to mild	Moderate	No	No	Moderate, or none to mild	30-39 °	1-2	2
None to mild	Moderate	No	No	Moderate	30-39 °	3+	1
Posterior Fusion & Deformity Correction							
None to mild	Any	No	No	Any	Any	Any	36
Moderate to severe	Severe	No	No	Any	10-29 °	Any	12
Moderate to severe	Moderate	No	No	Any	10-19 °	Any	6
Moderate to severe	Moderate	No	No	None to mild or severe	20-29 °	1-2	2
Moderate to severe	Moderate	No	No	None to mild	20-29 °	3+	1
Moderate to severe	None to mild	No	No	Severe	10-19 °	Any	1
None to mild	None to mild	Yes	No	Severe	≥ 30°	Any	2
None to mild or Severe	Moderate	Yes	Any	None to mild or severe	Any	Any	28
None to mild	Moderate	Yes	Any	Moderate	20-39 °	Any	8
None to mild	Moderate	Yes	Yes	Moderate	10-19 °	Any	2
None to mild	Moderate	Yes	No	Moderate	≥ 40°	1-2	1
Moderate to severe	Moderate	Yes	No	Severe	10-19 °	Any	2
Posterior Fusion & Decompression							
Any	None to mild	Any	Any	Any	Any	Any	66
None to mild	Moderate	No	No	None to mild	Any	Any	24
None to mild	Moderate	Yes	Yes	Any	Any	Any	24
Moderate to severe	Severe	Yes	Yes	Any	Any	Any	14
Moderate to severe	Moderate to severe	No	Yes	Moderate	≥ 20°	Any	6
Moderate to severe	Moderate to severe	No	Yes	None to mild	≥ 30°	Any	4
Moderate to severe	Moderate	Yes	Yes	Moderate, or none to mild	10-19 °	Any	2
Moderate to severe	Moderate	Yes	Yes	None to mild	20-29 °	Any	1
Moderate to severe	Severe	No	Yes	None to mild	20-29 °	Any	1
Moderate to severe	Severe	No	Yes	Severe	≥ 40°	Any	1
Moderate to severe	Moderate	Yes	Yes	None to mild	≥ 30°	Any	2
Moderate to severe	Moderate	Yes	Yes	Moderate	≥ 20°	3+	3
None to mild	Moderate	Yes	No	Moderate to severe	Any	Any	12
None to mild	Moderate	Yes	No	None to mild	20-29 ° or ≥ 40°	Any	4
None to mild	Moderate	Yes	No	None to mild	30-39 °	3+	1

Posterior Fusion							
Any	Moderate to severe	Any	Any	Any	Any	Any	194
None to mild	None to mild	No	No	Any	Any	Any	12
None to mild	None to mild	Yes	No	Moderate to severe	30-39 °	Any	2
Moderate to severe	None to mild	No	No	Severe	10-29 ° or ≥ 40°	Any	3
Moderate to severe	None to mild	No	Yes	Any	Any	Any	12
Moderate to severe	None to mild	Yes	No	Severe	10-19 °	Any	1
Moderate to severe	None to mild	Yes	Yes	Moderate, or none to mild	Any	Any	8
None to mild	None to mild	Yes	No	Severe	≥ 40°	Any	1
Decompression							
Any	No to MILD	Any	Any	Any	Any	Any	66
Moderate to severe	Moderate to severe	Yes	Any	Any	30° or more	Any	24
Moderate to severe	Moderate	No	No	Moderate, or none to mild	40° or more	Any	2
Moderate to severe	Moderate	No	Yes	Any	30° or more	Any	12
Moderate to severe	Severe	Yes	No	Moderate, or none to mild	10-29 °	3+	4
Moderate to severe	Severe	Yes	No	Moderate, or none to mild	20-29 °	1-2	2
Moderate to severe	Moderate to severe	Yes	Yes	Moderate, or none to mild	10-29 °	Any	8
Moderate to severe	Moderate to severe	Yes	Any	Severe	10-29 °	3+	8
Moderate to severe	Moderate	Yes	Any	Severe	20-29 °	1-2	2
Moderate to severe	Moderate to severe	No	Yes	Severe	10-29 °	3+	4
Moderate to severe	Moderate	Yes	Yes	Severe	10-19 °	1-2	1
Moderate to severe	Severe	No	Yes	Moderate, or none to mild	20-29 °	Any	2
Moderate to severe	Severe	No	No	None to mild	≥ 40°	Any	1
Moderate to severe	Moderate	Yes	No	Moderate, or none to mild	10-29 °	Any	8
None to mild	Moderate	Any	Any	Any	Any	Any	66

RAND Corporation

FINANCIAL REPORT

The Appropriateness of Surgical Treatment Approaches for Lumbar Degenerative Scoliosis
Teryl Nuckols, Principal Investigator

Grantor: Collaborative Spine Research Foundation
Grant #: CSRF_04.10.13
Project #: HQ339
Grant Period: 01-Apr-13 to 30-Sep-14
Reporting Period: 07-Jul-14 to 30-Sep-14

Date: 20-Oct-14
# of Previous Reports: 5
Final Report: ☐

FUNDING

Grantor	Budget	Funding Received: Prior Reports (A)	Funding Received: Current Report (B)	Total Funding Received A + B = (C)
Collaborative Spine Research Foundation	580,000	498,000.00	0.00	$498,000.00

EXPENSE

Description	Budget	Expense: Prior Reports (D)	Expense: Current Report (E)	Total Expense To Date D + E = (F)
Personnel: Salaries	470,404	267,421.05	72,105.50	339,526.55
Subtotal Personnel	470,404	267,421.05	72,105.50	339,526.55
Travel	22,248	6,304.17	4,440.92	10,745.09
Computing Services	25,373	10,515.13	2,513.78	13,028.91
Affiliate Adjunct Fringe	16,619	10,947.20	5,506.82	16,454.02
Letter Agreements/ Subcontractors	37,500	0.00	31,500.00	31,500.00
Library Fees	2,304	3,625.87	(92.63)	3,533.24
Publications	0	169.10	0.00	169.10
Miscellaneous Expense	5,552	3,232.27	301.91	3,534.18
Total Direct Costs	109,596	302,214.79	116,276.30	418,491.09
Total Costs	580,000	$302,214.79	116,276.30	$418,491.09

Unexpended Funds:	$79,508.91

Note: This is not the final financial report for this grant. We are submitting this FSR, so we can fulfill our contractual obligations.

Submitted By: Yamit Feinberg — 20-Oct-14

Name: Yamit Feinberg
Financial Reporting Analyst
(310) 393-0411 ext. 6020
yamit_Feinberg@rand.org

Date: 20-Oct-14

RAND Corporation, 1776 Main Street, Santa Monica, CA 90401

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Spine Summit – 2015 Meeting Update
Scientific Program Chair – Ghogawala MD
Annual Meeting Chair – Michael Wang MD

Pre-Registration

2013 – 414
2014 – 376
2015 - 384
Overall Revenue - $ 655,000 (exhibits) + $ 171,930 (registration) + $ 25,900 (special courses) = $ 852,830

Exhibits

Booths - $ 194,000
Education Grants - $ 210,000
Sponsorship/Advertising - $ 251,000

Total = $ 655,000 ($ 628,700 – 2014)

Scientific Program

PreCourses 123 attendees ($ 16,450)

Business and Compensation
SRS – Spinal Deformity
SMISS – Problem-based learning – MIS approaches
AO – Spine Trauma
ACOS – Osteopathic Surgeons
Mexican Spine Symposium

Regular Meeting

Partner Societies – SRS, CSRS, ISASS, AO Spine, ACSR, SMISS, Mexican Neurosurgery Society

Registration – 264 exhibitors + 384 medical attendees ($ 171,930)
187 abstract submissions
59 Original Science Oral Papers – 14 top oral papers with discussants (9 Spine Section papers and 5 from partner societies)
115 Poster presentations

New Lumbar Spine Technologies
SRS-Deformity
Advances in CSM Treatment
Outcomes
Peripheral Nerve Didactic Session

Dinner Seminar – Ethics and Medical-Legal World of Neurosurgery

Spine Trauma
Quality in Spine Surgery
Spine Section Cadaver Course at BNI
Cervical Arthroplasty – ISASS and CSRS
Cahill Debates

Luncheon Courses
163 attendees - $ 7,200 (4 luncheon seminars are sponsored)
Complications management with Masters
Metastatic Spine Disease
Lateral Access Deformity Correction

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2007 -2014 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves
Registration Summary

Name	2007 Phoenix	2008 Orlando	2009 Phoenix	2010 Orlando	2011 Phoenix	2012 Orlando	2013 Phoenix	2014 Orlando
Spine Section Member	176	210	212	204	195	244	227	181
NASS Member	45	51	33	37	39	26	31	31
Orthopedic Surgeon /ACOS Member	0	0	6	6	7	3	12	27
Nonmember	70	94	106	105	102	92	78	86
Resident/Medical Student	46	42	56	53	55	40	50	88
Nurse	16	13	13	13	10	7	11	9
Physician Assistant	14	25	19	9	20	12	18	14
Resident - Complimentary	25	25	25	24	7	25	25	25
Brazilian Spine Society Member	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17
Chinese Orthopaedic Association Member	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22
SRS Member	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4
Subtotal Medical (all above numbers include comps)	**392**	**460**	**470**	**451**	**435**	**449**	**452**	**504**
CNS Staff	4	6	6	6	4	7	8	7
Reg. Co. Staff	2	3	2	3	3	3	3	0
Vendor	11	6	10	8	13	9		3
Spouse/Guest	92	87	80	63	45	51	47	50
Child	25	69	21	25	8	51	7	25
Subtotal Other	**134**	**171**	**119**	**105**	**73**	**121**	**65**	**85**
Exhibitor Staff- Complimentary	270	190	225	215	225	178	208	134
Exhibitor Staff- Additional	204	256	272	294	234	233	164	190
Subtotal Exhibitors	**474**	**446**	**497**	**509**	**459**	**411**	**372**	**324**
Housing only	4	25	11	3	33	29		
Press						1		
Subtotal Exhibitors	**4**	**25**	**11**	**3**	**33**	**29**		
Grand Total	**1004**	**1102**	**1097**	**1068**	**1000**	**1040**	**889**	**913**

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American Association of Neurological Surgeons

5550 Meadowbrook Drive
Rolling Meadows, IL 60008

member services: 888.566.AANS
phone: 847.378.0500
fax: 847.378.0600
web: www.AANS.org

January 27, 2015

R. John Hurlbert, MD PhD FRCSC FACS
Foothills Med. Ctr./Clinical Neurosci.
1403 29th St. N.W. Rm. C 1249
Calgary, AB T2N-2T9
Canada

Dear John:

The American Association of Neurological Surgeons Nominating Committee recently issued their Call for Nominations for open Board of Directors and Nominating Committee positions for the 2016-2017 association year.

I am requesting that the AANS/CNS Section on Disorders of the Spine & Peripheral Nerves submit a list of potential nominees to be considered by the Nominating Committee. The AANS strives to be representative of the entire scope of neurosurgery and needs to receive nominations from all branches of neurosurgery to accomplish that end.

This year AANS seeks your nominations for the following roles on the Board of Directors and Nominating Committee:

- 1 President-Elect
- 1 Vice President
- 1 Treasurer
- 2 Directors at Large
- 2 Nominating Committee Members

Please see the Call for Nominations which is attached to this email. This was sent previously to all voting members of the association and you should have received a copy of that e-mail or hard copy mailing.

You may submit your nominees via e-mail (mab@aans.org), fax (847-378-0604) or mail (Nominating Committee c/o Meg Borst, AANS 5550 Meadowbrook Drive, Rolling Meadows, IL 60008).

Please submit your suggestions to the AANS Nominating Committee by **September 1, 2015** so that they may be considered by the Nominating Committee during their October meeting.

Sincerely,

W. T. Couldwell

William T. Couldwell, MD, PhD, FAANS
AANS Past President and Nominating Committee Chair

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American Association of Neurological Surgeons

5550 Meadowbrook Drive
Rolling Meadows, IL 60008

member services: 888.566.AANS
phone: 847.378.0500
fax: 847.378.0600
web: www.AANS.org

DATE: January 5, 2015

TO: The American Academy of Neurological Surgery
The AANS Board of Directors
The AANS Voting Membership
The Canadian Neurosurgical Society
Congress of Neurological Surgeons
Each State Neurosurgical Society or Association
The Council of State Neurosurgical Societies
The Neurosurgical Society of America
The New England Neurosurgical Society
The Rocky Mountain Neurosurgical Society
The Society of Neurological Surgeons
Society of University Neurosurgeons
The Southern Neurosurgical Society
The Western Neurosurgical Society
The CSNS Quadrants

FROM: AANS Nominating Committee

SUBJECT: **The Nomination Suggestion Process for Officers and Directors-at-Large of the Board of Directors, and the AANS Nominating Committee**

1. Your Nominating Committee issues this call requesting suggestions for nominations for the positions to be filled in **May 2016.**

2. As the responsible member of a neurosurgical group (Society, Association, Quadrant, etc.), it is important for you to think ahead in your planning. There should be sufficient lead-time to permit each specific group to consider, in a collegial or corporate fashion, the choices to send forward to the Committee by the **September 1, 2015 deadline**.

Suggestions should be made by considering the entire eligible (voting) membership as potential candidates for any vacancy. The Committee hopes to identify the best candidates for each position, irrespective of their locale or sources of nominating. We want the best for the Association as a whole.

4. This letter contains descriptive criteria and guidelines appropriate to each vacancy. We ask that you consider your suggestions with reference to the criteria. We further ask (in accordance with the protocol outlined in the "Appendix to the Bylaws"), that each suggestion forwarded to the Nominating Committee be accompanied by a written statement of the individual's qualifications for office, and how they meet the criteria and guidelines provided. Please identify that segment of the neurosurgical community from which your suggestion(s) come. If more than one suggestion is made for any one vacancy, please indicate your order of preference.

5. The offices to be voted upon for the April 2016 election are: 1) President-Elect; 2) Vice President; 3) Treasurer; 4) **two** Board Directors; 5) **two** Members of the Nominating Committee.

6. General Overall Consideration for Nominations:

   a) Must be a neurosurgeon of experience and competency who is, at the time of selection, an active physician engaged in some aspect of neurosurgery.
   b) Harbors no unusual personality traits that might interfere with judgment in the conduct of the office.
   c) Demonstrated evenhandedness, and an open and judicious approach to problems.
   d) Experienced in a leadership role in regional, state, or national neurosurgical societies.
   e) Is a FELLOW of the AANS.
   f) Is willing and able to devote the time and effort necessary to discharge the duties of the office held.
   g) Is skilled in written and verbal communication with individuals and groups.
   h) Has experience and proven ability in several areas, coupled with a broad understanding of the social, economic, ethical, educational, and scientific issues relevant to neurosurgery.

7. The criteria and guidelines for each specific vacancy are as follows:

   PRESIDENT-ELECT – Mature, with experience in an executive position in national, regional, or state neurosurgical or professional societies. Must be articulate, knowledgeable in parliamentary procedures with proven communicative abilities as shown by speeches, lectures, publications, etc. Familiarity with operating in the consensus mode and has demonstrated proven abilities to work harmoniously with colleagues and associates. Must be able to relate effectively to all internal and external interfaces of the AANS. Must have the ability to work with the AANS Executive Director and management of the AANS. Experience in AANS leadership, including previous service as an elected member of the Board of Directors, is required to be nominated for President or President-Elect.

VICE PRESIDENT – Same as President-Elect (Vice President may act for, or succeed, President).

TREASURER– Experience in a similar position in a state, regional or national neurosurgical or other comparable professional association. Knowledgeable in basic accounting and budgeting processes, including multi-year financial planning. Experience on the Board of Directors and/or key committees is helpful but not necessary. Understands the consensus mode of procedure and has demonstrated proven abilities to work harmoniously with colleagues and associates. Ability to work with Executive Director and Staff.

MEMBER, BOARD OF DIRECTORS – Experienced person who has held responsible positions in state, regional, or national neurosurgical societies. Understands the consensus mode of procedure and has demonstrated proven abilities to work within specific areas of expertise needed by the Board in the resolution of the Board's business. Some important criteria to consider in recommending individuals to replace a retiring Director are:

a) Sound clinical practice with substantial experience in clinical and operative surgery.
b) Communicative skills and experience in educational and teaching endeavors.
c) Potential to use the experience as Board Member for gaining skills to assure a leadership role as an Officer of the Association.
d) Demonstrated knowledge, experience, and expertise in dealing with social, economic, education, scientific research, and ethical issues regarding neurosurgery.

MEMBER, NOMINATING COMMITTEE – Proven interest in the role of AANS as spokes-organization for neurosurgery. Has worked in its Committee structure or served on the Program Committee and/or Breakfast Seminars. Chairmanship is one measure of this involvement. Experience as officer of regional, state, or national neurosurgical societies will be helpful in identifying individuals to serve the AANS as members of the governing body. Please note that non-director members of the Nominating Committee are not eligible for election to the Board of Directors while serving on that Committee.

8. Please send all communications to the AANS National Office, 5550 Meadowbrook Drive, Rolling Meadows, Illinois 60008. Attention: Nominating Committee.

9. Please bear in mind that nomination suggestions must be received by the Nominating Committee **on or before September 1, 2015.**

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Newsletter report

The fifth iteration of the Newsletter in its new format should be coming out to coincide with the DSPN Section meeting. We have converted to a biannual format, with one edition coming out at the time of our annual meeting and one to coincide with the CNS.

Each edition will now have an interview with a recent president. Joe Cheng was interviewed for the last newsletter, Mike Groff gave comments for this Newsletter.

The new edition also will feature content from Line Jacques and Lynda Yang on nerve specific meetings, grants, and educational content. We hope to continue to run a page of nerve-specific content in future editions. This addition will give a vehicle for reliably getting nerve content to Section members.

We will also continue to provide RUC and reimbursement updates relevant to Section members.

We track readership through Bitly links to the content. Here are the full-version download counts for the last editions:

Autumn 2013	131
Winter 2013	103
Winter 2014	227
Autumn 2014	200

These counts may undercount the total number of downloads; some readers may download the individual page content as opposed to the entire PDF.

Thoracic and Thoracolumbar Fusion for Scoliosis. On Feb. 5, 2015, the AANS and CNS responded to a request from Anthem (formerly WellPoint) for comment on Thoracic and Thoracolumbar Fusion for Scoliosis. Charles Sansur, MD, coordinated the response with the AANS/CNS Spine Section Rapid Response Team (RRT). Specifically, the response expressed concerns that the proposed policy was too broad in using the term scoliosis defined as a coronal deformity greater than 10 degrees, and did not address the various causes of spinal deformity. In addition, the AANS and CNS comments emphasized that spinal deformities are a heterogeneous disorder with different surgical indications and coverage policy should consider subgroups including but not limited to idiopathic, iatrogenic or post-laminectomy, degenerative, traumatic, and other forms of scoliosis.

Any other content that members want included should be submitted to Ratliff or Sansur.

From: Chi, John H.,M.D.,M.P.H. [mailto:JCHI@PARTNERS.ORG]
Sent: Wednesday, February 18, 2015 11:46 AM

Subject: Funding for research and fellowship awards

Unfortunately, we received bad news from Globus and Aesculap last week that they will not be funding the awards they have in the past for the section, and of course these are awards that we have already selected winners for in 2015. Fortunately, the fiscal impact of this is buffered somewhat by the fact that there were other section budgeted items not awarded this year (Charlie has more of those details).

This happened a few years ago when Medtronic pulled funding last minute and I think this indicates the "fragile" nature of the current funding mechanism we have for these awards. The recent changes at AANS development has not helped either and has caused some inconsistency. (There has been a different person at AANS as contact for this since Adam and I changed hands)

So as to take advantage of a perfectly good crisis, Charlie and I have discussed things briefly for how to move forward. I will be presenting a few options at the next meeting and would like to send those to you in advance for feedback. Ultimately, I believe we should move to a way for the section to fund these awards independently (via an endowment-type mechanism) or at least pre-fund the accounts prior to soliciting applications.

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Research Awards and Fellowships Committee Update

Members: Dean Chou (UCSF), Charlie Sansur (Maryland), Dan Lu (UCLA), Juan Uribe (USF), Lynda Yang (Michigan/PN), Line Jaques (UCSF/PN), John Chi (Brigham)

Research applications = 8

Fellow ship application= 6

RESEARCH AWARDS

Muhammad Abd-El Barr, MD PhD	Larson Research Award (30K)	Depuy Synthes
Owoicho Adogwa, MD MPH	Haid Deformity Research Award (30K)	Globus
Amnar Hawasli, MD PhD	Apfelbaum Research Award (20K)	Aesculap
Stepan Capek, MD PhD	Kline Peripheral Nerve Award (10K)	Integra

FELLOWSHIPS

Christopher Holland, MD PhD	David Cahill Fellowship (30K)	Depuy Synthes
Todd Vogel, MD	Ralph Cloward Fellowship (30K)	Nuvasive

INTERNATIONAL FELLOWSHIPS

Mark Kotter, MD MPhil PhD	Sonntag International Fellowship (5K)	Nuvasive
Sachin Borkar, MBBS	Crockard Fellowship (5K)	Depuy Synthes

Recommendations

- Reduce the number of awards given annually
- Consider reducing the amount of the awards
- Reset the timeline for solicitation of awards and applications to allow for funds to be confirmed/received prior to awarding (this will require a “skip” year)
- Begin to establish an “SREF” within NREF and/or the section
    - Would utilize the new and improved NREF organization?
    - Contributions from industry and from section balances, etc
    - May take 10 years to build but would be worth the wait

Return to Agenda

2015 Update
Payor and Policy Response Committee
"Rapid Response Committee"

Joseph S. Cheng, M.D., M.S.

VANDERBILT UNIVERSITY
Department of Neurological Surgery

Disclosure

- I 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.
- I do not intend to discuss an unapproved or investigative use of a commercial product or device in my presentation.

Rapid Response Committee

- **Mission:** To promote access to beneficial surgical care for patients with neurosurgical disorders affected by payors and health care policies, through evidence based research, education, and proven outcomes.
- **Vision:** To provide our patients with access to the highest quality neurosurgical care.

Rapid Response Committee

- Originally formalized on March 9, 2011 by the AANS/CNS Joint Spine Section
- Now coordinated through the Washington Committee
- Planned expansion
  - Each Section to have RR Team available as subject experts for payor coverage issues
  - CSNS to disseminate coverage information to State Societies and neurosurgeons

Washington Committee

Coding and Reimbursement Committee Organizational Change

Joseph S. Cheng, MD, Chair
G. Edward Vates, MD, Vice-chair RUC
Henry H. Woo, MD, Vice-Chair CPT
Charles A. Sansur, MD, Vice-Chair Coverage

VANDERBILT UNIVERSITY
Department of Neurological Surgery

2015 Spine RR Team

- Coordinators
  - Joseph Cheng (Director)
  - Charles Sansur (AssocDir)
  - Peter Angevine (NE Quad)
  - Karin Swartz (SE Quad)
  - John Ratliff (NW Quad)
  - Lou Tumialan (SW Quad)
- Contributing Members
  - Kurt Eichholz
  - Kojo Hamilton
  - Daniel Hoh
  - Kai Ming Fu
  - Daryl Fourney
  - Cheerag Upadhyaya
  - John O'Toole
  - Sharon Webb
  - Todd Francis
  - Greg Smith, DO
  - Jim Harrop

2015 Tumor RR Team

- Andrew Sloan
- Isabelle M. Germano
- Farrokh Farrokhi
- Lynne Taylor
- Fred Barker

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2015 Functional RR Team

- Jason Schwalb
- Joshua Rosenow
- Peter Konrad
- Konstatin Slavin
- Aviva Abosch

2015 CV RR Team

- Edward Vates
- Brian Hoh
- Alexander A. Khalessi
- Bob Friedlander
- Sepideh Amin-Hanjani
- Henry Woo
- John Wilson

VANDERBILT UNIVERSITY
Department of Neurological Surgery

2015 Peds RR Team

- Curtis Rozzelle
- Cathy Mazzola

2014 PAYOR POLICY RESPONSES

VANDERBILT UNIVERSITY
Department of Neurological Surgery

aetna℠

Search Go

Clinical Policy Bulletin: Intraoperative Electromyographic Monitoring

Number: 0697

Policy History

- Last Review: 04/30/2013
- Effective: 01/07/2005
- Next Review: 09/12/2014
- Review History
- Definitions

Policy

V. Aetna considers intra-operative EMG monitoring during intra-cranial tumor resections, or during spinal surgery experimental and investigational because there is insufficient evidence that this technique provides useful information to the surgeon in terms of assessing the adequacy of nerve root decompression, detecting nerve root irritation, or improving the reliability of placement of pedicle screws at the time of surgery.

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Department of Neurological Surgery

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[11] Sutter MA, Deletis V, Dvorak J, et al. Current opinions and recommendations on multimodal intraoperative monitoring during spine surgeries. Eur Spine J 16:S232-237, 2007

Anthem, Inc.
Medical Policy Questionnaire

Guideline Number: CG-SURG-47
Title: Thoracic and Thoracolumbar Fusion for Scoliosis

Anthem, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently developing a new clinical UM guideline on the topic of **Thoracic and Thoracolumbar Fusion for Scoliosis**. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

- We are particularly interested in your expert knowledge and experience with **thoracic and thoracolumbar spinal fusion** as a treatment of scoliosis.

BlueCross BlueShield of Illinois

February 13, 2014

A physician who specializes in Neurological Surgery and who had no involvement in the original denial reviewed your request and the available clinical information. Based on this review, we have denied your request due to:

Clinical Summary: This is a member with cervical radiculopathy and neck pain. There have been conservative measures trialed including physical therapy (PT) and pain management to no avail. There have been injections as well to no avail. There are some related deficits on exam with no evidence for gross myelopathy or bowel or bladder changes.

Decision: Do not approve benefit reimbursement for total disc arthroplasty with billing code 22856 and 0092T as requested.

Janet McCauley, MD
Senior Medical Director
Blue Cross and Blue Shield of North Carolina
Corporate Headquarters
5901 Chapel Hill Road
Durham, NC 27707

RE: Corporate Medical Policy: Endovascular Procedures for Intracranial Arterial Disease "Notification". Effective July 1, 2014

Dear Dr. McCauley:

We are writing you in response to the proposed coverage policy entitled Endovascular Procedures for Intracranial Arterial Disease (Atherosclerosis and Aneurysms). In this document, Balloon Angioplasty for treatment of Subarachnoid Hemorrhage Induced Vasospasm, Intracranial Angioplasty and Stenting for Atherosclerotic Disease, Treatment of Large and Widenecked Aneurysms with Flow Diversion, and Mechanical Embolectomy were identified as "Investigational" and thus would not be covered by Blue Cross Blue Shield of North Carolina and thus not considered medically necessary in the treatment of the intracranial vascular diseases for which they are used.

Stereotactic Radiation Therapy: Stereotactic Radiosurgery (SRS) and Stereotactic Body Radiation Therapy (SBRT)

Noridian Healthcare Solutions, LLC

Please note: This is a Draft policy.
Proposed/Draft LCDs are works in progress that are available on the Medicare Coverage Database site for public review. Proposed/Draft LCDs are not necessarily a reflection of the current policies or practices of the contractor.

6. Metastatic brain or spine lesions, with stable systemic disease, Karnofsky Performance Status 40 or greater (or expected to return to 70 or greater with treatment), and other wise reasonable survival expectations, OR an Eastern Cooperative Oncology Group (ECOG) Performance Status of 3 or less (or expected to return to 2 or less with treatment).
7. Patients with more than 3 primary or metastatic brain lesions who are enrolled in an IRB-approved clinical trial and which clinical trial meets the "standards of scientific integrity and relevance to the Medicare population" described in IOM 100-03, National Coverage Determinations Manual, Chap 1, Part 1, section 20.32, B3a-k (with l-m desirable).
8. Patients with more than 3 primary or metastatic brain lesions who are enrolled in a clinical registry compliant with the principles established in AHRQ's "Registries for Evaluating Patient Outcomes: A User's Guide". (See bibliography.)
9. Patients whose pre-treatment imaging/work-up demonstrated 3 or fewer lesions but who are discovered to have greater than three (3) lesions at the time of treatment delivery. However, ongoing coverage after the first treatment requires enrollment in a clinical trial or registry as described in #7 and 8 "Indications".
10. Relapse in a previously irradiated cranial or spinal field where the additional stereotactic precision is required to avoid unacceptable vital tissue radiation.

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President
DANIEL K. RESNICK, MD
Madison, Wisconsin

June 25, 2014

Bernice Hecker, MD, MHA, FACC
Contractor Medical Director
Noridian Healthcare Solutions, LLC
900 42nd Street S.
P.O. Box 6740
Fargo, ND 58108-6740

Re: LCD DL35236- Draft LCD for Stereotactic Radiation Therapy: Stereotactic Radiosurgery (SRS) and Stereotactic Body Radiation Therapy (SBRT)

Dear Dr. Hecker:

The American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS) appreciate the opportunity to comment on the proposed coverage policy entitled "Stereotactic Radiation Therapy: Stereotactic Radiosurgery (SRS) and Stereotactic Body Radiation Therapy (SBRT), DL 35236."

Proposed Coverage Criteria for Minimally Invasive Sacroiliac Joint Fusion

Coverage Indications, Limitations, and/or Medical Necessity

Introduction

The sacroiliac joint (SIJ) is an important cause of chronic lower back pain. SI joints are paired diarthrodial articulations of the sacrum and ilium. The SI joint serves as the biomechanical mediator between the spine and pelvis. The subchondral bone, capsule, and surrounding ligaments of the SIJ are innervated by spinal nerves.[1]

Because SIJ pain can be confused with lumbar and hip pain, proper diagnosis of SIJ pain is key to appropriate patient management. Patients with SIJ pain typically report pain in the buttocks, with possible radiation into the groin or upper legs. Specific physical examination tests that stress the SIJ (including distraction testing, compression testing, thigh thrust, the FABER (Patrick's) test, Gaenslen's maneuver, testing for sacral sulcus tenderness) are typically performed; in combination, these tests are predictive of SI joint pain.[2] Other physical examination tests may be performed as well. Apart from ankylosing spondylitis, in which MRI can show edema consistent with inflammation, imaging of the SIJ typically does not provide valuable diagnostic information. Rather, imaging is used to ensure that the patient does not have alternative diagnoses that could mimic SIJ pain (e.g., hip osteoarthritis, occasionally L5/S1 spine degeneration). The diagnosis of SIJ pain is confirmed by performing a fluoroscopy guided percutaneous SI joint block with local anesthetic (e.g., lidocaine). The published data show that an acute reduction in pain of 50% or more compared to immediately prior to the block is a positive test and indicates that the injected joint is the pain generator.[3] Occasionally, steroids are injected with local anesthetic in the hope of achieving more prolonged (e.g., days to weeks) pain relief. Because other pathologic processes can coexist with SIJ pain, the physician should ensure that the SIJ is the primary source of the patient's pain and that non-SIJ causes of pelvic or lower back pain are of less overall importance on the basis of history, physical exam and/or imaging; examples of alternative diagnoses include pelvic fracture, tumor, infection, skeletal deformity, hip arthritis, and degeneration of the L5/S1 disc or other base-of-spine pathologies.

March 17, 2014

Policy Number: SURG.00059
Policy Title: Recombinant Human Bone Morphogenetic Protein and Other Osteoinductive Bone Grafts Substitutes

WellPoint, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently reviewing our medical policy on the topic of Recombinant Human Bone Morphogenetic Protein and Other Osteoinductive Bone Grafts Substitutes. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

- We are especially interested in your opinion on the use of osteoinductive bone grafting products other than rhBMP.

WellPoint, Inc.
Medical Policy Questionnaire

Document Number: CG-SURG-45
Document Title: Bone Graft Substitutes

WellPoint, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently reviewing our clinical UM guideline on the topic of **Bone Graft Substitutes**. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

We have designed our process to help you avoid duplication of effort in reviewing various entities' medical policies, with the goal of reducing your administrative burden. At the same time, your feedback and the feedback we receive from others on this topic may be shared with non-WellPoint entities, including a national association ("Association") and its constituents. This will allow your input to be considered as WellPoint, Inc. formulates its medical policy positions, which affect the more than 37 million medical members enrolled in our plans, by an even broader audience on behalf of the Association and the many millions of Americans whose health care benefits are provided by its member plans.

Attached is the ***draft version*** of the clinical UM guideline.

Clinical UM Guideline: CG-SURG-42
Clinical UM Guideline Title: Cervical Fusion

WellPoint, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently reviewing the topic of **Cervical Fusion**. We are requesting your expert opinion and comments on the draft clinical indications and criteria and have developed a series of relevant questions presented in the table below.

We have designed our process to help you avoid duplication of effort in reviewing various entities' medical policies, with the goal of reducing your administrative burden. At the same time, your feedback and the feedback we receive from others on this topic may be shared with non-WellPoint entities, including a national association ("Association") and its constituents. This will allow your input to be considered as WellPoint, Inc. formulates its medical policy positions, which affect the more than 36 million members enrolled in our plans, by an even broader audience on behalf of the Association and the many millions of Americans whose health care benefits are provided by its member plans.

Attached is the ***draft version*** of the clinical UM guideline.

Anthem, Inc.
Medical Policy Questionnaire

Guideline Number: CG-SURG-33
Title: Lumbar Fusion and Lumbar Artificial Intervertebral Disc (LAID)

Anthem, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently reviewing our clinical UM guideline on the topic of **Lumbar Fusion and Lumbar Artificial Intervertebral Disc (LAID)**. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

- We are particularly interested in your expert knowledge and experience with lumbar fusion for **severe symptomatic scoliosis** where current criteria require a 3 month period of prior conservative medical therapy before lumbar fusion would be considered medically necessary.

DRAFT

7.01.63 – Deep Brain Stimulation

Description

Deep brain stimulation (DBS) involves the stereotactic placement of an electrode into the brain (ie, hypothalamus, thalamus, globus pallidus, subthalamic nucleus). DBS is used as an alternative to permanent neuroablative procedures for control of essential tremor (ET) and Parkinson disease (PD). DBS is also being evaluated for the treatment of a variety of other neurologic and psychiatric disorders, including epilepsy, dystonia, cluster headache, Tourette syndrome, depression, and obsessive-compulsive disorder (OCD).

Deep brain stimulation for other movement disorders, including but not limited to multiple sclerosis, post-traumatic dyskinesia, and tardive dyskinesia, is considered **investigational**.

Deep brain stimulation for the treatment of chronic cluster headaches is considered **investigational**.

Deep brain stimulation for the treatment of other psychiatric or neurologic disorders, including but not limited to Tourette syndrome, depression, obsessive-compulsive disorder, Alzheimer disease, anorexia nervosa, alcohol addiction, chronic pain, and epilepsy, is considered **investigational.**

0.00.00 – Epidural Steroid Injections for Back Pain

Description

Epidural steroid injections are a treatment for back pain that has not responded to conservative measures. Local steroid injections may improve pain by reducing inflammation, thus relieving pressure on nerve roots or other structures that may be the origin of pain. This policy will review the evidence on epidural steroid injections for 3 indications: 1) Sciatica/radiculopathy, 2) spinal stenosis, and 3) nonspecific low back pain.

Policy

Epidural steroid injections for the treatment of back pain may be considered **medically necessary** under the following conditions:

- Lumbar radiculopathy (sciatica) that is not responsive to at least 6 weeks of conservative management (see Policy Guidelines); AND
- Persistent pain is present of at least moderate-severe intensity; AND
- Short-term relief of pain is the anticipated outcome; AND
- Treatment is given as a series of 1 to 3 injections, with no more than 3 injections given over a 12-month period

Epidural steroid injections are considered **investigational** in all other situations, including but not limited to treatment of cervical radiculopathy, spinal stenosis and nonspecific low back pain.

2.01.54 – Endovascular Procedures for Intracranial Arterial Disease (Atherosclerosis and Aneurysms)

Description

Intracranial arterial disease includes thromboembolic events, vascular stenoses, and aneurysms. Endovascular techniques have been investigated for treatment of intracranial arterial disease, as an alternative to intravenous tissue plasminogen activator (tPA) and supportive care for acute stenosis and as an alternative to risk factor modification for chronic stenosis. For cerebral aneurysms, stent-assisted coiling has been evaluated as an alternative to endovascular coiling in patients whose anatomy is not amenable to simple coiling.

Policy

Intracranial stent placement may be considered **medically necessary** as part of the endovascular treatment of intracranial aneurysms for patients when surgical treatment is not appropriate and standard endovascular techniques do not allow for complete isolation of the aneurysm, eg, wide-neck aneurysm (4 mm or more) or sack-to-neck ratio less than 2:1.

Intracranial stent placement is considered **investigational** in the treatment of intracranial aneurysms except as noted above.

Intracranial flow diverting stents are considered **investigational** for all indications.

Intracranial percutaneous transluminal angioplasty with or without stenting is considered **investigational** in the treatment of atherosclerotic cerebrovascular disease.

Endovascular interventions (mechanical embolectomy, angioplasty, stenting) are considered **investigational** in the treatment of acute stroke.

7.01.58 Intraoperative Neurophysiologic Monitoring (sensory-evoked potentials, motor-evoked potentials, EEG monitoring)

DRAFT

Description

Intraoperative neurophysiologic monitoring (IONM) describes a variety of procedures that have been used to monitor the integrity of neural pathways during high-risk neurosurgical, orthopedic, and vascular surgeries. It involves the detection of electrical signals produced by the nervous system in response to sensory or electrical stimuli to provide information about the functional integrity of neuronal structures.

Intraoperative monitoring of visual-evoked potentials is considered **investigational.**

Due to the lack of FDA approval, intraoperative monitoring of motor-evoked potentials using transcranial magnetic stimulation is considered **investigational**.

Intraoperative EMG and nerve conduction velocity monitoring during surgery on the peripheral nerves is considered **not medically necessary.**

Clinical UM GuidelineNumber:CG-SURG-38
Policy Title: Lumbar Laminectomy, Hemi-Laminectomy, and Laminotomy

WellPoint, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently reviewing our clinical UM guideline on the topic of **Lumbar Laminectomy, Hemi-Laminectomy and Laminotomy**. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

- We are particularly interested in your expert opinion regarding clinical indications for lumbar laminectomy, hemi-laminectomy and laminotomy.

MPRM 0.00.00 – Laminectomy

DRAFT

Summary

Laminectomy is a surgical procedure in which a portion of the vertebra, the lamina, is removed to decompress the spinal cord. Removal of the lamina allows greater space for the spinal cord and the nerve roots, thus relieving compression on these structures. Laminectomy is typically performed when there is compression of the spinal cord due to spinal stenosis or a mass occupying lesion.

The best evidence on the efficacy of laminectomy for decompression of the spine exists for lumbar spinal stenosis. For this indication, 2 randomized controlled trials (RCTs) report that laminectomy is superior to nonsurgical management in improving pain and functional status. While these RCTs have some methodologic limitations, they both report significant benefits for surgery on their main outcomes. Most nonrandomized comparative studies also report greater benefit for surgery compared with conservative management. For cervical spinal stenosis, there is a lack of comparative evidence, although the small amount of available evidence reports outcomes that are similar to those reported for lumbar spinal stenosis. For other indications such as ossification of the spinal ligaments, spinal tumors, and localized infections, the evidence consists of case reports and small case series.

Symptoms that are rapidly progressive, or refractory to at least 3 months of conservative nonsurgical therapy:

- Neurogenic claudication that is progressive or persistent and refractory to conservative treatment (see Policy Guidelines), with or without radiculopathy
- Persistent debilitating pain (see Policy Guidelines)
  - Imaging studies (preferably MRI) with findings of cord compression, at a level corresponding to the patient's signs and symptoms

Laminectomy, cervical or lumbar, is considered **not medically necessary** for the following conditions when the above criteria are not met.

- Spinal stenosis (with or without spondylolisthesis)
- Mass occupying lesions affecting the spinal cord
  - Primary or metastatic tumors
  - Abscesses, or other localized infections

Laminectomy is considered **investigational** for all other indications.

Anthem

Clinical UM Guideline

Subject:	Lumbar Fusion and Lumbar Artificial Intervertebral Disc (LAID)		
Guideline #:	CG-SURG-33	**Current Effective Date:**	
Status:	Consultant Draft	**Last Review Date:**	02/05/2015

Description

This document addresses two surgical procedures, lumbar fusion (also referred to as spinal fusion, spondylodesis or spondylosyndesis) and the implantation of lumbar artificial intervertebral disc (LAID) devices. Lumbar fusion refers to the surgical joining of two or more vertebrae at the lumbar levels of the spine. LAID, (which is also referred to as total disc replacement or spinal arthroplasty), refers to the surgical removal of a deteriorated lumbar disc and replacement with an artificial device, which is implanted to maintain the motion capability and structural integrity of the intervertebral space. Both lumbar fusion and LAID are proposed as treatments for chronic low back pain when conservative treatment options have been unsuccessful.

DRAFT

0.00.00 – Responsive Neurostimulation for the Treatment of Refractory Partial Epilepsy

Summary

Responsive neurostimulation (RNS) for the treatment of epilepsy involves the use of 1 or more implantable electric leads that serve both a seizure detection and neurostimulation function. The device is programmed using a proprietary algorithm to recognize seizure patterns from electrocorticography output and to deliver electrical stimulation with the goal of terminating a seizure. One device, the Neuropace RNS System, has U.S. Food and Drug Administration (FDA) approval for the treatment of refractory partial epilepsy

Policy

Responsive neurostimulation is considered **investigational** for all indications.

Anthem, Inc.
Medical Policy Questionnaire

Guideline Number: CG-SURG-47
Title: Thoracic and Thoracolumbar Fusion for Scoliosis

Anthem, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently developing a new clinical UM guideline on the topic of **Thoracic and Thoracolumbar Fusion for Scoliosis**. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

Policy Number: SURG.00026
Policy Title: Deep Bran Stimulation

WellPoint, Inc. incorporates input from physicians practicing in relevant clinical areas along with other sources such as the peer-reviewed published medical literature, technology assessments, evidence-based consensus statements, and evidence-based guidelines from nationally recognized professional medical specialty societies as part of our process for developing and maintaining medical policies and clinical UM guidelines.

We are currently reviewing our medical policy on the topic of Deep Brain Stimulation (DBS). We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

- We are especially interested in your opinion of the use of DBS for the treatment of epilepsy.

0.00.00 – Navigated Transcranial Magnetic Stimulation (nTMS)

Description

Navigated transcranial magnetic stimulation (nTMS) is a noninvasive imaging method for the evaluation of eloquent brain areas. Transcranial magnetic pulses are delivered to the patient as a navigation system calculates the strength, location, and direction of the stimulating magnetic field. The locations of these pulses are registered to an MRI image of the patient's brain. Surface electromyography (EMG) electrodes are attached to various limb muscles of the patient. Moving the magnetic stimulation source to various parts of the brain causes the EMG electrodes to respond, indicating the part of the cortex involved in particular muscle movements. For evaluation of language areas, magnetic stimulation areas that disrupt specific speech tasks are thought to identify parts of the brain involved in speech function. It can be considered a non-invasive method of a technique used during craniotomy called direct cortical stimulation (DCS) in which electrodes are directly applied to the surface of the cortex, causing either EMG responses or disruption of language tasks when applied to particular areas of the cortex. The accuracy of nTMS in relation to DCS depends on the precision of the navigation system in accurately locating the three-dimensional space in which the magnetic field is applied and accurate registration of the location to a previously performed magnetic resonance imaging (MRI) image of the patient's brain. Evaluation of disruption of language tasks involves training and experience in analyzing and detecting specific types of language disabilities caused by magnetic stimulation.

Policy

Navigated transcranial magnetic stimulation may be considered as **investigational** for all purposes, including the preoperative evaluation of patients being considered for brain surgery, when localization of eloquent areas of the brain (e.g., controlling verbal or motor function) is an important consideration in planning surgery.

Policy Guidelines

There is a CPT category III code for this procedure:

0310T - Motor function mapping using non-invasive navigated transcranial magnetic stimulation (nTMS) for therapeutic treatment planning, upper and lower extremity.

Rationale

This policy was initially created in September 2013 using references identified using the MEDLINE database through August 2013. Following is the summary of the key literature.

DRAFT

6.01.25 – Percutaneous Vertebroplasty and Sacroplasty

Description

Percutaneous vertebroplasty is an interventional technique involving the fluoroscopically guided injection of polymethylmethacrylate (PMMA) through a needle inserted into a weakened vertebral body. The technique has been investigated as an option to provide mechanical support and symptomatic relief in patients with osteoporotic vertebral compression fracture or in those with osteolytic lesions of the spine, ie, multiple myeloma or metastatic malignancies. Percutaneous vertebroplasty has also been investigated as an adjunct to surgery for aggressive vertebral body hemangiomas, and as a technique to limit blood loss related to surgery. Injection of PMMA is also being investigated for the treatment of sacral in

Policy

Percutaneous vertebroplasty may be considered **medically necessary** for the treatment of symptomatic osteoporotic vertebral fractures that have failed to respond to conservative treatment (eg, analgesics, physical therapy and rest) for at least 6 weeks.

Percutaneous vertebroplasty may be considered **medically necessary** for the treatment of severe pain due to osteolytic lesions of the spine related to multiple myeloma or metastatic malignancies.

Percutaneous vertebroplasty is considered **investigational** for all other indications, including use in acute vertebral fractures due to osteoporosis or trauma.

Percutaneous sacroplasty is considered **investigational** for all indications, including use in sacral insufficiency fractures due to osteoporosis and spinal lesions due to metastatic malignancies or multiple myeloma.

SITY
rgery

January 16, 2014

Policy Number: 0.00.00
Policy Title: Lumbar Spinal Fusion

WellPoint, Inc. collects input from physicians practicing in relevant clinical areas on behalf of a national healthcare association ("Association") to support their processes for developing and maintaining medical policies.

We are currently reviewing the topic of **Lumbar Spinal Fusion**. We are interested in your comments on the draft policy position, including your comments on single level verses multiple level fusion.

Lumbar spinal fusion is considered **investigational** if the sole indication is any one of the following conditions:

- Disc herniation
- Chronic nonspecific low back pain without radiculopathy
- Degenerative disc disease
- Initial discectomy/laminectomy for neural structure decompression

VANDERBILT UNIVERSITY
Department of Neurological Surgery

WellPoint, Inc.
Medical Policy Questionnaire

August 28, 2014

Policy Number: 0.00.00
Policy Title: Responsive Neurostimulation for the Treatment of Refractory Partial Epilepsy

WellPoint, Inc. collects input from physicians practicing in relevant clinical areas on behalf of a national healthcare association ("Association") to support their processes for developing and maintaining medical policies.

We are currently reviewing the topic of **Responsive Neurostimulation for the Treatment of Refractory Partial Epilepsy**. We are requesting your expert opinion regarding this topic and have developed a series of relevant questions presented in the table below.

The draft policy indicates responsive neurostimulation is considered **investigational** for all indications. We are interested in your comments on the draft policy position, in particular, if you consider responsive neurostimulation **medically necessary** for the treatment of refractory partial epilepsy.

VANDERBILT UNIVERSITY
Department of Neurological Surgery

Highmark Medical Review
P.O. Box 890035
Camp Hill, PA 17089-0035

Highmark Medical Review:

The Highmark list of covered ICD-9 codes describing lumbar spinal stenosis is missing the most common code indicating need for a lumbar decompression. This likely represents an editorial error in the generation of the Highmark policy and should be corrected.

The most common indication for a lumbar decompression (CPT code 63047) is lumbar spinal stenosis, described in ICD-9 terms as 724.02 and 724.03. 724.03 specifically describes patients with lumbar stenosis and neurogenic claudication, the classic patient who would undergo a lumbar decompression. These codes are not included in the Highmark ICD-9 code set for laminectomy.

Reviewing CMS data, 75% of lumbar decompressions are performed for lumbar spinal stenosis (724 family codes). Denying coverage for these codes both ignores CPT descriptions of the codes and impairs patient access to necessary medical services.

Highmark should review its coverage policy for spinal decompressions and insure that the list of covered codes is accurate. 724 family codes should be included to provide appropriate patient access to care.

Regards,

Joel W. Winer, M.D., F.A.C.S.

Washington State Health Care Authority
Health Technology Assessment

Health Technology Clinical Committee
Draft Findings and Decision

Topic: Facet Neurotomy
Meeting Date: March 21, 2014
Final Adoption:

Meeting materials and transcript are available on the HTA website at:
www.hca.wa.gov/hta/meetingmaterials/Forms/ExtMeetingMaterials.aspx

Number and Coverage Topic:

20140321B – Facet Neurotomy

VANDERBILT UNIVERSITY
Department of Neurological Surgery

AMERICAN ASSOCIATION OF
NEUROLOGICAL SURGEONS
THOMAS A. MARSHALL, *Executive Director*
5550 Meadowbrook Drive
Rolling Meadows, IL 60008
Phone: 888-566-AANS
Fax: 847-378-0600
info@aans.org

President
ROBERT E. HARBAUGH, MD
Hershey, Pennsylvania

CONGRESS OF
NEUROLOGICAL SURGEONS
DAVID A. WESTMAN, *Executive Director*
10 North Martingale Road, Suite 190
Schaumburg, IL 60173
Phone: 877-517-1CNS
FAX: 847-240-0804
info@1CNS.org

President
DANIEL K. RESNICK, MD
Madison, Wisconsin

May 9, 2014

Josiah Morse, MPH
Program Director
Washington State Healthcare Authority
Health Technology Assessment Program
P.O. Box 42712
Olympia, WA 98504-2712

Re: AANS/CNS Comments on Washington State HTA Re-review of Lumbar Spinal Fusion

Dear Mr. Morse:

On behalf of the American Association of Neurological Surgeons (AANS), the Congress of Neurological Surgeons (CNS), and the AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, we appreciate the opportunity to provide comments regarding the Washington State Healthcare Authority (WCA) Health Technology Assessment (HTA) program decision to review its coverage policy for Lumbar Spinal Fusion. As such, we would like to share the following remarks.

NEUROLOGICAL SURGEONS
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NATHAN R. SELDEN, MD, PHD
Portland, Oregon

DRAFT

January 20, 2015

Josiah Morse, MPH
Program Director
Washington State Healthcare Authority
Health Technology Assessment Program
P.O. Box 42712
Olympia, WA 98504-2712

Re: AANS/CNS Comments on Washington State HTA 2015 Review of Novocure and Pharmacogenetics

Dear Mr. Morse:

On behalf of the American Association of Neurological Surgeons (AANS), the Congress of Neurological Surgeons (CNS), the Washington State Association of Neurological Surgeons (WSANS), and the AANS/CNS Joint Section on Tumors, we appreciate the opportunity to provide comments regarding the Washington State Healthcare Authority (WCA) Health Technology Assessment (HTA) program decision to place Novocure and Pharmacogentics on its list of technologies review in 2015. As such, we would like to share the following remarks.

Blue Cross
Blue Shield
Blue Care Network
of Michigan

Nonprofit corporations and independent licensees
of the Blue Cross and Blue Shield Association

Current Policy Effective Date: 5/1/13

Title: Minimally Invasive Lumbar Interbody Fusion

Description/Background

Description

A variety of minimally invasive/minimal access procedures are being investigated to perform interbody fusion, with the intent of limiting iatrogenic damage to muscular, ligamentous, neural, and vascular structures. Minimally invasive techniques are being studied for anterior lumbar interbody fusion (ALIF), posterior lumbar interbody fusion (PLIF), transforaminal lumbar interbody fusion (TLIF), lateral interbody fusion (e.g., extreme lateral interbody fusion [XLIF] or direct lateral interbody fusion [DLIF]), and para-axial interbody lumbar fusion (AxiaLIF).

All other minimally invasive procedures for lumbar interbody fusion are considered experimental and investigational, including, but not limited to the following:

- Laparoscopic ALIF (LALIF)
- Axial anterior lumbar interbody fusion (AxiaLIF)
- Lateral interbody fusion (e.g., XLIF, DLIF)

NIH Documents

Report of the Task Force on Research Standards for Chronic Low-Back Pain

Submitted to the
NIH Pain Consortium Executive Committee
November 18, 2013

Authors: Richard A. Deyo, M.D., M.P.H.; Samuel F. Dworkin, D.D.S., Ph.D.; Dagmar Amtmann, Ph.D.; Gunnar Andersson, M.D., Ph.D.: David Borenstein, M.D.; Eugene Carragee, M.D.; John Carrino, M.D., M.P.H.; Roger Chou, M.D.; Karon Cook, Ph.D.; Anthony DeLitto, P.T., Ph.D.; Christine Goertz, D.C., Ph.D.; Partap Khalsa, D.C., Ph.D.; John Loeser, M.D.; Sean Mackey, M.D., Ph.D.; James Panagis, M.D.; James Rainville, M.D.; Tor Tosteson, Sc.D.; Dennis Turk, Ph.D.; Michael Von Korff, Sc.D.; Debra Weiner, M.D.

Affiliations: Oregon Health and Sciences University; the University of Washington; Rush University Medical Center; George Washington University; Stanford University; Johns Hopkins University; Northwestern University; University of Pittsburgh; Palmer College of Chiropractic; National Center for Complementary and Alternative Medicine; National Institute for Arthritis, Musculoskeletal and Skin Diseases; New England Baptist Hospital; Geisel School of Medicine at Dartmouth; and Group Health Research Institute.

Registries and Payor Policies

DR. ROBERT BREE COLLABORATIVE

705 Second Avenue, Suite 703
Seattle, WA 98104
(206) 682-2811
bree@qualityhealth.org
www.breecollaborative.org

May 21st, 2014

We are contacting you today as representatives of the Dr. Robert Bree Collaborative about joining the Spine Surgical Care and Outcomes Assessment Program (SCOAP). The Bree Collaborative – which is legislatively charged with identifying and recommending best practice approaches to health care delivery – has strongly recommended participation in Spine SCOAP as a community standard.

Spine SCOAP is a clinician-led, collaborative, and non-regulatory health care quality improvement program that uses clinical data to improve outcomes for patients having spine surgery in Washington State. Spine SCOAP's main goal is to improve quality by reducing variation in outcomes and process of care by encouraging hospitals to voluntarily submit data to a regional database. SCOAP was developed

FEEDBACK FROM PAYORS

WELLPOINT

February 27, 2014

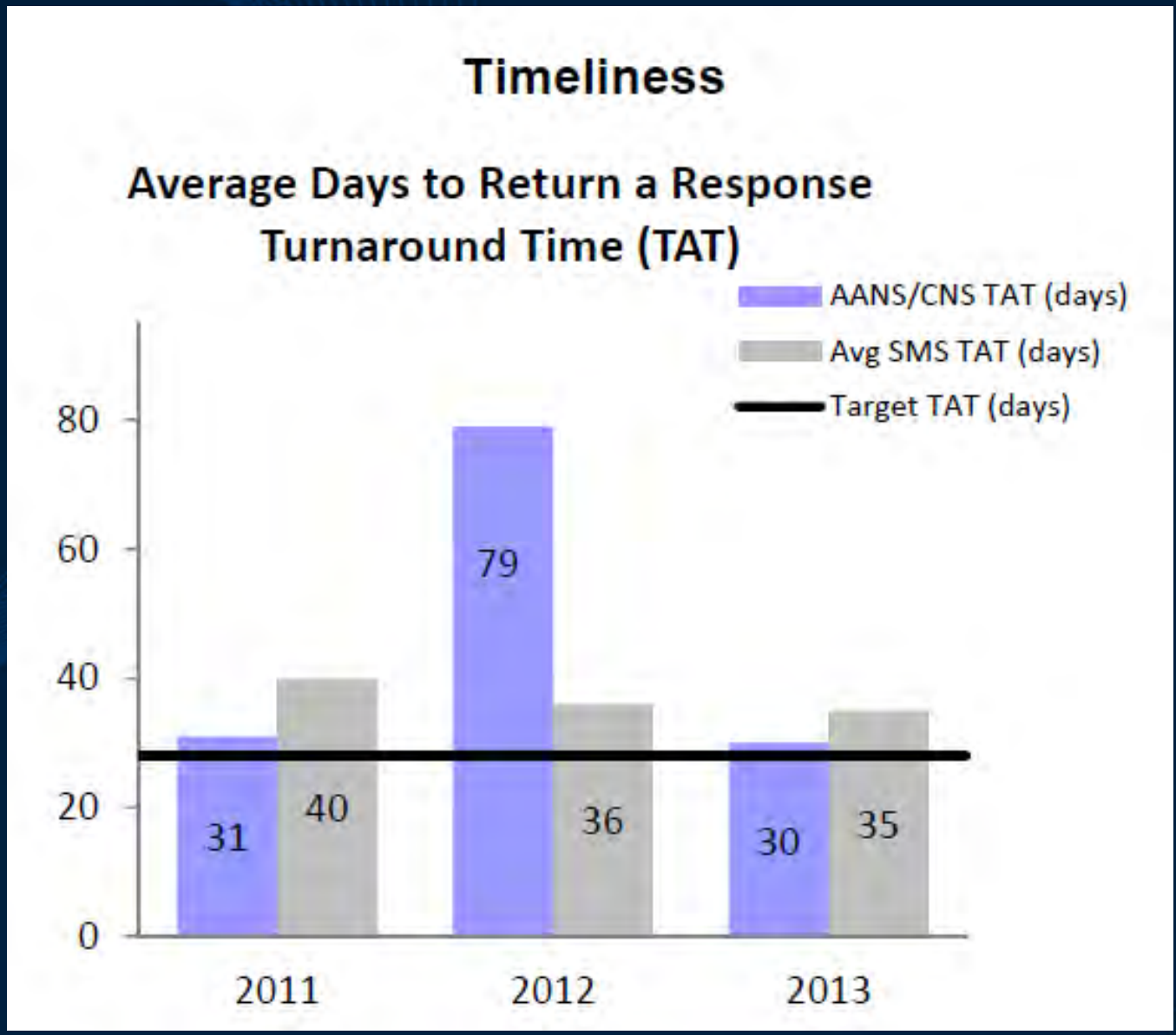
Katie O. Orrico
Director, Washington Office
American Association of Neurological Surgeons/Congress of Neurological Surgeons
725 15th Street, NW, Suite 500
Washington DC 20005

Catherine Jeakle Hill
Senior Manager, Regulatory Affairs, Washington Office
American Association of Neurological Surgeons/Congress of Neurological Surgeons
725 15th Street, NW, Suite 500
Washington DC 20005

Thomas A. Marshall
Executive Director
American Association of Neurological Surgeons
5550 Meadowbrook Dr.
Rolling Meadows, IL 60008-3852

RE: Physician Consultant Input from the American Association of Neurological Surgeons/ Congress of Neurological Surgeons to Medical Policy sent by WellPoint, Inc.

Timeliness


Average Days to Return a Response
Turnaround Time (TAT)
AANS/CNS TAT (days)
Avg SMS TAT (days)
Target TAT (days)
80
60
40
20
0
31
40
79
36
30
35
2011
2012
2013

Evaluation of Physician Consultant Reviews

	Quality			Agreement with Draft				Physician Review Contributed to Document Revision		
	Complete with Comments and Citations	Complete with Comments	Complete	Agrees	Partial Agreement	Does Not Agree	Not Specified	Yes	No	Agreed
2011	3	3	2		5	3		3	2	
2012	4	2	1		6	1		3	1	
2013	4				2	2		1	1	

We Successfully Challenged the Constitutionality of Washington's Health Technology Clinical Committee

February 26, 2014 / Isaac Ruiz

Plaintiffs' Motion for Summary Judgment Holding that the HTCC Law is Unconstitutional

Plaintiffs' Reply in Support of Motion for Summary Judgment Holding that the HTCC Law is Unconstitutional

DEVELOP CONSENSUS WITH OTHER SOCIETIES

VANDERBILT UNIVERSITY
Department of Neurological Surgery

INTERNATIONAL JOURNAL of SPINE SURGERY

ISASS Policy Statement - Cervical Interbody

Kern Singh, MD,[1] Sheeraz Qureshi, MD, MBA[2]

[1]Minimally Invasive Spine Insitute, Department of Orthopaedic Surgery, Rush University Medical Center, Chicago, IL [2]Department of Orthopaedic Surgery, Mt. Sinai Hospital, New York City, NY

Introduction

Morgan Lorio, MD, FACS, Chair, ISASS Task Force on Coding & Reimbursement

SAS: International Society for the Advancement of Spine Surgery

Position Statement: Cervical Total Disc Arthroplasty

To: SAS Members and the General Spine and Medical Communities

Purpose: This position statement reflects the opinion of SAS: International Society for the Advancement of Spine Surgery that total disc arthroplasty (TDA) is an acceptable, proven alternative to anterior cervical discectomy and fusion (ACDF) in the treatment of symptomatic cervical disc disease (CDD) for the prescribed indications.

Statement:

Symptomatic cervical disc disease (CDD) refractory to non-surgical care is currently treated with anterior cervical discectomy and fusion (ACDF) with good clinical results reported[1-3]. Fusion does however eliminate natural motion increasing stresses on adjacent levels, and progressive degeneration at the levels around the fusion has been reported. The rate of symptomatic

Policy Statement on Lumbar Spinal Fusion Surgery

International Society for the Advancement of Spine Surgery (ISASS)
[other societies]

Contents

Introduction

Pain and other symptoms of the lower back are some of the most prevalent health problems experienced by the populations of developed nations. They cause prolonged suffering and diminished quality-of-life to the patients, resulting in enormous losses of productivity and substantial costs for ongoing medical care. Many patients can (and should) be treated adequately by medical

VERTEBRAL AUGMENTATION

It is estimated that over 1.4 million people will develop vertebral compression fractures every year (Johnell & Kanis 2006). Many will be clinically insignificant or heal with non-operative treatment. A large group will have persistent pain, kypholic deformity, weight loss, depression and a reduced quality of life. (Old & Calvert 2004; Borgstrom et al. 2006; Suzuki et al. 2008).

Based on current evidence and in the interest of our patients ISASS offers the following guidelines:

NASS Coverage Recommendations

New direction by NASS in *proactively* developing evidenced-based coverage recommendations for common spine care treatments, procedures and diagnostics.

NEW!
Percutaneous Sacroiliac Joint Fusion
Submit your comments by March 6, 2015

Coverage Policy Recommendations

Cervical Artificial Disc Replacement

Endoscopic Discectomy

Epidural Cervical Injections

Interspinous Device without Fusion

Interspinous Fixation with Fusion

Laser Spine Surgery

Lumbar Artificial Disc Replacement

Lumbar Discectomy

Lumbar Epidural Injections

Lumbar Fusion

Lumbar Laminectomy

Lumbar Laminotomy

Percutaneous Thoracolumbar Stabilization

Recombinant Human Bone Morphogenetic Protein (rhBMP-2)

Anticipated Coverage Policy Recommendations

Treatments:

Annular repair

Intradiscal coblation treatments

VANDERBILT UNIVERSITY
Department of Neurological Surgery

Multi-Society Pain Workgroup (MPW)

Marilyn B. Tavenner
Administrator
Centers for Medicare and Medicaid Services
Department of Health and Human Services
Hubert H. Humphrey Building, Room 445-G
200 Independence Avenue, SW
Washington, DC 20201

Re: CMS-1600-FC Medicare Program; Revisions to Payment Policies Under the Physician Fee Schedule and Other Revisions to Part B for CY 2014; **Spinal Injections (CPT Codes 62310, 62311, 62318, and 62319)**

Dear Administrator Tavenner,

The undersigned physician societies participating in the Multi-Society Pain Workgroup (MPW), which has worked tirelessly with the Centers for Medicare and Medicaid (CMS) Contractor Medical Directors to draft recommendations for multiple pain-related Local Coverage Determinations (LCDs) to improve patient care and reduce abuse of pain procedures through the implementation of strict performance, documentation, and patient selection criteria, would like to express serious concerns with the new values for Epidural Interlaminar Procedure Codes: 62310-62319.

Develop Consensus With Other Societies

COUNCIL OF SURGICAL SPINE SOCIETIES

AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves
American Association of Neurological Surgeons
AOSpine North America
Cervical Spine Research Society
Congress of Neurological Surgeons
Lumbar Spine Research Society
Scoliosis Research Society

5550 MEADOWBROOK DRIVE, ROLLING MEADOWS, ILLINOIS USA 60008 TELEPHONE (847) 378-0500 FAX (847) 378-0600

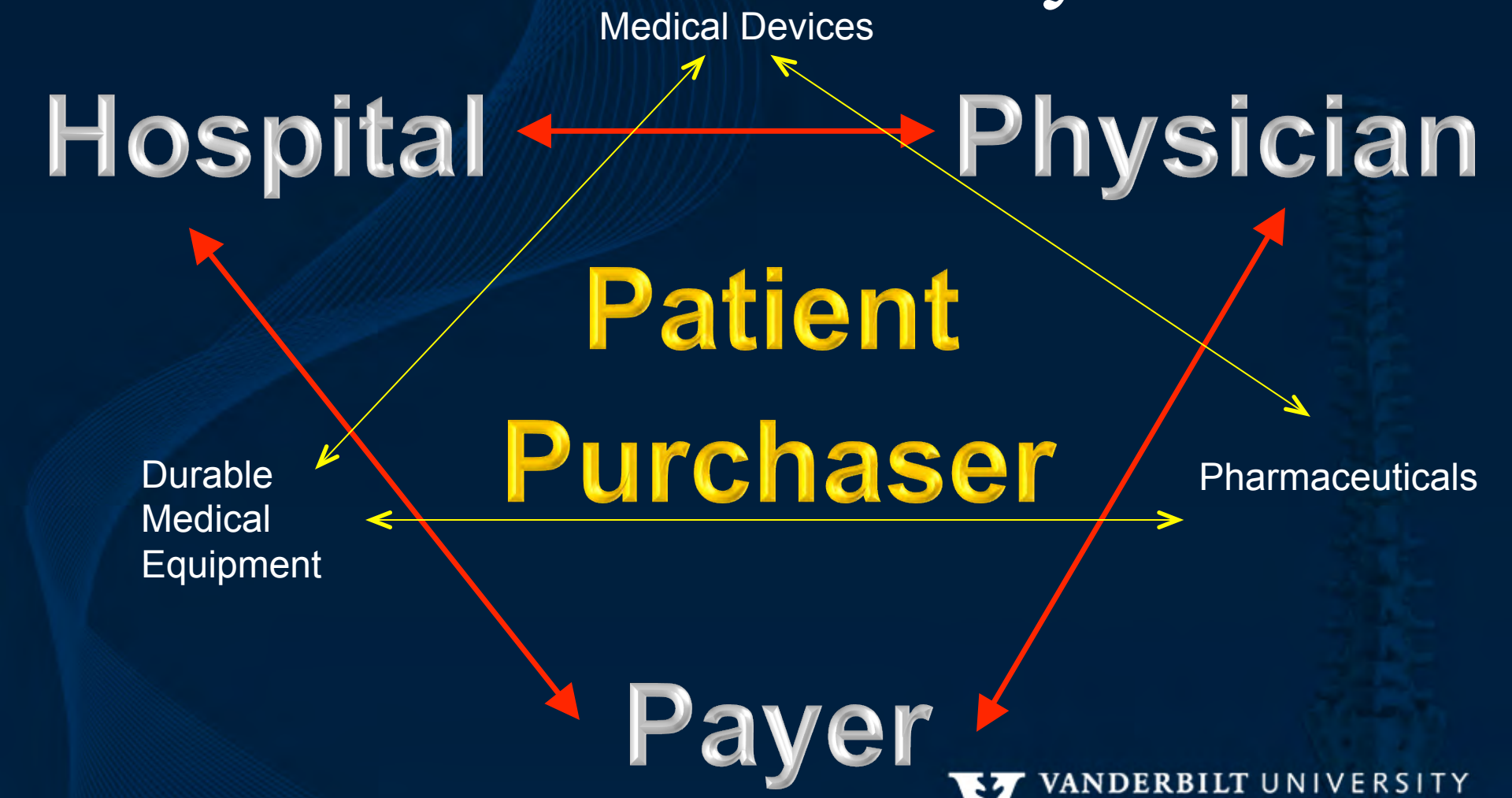
August 7, 2014

Thomas L. Simmer, MD
Chief Medical Officer
Blue Cross and Blue Shield of Michigan
600 Lafayette Blvd.
Detroit, MI 48226-2927

RE: Blue Cross Blue Shield of Michigan Transpsoas Approaches Medical Policy

Why Is This So Important? What Are We Up Against?

Understand The Physicians Role In The Healthcare System



VANDERBILT UNIVERSITY
Department of Neurological Surgery

Table 1—*Theories and Approaches to Physician Behavior Change

Approach	Theories	Focus	Interventions, Strategy
Focus on internal processes			
Educational	Adult learning theories	Intrinsic motivation of professionals	Bottom up, local consensus development Small group interactive learning Problem-based learning
Epidemiologic	Cognitive theories	Rational information seeking and decision making	Evidence-based guideline development Disseminating research findings through courses, mailing, journals
Marketing	Health promotion, innovation, and social marketing theories	Attractive product adapted to needs of target audience	Needs assessment, adapting change proposal to local needs Stepwise approach Various channels for dissemination (mass media and personal)
Focus on external influences			
Behavioral	Learning theory	Controlling performance by external stimuli	Audit and feedback Reminder systems, monitoring Economic incentives, sanctions
Social interaction	Social learning and innovation theories, social influence/power theories	Social influence of significant peers/role models	Peer review in local networks Outreach visits (academic detailing), individual instruction Opinion leaders Influencing key people in social networks Patient-mediated interventions
Organizational	Management theories, system theories	Creating structural and organizational conditions to improve care	Reengineering care process Total quality management/continuous quality improvement approaches Team building Enhancing leadership Changing structures, tasks
Coercive	Economic, power, and learning theories	Control and pressure, external motivation	Regulations, laws Budgeting, contracting Licensing, accreditation Complaints/legal procedures

*Adapted from Grol.[26] Used with permission.

Annual 10-K Reports to Securities and Exchange Commission

For Continued Financial Performance
Financial Tables

At a Glance | Overview | Financial and Membership Highlights | Balance Sheets | Statements of Income | Statement of Cash Flows

The information presented below is as reported in WellPoint's 2012 Annual Report on Form 10-K.

WellPoint, Inc.

Financial And Membership Highlights

(dollars in millions, except per share data)	2012	2011	2010
Operating Results			
Total operating revenue	$60,728.5	$59,865.2	$57,740.5
Total revenue	61,711.7	60,710.7	58,698.5
Net income	2,655.5	2,646.7	2,887.1
Earnings Per Share			
Basic net income	$ 8.26	$ 7.35	$ 7.03
Diluted net income	8.18	7.25	6.94
Dividends per share (*In whole dollars*)	1.15	1.00	—
Balance Sheet Information			
Total assets	$58,955.4	$52,163.2	$50,242.5
Total liabilities	35,152.7	28,875.0	26,429.9
Total shareholders' equity	23,802.7	23,288.2	23,812.6
Medical Membership (000s)			
Commercial	26,649	27,548	26,959
Consumer	7,961	5,184	4,917
Other	1,520	1,519	1,447
Total medical membership	36,130	34,251	33,323

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: null 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

Add to Portfolio | Like 19

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: null 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: null 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 10-K

- 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.

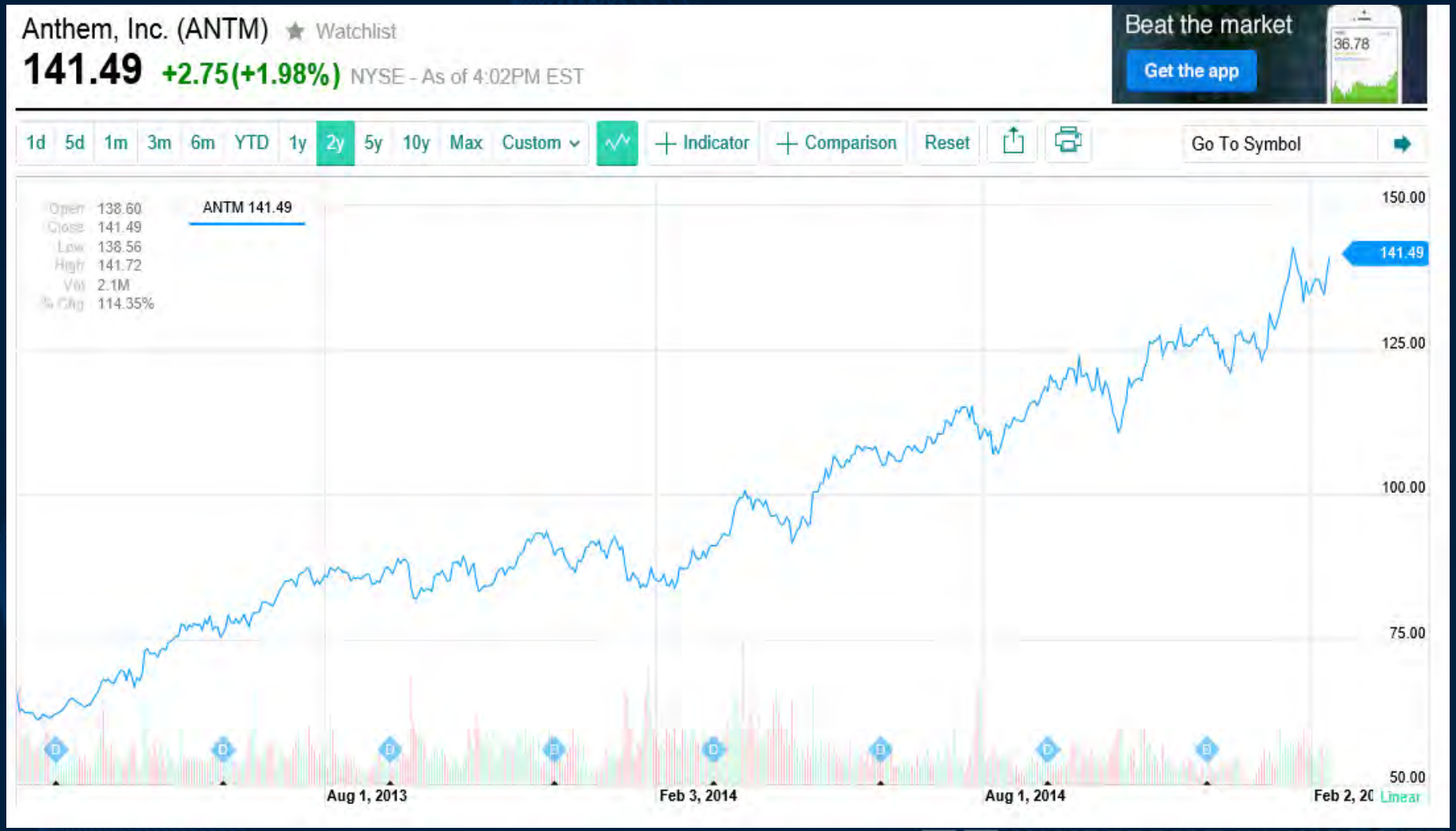
WellPoint 2012 10-K

- 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



Membership:

- 35.7 million medical members in affiliated health plans
- Nearly 68 million individuals served through all subsidiaries

Health care networks:

Members of our affiliated health plans have access to broad networks of health care providers, depending on the health plan and coverage options. They can access up to:

- 80% of nation's total primary care providers
- 90% of nation's total hospitals
- 80% of nation's total specialists

Web Site:
www.wellpoint.com

Trading Symbol:
NYSE: WLP

Number of employees:
45,000

2012 Revenue:
$61.7 billion

So Why Do They Even Listen to Us?

VANDERBILT UNIVERSITY
Department of Neurological Surgery

Thanks To All Our Members!

Return to genda

AANS/CNS Spine Section Session

Timing for 2015 AANS Meeting: 2:00-4:30PM

2015 Program

Moderators:
John Hurlbert, MD
Frank La Marca, MD

2:00-3:29 PM
Symposium
Spinal Trauma: State of the Art

2:00-2:14 PM
Management of Spinal Trauma: Indications for Early vs. Delayed Surgical Intervention
Speaker: Joseph Cheng, MD

2:15-2:29 PM
Classification Systems for Spinal Trauma: Clinical Applications
Speaker: Jim Harrop, MD

2:30-2:44 PM
Treatment Protocols for Spinal Cord Injury: Effects on Functional Outcome
Speaker: Allan Levy, MD

2:45-2:59 PM
Biomechanical Considerations in Surgical Decision Making
Speaker: Michael Steinmetz, MD

3:00-3:14 PM
Minimally Invasive Surgical Approaches to the Treatment of Spinal Trauma
Speaker: Paul Park, MD

3:15-3:29 PM
Post Traumatic Spinal Deformity: Prevention and Treatment Options
Speaker: Praveen Mummaneni, MD

3:30-4:30 PM
Abstract Presentations (7 abstract presentations at 7 minutes each)
3:31-3:38 PM
3:39-3:46 PM
3:47-3:54 PM
3:55-4:02 PM
4:03-4:10 PM
4:11-4:18 PM
4:20-4:27 PM

4:28-4:30 PM
Q&A

Return to Agenda

Monday, September 28, 2015
7:00 am - 8:30 am
Section on Disorders of the Spine and Peripheral Nerves
Advancements in Spinal Surgery Outcomes: The Results of Collaboration
Moderator(s): Charles Kuntz, Frank La Marca
Speaker(s): Domagoj Coric, R. John Hurlbert, Joseph S. Cheng, Michael W. Groff, Michael Y. Wang, Praveen V. Mummaneni, Paul Park, Justin S. Smith, Daniel M. Sciubba
Learning Objectives: *Upon Completion of this course, participants should be able to:*

7:00 am - 7:10 am
Outcomes of Various Surgical Techniques in the Treatment of Cervical Spondylotic Disease
Praveen V. Mummaneni

7:10 am - 7:20 am
Outcomes of Adult Spinal Deformity Surgery
Justin S. Smith

7:20 am - 7:30 am
Outcomes of Minimally Invasive Deformity Surgery
Paul Park

7:30 am - 7:40 am
Outcomes of Spinal Surgery for Metastatic Disease
Daniel M. Sciubba

7:40 am - 7:50 am
Outcomes of Spinal Surgery for Degenerative Lumbar Disease
Michael W. Groff

7:50 am - 8:00 am
Advancements in Biologics and Implant Technology: Effects on Spinal Surgery Outcomes
Michael Y. Wang

8:00 am - 8:10 am
Healthcare Cost Containment Strategies: Effects on Patient Service and Surgical Outcomes
Domagoj Coric

8:10 am - 8:20 am
Orthopedics, Neurosurgery, Academia and Industry: Effects on Spine Surgery Training
R. John Hurlbert

8:20 am - 8:30 am
Importance of Multicenter Outcome Trials for the New Healthcare Era
Joseph S. Cheng

Tuesday, September 29, 2015
7:00 am - 8:30 am
Section on Disorders of the Spine and Peripheral Nerves Oral Presentations
Moderator(s): Christopher I. Shaffrey, Praveen V. Mummaneni
Learning Objectives: *Upon Completion of this course, participants should be able to:*
* Analyze the findings of novel neurosurgical studies, critique the design and methodology of these studies.
* List important areas for further knowledge development and research.
* Identify the most important ongoing clinical trials.

Return to Agenda

AANS/CNS Spine Section Executive Committee Report: Coding and Reimbursement March 2015 -Luis M. Tumialán, M.D.

Medicare Update 2015

Elimination of the Global Period. Current plan is to eliminate the 10-day global period in 2017 and the 90 day global period in 2018. CMS is assessing whether there is a "better construction of the bundled payment for surgical services that incentivizes care coordination and care redesign across an episode of care".

CCI Edit

Medicare CCI edit regarding 63047 with 22630 and 22633. Effective January 1, 2015 Medicare will not allow payment for decompression and interbody fusions.

http://www.cms.gov/Medicare/Coding/NationalCorrectCodInitEd/Downloads/NCCI-Policy-Manual-2015.zip

24. CMS payment policy does not allow separate payment for CPT codes 63042 (laminotomy...; lumbar) or 63047 (laminectomy...; lumbar) with CPT codes 22630 or 22633 (arthrodesis; lumbar) when performed at the same interspace. If the two procedures are performed at different interspaces, the two codes of an edit pair may be reported with modifier 59 appended to CPT code 63042 or 63047.

CPT Updates:

Cervical Arthroplasty

1. 22858: Second level of cervical arthroplasty
2. 0375T: Third level of cervical arthroplasty

Vertebroplasty and Vertebral augmentation

1. Vertebroplasty codes 22520-22522 have been replaced with 22510-22512, which now includes the radiological supervision and interpretation. RVU's for these procedures have also decreased. CPT code 72291 (fluoroscopic guidance) and 72292 (CT guidance) have been deleted.
2. Vertebral augmentation codes 22523-22525 have been replaced with 22513 -22515. Once again, the radiological supervision codes have been bundled into the new code and the RVU's have decreased slightly.

-59 Modifier *(upcoming)*

Medicare has reported that the -59 modifier has been associated with considerable overuse. To add additional granularity to the use of the modifier there is now new HCPCS to further define the subset of the -59 modifier. This is collectively know as X{EPSU} modifiers.

1. XE: Separate encounter, a service that is distinct because it occurred during a separate encounter.
2. XS: Separate structure, a service that is distinct because it was performed on a separate structure organ.
3. XP: Separate practitioner, a service that is distinct because it was performed by a different practioner.
4. XU: Unusual non-overlapping service,

Return to Agenda

AMERICAN ASSOCIATION OF
NEUROLOGICAL SURGEONS
THOMAS A. MARSHALL, *Executive Director*
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Rolling Meadows, IL 60008
Phone: 888-566-AANS
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President
ROBERT E. HARBAUGH, MD
Hershey, Pennsylvania

CONGRESS OF
NEUROLOGICAL SURGEONS
REGINA N. SHUPAK, *Executive Director*
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Schaumburg, IL 60173
Phone: 877-517-1CNS
FAX: 847-240-0804
info@1CNS.org

President
NATHAN R. SELDEN, MD, PHD
Portland, Oregon

February 3, 2015

Niles R. Rosen, M.D.
Medical Director
National Correct Coding Initiative
Correct Coding Solutions, LLC
P.O. Box 907
Carmel, IN 46082-0907

Subject: Spine Surgery CCI Edits

Dr. Rosen:

On behalf of the American Association of Neurological Surgeons (AANS), Congress of Neurological Surgeons (CNS), and AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, we are writing to request a re-evaluation of item 24 from Chapter 8 of the NCCI Policy Manual released on January 1, 2015.

The comment reads as follows:

> 24. CMS payment policy does not allow separate payment for CPT codes 63042 (laminotomy...; lumbar) or 63047 (laminectomy...; lumbar) with CPT codes 22630 or 22633 (arthrodesis; lumbar) when performed at the same interspace. If the two procedures are performed at different interspaces, the two codes of an edit pair may be reported with modifier 59 appended to CPT code 63042 or 63047.

The item refers to reporting of lumbar decompression via laminectomy (*63047, laminectomy, facetectomy and foraminotomy [unilateral or bilateral] with decompression of spinal cord, cauda equina and/or nerve root[s], single vertebral segment; lumbar*) in conjunction with performing a lumbar interbody fusion (*22630, arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace [other than for decompression], single interspace; lumbar* or *22633, arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace [other than for decompression], single interspace and segment; lumbar*).

It is our opinion that laminectomy should be reported in addition to the interbody fusion codes in patients where a decompression is performed in addition to a lumbar interbody fusion. It is noteworthy that 22633 was recently created as part of the Relativity Assessment Workgroup process via the Common Procedural Terminology Editorial Board and evaluated by the RBRVS Update Committee. The intra-service designation of this code specifies that "Additional decompression (e.g., lumbar disc herniation or lumbar stenosis), if required, is reported separately." This designation was incorporated in the RUC process of valuing this code, complying with the CPT descriptor of this procedure and in harmony with the base code (22630) for this family.

WASHINGTON OFFICE
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2015 DSPN Annual Meeting

Exhibits Committee Report

Chair: Daniel Hoh

Members: Michael Steinmetz, Michele Johnson, Todd Francis, Wilson Ray

CNS Office: Michele Lengerman, Tom Heneghan

	2013	2014	2015
Educational Grants	$267,500	$405,000	$225,000
Exhibit Sales	$301,000	$247,700	$205,400
Sponsorship/ Advertising	$90,000	$51,000	$271,000
TOTAL	**$658,500**	**$703,700**	**$701,400**

Four FREE Sponsored Lunch Symposia ***($80,000 in sponsorship to the Section)***
Thursday, March 5, 12:00–1:00 pm

- **NuVasive: Critical Thinking in Global Alignment: The Importance of Applying Global Alignment Principles to All Fusion Procedures**
  Faculty: *Regis Haid, Christopher Shaffrey, Juan Uribe*
- **Medtronic: PRESTIGE® LP Cervical Disc System Surgeon Training**
  Faculty: Vince Traynelis
- ***Globus:*** **Achieving the Best Sagittal Balance; Open, Lateral or MIS**
  Faculty: *Nicholas Theodore, Dom Coric, Larry Khoo, Frank LaMarca*
- ***Depuy Synthes:*** *mPACT (medialized Posterior Approach Cortical Trajectory)*–A Less Invasive Technique
  Faculty: *Frederik Pennings*

What's New **Sessions** ***($23,000 in sponsorship to the Section)***

Thursday, March 4, 10:40 – 11:00 AM

Medtronic – Title: Posterior Cervical Decompression and Fusion with Interfacet Grafts and Lateral Mass Fixation
Presenter: Dr. Vincent Traynelis

Nuvasive – Title: NuvaMap™ - Predictive Surgical Planning: Calculate. Correct. Confirm.
Presenter: David A. Vincent, M.D.

Thursday PM 3:30 - 4:00 PM

Medtronic – Title: OLIF25: Rationale for an ante-psoas oblique approach to the lumbar spine
Presenter: Dr. Kevin Foley

Biomet – Title: Treating Deformity of the Cervicothoracic Junction
Presenter: Christopher Shaffrey, MD, FACS

Medicrea – Title: UNID: A Unique Solution to Surgical Execution
Presenter: Richard B. Meyrat

Friday, March 5, 9:30 – 10:00 AM

Globus – Title: ALTERA: New Breakthrough TLIF Device—Steerable & Expandable
Presenter: Steven Vanni, MD

Friday Lunch 1:00 – 1:30 PM

Globus – Title: CREO MCS: Innovative MIS Posterior Fixation System
Presenter: Kris Radcliff, MD

Spinecraft – Title: Tips and Techniques for MIS Screw Placement and Rod Insertion
Presenter: Dr. Anis Mekhail

Cadaver Lab at the Barrow Neurological Institute ***($130,000 in Sponsorship to the Joint Section)***

Friday, March 6th

1:00 – 5:30 pm

Bus transportation leaves JW Marriott at 12:30 pm

13 cadaver stations

Sponsors: DepuySynthes, Medtronic, Joimax, K2M, Paradigm, Globus, SpineWave, Biomet, Integra Peripheral Nerve

Course Directors: Daniel Hoh, Luis Tumialan

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Course Faculty: Todd Francis, Larry Khoo, Daniel Laich, Lines Jacques, Ross Moquin, Michael Musacchio, Frederick Pennings, Randall Porter, Wilson Ray, Faheem Sandhu, Daniel Sciubba, Jonathan Sherman, Albert Telfeian, Nicholas Theodore, Lynda Yang, Eric Zager

Course Agenda:

Peripheral Nerve Repair

Lateral Lumbar Interbody Fusion and Sagittal Realignment Techniques

Percutaneous Endoscopic Cervical and Lumbar Decompression and Fusion

Thoracolumbar Spinal Deformity Correction

Percutaneous Thoracic and Lumbar Spinal Fixation

Minimal Access Posterior Lumbar Fusion including Medialized Cortical Posterior Fixation and Interlaminar Fixation Techniques

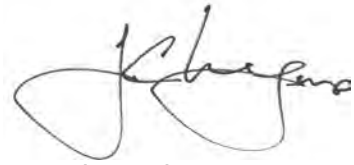
The CCI edit hews closely to a recent article in the *Spineline* publication of the North American Spine Society (NASS). In their publication, the author noted "Posterior fusion codes that involve disc preparation (22630, 22633) already take into account the decompression work. Using additional decompression codes (63005, 63012, 63030, 63042, 63047) is not allowed." (*Spineline* July/August 2014, accessed from www.spineline-digital.org). This is an error, and was pointed out to the publisher and author of the original comments. In the next issue of the *Spineline* periodical, a retraction of the previous error was issued: "From the AMA CPT guidelines, decompression when performed IS [Author's emphasis] separately reportable with the interbody fusion codes, 22630 and 22633. The point made in the original article is that a certain amount of laminectomy is required for the approach in order to perform the interbody fusion. However, when decompression of the nerve roots requires more laminectomy than necessary for the performance of the interbody fusion, this is separately reportable." (*Spineline* September/October 2014, accessed from www.spineline-digital.org).

We believe the above CCI is in error, and should be corrected in a timely fashion. At present, the CCI edit requires surgeons to violate CPT coding guidelines and to erroneously report physician work. When patient pathology requires more extensive decompression than routinely performed in exposing and preparing for an interbody fusion at the same spinal segment, this additional physician work should be appropriately reported through addition of 63047 to the interbody code

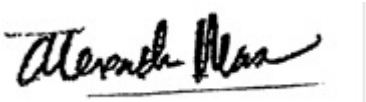
The undersigned would emphasize that this working definition of the intra-service work performed in 22630 and 22633 was utilized by the RUC during the valuation of these codes. To remove laminectomy obviates the RUC process and produces an inaccurate valuation of physician work.

Thank you again for your consideration of this issue. Please feel free to contact us if you have any questions.

Sincerely,



Joseph S. Cheng, MD, AANS CPT Advisor



Alexander M. Mason, MD, CNS RUC Advisor

John K. Ratliff, MD, AANS RUC Advisor

Henry H. Woo, MD, CNS CPT Advisor

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Spine Fellowship Report

Dr. Giannotta and the CAST committee have reviewed the Section's recommendations in regards to Spine Fellowships and agree with our recommendations as stated in our original letter (attached) dated September 29, 2014.

- Specifically, they strongly encourage a scholarly academic component to the Fellowship to help distinguish the CAST accredited programs from the 'rogue' spine Fellowship programs.

- They further encourage limiting the maximum case load requirement as we suggested to inspire thoughtful clinical and research endeavors and discourage the need for excessive case volume.

- CAST would like to give the Section significant flexibility and responsibility in regards to varying institutional requirements, with the understanding that all Fellows will achieve the noted milestones prior to completing the Fellowship.

- They further promote in-folded Fellowships occur in the final year of Residency, whereas if starting earlier (5^{th} or 6^{th} year), they would then require a 2 year commitment.

- From the Boards perspective, ONLY U.S. trained neurosurgeons would be eligible to receive a CAST accredited certificate (NOT foreign graduates, even if they previously completed other U.S. based Fellowships), this is also the case for Orthropods, again related to the Board, as they want a completed U.S. Neurosurgical Residency as part of the requirement to receive the certificate – This is the one area several Section members have previously been in favor of in the past.

- Lastly, the question of accreditation has been raised for those programs that offer hybrid Neurosurgical/Orthopedic traninig programs; it is their opinion that these programs are acceptable for CAST accreditation as long as the Fellow meets the previously stated requirements/milestones of that institution.

Adam S. Kanter, MD

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Director, Neurosurgical Spine Fellowship Program
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AANS/CNS SECTION ON DISORDERS OF THE SPINE AND PERIPHERAL NERVES

September 29, 2014

American Association of Neurological Surgeons

A Section of the
American Association of Neurological Surgeons
and
Congress of Neurological Surgeons

CNS

Dear Dr. Giannotta,

Thank you for your welcoming inquiry to our Section as the CAST committee prepares for the upcoming meeting in Boston. As Chair of the Section's Fellowship committee, and at the request of Section Chairman Dr. John Hurlbert, I am privileged to take responsibility for the spine Section's engagement in this vital process.

You may recall that you and I spoke at length regarding this topic in March 2014. We discussed the importance of CAST accredited spine Fellowships being indistinguishable in regards to eligibility criteria and milestone achievement whether occurring in a post-residency period or enfolded.

We had further discussed ensuring that any enfolded spine fellowship be performed only after a minimum of 3 neurosurgical **clinical** service years (not including internship) to protect the advanced nature of the training period. Such criteria would essentially require any enfolded fellow be at least PGY6, although preferably PGY7, status within their primary institution, maximizing the Fellow's ability to build upon previously acquired technical skills at an elevated level of scholarly development.

Beyond these areas of our discussion, additional criteria of importance to our Section include:

- a minimum total duration of spine specialty focused practice of 12 months if fellowship begins in the PGY7 year, or 24 months if beginning in the PGY6 year

This time period must include a minimum of 12 months on clinical service devoted to the diagnosis, surgical treatment, and non-surgical treatment of patients with spinal conditions; including

degenerative, traumatic, congenital, infectious, neoplastic, and when available, vascular conditions.

Any fellowship experience beyond 12 months can be spent further expanding upon unique clinical skills within spine subspecialty areas, or at the discretion of the institution's Fellowship Director if clinical milestones are adequately achieved, incorporating spine specific focused neuroscientific research endeavors (biomechanics, anatomic, epidemiologic, etc.).

- Scholarly activity must include at least 1 major meeting presentation and manuscript preparation

All spine Fellows should clearly demonstrate a scholarly understanding of evidence based practice through manuscript review and publication, as well as teaching responsibilities to the Resident staff in both formal (grand rounds, conferences, etc.) and informal (rounding, case presentations, etc.) settings. Additionally, each Fellow should submit at minimum 1abstract for presentation at a major scientific meeting (AANS, CNS, DSPN) per 6 month period, and participate in preparation of minimum 1 manuscript with submission to a major indexed neurosurgical journal during any 12 month period.

- Clinical exposure must include a robust outpatient office experience

A minimum of 1 outpatient office day per week must be incorporated throughout the Fellowship period; enabling continuity of clinical course involvement in pre-operative evaluation, peri-operative planning, and post-operative decision making strategies.

- Milestones

Important milestones must include the ability to independently manage patients with both routine and complex spinal conditions.

The Fellow must demonstrate expertise in the management of patients necessitating intensive care treatment and rehabilitative courses following complex cases with and without complications.

We suggest a minimum caseload of 200 spinal procedures per 12 month period, the majority (>80%) of which should include either instrumentation or other advanced skill technique (i.e., endoscopy, minimally invasive) beyond the level of expertise and independence than that expected of a senior level resident at the same institution. We feel that the Fellow's understanding of the pathophysiology and indications for surgery are equally important to case volume and therefore suggest the lower volume requirement with the expectation that weekly case discussions and didactics will better enhance the fellowship experience.

The Fellow will receive in their permanent record a set of written evaluations every 3 months to insure milestone achievement including documentation of cases performed and Fellow's primary role during those cases.

Thus milestones achieved shall include not only volume requirements, but variety and complexity of caseload weightings, such that verification of Fellow's demonstrated abilities and competence for independent practice performance reach institutional, as well as CAST stated goals.

- Eligibility

Only neurological surgeons should be included in a CAST accredited program. It was felt that only neurosurgical residents in an ACGME approved program would be eligible for the CAST accredited enfolded fellowship experience. There was substantial discussion amongst the Committee members regarding whether residents who have completed training programs in other countries should be considered eligible for participation in a CAST accredited post-graduate fellowship. At the conclusion of this discussion, it was felt that, in addition to residents who had trained in an ACGME approved program, residents who had trained in an FRCS-C accredited program should also be eligible.

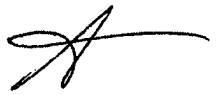
It is our hope that the aforementioned criteria and milestones represent the minimum of CAST accredited graduating Fellow achievements, and that each institution bares the onus to

effectively promote their individual strengths and competencies beyond those outlined above.

Please note that it was felt that the experiential and curricular requirements for a fellowship in peripheral nerve neurosurgery were unique and felt to be outside the scope of this request.

We look forward to further discussing the Spine Sections role in improving the quality of erudition and expertise afforded to our spine surgeons of tomorrow.

Most sincerely yours,



Adam Kanter
Chair, Fellowship Committee

John Hurlbert
Chairman, Division of Spine and Peripheral Nerves

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Joint Section on Disorders of the Spine and Peripheral Nerves

Future Sights Report

March, 2015

Current Meeting:
2015: JW Marriott Desert Ridge, Phoenix, Arizona - March 4-7. 2015

Currently Contracted:

2016: Loews Royal Pacific Resort at Universal Studios - March 16-19, 2016
2018: Loews Royal Pacific Resort at Universal Studios - March 14-17, 2018

Currently exploring options for the 2017/2019 meetings. The list so far includes:

San Diego
Town & Country Resort
Manchester Grand Hyatt San Diego
Hilton San Diego Bayfront Hotel
Phoenix
Westin Kierland Resort & Spa
Arizona Grand Resort & Spa
Arizona Biltmore Resort & Spa
The Phoenician
Fairmont Scottsdale Princess
JW Marriott Resort Desert Ridge
San Antonio
San Antonio Marriott Riverwalk
San Antonio Marriott Rivercenter
JW Marriott San Antonio Hill Country Resort & Spa

I plan to tour the Phoenix sites with CNS Staff during the Section Meeting.

If you have any additional ideas. please send them to me at: cwolfla@mcw.edu

Sincerely, Chris Wolfla MD

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AANS/CNS Joint Section on DSPN Guidelines for the Management of Traumatic Thoracic and Lumbar Spine Fractures

Possible Root Search Terms:
Spine Terms: Lumbar vertebrae (Mesh term), Thoracic vertebrae (Mesh term), Thoracolumbar vertebrae, Lumbar spine, Thoracic spine, Thoracolumbar spine, TL, thoraco-lumbar spine, thoraco-lumbar vertebrae
Injury Terms: Spinal injuries (Mesh term, right above Spinal fractures (Mesh)); Spinal fractures (Mesh term); Fractures, Compression (Mesh term); Fractures, Closed (Mesh term); Fractures, Open (Mesh term); Spinal Cord injuries (Mesh term), Spinal Cord Compression (Mesh term); Spinal injur*, Spinal cord injur*, spinal trauma*, spinal cord trauma*, spinal fractures, thoracolumbar injur*, thoracolumbar fracture*, thoracolumbar trauma, thoracic fracture*, lumbar fracture*

Chapter #	Chapter Title	PICO-questions	Suggested Search Terms
1	Introduction and methodology	Modification of NASS Methodology	N/A
2	Classification of thoracic and lumbar spine fractures	Are there classification systems for fractures of the thoracic and lumbar spine that have been shown to be internally valid and reliable? [i.e., do these instruments provide consistent information between different care providers?] In treating patients with thoracic and lumbar fractures, does employing a formally tested classification system for treatment decision-making affect clinical outcomes?	Morphologic, anatomic, load sharing (or load-sharing), mechanistic classification Tsou (2006), Thoracolumbar Injury Classification and Severity Score (TLICS), Thoracolumbar Injury Severity Score (TLISS) (2005), Meyer Universal Spine Fracture Classification (2000), AO thoracolumbar system/Magerl (1994), McCormack (1994), Ferguson and Allen Classification of Thoracolumbar Fractures (1984), McAfee (1983), Denis (1983), Kelly and Whitesides (1968), Holdsworth (1962), Nicholl (1949), Chance (1948), Watson-Jones (1938), Bohler (1930) Injury Severity Score [Mesh], Trauma Severity Indices [Mesh], /classification subheading, e.g. Spinal Fractures/classification [Mesh]

Chapter #	Chapter Title	PICO-questions	Suggested Search Terms
3	Radiologic evaluation of traumatic thoracic and lumbar fractures	For patients with thoracic and lumbar fractures, does the use of magnetic resonance imaging to identify ligamentous integrity predict the need for surgical intervention? Are there any radiologic findings (e.g., intramedullary signal changes on MRI, presence of intramedullary hematoma) in patients with thoracic and lumbar fractures that can assist in predicting clinical outcomes?	magnetic resonance imaging [Mesh], MRI, "magnetic resonance imaging"; Tomography, X-Ray Computed [Mesh], CT scan, CT, "computed tomography," x-ray CT MeSH terms: Prognosis, Treatment outcome is right below; Predictive value of tests Non-Mesh terms: imaging, radiograph*, x-ray, x-rays ?? Positron-emission tomography [Mesh], PET, PET scan; myelography; Tomography, Emission-Computed, Single-Photon [Mesh], SPECT, "dynamic contrast imaging"
4	Assessment of neurological impairment following traumatic thoracic and lumbar spine injuries	Which neurological assessment tools have demonstrated internal reliability and validity in the management of patients with thoracic and lumbar fractures? [i.e., do these instruments provide consistent information between different care providers?] Are there any clinical findings (e.g., presenting neurological grade/function) in patients with thoracic and lumbar fractures that can assist in predicting clinical outcomes?	Trauma Severity Indices [Mesh] Neurologic examination [Mesh] "neurological assessment" MeSH terms: Prognosis, Treatment outcome is right below; Predictive value of tests Frankel grading for spinal cord injury, American Spinal Injury Association scale

Chapter #	Chapter Title	PICO-questions	Suggested Search Terms
5	Pharmacological treatment of acute traumatic thoracic and lumbar spinal cord injury	Does the administration of a specific pharmacological agent (e.g., methylprednisolone) improve clinical outcomes in patients with thoracic and lumbar fractures and spinal cord injury?	Methylprednisolone [Mesh], Metipred, 6-Methylprednisolone, Urbason, Medrol
6	Management of arterial blood pressure in patients with traumatic thoracic and lumbar fractures	Does the active maintenance of arterial blood pressure after injury affect clinical outcomes in patients with thoracic and lumbar fractures?	Arterial Pressure [Mesh], “arterial blood pressure”; Blood Pressure [Mesh], “blood pressure”

Chapter #	Chapter Title	PICO-questions	Suggested Search Terms
7	Prophylaxis and treatment of thromboembolic events following traumatic thoracic and lumbar spine fractures	Does routine screening for deep venous thrombosis prevent pulmonary embolism (or venous thromboembolism-associated morbidity and mortality) in patients with thoracic and lumbar fractures? For patients with thoracic and lumbar fractures, is one regimen of VTE prophylaxis superior to others with respect to prevention of PE (or VTE-associated morbidity and mortality)? Is there a specific treatment regimen for documented VTE that provides fewer complications than other treatments in patients with thoracic and lumbar fractures?	VTE/DVT terms: Venous Thrombosis[Mesh], Thrombophlebitis[Mesh], Venous Thromboembolism[Mesh], dvt, vte, thrombos*, thrombophleb*, thromboembol*, Pulmonary embolism[Mesh], (pulmonary OR lung OR lungs) AND (infarct* OR embol* OR clot OR clots OR bloodclot*) thromboprophyla*, chemoprophyla*, Anticoagulants[Mesh], anticoagul*, fibrinolytic agents[Mesh], antithrombo*, antiplatelet*, anti-platelet*, platelet aggregation inhibitors[Mesh], heparin[Mesh], enoxaparin, lovenox, plavix, Coumadin, clopidogrel, warfarin[Mesh], fragmin, dalteparin, innohep, tinzaparin, arixtra, fondaparinux, "factor Xa inhibitor", angiomax[tiab], ivalirudin, refludan, aspirin[Mesh], lepirudin, iprivask, desirudin, pradaxa, dabigatran, dabigatran etexilate, xarelto, rivaroxaban, YM150, LY517717, apixaban Vena cava filters[Mesh], stockings, compression[Mesh], Intermittent Pneumatic Compression Devices[Mesh], foot pump, pneumatic, compression
8	Non-operative treatment for patients presenting with traumatic thoracic and lumbar spine fractures	Does the use of external bracing improve outcomes for neurologically intact patients with thoracic and lumbar burst fractures?	Orthotic devices [Mesh], Braces [Mesh], brace*, “back brace(s)”, orthosis, orthoses, orthotic* Jewett brace, hyperextension cast or brace, Thoracic-Lumbar-Sacral Orthosis(es), thoracolumbosacral orthoses, TLSO Conservative, non-operative treatment, nonoperative treatment, non-operative management, nonoperative management, Non-operat* OR nonoperat*, Non-surg* OR nonsurg*

Chapter #	Chapter Title	PICO-questions	Suggested Search Terms
9	Operative versus non-operative treatment for traumatic thoracic and lumbar spine fractures	Does the surgical treatment of *burst* fractures of the thoracic and lumbar spine improve clinical outcomes compared to non-operative treatment? Does the surgical treatment of *non-burst* fractures of the thoracic and lumbar spine improve clinical outcomes compared to non-operative treatment?	Arthrodesis [Mesh] (right above Spinal fusion [Mesh]), Fracture Fixation [Mesh] (right above Fracture fixation, internal [Mesh]), Decompression, surgical [Mesh] Spondylodesis, Spondylodeses, Spondylosyndesis, Spondylosyndeses ??Vertebroplasty, Kyphoplasty or balloon kyphoplasty, Laminectomy, Discectomy
10	Timing of surgical intervention for traumatic thoracic and lumbar spine fractures	Does early surgical intervention improve outcomes for patients with thoracic and lumbar fractures?	All chapter 9 surgical treatment terminology will be used here Time Factors [Mesh], "Timing", " early", earli* "early intervention", "late", "later"
11	Surgical approaches for the management of traumatic thoracic and lumbar fractures	Does the choice of surgical approach (i.e., anterior, posterior or both) improve clinical outcomes in patients with thoracic and lumbar fractures?	All chapter 9 surgical treatment terminology will be used here as well as the terms listed below: Anterior transthoracic Anterior thoracoabdominal Circumferential Posterior Percutaneous Please provide any additional synonyms. Unstable? Not intact?

Chapter #	Chapter Title	PICO-questions	Suggested Search Terms
12	Specific surgical strategies for traumatic thoracic and lumbar spine fractures	Does the addition of arthrodesis to instrumented fixation improve outcomes in patients with thoracic and lumbar fractures? Does the use of minimally invasive techniques (including percutaneous instrumentation) compared to conventional open techniques affect outcomes in patients undergoing surgery for thoracic and lumbar fractures?	Surgical Procedures, Minimally Invasive [Mesh], "minimally invasive"

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Spine Section Membership Committee Report – EC Meeting, March 4, 2015, Phoenix

Kurt Eichholz, MD

Membership numbers for the past four years:

SPINE SECTION MEMBERSHIP STATISTICS						
Class	**2015 Dues**	**2015 (January)**	**2014 (January)**	**2013**	**2012**	**2011**
ACTIVE MEMBER	$ 100.00	916	921	955	978	952
ASSOCIATE	$ 100.00	8	8	8	8	9
ADJUNCT	$ 100.00	13	14	123	14	17
LIFETIME	$0.00	300	306	311	284	N/A
INTERNATIONAL	$ 100.00	42	47	47	45	40
HONORARY	$0.00	1	1	1	1	N/A
RESIDENT/FELLOW	$0.00	1540	1,525	752	570	135

2014 Membership Numbers
Active – 46
Adjunct – 1
International - 7
International Resident – 8
Resignations – 4
Active to Lifetime – 7
Deceased – 4
Two years drop - 14

2015 Membership numbers (thus far)
Active – 11
International – 2
Medical students - 2
Resignations – 2
Active to Lifetime – 4

Comparison of membership dues and numbers of the other sections over the past 4 years:

$100	2014	2013	2012	2011
Spine active	947	955	978	952
Spine Associate	8	8	8	9
Spine Adjunct	15	13	12	13
Spine Lifetime	306	311	284	n/a
Spine Int'l	47	47	45	40
Spine Honorary	1	1	1	n/a
Spine Resident/fellow	1527	752	570	135

$100	2014	2013	2012	2011
CV Active	399	398	389	353
CV Adjunct	46	45	45	37
CV Lifetime	99	101	99	98
CV Intern'l	57	54	53	53
CV Resident/Fellow	1561	1701	1846	1384

$75	2014	2013	2012	2011
Pain Active	124	125	123	127
Pain Associate	16	16	17	n/a
Pain int'l	24	24	23	n/a
Pain resident/fellow	1433	1449	n/a	n/a
Pain Senior				

$100	2014	2013	2012	2011
Ped Active	328	323	310	282
Ped Associate	10	8	8	3
Ped lifetime	70	71	69	n/a
Ped Int'l	27	27	26	22
Pain Resident/fellow	49	51	70	n/a

$75	2014	2013	2012	2011
Trauma Active	573	582	582	579
Trauma Adjunct	4	4	3	n/a
Trauma Associate	14	14	14	n/a
Trauma Lifetime	212	218	215	n/a
Trauma Int'l	77	76	76	n/a
Trauma Resident/fellow	1540	1678	1781	n/a

$150	2014	2013	2012	2011
Tumor Active	539	581	567	577
Tumor Associate	68	72	72	n/a
Tumor Adjunct	24	27	24	26
Tumor Int'l	63	69	62	58
Tumor honorary	20	20	20	n/a
Tumor resident/fellow	1561	1693	1851	n/a

$65	2014	2013	2012	2011
History Active	49	51	50	48
History Lifetime	32	32	33	n/a
History Int'l	8	8	6	n/a
History Resident/Fell	6	5	10	n/a

$100	2014	2013	2012	2011
WINS Active	123	123	107	91
WINS Associate	2	2	2	2
WINS Lifetime	2	2	n/a	n/a
WINS Int'l	12	8	8	n/a
WINS Honorary	1	1	1	n/a
WINS Affiliate	3	3	2	n/a
WINS Medical student	40	41	23	n/a
WINS Resident/fellow	280	233	n/a	n/a

Notes:

- Dues currently $100 since 2013
- Continuing support for membership coordinator Karen Yoshikawa in AANS office
- Send out about 200 letters every spring to graduating residents encouraging them to join Spine Section once they are member of a parent organization
- Membership Categories now match AANS/CNS
    - Active
    - Associate
    - Honorary
    - International
    - Adjunct
    - Resident
    - Senior
    - Medical Student

Thanks,

Kurt

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Peripheral Nerve Division: L Yang, L Jacques

Topic 1: The Peripheral Nerve Division continues to present the Kline Symposium (inclusive of Research Award and Lectureship) that occurs annually at the AANS Meeting via the generous yearly support from corporate contributions (e.g. Integra, Checkpoint). For the 2015 Research Award, $10,000 will be awarded to Stepan Capek, MD (Mayo) at the 2015 DSPN Annual meeting. At the 2015 AANS Annual Meeting, the Kline Symposium will occur on May 5: the Kline Lecturer will be Dr. Thomas Brushart (Johns Hopkins) and the 2014 Kline research awardee, Yuval Shapira, MD, (Calgary) will be presenting his research results.

Topic 2: With regard to finances to support the Kline Symposium, the AANS management office has made yet more interim changes to the balance sheet. Therefore, we (Yang supported by Chi, Kuntz) will propose (for EC review) a one-time adjustment of $5000 from the DSPN to cover the cost of the 2015 Kline Symposium expenses. Once this is approved, the balance sheet will be in the black, and it will be used as the baseline for future credits or debits. For 2016, we will be asking for our contributors to deposit the checks by August 2015, prior to the advertising of the Kline research award.

Other fundraising efforts have focused upon other corporate contributions (e.g Checkpoint) to support the Kline Symposium and upon NREF contributions earmarked for PN educational activities -- with slow but steady progress.

Topic 3: Newsletter– Dr. Jacques upon request from Drs. Ratliff and Sansur has contributed informationto the DSPN newsletter to keep the PN membership informed of the Kline awardees, lecturers, future meetings, etc. Efforts/ideas are being floated for contributions to the website.

Topic 4: PN Division members continue to have a significant presence in other peripheral nerve organizations (e.g. Sunderland, ASPN, etc.) as well as an organized representation on AANS/CNS committees with the encouragement of more participation from young neurosurgeons. Ex-officio roles for the PN Division Chair (Yang) and Secretary/Treasurer (Jacques) continue until the end of their terms in April 2016.

- CNS 2015 SPC: Yang, Jacques
- CNS Education: Ray
- AANS 2015: Spinner, Yang, Gilmer
- DSPN: Yang, Jacques
- ASPN: Yang to be SPC 2016
- SANS: Hanna, Jacques
- MOC: Mankier

- Medico-legal: Winfree
- Coding: Winfree, Filler

Topic 5: Drs. Spinner and Filler continue to work on guidelines for PN disorders within the DSPN/CNS structure. Additionally, Drs. Spinner and Ray are working with AAOS for the next revision of the carpal tunnel guidelines.

Respectfully submitted,
Lynda Yang

Return to Agenda

Washington Update
December 2014

OMNIBUS SPENDING PACKAGE

Congress passed H.R. 83, the "Consolidated and Further Continuing Appropriations Act, 2015" (aka "Cromnibus") on its way out the door for the holidays. President Obama signed the bill into law on Dec. 16, 2014. The bill will fund most of the federal government through Sept. 2014. It only funds the Department of Homeland Security through Feb. 27, 2015. Some key health-care related provisions include:

- **Elimination of 10- and 90-Day Surgical Codes** – The bill includes report language expressing concern that CMS has not provided adequate opportunity for public comment on changes to surgical procedures described in the annual Medicare Physician Fee Schedule (MPFS) final rules. It also expresses concern that the appropriate methodology has not been tested to ensure that patient care and patient access are not impacted negatively, and that undue administrative burdens are not placed on providers. Further, the report language urges that additional consideration be given to these changes prior to implementation of the changes outlined in the MPFS. ***The AANS and CNS were instrumental in getting this language included in the bill.***

- **National Institutes of Health (NIH)** – The bill provides $30.3 billion, an increase of $150 million in base funding and $238 million in Ebola-related research.

- **Centers for Medicare & Medicaid Services (CMS)** – The legislation includes $3.6 billion for CMS management and operations, the same as the FY 2014 enacted level.

- **Prevention and Public Health Fund** – The bill prohibits the Prevention and Public Health Fund from being used as a "slush fund" to pay for other provisions of the Affordable Care Act.

- **Public Access to Federally Funded Research** – Each federal agency or bureau funded under this act that has research and development expenditures in excess of $100 million per year shall develop a federal research public access policy that provides for:

  (1) the submission to the agency, a machine-readable version of the author's final peer-reviewed manuscripts that have been accepted for publication in peer-reviewed journals describing research supported, in whole or in part, from funding by the federal government;
  (2) free online public access to such final peer-reviewed manuscripts or published versions not later than 12 months after the official date of publication; and
  (3) compliance with all relevant copyright laws.

- **Data Availability** – The bill directs that within 90 days after enactment, the NIH Director should submit a report that assures the Committees on Appropriations that all journals supported with NIH resources are consistent with the February 2013 memorandum from the Director of the Office of Science and Technology Policy in the White House, which states that data sets used in publications supported by government grants should be made available to the public where possible. The NIH is expected to take immediate actionable steps to ensure all data from NIH-supported journals is available and reproducible.

- **Prescription Drug Abuse and Prevention** – To combat prescription drug abuse around the country, the bill provides $20 million in increased funding for prescription drug abuse prevention within the CDC and a $12 million increase for state grants within the Substance Abuse and Mental Health Services Administration (SAMHSA) to expand treatment services for opioid or

- heroin dependence. The CDC is directed to fund this initiative through cooperative agreements that target states that contribute significantly to the national burden of prescription drug overdose morbidity and mortality. The bill also dictates that that funding to states should address data issues, improve data standards and address the ability to share data across state lines and nationally to improve prescription drug overdose prevention activities. Funds are also expected to support activities with states to establish or expand prescription drug monitoring databases of physicians writing prescriptions for opiates and pharmacists filling prescriptions.

- **Opioid Treatment Education and Training Programs** – To address the ongoing opioid crisis, SAMHSA is directed to update all of its professional education and training programs for opioid treatment programs (OTPs), office-based opioid treatment programs (OBOTs) and other addiction treatment settings, such that evidence-based innovations in counseling, recovery support, and abstinence-based relapse prevention medication-assisted treatments are fully incorporated.

- **Recovery Audit Contractors (RACs)** – The bill includes language recognizing that RAC audits can reduce patient access to care and jeopardize the economic viability of critical health care providers. The bill directs CMS to educate providers on how to: reduce errors, develop procedures to reduce the Office of Medicare Hearings and Appeals (OMHA) backlog, and establish a process that provides educational feedback from the OMHA to CMS and RAC contractors to reduce the identification of claims that are likely to be overturned once elevated to the OMHA.

- **Office of the National Coordinator for Health Information Technology (ONC)** – The bill urges the ONC to use its authority to certify only those products that clearly meet current meaningful use program standards and that do not block health information exchange. The ONC is directed to take steps to decertify products that proactively block the sharing of information.

- **Health IT Policy Committee** – The bill directs the Health IT Policy Committee to submit a report to the House and Senate Committees on Appropriations and the appropriate authorizing committees no later than 12 months after enactment of this act regarding the challenges and barriers to interoperability. The report should cover the technical, operational and financial barriers to interoperability, the role of certification in advancing or hindering interoperability across various providers, and any other barriers identified by the Policy Committee.

- **Independent Payment Advisory Board (IPAB)** – The bill cuts IPAB funding by $10 million.

- **Children's Hospitals Graduate Medical Education (CHGME)** – The bill includes $265 million for CHGME, the same level as in FY 2014. The bill rejects the elimination of this program proposed by the Administration.

HEALTHCARE REFORM

Congressional Activities

The AANS and CNS continue to pursue efforts to “reform the reform”. Neurosurgery’s priority issues:

- **Repeal/Modification**
  - Independent Payment Advisory Board (IPAB)
  - PQRS penalties; Value-based purchasing modifier
  - Public reporting of physician performance data
  - Repeal of the medical device tax

- **Implementation**
  - Funding for pediatric specialist loan forgiveness
  - Funding for emergency care regionalization projects and trauma-EMS program

- **Additional Legislation**
  - SGR reform, including Medicare private contracting
  - Medical liability reform
  - Eliminating GME funding caps (and preserving current GME Medicare funding)

Congress failed to address any of these items in the waning hours of the 113th Congress and we will need to start fresh in January when the new Congress convenes.

Regulatory Activities

The Obama Administration continues to issue implementing regulations, including those related to Medicaid expansion, health insurance exchanges, insurance market and rate rules, and others. For more information about the overview of the law and the implementation timeline go to: http://bit.ly/18VYVzi and http://bit.ly/14w3Dgj. To view a premium calculator, go to: http://bit.ly/1935Gjo.

Enrollment for 2nd Year Begins

Preliminary estimates suggested that enrollment rates for 2015 will exceed those in 2014, despite a shorter enrollment period. Enrollment may increase perhaps in part because of auto-enrollment opportunities, but also because the penalties for failing to obtain insurance will significantly increase. But premiums will, for the most part, continue to rise—although to what degree depends on the type of plan selected and the state in which one lives.

Public Opinion Plummets

Public opinion about the ACA continues to deteriorate. Approximately 51 percent of the country views the ACA unfavorably and 57 percent of the public disapproves of President Obama's handling of health care.

Ongoing Challenges

A number of ongoing challenges that merit monitoring loom as implementation of the ACA moves forward. These include: Narrow networks; continued increases in premiums in 2015; employers dumping employees into exchanges; state exchanges folding; enrollees going to federal exchange; *King vs. Burwell* -- court case challenging premium subsidies for individuals in federal exchanges; millions still lack insurance:

Judicial Activities

Boehner Lawsuit

On Nov. 21, 2014, the U.S. House of Representatives filed a lawsuit against the Obama Administration. The lawsuit asks a federal court to invalidate two actions by President Obama that the House claims violate the Affordable Care Act and encroach on powers the Constitution reserves to the legislative branch. *U.S. House of Representatives v. Burwell* claims the president cannot issue "cost-sharing subsidies" in *any* state, because Congress never appropriated funds for those subsidies. The lawsuit also claims the president violated the law by unilaterally delaying the obligations that the ACA imposes on employers by delaying the onset of the employer mandate past the date specified in the statute.

King v. Burwell

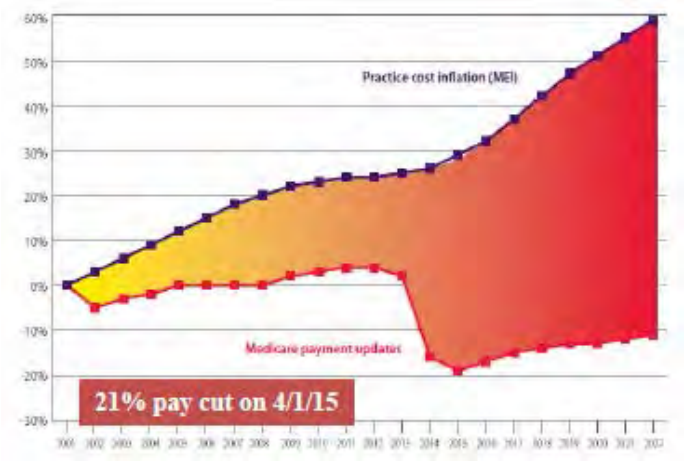
This one of several lawsuits challenging the legality IRS regulations allowing federal premium subsidies for individuals in both state and federal exchanges, despite the fact that the text of the Affordable Care Act clearly only allows subsidies for state-run exchanges. On Nov. 7, 2014, the Supreme Court agreed to hear the case (despite the fact that there is no split among the circuit courts of appeal). Oral arguments are expected to be held in March 2015. If the challenge is successful, approximately 5 million Americans who obtained coverage through federal exchanges could lose their tax subsidies and, in all likelihood, their health insurance coverage.

IPAB Lawsuit

Several years ago, the Goldwater Institute filed a lawsuit (*Coons v. Lew (originally Geithner)*) challenging, among other things, the constitutionality of the IPAB on separation-of-powers grounds. The 9th Circuit Court of Appeals recently dismissed the lawsuit, ruling that it was not ripe for decision. An appeal to the U.S. Supreme Court may be forthcoming.

MEDICARE PHYSICIAN PAYMENT

Every year for more than a decade, physicians have faced a significant Medicare payment cut -- the result of a flawed sustainable growth rate (SGR) formula. Now, once again, physicians face an SGR-driven pay cut of approximately 21 percent effective April 1, 2015. In addition to the SGR-related cuts, physicians face and additional 2 percent budget sequestration cut per year for the next decade.



As if these cuts weren't bad enough, physicians also face a host of penalties stemming from the Affordable Care Act (ACA), including those related to PQRS, eRx, EHR, IPAB and others. Under a worst case scenario situation, neurosurgeons could face cuts in excess of 85-90 percent over the next decade.

Congress failed to act on the "SGR Repeal and Medicare Payment Modernization Act" (S. 2000/H.R. 4015) is pending. This bi-partisan/bi-cameral bill would have repealed the SGR and replaced it with a new streamlined value-based incentive payment system called the Merit-Based Incentive Payment System, or MIPS. The major provisions were as follows:

Stabilizes Fee Updates

- Repeals the SGR
- Annual positive updates of 0.5% 2014-18
- Freezes payments from 2019-23
- 2024 and beyond:
  - MDs in APMs will receive a 1.0% annual pay increase
  - All will receive a 0.5% base pay increase

Consolidates Medicare Quality Programs

- New Merit-Based Incentive Payment System program
  - Eliminates PQRS, EHR and VBPM penalties in 2018
  - MDs receive bonuses/penalties based on composite score (0-100 scale).
- Maximum bonuses/penalties:
  - 4.0% in 2018
  - 5.0% in 2019
  - 7.0% in 2020
  - 9.0% in 2021 and beyond
- Additional bonus $ ($500m/yr.) for top performers

- MDs can opt-out to participate in APMs (e.g., ACOs)
- Participation in clinical data registries, MOC programs & other clinical improvement activities recognized and specialty societies will be tapped to develop quality metrics

As a temporary measure, in March Congress passed H.R. 4302, the Protecting Access to Medicare Act. Among other things, this bill prevented the SGR pay cut until April 1, 2015 and delayed the implementation of ICD-10 until at least Oct. 1, 2015. Unfortunately, the bill also requires cuts totaling $4 billion between 2017-20 from so called "misvalued" procedures.

Prior to adjourning, Congress passed the Achieving a Better Life Experience (ABLE) Act. The bill would allow people with disabilities to create special savings accounts to pay for education, housing and other needs without jeopardizing government benefits under programs like Social Security or Medicaid. To pay for the bill, Congress revised the misvalued procedures section, imposing a 1.0 percent redistribution target in 2016, followed by 0.5 percent targets in 2017 and 2018. This provision would generate $365 million in savings.

Medicine will need to regroup once Congress reconvenes to move SGR repeal/replace legislation forward quickly. Conventional wisdom is that if the bill does not pass in the first quarter, it is not likely to happen for another two years or more.

CODING AND REIMBURSEMENT

Administrative Issues

Following the October CNS Annual Meeting, the Coding and Reimbursement Committee experienced a change in leadership as follows:

Former	New
R. Patrick Jacob, MD, Chair	Joseph S. Cheng, MD
N/A	G. Edward Vates, MD, Vice-chair RUC
N/A	Henry H. Woo, MD, Vice-chair CPT
N/A	Charles Sansur, MD, Vice-chair Coverage

Medicare Physician Fee Schedule

2015 Medicare Physician Fee Schedule Final Rule

On October 31, 2014, the Centers for Medicare & Medicaid Services (CMS) released the 2015 Medicare Physician Fee Schedule (MPFS) Final Rule. Overall, the non-quality related payment changes result in a net 1.0% increase in payments to neurosurgeons for 2015 provided Congress acts to prevent a 21 percent cut in the sustainable growth rate (SGR) formula by next March 31, 2015.

Most significantly, CMS announced its intention to finalize a far-reaching plan to transition all global surgery services to 0-day global periods, beginning with 10-day global services in 2017 and following with 90-day global service in 2018. CMS will provide additional details in its proposed 2016 Medicare Physician Fee Schedule rule, which it will release in July 2015. This initiative is likely to result in substantial reductions in surgical fees.

Other provisions of interest include changes to the schedule for implementing values for new and revalued codes. CMS will include new values in the proposed rule released annually in July, rather than waiting until the final rule, which is typically released on or before November 1. The AANS and CNS supported this change, which will allow additional time for review and comment. For 2016, CMS will strive to include as many codes as possible in the proposed rule, with full implementation of the new policy in 2017. A copy of the September 1, 2014, letter from AANS and CNS commenting on the proposed rule is available at: http://bit.ly/1v4cG8T. A side-by-side chart, which compares the AANS and

CNS comments and final provisions of the 2015 MPFS final rule is available at: http://bit.ly/1w4wawn. The final rule notice is available at: http://1.usa.gov/1xK8efP

Elimination of Global Surgery Package

The elimination of the 10- and 90-day global surgical payments will have a significant impact on neurosurgery. Based on our own back-of-the-envelope calculations, ***this change will likely result in significant payment cut to surgeons— a minimum of 25 percent***. Without taking into account likely reductions in the practice and malpractice expense RVUs, some estimated impacts are as follows:

CPT Code	Code Description	wRVU	wRVU no E&M	LOS	OV	Total NS (millions)	2014 Facility	2014 – E&M
63047	Lumbar lami	15.37	9.05	3	3	$44.6	$1132	$904.08
22551	ACDF	25.00	19.42	2	3	$37.8	$1758.54	$1558.65
22633	Comb PLIF/post fuse	27.75	18.17	4	3	$27.1	$1893.59	$1550.41
22612	Post Lum Fuse	23.53	15.80	4	3	$25.9	$1636.39	$1359.48
61312	Crani for extra hem	30.17	14.83	12	2	$18.6	$2132.17	$1582.65
63030	Lumbar hemilam, disc	13.18	7.47	3	3	$16.7	$995.87	$791.33
61510	Crani tumor supra	30.83	19.85	7	4	$16.0	$2240.72	$1847.38
61154	Burr holes for SDH	17.07	7.06	7	3	$7.6	$1301.44	$942.86
61697	Crani for comp aneurysm	63.40	36.54	17	3	$3.8	$4327.04	$3364.84
61512	Crani mening supra	37.14	27.13	7	3	$6.5	$2613.63	$2255.05
20661	Application halo	5.26	0.92 (-0.18)	2.5	4	$0.2	$513.34	$357.87

The AANS and CNS, along with numerous other organizations (American College of Surgeons, surgical societies, AMA, AARP, and health plans) opposed this proposal in our comments letters to CMS. Since proposed in the fee schedule, the AANS and CNS embarked on an aggressive lobbying campaign to enlist the help of members of Congress to write to CMS urging them to abandon this proposal, and this effort resulted in a letter signed by 27 members of Congress.

Despite these efforts, CMS nevertheless finalized the global policy in the 2015 Medicare Physician Fee Schedule Rule. Absent Congressional action or a change of heart (or presidential administration), CMS plans to eliminate the 10-day global package and revalue all these codes by 2017. The agency will do the same for the 90-day global codes for implementation in 2018. Based on a recent CBO analysis, this will likely shift $700 million out of the surgery pot of money in Medicare.

Following the publication of the final Medicare Physician Fee Schedule Rule, a number of the surgical societies, including neurosurgery, regrouped to plot a plan of action for the remainder of the year. With very few legislative vehicles available, we set our sights on getting support from key members of Congress to serve as champions on our behalf. Our ultimate goal was to have Congress pass legislation

that would rescind CMS' proposal, but we were also amenable to other approaches, including a one-year delay and report language expressing Congress' concern about the roll-out of this plan and calling on CMS to make sure the new methodology is tested to ensure that it has no negative impact on patient care, among other things. We sent a letter to key Congressional leadership with our request, and our Congressional champions worked hard on our behalf. Our effort broadened beyond the surgical groups, and included the osteopaths, some internal medicine subspecialties, and significant assistance from the AMA.

Unfortunately, at the last minute, the Congressional Budget Office determined that this provision would cost the federal government $700 million and that price tag was simply too steep and the provision was killed. It is unclear how a proposal to shift money around in a budget neutral pie could cost the government that much money and this remains a mystery that we have yet to solve. Regardless, the price tag doomed our effort.

All was not lost, however, and we were nevertheless able to get the following report language included in the year-end spending bill:

> Physician Fee Schedule.-The agreement is concerned that CMS has not provided adequate opportunity for public comment on changes to surgical procedures described in the annual Medicare Physician Fee Schedule (MPFS) final rules, and is concerned appropriate methodology has not been tested to ensure no negative impact on patient care, patient access, and undue administrative burdens are not placed on providers and CMS. The agreement believes additional consideration should be given to these changes prior to implementation of changes outlined in the MPFS.

This doesn't have the force of law, but merely expresses concerns raised by Congress. It does, however, provide us with some leverage as we continue to work with CMS in developing new global codes values. We are also not giving up in our quest to have legislation passed to overturn this policy and will work to accomplish that sometime in 2015. Congress will have to deal with the looming 21% SGR-related pay cut before the end of March, so that provides us with an opportunity to deal with this fairly early in the legislative calendar.

In addition to legislation, we will need to work out a strategy for the RUC, which is looking at ways to value these codes in the future. Additionally, it will be critical to coalesce around a proposed methodology should CMS move forward to implement the policy.

CPT Issues

October 2014 CPT Editorial Panel Meeting

The CPT Panel met Oct. 8 through 11, 2014. Of interest to neurosurgeons were two workgroups and a new code proposal:

- **CPT Spinal Issue Workgroup.** The workgroup was formed in April 2014 as a result of questions arising from consideration of a new code change application for Transforaminal Endoscopic Discectomy. The panel asked the workgroup to review the definition of open, endoscopic, and percutaneous spine procedures, and propose coding changes, if necessary. After many meetings and conference calls, the group has come to agreement on definitions which will be presented to the CPT panel at its February 2015 meeting.

- **CPT Literature Review Workgroup.** The workgroup presented information for discussion to the editorial panel regarding issues surrounding the publications submitted to support CPT Code Change Proposals. Following receipt of panel feedback, the workgroup is in the process of refining its recommendation for further review at the Feb. 2015 panel meeting.

- **Intracranial Lysis and Embolectomy Codes.** CPT Advisors and staff from the AANS, CNS, and the Society of Interventional Radiology (SIR) met with CPT panel reviewers regarding a code change proposal for new codes for Intracranial Lysis and Embolectomy procedures. The societies have resubmitted the proposal for consideration at the Feb. 2015 meeting with additional literature

including article regarding the Multicenter Randomized Clinical trial of Endovascular Treatment for Acute Ischemic Stroke (MR CLEAN) showing benefits of endovascular treatment in patients with stroke. In addition to the AANS, CNS, and SIR, the American Society of Neuroradiology (ASNR) and the Society of Neurointerventional Surgery (SNIS) have co-sponsored the proposal.

ICD-10 Codes for Stroke

On Oct. 30, 2014, the AANS, CNS, and AANS/CNS Cerebrovascular Section sent a letter of support regarding the creation of new ICD-10-CM codes that capture the initial National Institutes of Health Stroke Scale (NIHSS).

RUC Issues

The AMA/Specialty Society Relative Value Update Committee (RUC) will meet September 18 through 21, 2014. The following issues of interest to neurosurgeons will be considered:

Codes Presented to RUC Relativity Assessment Workgroup (RAW)

The RUC has identified codes reviewed prior to April 2008 with pre-service physician time greater than the 63 minutes allowed by the highest level in recently constructed pre-time standards and with a 2012 Medicare Utilization over 10,000. CPT Codes 22612, 63030, and 63042 came up under this screen and the AANS and CNS have joined AAOS and NASS in presenting recommendations for pre-time for these codes.

In addition, Action Plans have been submitted to the RAW for CPT Codes 22849, 63056, 22214, 22851 that were identified by the Fastest Growing Procedure Screen and for CPT Codes 64569 and 64570 which were identified by a New Technology Screen. The codes will be discussed at the September 2014 RAW meeting.

Code Presentations at September RUC Meeting

The AANS and CNS presented survey data for valuing the physician work and practice expense for the following codes:

- Laminectomy CPT Codes 63045 and 63046—the RUC agreed to maintain current values
- Open Sacroiliac Joint Fusion CPT Code 27280—the RUC agreed to increase the value
- Transcatheter Placement of Carotid Stents CPT Codes 37215 and 37216—the RUC valued the procedure below the 25 percentile of the survey

Coverage Issues

The AANS/CNS Washington Office continues to receive requests for comment on coverage policy from Medicare, private payors, state neurosurgical societies, and individual neurosurgeons. The AANS/CNS Rapid Response Team (RRT), now led by Charley Sansur, MD continues to work to improve processes to help neurosurgeons address these issues as they arise in their states.

Recent topics addressed by the RRT include:

- Extreme Lateral Interbody Fusion (XLIF)
- Neurostimulators
- Lumbar Fusion

Other Medicare Issues

2015 OPPS/ASC Proposed Rule

On Oct. 31, 2014, CMS published the 2015 Hospital Outpatient Prospective Payment (HOPPS) and Ambulatory Surgical Center (ASC) final rule. On Sept. 2, 2014, the AANS and CNS sent a letter to CMS in response to the proposed rule expressing cautious optimism that the agency has reasonably captured facility costs associated with Stereotactic Radiosurgery. We opposed the proposed comprehensive

facility payment for Deep Brain Stimulation because costs were not adequately captured. In the final rule, CMS announced its plan to continue with bundling for both SRS and DBS. A copy of the final rule is at: http://1.usa.gov/11KI9Si.

MEDCAC

The AANS and CNS nominated Joseph S. Cheng, MD for a position on the Medicare Evidence Development and Coverage Advisory Committee (MEDCAC).

ICD-10

On Aug.4, 2014, CMS released a notice formalizing the one-delay in implementation for implementing ICD-10 until Oct., 2015. Efforts are ongoing to bypass ICD-10 in favor of ICD-11.

QUALITY IMPROVEMENT

Administrative Issues

Following the October CNS Annual Meeting, the Quality Improvement Workgroup (QIW) experienced a change in leadership as follows:

Former	New
John J. Knightly, Chair	John K. Ratliff, Chair
John K. Ratliff, Vice-chair	Paul L. Penar, Vice-chair

Medicare Physician Quality Improvement System (PQRS)

2014 marks the last year that physicians are eligible for an incentive payment under the PQRS. Physicians who successfully report on measures in 2014 are eligible to receive a 0.5% bonus. Those who fail to satisfy reporting requirements in 2014 are subject to a 2.0% penalty in 2016 and going forward. 2014 is also the last year that a PQRS-MOC bonus of 0.5% is authorized under law.

As finalized in the 2015 Medicare Physician Fee Schedule final rule, CMS chose to dramatically increase reporting requirements in 2015, just as the program transitions to penalties only. Those who fail to satisfy 2015 PQRS reporting requirements will be subject to a 2% penalty in 2017. To avoid the 2017 penalty, physicians reporting individual PQRS measures must report on at least 9 measures across at least 3 National Quality Strategy (NQS) domains for 50% of applicable Medicare Part B FFS patients. New for 2015, CMS will require that at least one of the 9 measures comes from a CMS-defined set of "cross-cutting" measures.

The N^2QOD is currently considering whether to apply to become a QCDR in 2015, whether maintain its status as a PQRS qualified registry (which allows the registry to submit traditional PQRS measure data to CMS on behalf of participants rather than requiring claims-based submissions), or to pursue another strategy. In considering these options, organized neurosurgery is trying to balance a strategy that will minimize physician reporting burden, while also producing meaningful data.

For 2015, there will be a total of 255 PQRS measures and 22 measures groups. Changes to the PQRS measure set will dramatically affect a neurosurgeon's ability to participate meaningfully in the program. For 2015, CMS removed 50 measures and 6 measures groups from the PQRS, including:

- Perioperative Care: Timing of Prophylactic Parenteral Antibiotic–Ordering Physician
- Perioperative Care: Timing of Prophylactic Antibiotic—Administering Physician
- Stroke and Stroke Rehabilitation: VTE Prophylaxis for Ischemic Stroke or Intracranial Hemorrhage
- Stroke and Stroke Rehabilitation: Screening for Dysphagia

- Stroke and Stroke Rehabilitation: Rehabilitation Services Ordered
- Osteoarthritis: Assessment for Use of Anti-Inflammatory or Analgesic OTC Medications
- Epilepsy: Seizure Type(s) and Current Seizure Frequency
- Epilepsy: Documentation of Etiology of Epilepsy or Epilepsy Syndrome
- Perioperative Care Measures Group
- Back Pain Measures Group
- Ischemic Vascular Disease Measures Group

** Note: the only remaining measures group that may apply to select neurosurgeons in 2015 is the Parkinson's Measures Group, although it is more neurology-focused.*

Public Reporting: Physician Compare

The ACA required CMS to establish a Physician Compare website by Jan. 1, 2011. This website is intended to provide patients with basic data about physicians, including information about their participation status in the PQRS, e-prescribing and EHR incentive programs. Up until this point, CMS has reported only on whether physicians had satisfactorily participated in federal quality reporting program. However, starting in 2014, CMS will begin reporting performance data for select measures reported by larger group practices and ACOs. In late 2015, it will report on select measures reported by group practices of 2 or more EPs in 2014 and by late 2016, CMS plans to report on all 2015 PQRS measures reported by individuals, including QCDR measures. The AANS and CNS continue to work with the Physician Compare contractor to make improvements.

Value-Based Modifier

Under the ACA, CMS is required to apply a value-based payment modifier to select physicians starting in 2015 (based on 2013 reporting) and to all physicians starting in 2017 (based on 2015 reporting). The VBM is to be based on a composite of quality and cost of care measures, many of which are irrelevant to specialists.

Physicians in groups practices with ≥10 eligible professionals (EPs) who fail to satisfy PQRS Group Practice Reporting Option (GPRO) requirements in 2014 will be subject to a 2 percent reduction in 2016 under the VBM, which will be applied on top of PQRS penalties -- resulting in a potential total payment penalty of 4 percent in 2016. Groups that satisfy PQRS requirements will be subject to performance-based payment adjustments under CMS' "quality-tiering approach." However, groups with 10-99 EPs will be held harmless from downward adjustments in 2016.

In the 2015 MPFS proposed rule, CMS proposes to increase the VBM penalty in 2017 to 4 percent for groups with 10 or more Eps and 2 percent for smaller groups and solo practitioners.

Health Information Technology

The 2014 reporting year marks the beginning of a restructured EHR Incentive Program and other important changes. For one, ***2014 is the last opportunity for an EP to qualify for incentive*.** However, EPs who start the program in 2014 do not have to meet Stage 2 requirements until they have first met Stage 1 requirements for 2 years. Furthermore, ***EPs who are not meaningful users by the end of 2014 will be subject to a -1.0 percent penalty in 2015***. This first year penalty can increase to as high as -5.0 percent by 2019. Also in 2014, all EPs, regardless of their stage of meaningful use, must report at least 9 clinical quality measures (CQMs), out of a total of 64, covering a minimum of 3 National Quality Strategy (NQS) domains in addition to the objectives that must be satisfied.

By law, CMS has the authority to consider, on a case-by-case basis, hardship exceptions for EPs to avoid the payment adjustments. For 2014, EPs extended the submission period for hardship exception applications to avoid the 2015 Medicare payment adjustment until November 30, 2014. EPs who have never met meaningful use before may apply during this period if they were unable to fully implement 2014 Edition CEHRT due to delays in 2014 Edition CEHRT availability and could not attest by the October 1 deadline for new participants using the flexibility options in the CEHRT Flexibility Rule.

Shared Savings Program and Accountable Care Organizations

The ACA created the Medicare Shared Savings Program (MSSP), under which networks of providers known as ACOs contract to reduce health spending and meet quality targets in exchange for a share of savings that exceed certain quality and spending benchmarks. In October 2014, CMS announced that Medicare's ACO program generated over $372 million in total program savings for Medicare and that there are more than 360 Medicare ACOs operating in 47 states, serving over 5.6 million beneficiaries. Also in October, CMS announced that 4 more hospital systems dropped out of the Pioneer ACO program, leaving only 19 of the original 32 participants left to participate.

In December, CMS issued long-awaited regulations updating the rules of the MSSP. Under the regulations, neurosurgeons are permitted to affiliate with multiple ACOs, a policy supported advocated by the AANS and CNS.

Comparative Effectiveness Research

CER was considerably expanded with the passage of ACA, which established the new Patient Centers Outcomes Research Institute (PCORI). The AANS and CNS continue to participate in high-level discussions related to CER and the PCORI by commenting on their reports/proposals and through our position on the steering committee of the Partnership to Improve Patient Care (PIPC).

In October 2014, PCORI approved 46 new proposals, totaling nearly $102 million, to fund a wide range of patient-centered CER projects. With these new awards, PCORI has approved $671 million in funding for 360 patient-centered outcomes research projects since it began funding research in 2012.

Finally, PCORI invited the Council of Medical Specialty Societies (CMSS), of which neurosurgery is a member, to submit a list of the most important CER topics if feels should be studied. The AANS and CNS submitted the following list, which will be compiled with other CMSS member society recommendations and presented to PCORI:

- Effect of a mobile health postoperative patient network on post operative recovery and quality of life gains after low back surgery;
- Lumbar fusion versus Laminectomy alone for recurrent disc herniation;
- Effect of preoperative decision-support tools on surgical utilization and post operative outcomes;
- Effect of surgery vs. med management of recurrent GBM on quality of life;
- Surgery vs. conservative management of unruptured cerebral AVM;
- Quality of life gains from DBS vs. medical management for medically refractory Parkinson's disease;
- Surgical outcomes of antibiotic impregnated vs. standard shunt catheters for pediatric and adult hydrocephalus.

Registry Regulatory Burdens

In an effort to address neurosurgery's ongoing concerns regarding the Privacy and Commons Rules, and the need for further clarification on the ability to collect prospective patient data for quality improvement purposes, organized neurosurgery has been interacting with HHS' Secretary's Advisory Committee on Human Research Protections (SACHRP), the Office for Civil Rights (OCR) and Office for Human Research Protections (OHRP).

Neurosurgery recently joined the Physician Clinical Registry Coalition, which includes over 20 physician organizations that have registries to address common regulatory and legislative issues. The purpose is to work together to address common registry problems at the federal level. Given suboptimal responses from federal regulators on these, and other issues, the coalition has been very active working to get Congress to put pressure on regulators to clarify these regulations to enhance the use of registries. The coalition finally made some headway in October, largely thanks to neurosurgery, when the OHRP posted its correspondence with Tony Asher in letters dated August 11, 2011 and December 29, 2011 responding to questions about the application of 45 CFR Part 46 (i.e., the Common Rule) to the activities related to the N^2QOD. The letters were made available to the public, with a few clarifying bullet points,

with the intent of offering other stakeholders guidance. However, the OHRP still has not responded directly to the letters or clarified the original regulatory language.

The group recently met with MedPAC to educate them about the value of registries; succeeded in getting language added to a fraud and abuse bill drafted by the House Ways and Means Health Subcommittee related to the Common Rule and its application to quality registries; and conditionally supported a bill passed by the House Energy and Commerce Committee directing the Secretary to issue recommendations regarding the exchange of data between EHRs and registries and how registries can be used to evaluate models of care and to monitor the safety and efficacy of products approved by the FDA. The coalition is also investigating the topic of legal discovery of registry data, which will help frame the issue and potential legislative protections for registry data. The ABMS is also interested in pursuing such legislation.

Outside of the PCRC, but related to these efforts, Tony Asher was appointed chair of the AMA Physician Consortium for Performance Improvement (PCPI) National Quality Registry Network (NQRN) Privacy and Research Task Force. The committee will include representatives from OHRP, OCR, PCRC SACHRP and the PCORI.

NeuroPoint Alliance

The NPA has implemented a number of projects related to the collection, analysis and reporting of clinical data relevant to neurosurgical practice, including MOC, PQRS and the National Neurosurgery Quality and Outcomes Database (N^2QOD). To date, over 50 centers are participating. In addition to the lumbar and spine modules, additional plans are in the works to develop more subspecialty modules including spinal deformity, cerebrovascular, tumor, and an "essentials" module to encourage more physicians to participate in this initiative. Joining with ASTRO, the AANS launched a joint stereotactic radiosurgery registry. Other collaborative projects are in the works.

NPA leaders and Washington Office staff are working to position the NPA as a one-stop portal for purposes of MOC, PQRS and quality reporting. NPA was a PQRS approved registry for 2014 and is investigating the feasibility to apply to be a PQRS QCDR.

ABIM Choosing Wisely Campaign

In an effort to address overuse of testing, the American Board of Internal Medicine Foundation (ABIMF) launched the *Choosing Wisely* campaign in the spring of 2012. *Choosing Wisely* is part of a multiyear effort to help physicians be better stewards of finite health care resources. The AANS and CNS were invited to participate in this campaign and, following input from Section leaders, finalized a list that was approved by the ABIMF in May 2014. *Consumer Reports* is in the process of converting recommendations 4 and 5 (regarding stroke) into more consumer friendly summary documents. The AANS/CNS Cerebrovascular Section is collaborating on this project.

Quality Improvement Organizations

The AANS and CNS continue to actively participate in a number of quality improvement organizations, including the Physician Consortium for Performance Improvement (PCPI), Surgical Quality Alliance (SQA), and National Quality Forum (NQF).

Joint Commission Stroke Certification

Despite regular calls over the summer/fall, the Joint Commission continues to delay implementation of new standards for Comprehensive Stroke Centers that incorporate our recommended volume requirements of 10 clip/20 coil and 35 SAH cases annually. Members of the Cerebrovascular Coalition (other than the SVIN) sent yet another letter to the JC expressing our disappointment with the process. Following a Dec. 3 conference call with the JC, the CVC agreed to put forward a multi-tiered approach that will recognized primary and comprehensive stroke centers, but also a system for recognizing those capable of treating ischemic stroke, even if they do not meet a more rigorous comprehensive stroke center definition. All members of the CVC, including the SVIN, support this approach. A more formal proposal will be put forward to the JC in early 2015.

GUIDELINES

Administrative Issues

Following the October CNS Annual Meeting, the Joint Guidelines Committee (JGC) experienced a change in leadership as follows:

Former	New
Timothy C. Ryken, Chair	Kevin M. Cockroft, MD, Chair
Kevin M. Cockroft, MD, Vice-chair	Sepideh Amin-Hanjani, MD, Vice-chair
Sepideh Amin-Hanjani, MD, Vice-chair	Steven N. Kalkanis, MD, Vice-chair
Steven N. Kalkanis, MD, Vice-chair	John E. O'Toole, MD, Vice-chair

Current and Completed Projects

Cerebrovascular

- **AHA Stroke Projects**. There are several AHA guidelines and scientific statements of interest to neurosurgery that recently have been, or soon will be, updated.

  The Scientific Statements include:
  - Cervical Arterial Dissection Related to Cervical Manipulation (endorsed by AANS/CNS)
  - Primary Prevention of Stroke (endorsed by AANS/CNS)
  - Palliative and End of Live Care in Stroke (endorsed by AANS/CNS)
  - Management of Cerebral & Cerebellar Infarction with Swelling (endorsed by AANS/CNS)
  - Prevention of Stroke in Women (endorsed by AANS/CNS)
  - Scientific Rationale for Inclusion and Exclusion Criteria for Intravenous Thrombolysis (in August 2014, CV Section provided feedback to authors; awaiting a response)

  The guidelines include:
  - Guidelines for the Management of Spontaneous Intracerebral Hemorrhage (JGC provided feedback in June 2014; received a response in November 2014 and is currently reviewing for endorsement)
  - Guidelines for Management of Unruptured Intracranial Aneurysms (JGC provided feedback in September 2014; received a response in November 2014 and is currently reviewing for endorsement)

- **Neurocritical Care Society**. The AANS and CNS recently formed a collaborative guidelines relationship with the NCS, similar to the process developed with AHA, where neurosurgery would prospectively identify guidelines projects of interest for review and potential endorsement, and look to have a formal AANS/CNS designee on the writing group. Two AANS/CNS liaisons to the NCS's guidelines committee keep the JGC apprised of NCS activities. In return, the JGC has allowed the NCS to appoint a liaison to the JGC for similar informational purposes. Current NCS projects include:

  - Multimodality monitoring in Neuro ICU (consensus statement, which the Trauma Section determined in September that it would not endorse due to incomplete documentation provided by authors and other methodological issues)
  - Large Hemispheric Infarction (in October, the AANS/CNS endorsed the educational content of this scientific statement)
  - Devastating Brain Injury (JGC submitted a letter declining endorsement due to methodological issues in early July 2014; Trauma Section also declined to review due to methodological issues)

Spine/Peripheral Nerve

- Guidelines for the Surgical Management of Cervical Degenerative Disease (will be updated next year)
- Metastatic Spinal Tumor (under development, in collaboration with Tumor Section)
- Thoraco-Lumbar Trauma (under development, in collaboration with Trauma Section)
- Diagnosis and Treatment of Low Back Pain (NASS project currently under development, O'Toole representing Spine Section)

Trauma

- Brain Trauma Foundation Traumatic Brain Injury (ongoing updates; updated version should be presented to JGC soon)
- Pediatric Mild TBI (a CDC project led by Shelly Timmons and currently under development)

Tumor

- Pituitary Adenoma Guideline (under development)
- Low-Grade Glioma (JGC submitted feedback in October 2014 and is awaiting author response)

Stereotactic/Functional

- Deep Brain Stimulation for Patients with Obsessive Compulsive Disorder (endorsed by JGC and AANS/CNS in June 2014; subsequently submitted for publication in *Neurosurgery*)

Pediatrics

- Pediatric Hydrocephalus (endorsed by JGC and AANS/CNS in February 2014; intent is to publish as a supplement to Journal of NS- Peds by the fall)
- Neurosurgical Management of Children with Myelomeningocele (Peds Section applied for CNS support in summer 2014)

Pain

- Occipital neuralgia (JGC reviewed and submitted comments to authors in late November 2014 and is awaiting author response)

Cross-Sectional Projects

- Appropriateness Criteria for Diagnostic Imaging

DRUGS AND DEVICES

Administrative Issues

Following the October CNS Annual Meeting, the Drugs and Devices Committee will experience a change in leadership as follows:

Former	New
Richard G. Fessler, MD, PhD, Chair	Robert F. Heary, MD, Chair
Fernando G. Diaz, MD, Vice-chair	William C. Welch, MD, Vice-Chair

Physician Industry Relations

Open Payments (Sunshine Act)

The Open Payment physician registration has been fraught with problems. Due to inaccuracies in industry reported data and computer system problems, CMS was required to extend the deadline for physicians to review and dispute data reported by industry to Sept. 10, 2014. Despite difficulties, CMS has insisted that the Open Payments public website will be available on Sept. 30, 2014. Physicians may continue to register and review their data, but corrections will not be made until sometime next year when CMS "refreshes" the data. The AANS/CNS Washington Office Staff is collecting feedback from neurosurgeons about their experience with Open Payments.

On Oct. 17, 2014, CMS has issued a new search tool in beta format that allows easier access to physician data in the Open Payments (Sunshine Act) system. In addition CMS will publish "refreshed" data on or before Dec. 31, 2014, including changes to disputed data submitted by manufacturers through Oct. 31, 2014. CMS will make 2014 data public on June 30, 2015. The agency has said that included in the publication will be data for the 2014 calendar year reporting period and a complete set of replacement files for the 2013 reporting period—all containing identified data.

More information is available on the CMS Open Payments Website at: http://go.cms.gov/11HNVP0 Instructions for registration are available from the AANS/CNS at: http://bit.ly/UoCjCP.

2015 Medicare Physician Fee Schedule

On Sept. 2, 2014, the AANS and CNS sent a letter to CMS objecting to a provision in the 2015 Medicare Physician Fee Schedule related to the continuing medical education (CME) exclusion of the Open Payments program. Unfortunately, in the final rule released on Oct. 31, 2014, CMS announced its intention to finalize its plan to entirely eliminate the CME exemption from Open Payment reporting for accredited CME. CMS said that under other provisions of the Open Payment final rule, CME payments are not reportable as long as the company underwriting the CME activity "does not require, instruct, direct, or otherwise cause the continuing education event provider to provide the payment … to a covered recipient." In other words, if the manufacturer does not know the name of the recipient, the funding is not reportable. CMS did agree that manufacturers might need additional time to comply with the CME reporting requirements and will delay the CME data collection requirements to Jan. 1, 2016.

Congressional Activity

Medical Device Excise Tax

Congress adjourned for the year without acting to repeal the medical device excise tax. Nevertheless, strong bipartisan support exists to repeal this tax.

21st Century Cures Initiative

Over the summer, the House Energy and Commerce (E&C) Committee launched a new initiative called the 21st Century Cures Initiative. The mission is to take a comprehensive look at steps needed to accelerate the pace of cures and innovation in America. Sponsored by E&C chair, Fred Upton (R-Mich.) and Diana DeGette (D-Colo.), the committee will unveil legislation to implement the initiative in the 114th Congress. More information about the project is available at: http://energycommerce.house.gov/cures.

Food and Drug Administration Activities

FDA Pew UDI Workshop

The FDA, Office of National Coordinator for Health Information Technology, and The Pew Charitable Trusts hosted a meeting on Dec. 9, 2014 to discuss the benefits and challenges of integrating the unique device identifiers (UDI), into clinical care, registries, the supply chain, and other facets of health care delivery. More information is available at: http://bit.ly/11vUiLM.

Registry Program

On Oct. 14-16, 2014, the FDA convened a three-day conference involving the Medical Device Epidemiology Network Initiative (MDEpiNet). The conference brought a variety of stakeholders, including those from NIH, FDA, CMS, PCORI and physicians, together to discuss various topics regarding registries and post-market. Special attention was be given to efforts in the cardiovascular and orthopaedic arenas.

FDA Proposed Rule on Pedicle Screw Systems

On Nov. 12, 2014, the FDA released a proposed rule to reclassify pedicle screw systems. The Drugs and Devices Committee and the AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves reviewed the notice and were generally in agreement with the FDA proposal. The notice can be found at: http://1.usa.gov/1u2eZor.

FDA Workshop on Brain Controlled Devices for Amputees.

The FDA held a public workshop on Nov. 21, 2014, entitled: "Brain-Computer Interface (BCI) Devices for Patients with Paralysis and Amputation." Peter Konrad, MD and Washington Office staff attended on behalf of the AANS and CNS. Karl Sillay, MD, a neurosurgeon from Semmes Murphy also attended the meeting. A number of issues were raised, including the concern that BCI devices are often made up of modular systems, in which small companies develop parts of a larger system of devices to be implanted together. More information is available at: http://1.usa.gov/1qP740P.

FDA Panel Meeting on Epidural Steroid Injections

The FDA held a meeting of the Anesthetic and Analgesic Drug Products Advisory Committee for Nov. 24-25, 2014 to consider safety and effectiveness for Epidural Steroid Injections. A copy of the Federal Register Notice for the meeting is available at: http://1.usa.gov/11l2b5G. The AANS, CNS, the AANS/CNS Joint Section on Pain, and the AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves signed a letter from the Multispecialty Pain Workgroup to the FDA supporting the availability of epidural steroid injections when used safely for the appropriate patients.

Opioid Prescribing Policy

FDA approves extended-release, single-entity hydrocodone product with abuse-deterrent properties

The FDA on Nov. 20, 2014, approved Hysingla ER (hydrocodone bitartrate), an extended-release (ER) opioid analgesic to treat pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. Hysingla ER has approved labeling describing the product's abuse-deterrent properties consistent with the FDA's 2013 draft guidance for industry, Abuse-Deterrent Opioids – Evaluation and Labeling. More information is available at: http://1.usa.gov/1yyyyZK.

EMERGENCY NEUROSURGICAL SERVICES

Legislative Activities

Working with other organization interested in trauma and emergency care, the AANS and CNS advocated for legislation to fund and support programs aimed at improving emergency and trauma care services.

- H.R. 1098, TBI Reauthorization Act—signed into law by President Obama.
- H.R. 1733/S. 2196, Good Samaritan Health Professionals Act
- H.R. 2651, the Critical Care Assessment and Improvement Act
- H.R. 3532: Protecting Student Athletes From Concussions Act of 2013

- H.R. 3548, the Improving Trauma Care Act, which became law (PL 113-152) on Aug. 8, 2014.
- H.R. 4080/S. 2405, the Trauma Systems and Regionalization of Emergency Care Reauthorization Act, which passed the House on June 24, 2014.
- H.R. 4290/S. 2154, Wakefield Act (children's EMS program)—signed into law by President Obama.

Regulatory Activities/Other

Telemedicine

Working with the Trauma and CV Sections, the Washington Committee is in the process of drafting a position statement on telemedicine. There are a number of federal and state legislative and regulatory activities unfolding regarding the increased use of telemedicine, necessitating such a position statement.

MEDICAL LIABILITY REFORM

Federal Activities

Unfortunately, efforts to reform the medical legal system have not turned out to be a high priority for the 113th Congress. Nevertheless, a number of bills were introduced. They include:

- H.R. 36/S. 961, the Health Care Safety Net Enhancement Act
- H.R. 1733, Good Samaritan Health Professionals Act
- H.R. 3722, to provide protections for certain sports medicine professionals who provide medical services in a secondary state.
- H.R. 4106, Saving Lives, Saving Costs Act
- H.R. 4750/S. 1769, the Standard of Care Protection Act
- S. 44, the Medical Care Access Protection Act

CBO Reaffirms Budget Savings for Medical Liability Reform

A new report by the Congressional Budget Office (CBO) details how large of an impact medical liability reform would have on our budget, and our wallets. As part of a report titled, "Options for Reducing the Deficit: 2015 to 2024" the CBO estimated that medical liability reforms, including reasonable limits on non-economic damages, implementation of a fair-share rule, a reduction in the statute of limitations, and limits on excessive attorney fees would result in $70 billion in deficit reductions over the next 10 years. This includes $60.4 billion in savings on mandatory spending, including federal health programs, $2 billion savings on discretionary spending, and $7.6 billion in government revenue increases.

State Activities

While there were a number of bills pending in various states and ongoing challenges to reforms that have already passed, the biggest issue facing medicine occurred in California, where the trial lawyers have filed a ballot measure that would increase MICRA's cap on speculative, non-economic damages from $250,000 to more than $1.1 million. If adopted, the measure would have:

- Raised $250,000 cap to $1.1 million + annual increases
- Required physicians to:
  - Check prescription drug tracking (CURES) database before prescribing Schedule II and III controlled substances;
  - Undergo random drug and alcohol testing;
  - Undergo mandatory drug/alcohol testing after an unexpected death/injury occurs;
  - Report any witnessed medical negligence/substance misuse by other physicians;
  - Get on automatic suspension if they test positive for alcohol/drugs while on duty.
- Required hospitals to report positive drug/alcohol tests to the medical board

Fortunately, a broad-based coalition raised over $60 million to fight Proposition 46. The No on 46 campaign was spectacularly successful. By a 2 to 1 margin, Californians rejected Prop 46. Furthermore, the measure was defeated in *every* county in the state.

NEUROSURGICAL EDUCATION AND TRAINING

Regulatory Activity

IOM Study on Governance and Financing of Graduate Medical Education

Pursuant to a Congressional request in December 2011, the Institute of Medicine has embarked on a review of the GME system. On July 29, 2014, IOM released the report, *Graduate Medical Education That Meets the Nation's Health Needs*, which recommends a sweeping overhaul of the current graduate medical education (GME) system. Some take-away points include:

- Recommends maintaining Medicare support for GME;
- Rejects calls from physicians and hospitals to increase GME funding to address current and future projected workforce shortages;
- Calls for a complete overhaul of the current GME financing system, which will result in GME cuts and a shift of GME funds away from academic medical centers to community hospitals, clinics and other ambulatory care settings; and
- Significantly increases Centers for Medicare & Medicaid Services' (CMS) authority over workforce and GME.

Organized neurosurgery, led by a group convened by Hunt Batjer, MD and the Senior Society, is developing a comprehensive response to the IOM report, which should be finalized in January.

Information about the study is available at: http://bit.ly/HMpyZf.

COGME Seeks Nominations

The AANS and CNS have nominated Nate Selden, MD for a seat on the Council on Graduate Medical Education (COGME). We continue to wait for information regarding this appointment.

COGME Report

In November 2014 the Council on Graduate Medical Education (COGME) issued its 22nd Report. Entitled "The Role of Graduate Medical Education in the New Health Care Paradigm," the report outlines 7 recommendations and makes some brief comments about the IOM's recent GME report.

Legislation

Legislation to provide GME funding for additional residency slots gained support. These bills include:

- H.R. 1201, the Training Tomorrow's Doctors Today Act
- H.R. 1180/S. 577, the Resident Physician Shortage Reduction Act
- S. 1152, the Building a Health Care Workforce for the Future Act
- S. 1557, the Children's Hospital GME Support Reauthorization Act of 2013—signed into law by President Obama

Neurocritical Care

After more than 3 years of back-and-forth communication, and following a productive meeting, the Leapfrog Group has proposed making changes to its neurocritical care standards that will recognize CAST-accreditation as an additional pathway for recognition. The timeline for action is as follows:

- November 2014: Revised Leap will be published for 30-day comment period
- January 2015: Revised Leap will be pilot tested among 25-30 hospitals for a 30-day period

- April 2015: Revised Leap will go into effect

AMERICAN MEDICAL ASSOCIATION

The AMA House of Delegates (HOD) held its Interim meeting from Nov. 8-11, 2014 in Dallas, TX. It was a relatively quiet meeting, with only a handful of matters of interest to neurosurgery.

Our Delegation

- Maya Babu, MD, AMA Board of Trustees (Resident/Fellow member)
- Ann R. Stroink, MD CNS Delegate, Delegation Chair
- John K. Ratliff, MD, AANS Delegate
- Krystal L. Tomei, MD, AANS Alternate Delegate/YPS Delegate from NS
- William Doetsch, MD, AANS/CNS Delegate, Resident & Fellow Section from NS
- Zachary N. Litvack, MD, Young Physicians Section Alternate Delegate

Policy Recommendations

Your neurosurgical delegation was actively involved in shaping a number of policy matters that were discussed and debated at this meeting, including:

- Medicaid payment for primary care services
- Maintenance of certification and maintenance of licensure
- Network Adequacy
- Telemedicine
- ICD-10

Full details are available at: http://bit.ly/1pB2N2p.

COMMUNICATIONS AND PUBLIC RELATIONS

Communication Activities

Advocacy Videos Set to Launch after Congressional Lame Duck Session

As part of our ever-growing digital advocacy strategy, we will be working diligently to build an online video presence. Multimedia content will help us develop a more personal and meaningful connection with viewers. This important step will allow for organized neurosurgery campaigns to take complex issues and make them relevant to a large audience in order to make a difference in the outcome of a policymaking process.

Neurosurgery Blog Continues to Expand Neurosurgery's Message

One of the purposes of the Washington Office's social media platforms and blog, Neurosurgery Blog: More Than Just Brain Surgery, is to serve as an echo chamber for neurosurgical initiatives and achievements by creating a nexus where policy meets practice. As of Dec. 11, 2014, we have disseminated 116 blog posts on topics including graduate medical education, medical liability reform, and health reform in general. Since our last report, the following new blog posts have been published:

- Neurosurgeons Leading the Way on Sports-related Head Injury
- 5 Things Neurosurgeons Need to Know about the Sunshine Act
- Ebola, Bats and Neurosurgery
- Do Bundled Payments Put Medical Innovation At Risk?
- Put This on the End-of-Year To-Do List

We invite you to visit the blog and subscribe to it, as well as connect with us on our various social media platforms list below, so that you can keep your pulse on the many health-policy activities happening in the nation's capital and help promote our digital efforts. In addition, if you willing to author a blog post please contact or if you have had an op-ed published, we would welcome the opportunity to place those types of pieces on Neurosurgery Blog.

- Neurosurgery Blog: More Than Just Brain Surgery – www.neurosurgeryblog.org
- Neurosurgery's Twitter Feed: @Neurosurgery – https://twitter.com/neurosurgery
- Neurosurgery's Facebook Page – http://bit.ly/NeuroFacebook
- Neurosurgery's LinkedIn Group – http://bit.ly/NeuroLinkedIn

Traditional Media Outreach

- **Neurosurgery's DC Office Continues to Implement Traditional Media.** In addition to aforementioned new media efforts, the DC office continues to implement traditional media/communication efforts including Op Eds, letters to the editor, radio "tours" and desk side briefings with reporters. As such, we have been able to generate media hits in the following outlets:

  - *American Medical News*
  - *Becker's ASC Review*
  - *Becker's Spine Review*
  - *British Medical Journal*
  - *Bureau of National Affairs (BNA)*
  - *California Healthline*
  - *Diane Rehm Show*
  - *The Hill*
  - *Health Leaders Media*
  - *iHealthBeat*
  - *Inside Health Policy*
  - *Inside CMS*
  - *Medical Marketing & Media*
  - *MedPage Today*
  - *Medscape*
  - *medwire News*
  - *Modern Healthcare*
  - *NBC News*
  - *The Plain Dealer*
  - *Policy and Medicine Blog*
  - *Politico*
  - *Politico Pulse*
  - *Portland Business Journal*
  - *StarTribune*
  - *The New York Times*
  - *The Salt Lake Tribune*
  - *The Wall Street Journal*
  - *WSJ Pharmalot Blog*
  - *The Washington Post*

  Since December 2012, the Washington Office has generated 103 traditional media hits reaching a circulation/audience of 8.3 million. As a reminder, for individuals who want to keep tabs on our media outreach please visit our Press Room on the website. There you will find our statements and releases, letters to the editor, and media hits.

- **Neurosurgery Expresses Concerns Over End of Global Surgical Payments.** On Nov. 15, 2014, MedPage Today reached out to the AANS and CNS for our insight on the end of global surgical payments. In the article, "Revised Medicare Payments Vex Surgery Groups," John A. Wilson, MD, chair of the AANS/CNS Washington Committee, told MedPage Today, "the change would add big administrative burdens for physicians, insurers, and patients."

Member Outreach

The AANS and CNS have continued to update our members by disseminating a monthly DC e-newsletter to better inform them of key health policy activities happening in Washington. To date, we have we have produced twenty eight "Neurosurgeons Taking Action" newsletters, which reach a distribution list of 10,350 individuals and covered a variety of topics including the Sunshine Act, medical liability, replacing the sustainable growth rate (SGR) formula, and a host of other topics of concern to organized neurosurgery. Accessing past issues is easy as they are archived directly on the AANS website and are available at: http://bit.ly/MgL646. The average opened rate for the past four DC e-newsletters is 32.8 percent. On the surface this number might seem low, but according to industry

experts who track email marketing benchmarks by industry this figure is 7 percentage points above the non-profit average. Additionally, the DC office regularly submits items to AANS and CNS for website postings and continues to provide content for AANS and CNS newsletters and publications.

Coalition Efforts

The Alliance of Specialty Medicine and Health Coalition on Liability and Access

The AANS and CNS have continued to work closely with other healthcare organizations, including the Alliance of Specialty Medicine (Alliance), the Health Coalition on Liability and Access (HCLA) to provide assistance in promoting those organizations and/or their health policy and advocacy to the media. Past Washington Committee Chairman, Alex Valadka, serves as the spokesperson for the Alliance and is also called on by HCLA to speak on the topic of medical liability reform. Washington Office staff member, Alison Dye, also serves as HCLA's communications chair. Working with these groups, we have been able to generate media hits in the following outlets:

- *American Medical News*
- *Crain's Detroit Business*
- *The Congressional Quarterly*
- *CQ Healthbeat*
- *FierceHealthcare*
- *Health Affairs*
- *Inside Health Policy*
- *MedPage Today*
- *Morning Consult*
- *Modern Healthcare Magazine*
- *Modern Physician*
- *Politico Pulse*
- *Roll Call*
- *The Hill*

Most recently, in conjunction with the Alliance, Dr. Alex Valadka submitted a Letter to the Editor to *Washington Post* in response to an Oct. 23 article, "Primary Care Doctors to Patients: Don't Forget About Us." In addition, the Alliance letter which raised concerns to NAIC regarding network issues, was covered by Politico Pro Health.

Partners for Healthy Dialogues

Organized neurosurgery has continued to participate with the Partners for Healthy Dialogues campaign, an initiative aimed at educating physicians and patients about the Sunshine Act and the benefits of appropriate industry and physician interaction and collaboration.

Accomplishments

Making Progress

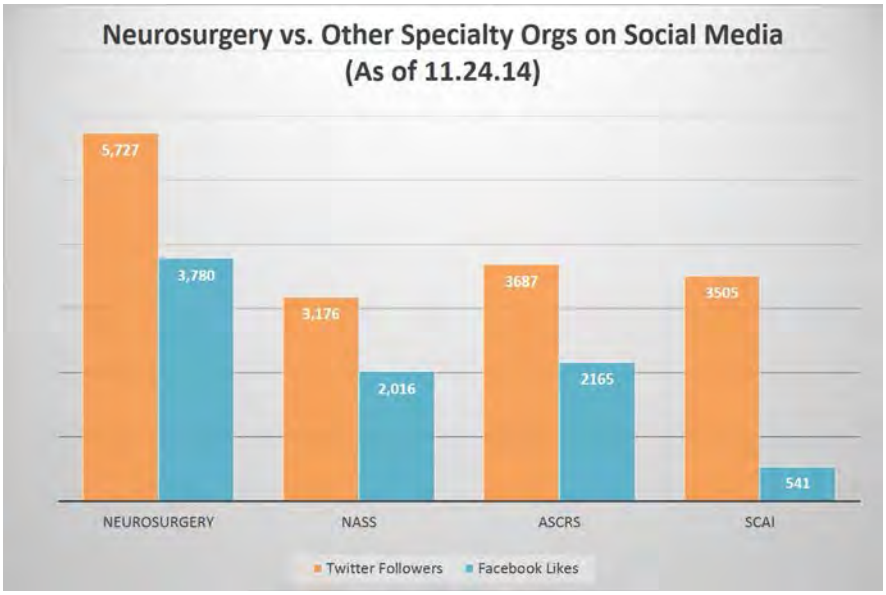
Neurosurgery continues to see a significant expansion of its digital media outreach. This highly effective online echo chamber, allows us the ability to share neurosurgery news and AANS/CNS health policy positions to a growing audience of healthcare media and key policy influencers in a very rapid manner. Listed below are some key metrics pertaining to neurosurgery's digital media efforts:

Categories	3/15/12 – 12/31/13	2014 YTD	3/15/12 - YTD
Twitter touches	7,197,265	6,779,184	13,976,449
Bitly hits	26,899	13,228	40,127
Blog hits	16,477	9,466	25,943
Facebook touches	241,037	296,400	537,437
LinkedIn touches	19,782	45,627	65,409
Total Digital Impressions			**14,645,365**

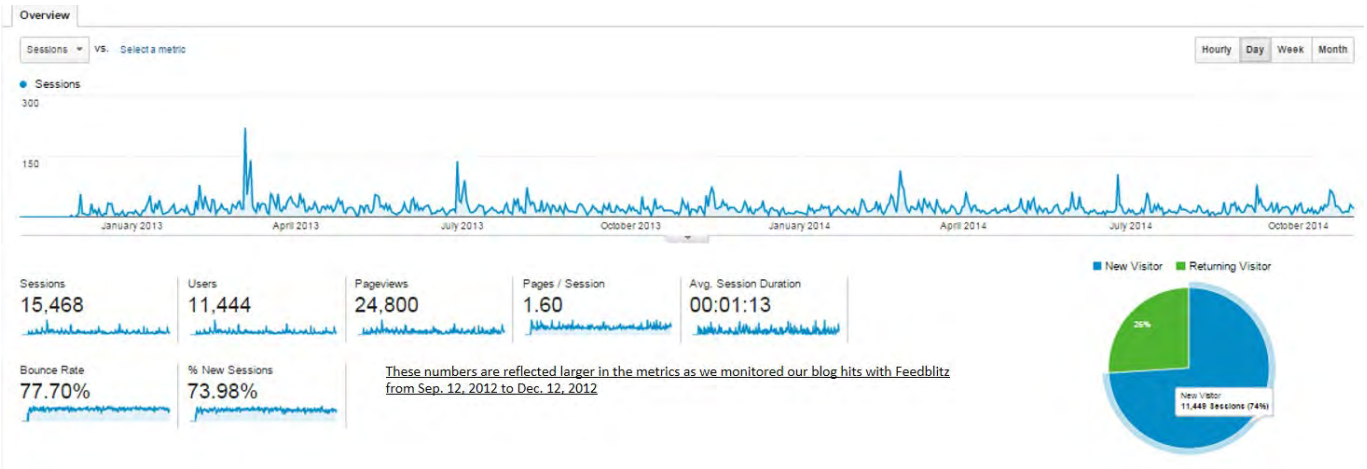
(As of 10.31.14)

Neurosurgery Social Media Followers

The following charts compare and contrast neurosurgery's social media followers versus several other medical organizations. Overall, we are demonstrating consistently higher penetration, which continues to grow.



Google Analytics Stats for Neurosurgery Blog



Questions or Comments about this Washington Update should be directed to:

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MCHL-SN

Date: 09 FEB 2015

MEMORANDUM FOR RECORD

SUBJECT: Spine Section 2015
Intersociety Liaison Report

Executive Committee:

The interactions between the various spine specific organizations continue to expand on an annual basis. The scientific program for the 2015 Spine Section meeting speaks for itself with the expanded collaboration with the SRS/CSRS and presentations.

One action item for the EC to consider regards additional research funding available via the SRS. The annual research funding provided by the SRS is quite significant with annual funding being distributed much like NREF. The 2015 submissions (approximately 60 proposals) were reviewed and $130,000 of funding was awarded to 5 various proposals. There were very few protocol submissions from the neurosurgery-side this past year. The common misunderstanding is that a proposal must include a "deformity" aspect but this is not a requirement as any reasonable spine concept is considered. The only requirement is that one of the authors (PI or AI) be a SRS member. A request for advertisement of the SRS research grant program in the Spine Section channels is proposed for consideration.

If any other information is needed, please do not hesitate to contact me.

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