CURRICULUM VITAE

Scott L. Parker

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POST-DOCTORAL TRAINING

July 2012 – June 2017	Resident, Department of Neurological Surgery, **Vanderbilt University Medical Center**, Nashville, TN
Jul 2011 – June 2012	Intern, Department of Neurological Surgery, **Vanderbilt University Medical Center**, Nashville, TN

EDUCATION

Aug 2007 – May 2011	M.D., **The Johns Hopkins University School of Medicine**, Baltimore, MD
Aug 2003 – May 2007	B.S., *High Honors*, **The University of Texas**, Austin, TX

ACADEMIC HONORS AND AWARDS

2016	J.A.N.E (Journalistic and Academic Neurosurgical Excellence) Award AANS/CNS Section on Disorders of the Spine and Peripheral Nerves
2015	Resident/Fellow Research Paper Award Cervical Spine Research Society (CSRS)
2015	Augustus McCravey Award Southern Neurosurgical Society
2014	NASS Value Award North American Spine Society (NASS)
2013	Byron Cone Pevehouse MD Award American Association of Neurological Surgeons (AANS)
2013	Louise Eisenhardt Award American Association of Neurological Surgeons (AANS)
2013	NASS Value Award

North American Spine Society (NASS)

2013 Leon Wiltse Award
International Society for the Advancement of Spine Surgery (ISASS)

2013 Mayfield Clinical Science Award
AANS/CNS Section on Disorders of the Spine and Peripheral Nerves

2012 National Prominence Award
Department of Neurological Surgery, Vanderbilt University Medical Center

2012 Augustus McCravey Award
Southern Neurosurgical Society

2011 Best Clinical Abstract Award
10th Annual Neuro-Oncology Update Meeting

2010 Harvey Cushing Medical Student Research Award
Department of Neurological Surgery, The Johns Hopkins Hospital

2008 Medical Student Summer Research Grant
The Johns Hopkins University School of Medicine

2008 Dr. and Mrs. Fred B. Aurin Scholarship
The Johns Hopkins University School of Medicine

2007 Phi Beta Kappa Honor Society
The University of Texas

RESEARCH EXPERIENCE

Clinical Research

2011 – Pres. Vanderbilt University Spinal Column Surgical Quality and Outcomes Research Laboratory
-*Principal Investigators*: Drs. Clinton J. Devin (2011-Present) & Matthew J. McGirt (2011-2014)
-*Position*: Laboratory Director

2007 – 2011 Johns Hopkins Spinal Column Biomechanics and Surgical Outcomes Laboratory.
-*Principal Investigators*: Drs. Ziya Gokaslan, Jean-Paul Wolinsky, Timothy Witham, Ali Bydon.
-*Position*: Medical student researcher

2007 – 2011 Johns Hopkins Neuro-Oncology Surgical Outcomes Research Laboratory.
-*Principal Investigator*: Dr. Alfredo Quinones-Hinojosa
-*Position*: Medical student researcher

Laboratory Research

2008 Department of Neurosurgery, The Johns Hopkins Hospital
-*Principal Investigator*: Dr. Michael Lim.
-*Position*: Medical student researcher

2004 – 2007 Department of Chemistry and Biochemistry, The University of Texas, Austin, TX
-*Principal Investigator*: Dr. John White.
-*Position*: Undergraduate researcher

NATIONAL COMMITTEE / LEADERSHIP EXPERIENCE

1. Member, CNS Education Committee, 2015-present
2. Clinical Chairperson, mCase Exchange (CNS), 2015-present
3. Member, Neurosurgery Quality Council (AANS), 2016-present

LINK TO PUBLICATIONS ON PUBMED

http://www.ncbi.nlm.nih.gov/sites/myncbi/1jUCg_npu5iQ9/bibliography/42127103/public/?sort=date&direction=descending

LINK TO PUBLICATION PROFILE ON GOOGLE SCHOLAR

http://scholar.google.com/citations?user=U_G9PkcAAAAJ&hl=en&oi=ao

PEER REVIEWED PUBLICATIONS

1. Wei W, **Parker SL**, Sun YM, White JM. Study of copper diffusion through a ruthenium thin film by photoemission electron microscopy. *Applied Physics Letters*. **90**, 111906 (2007).

2. **Parker SL**, Attenello FJ, Sciubba DM, Garces GL, Ahn E, Weingart J, Carson B, Jallo GI. Comparison of shunt infection incidence in high risk subgroups receiving antibiotic-impregnated versus standard shunts. *Child's Nervous System.* **25**(1):77-83, 2009.

3. **Parker SL**, McGirt MJ, Garces GL, Mehta V, Sciubba D, Witham T, Gokaslan ZL, Wolinski JP. Translaminar versus pedicle screw fixation of C2: Comparison of surgical morbidity and analysis of 313 consecutive screws. *Neurosurgery.* **64**(5):343-349, 2009.

4. McGirt MJ, **Parker SL**, Wolinsky JP, Witham T, Bydon A, Gokaslan Z. Vertebroplasty and kyphoplasty for the treatment of vertebral compression fractures: an evidenced based review of the literature. *The Spine Journal.* **9**(6):501-508, 2009.

5. Chaicana KL, **Parker SL**, Olivi A, Quinones A. Long-term seizure outcomes in adult patients undergoing primary resection of malignant brain astrocytomas. *Journal of Neurosurgery.* **111**(2):282-292, 2009

6. **Parker SL**, Xu R, Long DM, Witham TF, Bydon A. Long-term back pain after single-level discectomy for radiculopathy: Incidence and health care cost analysis. *Journal of Neurosurgery: Spine.* **12**(2):178-182, 2010

7. Alosh H, **Parker SL**, McGirt MJ, Gokaslan ZL, Witham TF, Bydon A, Wolinsky JP, Sciubba DM. Preoperative radiographic factors and surgeon experience are associated with cortical breach of C2 pedicle screws. *Journal of Spinal Disorders and Techniques.* **23**(1)9-14, 2010.

8. McGirt MJ, Garces GL, **Parker SL**, Sciubba DM, Bydon A, Wolinksy JP, Gokaslan ZL, Witham TF. Short-term progressive spinal deformity following laminoplasty versus laminectomy for resection of intradural spinal tumors: Analysis of 238 patients. *Neurosurgery.* **66**(5):1005-1012, 2010.

9. Chaichana KL, **Parker SL**, Olivi A, Quinones A. A proposed classification system that projects outcomes based on preoperative variables for adult patients with glioblastoma multiforme. *Journal of Neurosurgery.* **112**(5):997-1004, 2010.

10. Xu R, McGirt MJ, **Parker SL**, Bydon M, Olivi A, Wolinsky JP, Witham TF, Gokaslan ZL, Bydon A. Factors associated with recurrent back pain and cyst recurrence after surgical resection of 195 spinal synovial cysts: Analysis of 167 consecutive cases. *Spine.* **35**(10):1044-1053, 2010.

11. Gottfried ON, **Parker SL**, Omeis I, Bydon A, Gokaslan ZL, Wolinsky JP. Spondylolysis of C-2 in 2 athletically active individuals. *Journal of Neurosurgery: Spine.* **13**(1):17-23, 2010.

12. Bydon A, Xu R, **Parker SL**, McGirt MJ, Bydon M, Gokaslan ZL, Witham TF. Recurrent back and leg pain and cyst reformation after surgical resection of spinal synovial cysts: Systematic review of reported post-operative outcomes. *The Spine Journal.* **10**(9):820-826, 2010.

13. Farber SH, **Parker SL**, Adogwa O, Rigamonti D, McGirt MJ. Cost analysis of antibiotic-impregnated catheters in the treatment of hydrocephalus in adult patients. *World Neurosurgery*. **74**(4/5):528-531, 2010.

14. **Parker SL**, McGirt MJ, Farber SH, Amin AG, Rick AM, Suk I, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. Accuracy of free-hand pedicle screws in the thoracic and lumbar spine: Analysis of 6,816 consecutive screws. *Neurosurgery*. **68**(1):170-178, 2011.

15. Mehta VA, McGirt MJ, Ambrossi GL, **Parker SL**, Sciubba DM, Bydon A, Wolinsky JP, Gokaslan ZL, Witham TF. Trans-foraminal versus posterior lumbar interbody fusion: comparison of surgical morbidity. *Neurological Research*. **33**(1):38-42, 2011.

16. Chaichana KL, Garzon-Muvdi T, **Parker SL**, Weingart JD, Olivi A, Bennett R, Brem H, Quinones A. Supratentorial glioblastoma multiforme: The role of surgical resection versus biopsy among older patients. *Annals of Surgical Oncology*. **18**(1):239-245, 2011.

17. **Parker SL**, Adogwa O, Witham TF, Aaronson O, Cheng J, McGirt MJ. Post-operative infection after minimally invasive versus open transforaminal lumbar interbody fusion (TLIF): Review of the literature and cost analysis. *Minimally Invasive Neurosurgery*. **54**(1):33-37, 2011.

18. Chaichana KL, Halthore A, **Parker SL**, Olivi A, Weingart JD, Brem H, Quinones A. Factors involved in maintaining prolonged functional independence following supratentorial glioblastoma resection. *Journal of Neurosurgery*. **114**(3):604-612, 2011.

19. **Parker SL**, Adogwa O, Paul AR, Anderson WN, Aaronson O, Cheng J, McGirt MJ. Utility of minimum clinically important difference in pain, disability, and quality of life after transforaminal lumbar interbody fusion (TLIF) for degenerative lumbar spondylolithesis. *Journal of Neurosurgery: Spine*. **14**(5):598-604, 2011.

20. McGirt MJ, **Parker SL**, Lerner J, Engelhart L, Wang MY. Comparative analysis of perioperative surgical site infection after minimally invasive versus open posterior/transforaminal lumbar interbody fusion: Analysis of hospital billing and discharge data from 5,170 patients. *Journal of Neurosurgery: Spine*. **14**(6):771-778, 2011.

21. Witham TF, **Parker SL**. In reply: Editorial: "Free hand" technique for pedicle screw instrumentation. *Neurosurgery*. **69**(1):E266-267, 2011.

22. **Parker SL**, McGirt MJ, Amin AG, Farber SH, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. The ability of electromyographic monitoring to determine the presence of malpositioned pedicle screws in the lumbosacral spine: An analysis of 2450 consecutive screws. *Journal of Neurosurgery: Spine*. **15**(2):130-135, 2011.

23. Witham TF, **Parker SL**. Response to Editorial: Monitoring. *Journal of Neurosurgery: Spine*. **15**(2):127-129, 2011.

24. Adogwa O, **Parker SL**, Davis BJ, Aaronson O, Devin C, Cheng J, McGirt MJ. Cost effectiveness of transforaminal lumbar inter-body fusion (TLIF) for grade I degenerative spondylolithesis. *Journal of Neurosurgery: Spine*. **15**(2):138-143, 2011.

25. McGirt MJ, **Parker SL**. Response to Editorial: Cost-effectiveness of transforaminal lumbar interbody fusion. *Journal of Neurosurgery: Spine*. **15**(2):136-137, 2011.

26. Farber SH, **Parker SL**, McGirt MJ, Rigamonti D. Effect of antibiotic impregnated shunts on infection rate in adult hydrocephalus: A single institution's experience. *Neurosurgery*. **69**(3):625-629, 2011.

27. **Parker SL**, Anderson WN, Lilienfeld S, Megerian J, McGirt MJ. Cerebrospinal shunt infection in patients receiving antibiotic-impregnated versus standard shunts: Literature review and meta-analysis. *Journal of Neurosurgery: Pediatrics*. **8**(3):259-265, 2011

28. McGirt MJ, **Parker SL**. Response to Editorial: Pooling data on antibiotic impregnated shunts. *Journal of Neurosurgery: Pediatrics*. **8**(3):257-258, 2011.

29. Chaichana KL, **Parker SL**, Mukherjee D, Cheng J, Gokaslan ZL, McGirt MJ. Assessment of the extent of surgical resection as a predictor of survival in patients with primary osseous spinal neoplasms. *Clinical Neurosurgery*. **58**:117-121, 2011.

30. **Parker SL**, Farber SH, Adogwa O, Rigamonti D, McGirt MJ. Comparison of hospital cost and resource utilization associated with antibiotic impregnated versus standard shunt catheters. *Clinical Neurosurgery*. **58**:122-125, 2011.

31. **Parker SL**, Fulchiero EC, Davis BJ, Adogwa O, Aaronson OS, Cheng JS, Devin CJ, McGirt MJ. Cost-effectiveness of multilevel hemilaminectomy for lumbar stenosis-associated radiculopathy. *The Spine Journal*. **11**(8):705-711, 2011.

32. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Long-term outcomes of revision fusion for lumbar pseudoarthrosis. *Journal of Neurosurgery: Spine*. **15**(4):393-398, 2011.

33. Lebow RL, Adogwa O, **Parker SL**, Cheng J, McGirt MJ. Asymptomatic same-site recurrent disc herniation after lumbar discectomy: Results of a prospective longitudinal study with two-year serial imaging. *Spine*. **36**(25):2147-2151, 2011.

34. Adogwa O, **Parker SL**, Bydon A, Cheng J, McGirt MJ. Comparative effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion: 2-year assessment of narcotic use, return to work, disability, and quality of life. *Journal of Spinal Disorders and Techniques*. **24**(8):479-484, 2011.

35. Chambless LB, **Parker SL**, Hassam-Malani L, McGirt MJ, Thompson RC. Diabetes mellitus and elevated body mass index are independent risk factors in patients with high-grade glioma. *Journal of Neuro-Oncology*. **106**(2):383-389, 2012.

36. **Parker SL**, Mendenhall SK, Shau D, Adogwa O, Cheng JS, Anderson WN, Devin CJ, McGirt MJ. Determination of minimum clinically important difference in pain, disability, and quality of life after extension of fusion for adjacent segment disease. *Journal of Neurosurgery: Spine*. **16**(1):61-67, 2012.

37. Lebow R, **Parker SL**, Adogwa O, Cheng J, Bydon A, McGirt MJ. Microdiscectomy improves pain-associated depression, somatic anxiety, and mental function and well-being in patients with herniated lumbar disc: A prospective cohort study with two-year outcome. *Neurosurgery*. **70**(2):306-311, 2012.

38. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost per quality adjusted life year gained of revision neural decompression and instrumented fusion for same-level recurrent stenosis: Defining the value of surgical intervention. *Journal of Neurosurgery: Spine*. 16(**2**):135-140, 2012.

39. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost per quality adjusted life year gained of laminectomy and extension of instrumented fusion for adjacent segment disease: Defining the value of surgical intervention. *Journal of Neurosurgery: Spine*. 16(**2**):141-146, 2012.

40. Adogwa O, **Parker SL**, Shau DN, Mendenhall SK, Aaronson OS, Cheng JS, Devin CJ, McGirt MJ. Preoperative Zung depression scale predicts outcome after revision lumbar surgery for adjacent segment disease, recurrent stenosis, and pseudoarthrosis. *The Spine Journal*. 12(**3**):179-185, 2012.

41. **Parker SL**, Shau DN, Mendenhall SK, McGirt MJ. Factors influencing two-year healthcare costs in patients undergoing revision lumbar fusion procedures. *Journal of Neurosurgery: Spine*. 16(**4**):323-328, 2012.

42. **Parker SL**, Mendenhall SK, Shau DN, Adogwa O, Anderson WN, Devin CJ, McGirt MJ. Minimum clinically important difference in pain, disability, and quality of life after neural decompression and fusion for same-level recurrent lumbar stenosis: Understanding clinical versus statistical significance. *Journal of Neurosurgery: Spine*. 16(**5**):471-478, 2012.

43. **Parker SL**, Lerner J, McGirt MJ. Effect of minimally invasive technique on return to work and narcotic use following transforaminal lumbar interbody fusion (TLIF): A review. *Professional Case Management*. 17(**5**):229-235, 2012.

44. **Parker SL**, Adogwa O, Bydon A, Cheng J, McGirt MJ. Cost effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolithesis associated low-back and leg pain over two years. *World Neurosurgery*. 78(**1**):178-184, 2012.

45. **Parker SL**, McGirt MJ. Determination of the minimum improvement in pain, disability, and health state associated with cost-effectiveness: Introduction of the concept of minimum cost effective difference (MCED). *Neurosurgery*. 71(**6**):1149-1155, 2012.

46. **Parker SL**, Adogwa O, Mendenhall SK, Shau DN, Anderson WN, Cheng JS, Devin CJ, McGirt MJ. Determination of minimum clinically important difference (MCID) in pain, disability, and quality of life after revision fusion for symptomatic pseudoarthrosis. *The Spine Journal*. 12(**12**):1122-1128, 2012.

47. **Parker SL**, Godil SS, Shau DN, Mendenhall SK, McGirt MJ. Assessment of the minimum clinically important difference in pain, disability, and quality of life after anterior cervical discectomy and fusion. *Journal of Neurosurgery: Spine*. 18(**2**):154-160, 2013.

48. **Parker SL**, Adogwa O, Davis BJ, Fulchiero E, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost-utility analysis of minimally invasive versus open multilevel laminectomy for lumbar stenosis. *Journal of Spinal Disorders and Techniques*. 26(**1**):42-47, 2013.

49. Reddy VK, **Parker SL**, Patrawala SA, Lockney DT, Su PF, Mericle RA. Microvascular decompression for classic trigeminal neuralgia: Determination of minimum clinically important difference (MCID) in pain improvement for patient reported outcomes. *Neurosurgery*. 72(**5**):749-754, 2013.

50. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, McGirt MJ. Accurately measuring outcomes after surgery for adult Chiari I malformation: Determining the most valid and responsive instruments. *Neurosurgery*. 72(**5**):820-827, 2013. PMID: 23381490

51. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Bydon A, Cheng J, Asher T, McGirt MJ. Preoperative Zung depression scale predicts patient satisfaction independent of extent of improvement after revision lumbar surgery. *The Spine Journal*. 13(**5**):501-506, 2013. PMID: 23422730

52. Mukherjee D, Chaichana KL, **Parker SL**, Gokaslan ZL, McGirt MJ. Association of surgical resection and survival in patients with malignant primary osseous spinal neoplasms from the Surveillance, Epidemiology, and End Results (SEER) database. *European Spine Journal*. 22(**6**):1375-1382, 2013. PMID: 23263168

53. **Parker SL**, Grahovac G, Vukas D, Ledic D, Vilendecic M, McGirt MJ. Cost savings associated with prevention of recurrent lumbar disc herniation: A multi-center prospective cohort study. *Central European Neurosurgery*. 74(**5**):285-289, 2013. PMID: 23670809

54. **Parker SL**, Kretzer RM, Recinos PF, Molina CA, Wolinsky JP, Jallo GI, Recinos VR. Ultrasonic bone scalpel for osteoplastic laminoplasty in the resection of intradural spinal pathology: Case series and technical note. *Neurosurgery*. 73(**1 Suppl Operative**):61-66, 2013. PMID: 23262563

55. Godil SS, **Parker SL**, O'Neill KR, Devin CJ, McGirt MJ. Comparative effectiveness and cost-benefit analysis of using local vancomycin powder in posterior spinal fusion for spine trauma. *Journal of Neurosurgery: Spine*. 19(**3**):331-335, 2013. PMID: 23848350

56. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, Devin CJ, Asher AL, McGirt MJ. Determining the quality and effectiveness of surgical spine care: patient satisfaction is not a valid proxy. *The Spine Journal*. 13(**9**)1006-1012, 2013. PMID: 23685216

57. **Parker SL**, Godil SS, Zuckerman SL, Shau DN, Mendenhall SK, McGirt MJ. Comprehensive assessment of one-year outcomes and determination of minimum clinically important difference in pain, disability, and quality of life after suboccipital decompression for Chiari I malformation in adults. *Neurosurgery*. 73(**4**):569-581, 2013. PMID: 23787878

58. **Parker SL**, Godil SS, Zuckerman SL, Mendenhall SK, Tulipan NB, McGirt MJ. Effect of symptomatic pseudomeningocele on improvement in pain, disability, and quality of life following suboccipital decompression for adult Chiari malformation Type I. *Journal of Neurosurgery*. 119(**5**):1159-1165, 2013. PMID: 24010974

59. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Laminectomy and extension of instrumented fusion improves 2-year pain, disability, and quality of life in patients with adjacent segment disease: Defining the long-term effectiveness of surgery. *World Neurosurgery*. 80(**6**):893-896, 2013. PMID: 22381277

60. Reddy VK, **Parker SL**, Lockney DT, Patrawala SA, Su PF, Mericle RA. Percutaneous stereotactic radiofrequency lesioning for trigeminal neuralgia: Determination of minimum clinically important difference in pain improvement for patient reported outcomes. *Neurosurgery*. 74(**3**):262-266, 2014. PMID: 24335815

61. **Parker SL**, Amin AG, Santiago-Dieppa D, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. Incidence and clinical significance of vascular encroachment resulting from free hand placement of pedicle screws in the thoracic and lumbar spine: Analysis of 6,816 consecutive screws. *Spine*. 39(**8**):683-687, 2014. PMID: 24480963

62. Reig A, **Parker SL**, McGirt MJ. Five-level sub-axial vertebrectomy and reconstruction: Technical report. *European Spine Journal*. 23(**Suppl 2**):172-180, 2014. PMID: 23720125

63. **Parker SL**, Mendenhall SK, Shau DN, Zuckerman SL, Cheng JS, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *World Neurosurgery*. 82(**1-2**)230-238, 2014. PMID: 23321379

64. **Parker SL**, Godil SS, Mendenhall SK, Zuckerman SL, Shau DN, McGirt MJ. Two-year comprehensive medical management of degenerative lumbar spine disease (lumbar spondylolisthesis, stenosis, or disc herniation): A value analysis of cost, pain, disability, and quality of life. *Journal of Neurosurgery: Spine*. 21(**2**):143-149, 2014. PMID: 24785973

65. McGirt MJ, **Parker SL**. Response to Editorial: Medical management. *Journal of Neurosurgery: Spine*. 21(**2**):141-142, 2014. PMID: 24785970

66. Mendenhall SK, **Parker SL**, Adogwa O, Shau DN, Cheng J, Aaronson O, Devin CJ, McGirt MJ. Long-term outcomes after revision neural decompression and fusion for same-level recurrent lumbar stenosis: Defining the effectiveness of surgery. *Journal of Spinal Disorders and Techniques*. 27(**7**):353-357, 2014. PMID: 25247253

67. Mistry AM, Godil SS, **Parker SL**, McGirt MJ. Axial presacral lumbar interbody fusion: A systematic literature review and value analysis. *Journal of Managed Care Medicine*. 17(**3**):47-56, 2014.

68. **Parker SL**, Devin CJ. Commentary on "Sterile seroma resulting from multilevel XLIF procedure as possible adverse effect of prophylactic vancomycin powder. A case report". *Evidence Based Spine Care Journal*. 5(**2**):134-135, 2014. PMID: 25278887

69. Asher AL, Speroff T, Dittus RS, **Parker SL**, Davies JM, Selden N, Nian H, Glassman S, Mummaneni P, Shaffrey C, Watridge C, Cheng JS, McGirt MJ. The National Neurosurgery Quality and Outcomes Databaes (N^2QOD): A collaborative North American outcomes registry to advance value-based spine care. *Spine*. 39(**22 Suppl 1**):S106-S116, 2014. PMID: 25299254

70. McGirt MJ, **Parker SL**, Asher AL, Norvel D, Shelly N, Devin CJ. Role of prospective registries in defining the value and effectiveness of spine care. *Spine*. 39(**22 Suppl 1**):S117-S128, 2014. PMID: 25299255

71. Asher AL, Devin CJ, Mroz T, Fehlings M, **Parker SL**, McGirt MJ. Clinical registries and evidence based care pathways: Raising the bar for meaningful measurement and delivery of value-based care. *Spine*. 39(**22 Suppl 1**):S136-S138, 2014. PMID: 25077915

72. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, Glassman SD, McGirt MJ. Accurately measuring the quality and effectiveness of lumbar surgery in registry efforts: Determining the most valid and responsive instruments. *The Spine Journal*. 14(**12**):2885-2891, 2014. PMID: 24768731

73. Chambless LB, Kistka HM, **Parker SL**, Hassam-Malani L, McGirt MJ, Thompson RC. The relative value of postoperative versus preoperative Karnofsky Performance Scores as a predictor of survival after surgical resection of malignant astrocytoma. *Journal of Neuro-Oncology*. 121(**2**):359-364, 2015. PMID: 25344883

74. **Parker SL**, McGirt MJ, Murphy JA, Megerian JT, Stout M, Engelhart L. Comparative effectiveness of antibiotic-impregnated shunt catheters in the treatment of adult and pediatric hydrocephalus: Analysis of 12,589 consecutive cases from 287 U.S. hospital systems. *Journal of Neurosurgery*. 122(**2**):443-448, 2015. PMID: 25415066

75. **Parker SL**, McGirt MJ. Response to Editorial. Administrative database research. *Journal of Neurosurgery*. 122(**2**):441-442, 2015. PMID: 25763430

76. **Parker SL**, McGirt MJ. Determination of the minimum improvement in pain, disability, and health state associated with cost-effectiveness: Introduction of the concept of minimum cost effective difference. *Neurosurgery*. 76(**Suppl 1**):S64-S70, 2015. PMID: 25692370

77. Tomycz L, **Parker SL**, McGirt MJ. Minimally invasive L2 corpectomy and pedicle screw fixation for osteoporotic burst fracture via the trans-psoas approach: Technical report. *Journal of Spinal Disorders and Techniques*. 28(**2**):53-60, 2015. PMID: 22832557

78. McGirt MJ, **Parker SL**. Response to Editorial. Results of comprehensive medical management of lumbar disorders questioned. *Journal of Neurosurgery: Spine*. 22(**3**):332-335, 2015. 9(**28**):1-11, 2015. PMID: 26273546

79. **Parker SL**, McGirt MJ, Murphy JA, Megerian JT, Stout M, Engelhart L. Cost savings associated with antibiotic-impregnated shunt catheters in the treatment of adult and pediatric hydrocephalus. *World Neurosurgery*. 83(**3**):382-386, 2015. PMID: 24933241

80. **Parker SL**, McGirt MJ, Asher AL, Selden NR. Quality improvement in neurological surgery graduate medical education. *Neurosurgery Clinics of North America*. 26(**2**):231-238, 2015. PMID: 25771278

81. Asher AL, **Parker SL**, Rolston J, Selden N, McGirt MJ. Using clinical registries to improve the quality of neurosurgical care. *Neurosurgery Clinics of North America*. 26(**2**):253-263, 2015. PMID: 25771281

82. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost per quality adjusted life year gained of revision fusion for lumbar pseudoarthrosis: Defining the value of surgery. *Journal of Spinal Disorders and Techniques*. 28(**3**)101-105, 2015. PMID: 24999554

83. Shau DN, **Parker SL**, Mendenhall SK, Zuckerman S, Devin C, McGirt MJ. Transforaminal lumbar interbody graft placement using an articulating delivery arm facilitates increased segmental lordosis with superior anterior and midline graft placement. *Journal of Spinal Disorders and Techniques*. 28(**4**):140-146, 2015. PMID: 23059702

84. **Parker SL**, Wolinsky JP, Tufaro A, Gokaslan ZL, Witham TF. Five-level corpectomy for neurofibromatosis-associated spinal deformity: Case report. *European Spine Journal*. 24(**Suppl 4**):S544-S550, 2015. PMID: 25416169

85. **Parker SL**, Godil SS, Zuckerman SL, Mendenhall SK, Devin CJ, McGirt MJ. Extent of pre-operative depression is associated with return to work after lumbar fusion for spondylolisthesis. *World Neurosurgery*. 83(**4**):608-613, 2015. PMID: 25527877

86. **Parker SL**, Mendenhall SK, Godil SS, Sivasubramanian P, Cahill K, Ziewacz J, McGirt MJ. Incidence of low back pain after lumbar discectomy for herniated disc and its effect on patient reported outcomes. *Clinical Orthopaedics and Related Research*. 473(**6**):1988-1999, 2015. PMID: 25694267

87. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, McGirt MJ. Accurately measuring the quality and effectiveness of cervical spine surgery in registry efforts: Determining the most valid and responsive instruments. *The Spine Journal*. 15(**6**):1203-1209, 2015. PMID: 24076442

88. Chotai S, Sivaganesan A, **Parker SL**, McGirt MJ, Devin CJ. Patient-specific factors associated with dissatisfaction after elective surgery for degenerative spine diseases. *Neurosurgery*. 77(**2**):157-163, 2015. PMID: 25910085

89. **Parker SL**, Anderson LH, Nelson T, Patel VV. Cost-effectiveness of three treatment strategies for lumbar spinal stenosis: Conservative care, laminectomy, and the Superion interspinous spacer. *International Journal of Spine Surgery*. 9(**28**):1-9, 2015. PMID: 26273546

90. Kelly PD, **Parker SL**, Mendenhall SK, Bible JE, Sivasubramaniam P, Shau DN, McGirt MJ, Devin CJ. Cost-effectiveness of cell saver in short-segment lumbar laminectomy and fusion (≤3 levels). *Spine*. 40(**17**)978-985, 2015. PMID: 25929204

91. Devin CJ, Chotai S, **Parker SL**, Tetreault L, Fehlings MG, McGirt MJ. A cost-utility analysis of lumbar decompression with and without fusion for degenerative spine disease in the elderly. *Neurosurgery*. 77(**Suppl 4**):S116-124, 2015. PMID: 26378349

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93. Chotai S, **Parker SL**, Sivaganesan A, Godil S, McGirt MJ, Devin CJ. Quality of life and general health following elective surgery for cervical spine pathologies: Determining valid and responsive metric of health state utility. *Neurosurgery*. 77(**4**):553-560, 2015. PMID: 26191977

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BOOK CHAPTERS

1. **Parker SL**, Chaichana KL, Quinones A. Dermoid and epidermoid tumors. In Rigamonti (ed.): *Handbook of Neurosurgery*. Imperial College Press, London, UK, 2010.

2. **Parker SL**, Chaichana KL, Quinones A. Neurofibromatosis. In Rigamonti (ed.): *Handbook of Neurosurgery*. Imperial College Press, London, UK, 2010.

3. Gottfried ON, **Parker SL**, Gokaslan ZL. Tumors of the cervical spine. In Yue, Guyer, Johnson, Khoo, and Hochschuler (eds.): *The Comprehensive Treatment of the Aging Spine: Minimally Invasive and Advanced Techniques*. Elsevier. Chapter 32, 188-197, 2011

4. **Parker SL**, McGirt MJ. Cost: Which costs more, open or minimally invasive surgery? In Vaccaro, Fessler, Eck, Sandhu, Voyadzis, and Kepler (eds.): *Controversies in Spine Surgery: Best evidence recommendations, MIS versus open*. Thieme Publishers, New York, NY [In Press]

5. O'Toole JE, **Parker SL**, Cheng JS. Guidelines, spinal outcomes, and registries. *Neurosurgery Knowledge Update*. Chapter 101, 635-639. Thieme Publishers, New York, NY [In press]

6. **Parker SL**, McGirt MJ. Outcomes assessment: Methods and tools. *Congress of Neurological Surgeons Quality Science Curriculum*. [In press]

INVITED LECTURES

1. Accurately measuring surgical outcomes in adults. *Conquer Chiari Research Conference, November 2012*

2. Current management of spinal cord injury in adults. *Department of Orthopedic Surgery Grand Rounds, Vanderbilt University Medical Center, July 2015*

3. Demonstrating value and effectiveness of spine care through prospective patient care registries. *Department of Neurological Surgery Grand Rounds, Icahn School of Medicine at Mount Sinai, July 2016*

4. Evaluation and management of spinal cord injury. *Department of Orthopedic Surgery Grand Rounds, Vanderbilt University Medical Center, July 2016*

NATIONAL PLATFORM PRESENTATIONS

1. **Parker SL**, Garces GL, McGirt MJ, Mehta VA, Sciubba DM, Witham TF, Gokaslan ZG, Wolinsky JP. Trans-laminar versus pedicle screw fixation of C2: Comparison of surgical morbidity and accuracy of 313 consecutive screws. *Cervical Spine Research Society Annual Meeting, December 2008.*

2. **Parker SL**, Attenello FJ, Garces GL, Sciubba DM, Ahn E, Weingart J, Carson B, Jallo GI. Comparison of shunt infection incidence in high risk subgroups receiving antibiotic-impregnated versus standard shunts. *AANS/CNS Section on Pediatric Neurological Surgery, December 2008.*

3. Chaichana KL, **Parker SL**, Olivi A, Quinones A. Long-term seizure outcomes in adult patients undergoing primary resection of malignant brain astrocytomas. *World Congress of Neurological Surgery of the World Federation of Neurosurgical Societies, September 2009.*

4. McGirt MJ, Garces GL, **Parker SL**, Liauw J, Bydon M, Jallo GI, Gokaslan ZL, Weingart JD. Primary and revision suboccipital decompression for adult Chiari I malformation: Analysis of long-term outcomes in 393 patients. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

5. McGirt MJ, Garces GL, **Parker SL**, Sciubba DM, Bydon A, Wolinsky JP, Gokaslan ZL, Witham TF. Progressive spinal deformity following laminoplasty versus laminectomy for resection of intradural spinal tumors: Analysis of 238 patients. *24th Annual North American Spine Society Meeting, November 2009.*

6. McGirt MJ, Garces GL, Attenello FJ, **Parker SL**, Stewart A, Jallo GI, Gokaslan ZL, Weingart J. Primary and revision suboccipital decompression for adult Chiari I malformation: Analysis of long-term outcomes in 393 patients. *24th Annual North American Spine Society Meeting, November 2009.*

7. McGirt MJ, Xu R, **Parker SL**, Bydon M, Gokaslan ZL, Bydon A. Surgical factors associated with recurrent back pain and cyst recurrence after surgical resection of spinal synovial cysts: Analysis of 160 consecutive cases. *24th Annual North American Spine Society Meeting, November 2009.*

8. McGirt MJ, Gottfried O, Mehta VA, **Parker SL**, Gokaslan ZL, Samdani A, Jallo G. Pediatric tethered cord associated scoliosis: Incidence, time course, and factors associated with progression of spinal deformity after spinal cord untethering. *24th Annual North American Spine Society Meeting, November 2009.*

9. McGirt MJ, **Parker SL**, Garces GL, Mehta VA, Sciubba DM, Bydon A, Witham TF, Gokaslan ZL, Wolinsky JP. Trans-laminar versus pedicle screw fixation of C2: Comparison of surgical morbidity and accuracy of 313 consecutive screws. *24th Annual North American Spine Society Meeting, November 2009.*

10. McGirt MJ, **Parker SL**, Wolinsky JP, Witham TF, Bydon A, Gokaslan ZL. Vertebroplasty and kyphoplasty for the treatment of vertebral compression fractures: An evidenced based review of the literature. *24th Annual North American Spine Society Meeting, November 2009.*

11. **Parker SL**, McGirt MJ, Farber SH, Amin AG, Rick AM, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZG, Witham TF. Accuracy of free hand pedicle screws in the thoracic and lumbar spine: Analysis of 6816 consecutive screws. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, February 2010.*

12. **Parker SL**, McGirt MJ, Farber SH, Amin AG, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. The accuracy of intra-operative electromyographic monitoring to determine the presence of malpositioned pedicle screws in the lumbosacral spine: An analysis of 2450 consecutive screws. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, February 2010.*

13. **Parker SL**, McGirt MJ, Xu R, Wolinsky JP, Witham TF, Gokaslan ZL, Bydon A. Surgical factors associated with recurrent back pain and cyst recurrence after surgical resection of spinal synovial cysts: Analysis of 160 consecutive cases. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, February 2010.*

14. Xu R, McGirt MJ, Sutter EG, **Parker SL**, Sciubba DM, Wolinsky JP, Witham TF, Gokaslan ZL, Bydon A. Biomechanical comparison of C7 lateral mass vs. pedicle screws in subaxial cervical constructs. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, February 2010.*

15. **Parker SL**, McGirt MJ, Farber SH, Amin AG, Rick AM, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZG, Witham TF. Accuracy of free hand pedicle screws in the thoracic and lumbar spine: Analysis of 6816 consecutive screws. *American Association of Neurological Surgeons Annual Meeting, May 2010.*

16. **Parker SL**, McGirt MJ, Farber SH, Amin AG, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. The accuracy of intra-operative electromyographic monitoring to determine the presence of malpositioned pedicle screws in the lumbosacral spine: An analysis of 2450 consecutive screws. *American Association of Neurological Surgeons Annual Meeting, May 2010.*

17. **Parker SL**, Chaichana KL, Mukherjee D, Adogwa O, Cheng J, McGirt MJ. Correlation of pre-operative disability and quality of life after lumbar discectomy. *25th Annual North American Spine Society Meeting, October 2010.*

18. Mukherjee D, Chaichana KL, **Parker SL**, Gokaslan ZL, Cheng J, McGirt MJ. Survival of patients with malignant primary osseous spinal neoplasms from the Surveillance, Epidemiology, and End Results (SEER) database from 1973-2005. *25th Annual North American Spine Society Meeting, October 2010.*

19. Mukherjee D, Chaichana KL, **Parker SL**, Gokaslan ZL, Cheng J, McGirt MJ. Association of extent of local tumor invasion and survival in patients with malignant primary osseous spinal neoplasms from the Surveillance, Epidemiology, and End Results (SEER) database. *25th Annual North American Spine Society Meeting, October 2010.*

20. Chaichana KL, Mukherjee D, **Parker SL**, Gokaslan ZL, Cheng J, McGirt MJ. A novel grading scale to predict survival in patients undergoing resection of malignant primary osseous neoplasms from the Surveillance, Epidemiology, and End Results (SEER) database. *25th Annual North American Spine Society Meeting, October 2010.*

21. Adogwa O, **Parker SL**, Aaronson OS, Cheng J, McGirt MJ. Minimally-invasive vs. open transforaminal lumbar interbody fusion (TLIF): An evidenced-based review of the literature. *25th Annual North American Spine Society Meeting, October 2010.*

22. Lebow RL, Adogwa O, **Parker SL**, Sharmal A, Cheng J, McGirt MJ. Same-level recurrent disc herniation after lumbar discectomy: Results of a prospective cohort study with two-year serial imaging. *25th Annual North American Spine Society Meeting, October 2010.*

23. Mukherjee D, Chaichana KL, **Parker SL**, Gokaslan ZL, Cheng J, McGirt MJ. Association of extent of surgical resection and survival in patients with malignant primary osseous spinal neoplasms: A 30-year population-based study. *25th Annual North American Spine Society Meeting, October 2010.*

24. Farber SH, **Parker SL**, Adogwa O, Rigamonti D, McGirt MJ. Cost-utility analysis of an institutional experience with antibiotic impregnated catheters in the treatment of adult hydrocephalus. *Congress of Neurological Surgeons Annual Meeting, October 2010.* **Julius Goodman Award**

25. McGirt MJ, **Parker SL**, Lerner J, Engelhart L, Wang MY. Comparative analysis of surgical site infection after minimally invasive versus open posterior/transforaminal lumbar interbody fusion: Analysis of hospital billing and discharge data from 5,328 patients. *Congress of Neurological Surgeons Annual Meeting, October 2010.*

26. **Parker SL**, Amin A, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. Incidence of vascular encroachment resulting from free hand placement of pedicle screws in the thoracic and lumbar spine: Analysis of 6,816 consecutive screws. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

27. **Parker SL**, Chaichana KL, Adogwa O, Cheng JS, McGirt MJ. Correlation of pre-operative depression and somatic perception scales with post-operative disability and quality of life

after lumbar discectomy. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

28. **Parker SL**, Lebow RL, Adogwa O, Reig AS, Cheng JS, McGirt MJ. Microdiscectomy improves pain-associated depression, somatic anxiety, and mental well-being in patient with herniated lumbar disc. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

29. **Parker SL**, Adogwa O, Paul AR, Anderson W, Aaronson O, Cheng JS, McGirt MJ. Determination of minimum clinically important difference (MCID) in pain, disability, and health state utility after transforaminal lumbar interbody fusion (TLIF) for degenerative lumbar spondylolithesis. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

30. **Parker SL**, Lebow RL, Adogwa O, Sharma A, Aaronson O, Cheng JS, McGirt MJ. Radiographic same-level recurrent disc herniation after lumbar discectomy: Prospective longitudinal study with two-year follow-up. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

31. **Parker SL**, Chaichana KL, Aaronson O, Cheng JS, Gokaslan ZL, McGirt MJ. Pre-operative grading scale to predict survival in patients undergoing resection of malignant primary osseous spinal neoplasms. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

32. **Parker SL**, Adogwa O, Davis BJ, Devin C, McGirt MJ. Determination of the minimum improvement in pain, disability, and health state associated with cost-effectiveness: Introductoin of the concept of minimum cost effective difference (MCED). *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

33. Chaichana KL, **Parker SL**, Adogwa O, Mukherjee D, Aaronson O, Cheng JS, Gokaslan ZL, McGirt MJ. Survival of patients with malignant primary osseous spinal neoplasms from the surveillance, epidemiology, and end results (SEER) database from 1973-2005. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

34. Adogwa O, **Parker SL**, Aaronson O, Cheng JS, McGirt MJ. Comparative effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion: Two-year assessment of narcotic use, return to work, disability, and quality of life. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

35. McGirt MJ, **Parker SL**, Lerner J, Engelhart L, Wang MY. Comparative analysis of surgical site infection after minimally invasive versus open posterior/transforaminal lumbar interbody fusion: Analysis of hospital billing and discharge data from 5,328 patients. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011.*

36. **Parker SL**, Chaichana KL, Aaronson O, Cheng J, Gokaslan ZL, McGirt MJ. Pre-operative grading scale to predict survival in patients undergoing resection of malignant primary

osseous spinal neoplasms. *American Association of Neurological Surgeons Annual Meeting, April 2011.*

37. **Parker SL**, Lebow RL, Adogwa O, Reig AS, Cheng J, McGirt MJ. Microdiscectomy improves pain-associated depression, somatic anxiety, and mental well being in patients with herniated lumbar disc. *American Association of Neurological Surgeons Annual Meeting, April 2011.*

38. McGirt MJ, Adogwa O, **Parker SL**, Paul A, Davis B, Aaronson O, Devin C, Cheng JS. Cost effectiveness of transforaminal lumbar inter-body fusion (TLIF) for grade I degenerative spondylolithesis. *American Association of Neurological Surgeons Annual Meeting, April 2011.*

39. McGirt MJ, Adogwa O, **Parker SL**, Aaronson O, Cheng JS. Comparative effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion: Two-year assessment of narcotic use, return to work, disability, and QOL. *American Association of Neurological Surgeons Annual Meeting, April 2011.*

40. **Parker SL**, Gokaslan ZL, McGirt MJ. Survival of patients with malignant primary spinal neoplasms from the Surveillance, Epidemiology, and End Results (SEER) database from 1973-2005. *10th Annual International Neuro-Oncology Update, September 2011.* **Best Clinical Abstract Award**

41. **Parker SL**, Adogwa O, Shau D, Mendenhall SK, Devin CJ, McGirt MJ. What is the minimum improvement in pain, disability, and quality of life that is associated with cost-effectiveness: Introduction of the concept of minimum cost effective difference (MCED). *Congress of Neurological Surgeons Annual Meeting, October 2011.*

42. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Devin CJ, Cheng J, McGirt MJ. Revision instrumented fusion improves two-year pain, disability, and quality of life in patients with lumbar pseudoarthrosis: Defining the long-term effectiveness of surgery. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

43. Reddy VK, **Parker SL**, Lockney DT, Patrawala SA, Mericle RA. Determination of minimum clinically important difference (MCID) in pain improvement after microvascular decompression for trigeminal neuralgia. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

44. Adogwa O, **Parker SL**, Shau D, Mendenhall S, Aaronson O, Cheng J, Devin C, McGirt MJ. Preoperative Zung depression scale predicts outcome after revision lumbar surgery for adjacent segment disease, recurrent stenosis, and pseudoarthrosis. *26th Annual North American Spine Society Meeting, November 2011.*

45. **Parker SL**, Adogwa O, Shau D, Mendenhall SK, Devin CJ, McGirt MJ. What is the minimum improvement in pain, disability, and quality of life that is associated with cost-

effectiveness: Introduction of the concept of minimum cost effective difference (MCED). *26th Annual North American Spine Society Meeting, November 2011.*

46. **Parker SL**, Shau D, Mendenhall SK, Adogwa O, Cheng J, Devin C, McGirt MJ. Determination of minimum clinically important difference (MCID) in pain, disability, and quality of life after extension of fusion for adjacent segment disease. *26th Annual North American Spine Society Meeting, November 2011.*

47. **Parker SL**, Shau D, Mendenhall SK, Adowga O, Cheng J, Devin C, McGirt MJ. Determination of minimum clinically important difference (MCID) in pain, disability, and quality of life after revision neural decompression and fusion for same-level recurrent lumbar stenosis. *26th Annual North American Spine Society Meeting, November 2011.*

48. Wong CC, Gates M, **Parker SL**, McGirt MJ. The relative impact of lumbar spondylosis on quality of life in the United States: A population health perspective. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

49. **Parker SL**, Shau D, Mendenhall S, McGirt MJ. Factors influencing two-year healthcare costs in patients undergoing revision lumbar fusion procedures: A guide to where we should target our cost and quality improvement initiatives. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

50. **Parker SL**, Mendenahll SK, Shau DN, Devin CJ, McGirt MJ. Cost per quality-adjusted life year gained of revision lumbar surgery for adjacent segment disease, pseudoarthrosis, and same-level recurrent stenosis: Defining the value of surgical intervention. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

51. **Parker SL**, Adogwa O, Shau D, Mendenhall SK, McGirt MJ. Preoperative Zung depression scale predicts patient satisfaction independent of extent of improvement after revision lumbar surgery. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

52. **Parker SL**, Shau D, Mendenhall S, Adogwa O, Devin CJ, McGirt MJ. Extent of preoperative depression predicts outcome after revision lumbar surgery for adjacent segment disease, recurrent stenosis, and pseudoarthrosis. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

53. **Parker SL**, Zuckerman S, Shau D, Mendenhall S, Cheng J, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of trans-foraminal lumbar interbody fusion (TLIF) vs. comprehensive medical management for lumbar spondylolisthesis. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

54. **Parker SL**, Zuckerman S, Shau D, Mendenhall S, Cheng J, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of laminectomy vs. comprehensive medical management for lumbar stenosis. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

55. **Parker SL**, Zuckerman S, Shau DN, Mendenhall SK, McGirt MJ. Comprehensive assessment of one-year outcomes after suboccipital craniectomy for Chiari I malformation in adults. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2012.*

56. **Parker SL**, Shau D, Mendenhall S, Zuckerman S, Cheng J, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of laminectomy versus comprehensive medical management for lumbar stenosis. *American Association of Neurological Surgeons Annual Meeting, April 2012.*

57. **Parker SL**, Mendenhall S, Shau D, Devin C, McGirt MJ. Cost per quality-adjusted life year gained of revision lumbar surgery for adjacent segment disease, pseudoarthrosis, and same-level recurrent stenosis: Defining the value of surgical intervention. *American Association of Neurological Surgeons Annual Meeting, April 2012.*

58. Wong CC, **Parker SL**, Gates M, McGirt MJ. The relative impact of lumbar spondylosis on quality of life in the United States: A population health perspective. *American Association of Neurological Surgeons Annual Meeting, April 2012.*

59. **Parker SL**, Zuckerman S, Shau D, Mendenhall S, McGirt MJ. Cost-utility and comparative effectiveness analyses of transforaminal lumbar interbody fusion (TLIF) versus comprehensive medical management for lumbar spondylolisthesis. *Lumbar Spine Research Society Annual Meeting, April 2012.*

60. **Parker SL**, Mendenhall S, Shau D, Zuckerman S, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *Lumbar Spine Research Society Annual Meeting, April 2012.*

61. **Parker SL**, Godil SS, Zuckerman S, Mendenhall S, Shau D, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of transforaminal lumbar interbody fusion (TLIF) versus comprehensive medical management for lumbar spondylolisthesis. *27th Annual North American Spine Society Meeting, October 2012.*

62. **Parker SL**, Godil SS, Mendenhall S, Shau D, Devin C, McGirt MJ. Accurately measuring the quality and effectiveness of lumbar surgery in registry efforts: Determining the most valid and responsive instruments. *27th Annual North American Spine Society Meeting, October 2012.*

63. **Parker SL**, Zuckerman S, Godil SS, Gates M, Devin C, McGirt MJ. Defining the relative utility of lumbar spine surgery: A systematic literature review of common surgical procedures and their impact on health states. *27th Annual North American Spine Society Meeting, October 2012.*

64. **Parker SL**, Godil SS, Mendenhall S, Shau D, Devin C, McGirt MJ. Factors influencing two-year healthcare costs in patients undergoing revision lumbar fusion procedures: A guide to where should we target our cost and quality improvement initiatives. *27th Annual North American Spine Society Meeting, October 2012.*

65. **Parker SL**, Mendenhall S, Shau D, Zuckerman S, Godil SS, Devin C, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *27th Annual North American Spine Society Meeting, October 2012.*

66. Godil SS, **Parker SL**, Zuckerman S, Mendenhall S, Shau D, Devin C, McGirt MJ. Accurately measuring outcomes after surgery for adult Chiari I malformation: determining the most valid and responsive instruments. *27th Annual North American Spine Society Meeting, October 2012.*

67. **Parker SL**, Godil SS, Mendenhall S, Shau D, Zuckerman S, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of laminectomy versus comprehensive medical management for lumbar stenosis. *27th Annual North American Spine Society Meeting, October 2012.*

68. Godil SS, **Parker SL**, Mendenhall S, Shau D, Devin C, McGirt MJ. Accurately measuring the quality and effectiveness of cervical spine surgery in registry efforts: Determining the most valid and responsive instruments. *27th Annual North American Spine Society Meeting, October 2012.*

69. Wong CC, **Parker SL**, Godil SS, Gates M, Devin C, McGirt MJ. The relative impact of lumbar spondylosis on quality of life in the United States: A population health perspective. *27th Annual North American Spine Society Meeting, October 2012.*

70. **Parker SL**, Devin C, McGirt MJ. Use of a prospective web-based registry to determine the relative value of surgical and medical treatments of degenerative spine disorders: Proving the real-world value of surgical care. *27th Annual North American Spine Society Meeting, October 2012.*

71. **Parker SL**, Godil SS, Mendenhall S, Shau D, Devin C, McGirt MJ A pre-operative grading scale that predicts two-year healthcare costs following revision lumbar fusion procedures: How we can improve the cost of care we provide. *27th Annual North American Spine Society Meeting, October 2012.*

72. Godil SS, **Parker SL**, Zuckerman S, Mendenhall S, McGirt MJ. Determining the quality and effectiveness of spine surgery: Is patient satisfaction a valid proxy? *Congress of Neurological Surgeons Annual Meeting, October 2012.*

73. **Parker SL**, Wong CC, Gates, MJ, Godil SS, McGirt MJ. The relative impact of lumbar spondylosis on quality of life in the United States: A population health perspective. *Congress of Neurological Surgeons Annual Meeting, October 2012.*

74. **Parker SL**, Godil SS, Gates MJ, McGirt MJ. Defining the relative utility of lumbar spine surgery: A systematic literature review of common surgical procedures and their impact on health states. *Congress of Neurological Surgeons Annual Meeting, October 2012.*

75. **Parker SL**, Zuckerman S, Shau D, Mendenhall S, Godil SS, McGirt MJ. Comprehensive medical management of lumbar stenosis and spondylolisthesis is not effective in real-world care: A value analysis of cost, pain, disability, and quality of life. *Congress of Neurological Surgeons Annual Meeting, October 2012.*

76. Godil SS, **Parker SL**, Zuckerman S, Mendenhall S, McGirt MJ. Accurately measuring outcomes after surgery for adult Chiari I malformation: Determining the most valid and responsive instruments. *Congress of Neurological Surgeons Annual Meeting, October 2012.* **Ronald Tasker Award**

77. Reddy VK, **Parker SL**, Patrawala SA, Lockney DT, Su PF, Mericle RA. Determination of minimum clinically important difference in pain after percutaneous stereotactic rhizotomy (PSR) for trigeminal neuralagia. *Congress of Neurological Surgeons Annual Meeting, October 2012.*

78. **Parker SL**, Godil SS, Shau DN, Mendenhall SK, Devin CJ, McGirt MJ. Assessment of the minimum clinically important difference in pain, disability, and quality of life after anterior cervical discectomy and fusion (ACDF). *Cervical Spine Research Society Annual Meeting, December 2012.*

79. **Parker SL**, Godil SS, Devin CJ, McGirt MJ. Relative value of anterior cervical discectomy and fusion (ACDF) compared to other common surgical and medical spine treatments. *Cervical Spine Research Society Annual Meeting, December 2012.*

80. **Parker SL**, Godil SS, Zuckerman SL, Mendenhall SK, Shau DN, Devin CJ, McGirt MJ. Comprehensive assessment of one-year outcomes after suboccipital decompression for Chiari I malformation in adults. *Cervical Spine Research Society Annual Meeting, December 2012.*

81. Godil SS, **Parker SL**, Zuckerman SL, Devin CJ, McGirt MJ. Determining the quality and effectiveness of surgical spine care: Patient satisfaction is not a valid proxy. *Cervical Spine Research Society Annual Meeting, December 2012.*

82. Zuckerman SL, Godil SS, **Parker SL**, Aaronson OA, Devin CJ, McGirt MJ. Use of intra-operative neuromonitoring in cervical spine surgery: Does it affect outcomes? *Cervical Spine Research Society Annual Meeting, December 2012.*

83. **Parker SL**, Godil SS, Zuckerman SL, Shau DN, Mendenhall SK, Cheng JS, McGirt MJ. Comprehensive medical management of lumbar disc herniation, stenosis and spondylolisthesis is not effective in real-world care: A value analysis of cost, pain, disability, and QOL. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

84. Godil SS, Zuckerman SL, **Parker SL**, Aaronson O, Devin CJ, McGirt MJ. Comparative effectiveness, cost utility and cost benefit analysis of intra-operative neuromonitoring in lumbar spine surgery: Where is the value? *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

85. Zuckerman SL, Godil SS, **Parker SL**, Cheng JS, Devin CJ, McGirt MJ. Comparative effectiveness, cost utility and cost benefit analysis of intra-operative neuromonitoring in cervical spine surgery: Where is the value? *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

86. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, McGirt MJ. Accurately measuring outcomes after surgery for adult Chiari I malformation: Determining the most valid and responsive instruments. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

87. Mendenhall SK, **Parker SL**, Shau DN, Godil SS, McGirt MJ. Extent of pre-operative depression is associated with return to work after lumbar fusion for spondylolisthesis. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

88. Dewan M, Godil SS, **Parker SL**, Mendenhall SK, Shau DN, O'Neill K, Devin CJ, McGirt MJ. Comparative effectiveness and cost-benefit analysis of topical vancomycin powder in posterior spinal fusion for spine trauma and degenerative spine disease. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

89. Mendenhall SK, Godil SS, Mistry A, Kilaru B, **Parker SL**, McGirt MJ. Comparative effectiveness of anterior versus posterior approach for treatment of thoracolumbar burst fractures without neurological deficit. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

90. **Parker SL**, Godil SS, Zuckerman SL, Shau DN, Mendenhall SK, Cheng JS, McGirt MJ. Clinical outcomes and cost utility of adult spinal deformity surgery in real-world care. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

91. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, Cheng JS, McGirt MJ. Determining the quality and effectiveness of spine surgery: Patient satisfaction is not a valid proxy. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

92. Wong C, **Parker SL**, Godil SS, Gates MJ, Cheng JS, McGirt MJ. Defining the relative utility of lumbar spine surgery: A systematic literature review of common surgical procedures and their impact on health states. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

93. McGirt MJ, **Parker SL**, Godil SS, Aaronson O, Devin CJ, Cheng JS. Use of a web-based registry to determine the relative value of surgical and medical treatments of spine disorders: Proving the real-world value of surgical care. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

94. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, McGirt MJ. Accurately measuring the quality and effectiveness of cervical spine surgery in registry efforts: Determining the most valid and responsive instruments. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

95. **Parker SL**, Godil SS, Zuckerman SL, Mendenhall SK, Shau DN, McGirt MJ. Accurately measuring the quality and effectiveness of lumbar surgery in registry efforts: Determining the most valid and responsive instruments. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2013.*

96. **Parker SL**, Godil S, Mendenhall SK, Shau DN, Zuckerman SL, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2013.*

97. **Parker SL**, Godil S, Mendenhall SK, Zuckerman SL, Shau DN, McGirt MJ. Effectiveness and cost per quality adjusted life year (QALY) gained from comprehensive medical management of lumbar spondylosis. *International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2013.*

98. **Parker SL**, Godil S, McGirt MJ. Determining the quality and effectiveness of surgical Spine care: Patient satisfaction is not a valid proxy. *International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2013.*

99. **Parker SL**, Engelhart L, Murphy JA, McGirt MJ. Comparative effectiveness and cost-benefit analysis of antibiotic-impregnated shunt catheters in the treatment of hydrocephalus: Analysis of 12,589 consecutive cases from 287 hospital systems. *American Association of Neurological Surgeons Annual Meeting, April 2013.* **Byron Cone Pevehouse MD Award** and **Louise Eisenhardt Award**

100. McGirt MJ, **Parker SL**, Zuckerman SL, Godil S, Cheng JS, Devin CJ. Comparative effectiveness, cost utility and cost benefit analysis of intra-operative neuromonitoring in cervical spine surgery: Where is the value? *American Association of Neurological Surgeons Annual Meeting, April 2013.*

101. Godil SS, **Parker SL**, Mendenhall SK, Zuckerman SL, Shau DN, Devin CJ, McGirt MJ. Cost-utility and comparative effectiveness analyses of surgery versus comprehensive medical management for lumbar spondylosis in elderly. *International Meeting on Advanced Spine Techniques, July 2013.*

102. Godil SS, Dewan MC, **Parker SL**, Devin CJ, McGirt MJ. Mechanical versus chemical prophylaxis for deep venous thrombosis in patients undergoing lumbar spinal fusion: Comparative effectiveness and cost-benefit. *International Meeting on Advanced Spine Techniques, July 2013.*

103. Dewan MC, Godil SS, Zuckerman SL, Mendenhall SK, Shau DN, **Parker SL**, Devin CJ, McGirt MJ. Vancomycin powder in posterior spinal fusion for spine trauma and degenerative spine disease. *International Meeting on Advanced Spine Techniques, July 2013.*

104. **Parker SL**, Godil SS, Zuckerman SL, Devin CJ, McGirt MJ. Disparities in patient population with different type of insurance: Does it affect outcomes? *28th Annual North American Spine Society Meeting, October 2013.*

105. **Parker SL**, Zuckerman SL, Godil SS, McGirt MJ. Understanding the effect of surgical complication on the value of surgical spine care: Evolution of the healthcare value equation. *28th Annual North American Spine Society Meeting, October 2013.* **NASS Value Award**

106. Godil SS, **Parker SL**, Mendenhall SK, Zuckerman SL, Shau DN, Devin CJ, McGirt MJ. Cost-utility and comparative effectiveness analyses of surgery versus comprehensive medical Management for lumbar spondylosis in elderly. *28th Annual North American Spine Society Meeting, October 2013.*

107. Dewan MC, Godil SS, Zuckerman SL, Mendenhall SK, Shau DN, **Parker SL**, Devin CJ, McGirt MJ. Comparative effectiveness and cost-benefit analysis of topical vancomycin powder in posterior spinal fusion for spine trauma and degenerative spine disease. *28th Annual North American Spine Society Meeting, October 2013.*

108. **Parker SL**, Lerner J, McGirt MJ. Minimally invasive versus open posterior interbody lumbar fusion: A propensity-matched analysis of quality measures. *Congress of Neurological Surgeons Annual Meeting, October 2013.*

109. **Parker SL**, Godil SS, Mendenhall S, Zuckerman SL, Shau D, McGirt MJ. Cost-utility and comparative effectiveness analyses of surgery versus comprehensive medical management for lumbar spondylosis in elderly. *Congress of Neurological Surgeons Annual Meeting, October 2013.*

110. **Parker SL**, Adamson TE, McGirt MJ, Deshmukh VR. Rate of symptomatic adjacent segment disease after MIS vs. open transforaminal lumbar interbody fusion. *Congress of Neurological Surgeons Annual Meeting, October 2014.*

111. **Parker SL**, Godil SS, Cheng JS, McGirt MJ, Devin CJ. Do patient demographics and patient reported outcomes predict 12-month loss to follow-up after spine surgery. *29th Annual North American Spine Society Meeting, November 2014.*

112. **Parker SL**, Asher A, Dyer EH, Adamson TE, Devin CJ, McGirt MJ. Lumbar discectomy in the ambulatory care setting: Defining its value across the acute and post-acute care episode. *29th Annual North American Spine Society Meeting, November 2014.* **NASS Value Award**

113. **Parker SL**, Godil SS, McGirt MJ, Devin CJ, O'Neill KO. Thresholds for achieving substantial clinical improvements in pain, disability, and quality of life following adult deformity surgery. *29th Annual North American Spine Society Meeting, November 2014.*

114. **Parker SL**, Godil SS, Cheng JS, Devin CJ, McGirt MJ. Anterior approach for cervical surgery is associated with decreased surgical morbidity compared to posterior approach: Analysis of 9,698 patients from NSQIP database. *29th Annual North American Spine Society Meeting, November 2014.*

115. **Parker SL**, Adamson TE, Smith MD, McGirt MJ. Reduction in symptomatic adjacent segment disease after MIS vs. open transforaminal lumbar interbody fusion. *29th Annual North American Spine Society Meeting, November 2014.*

116. Sivaganesan A, **Parker SL**, Godil SS, Asher A, Devin CJ, McGirt MJ. Using personalized patient profiles to predict surgical morbidity, re-admission, and 12-month physical disability after lumbar spine surgery. *29th Annual North American Spine Society Meeting, November 2014.*

117. Mendenhall SK, **Parker SL**, Armaghani S, Sielatyki J, Sivasubramaniam P, Devin CJ. Anterior versus posterior approach for cervical myelopathy: Comparative effectiveness and cost-utility analysis. *American Academy of Orthopedic Surgeons Annual Meeting, March 2015.*

118. **Parker SL**, Sivaganesan A, Chotai S, McGirt MJ, Asher AL, Devin CJ. Patient improvement and cost effectiveness of elective lumbar spine surgery: A prospective longitudinal registry analysis. *American Association of Neurological Surgeons Annual Meeting, May 2015.*

119. McGirt MJ, **Parker SL**, Mummaneni P, Glassman S, Knightly J, Theodore N, Gottfried O, Ryken T, Shaffrey C, Foley K, Chotai S, Devin CJ, Asher AL. Improvement in pain, disability, and quality of life following lumbar spine surgery: A predictive model from the N^2QOD registry. *American Association of Neurological Surgeons Annual Meeting, May 2015.*

120. **Parker SL**, Devin CJ, McGirt MJ. The association of pre-operative narcotic use on length of hospital stay and one year return to work, pain, disability, and quality of life after elective surgery for degenerative spine disease. *Congress of Neurological Surgeons Annual Meeting, September 2015.*

121. **Parker SL**, Chotai S, Sivaganesan A, Devin CJ, McGirt MJ. Where does potential for true cost savings exist following elective surgery for degenerative spine disease? *Congress of Neurological Surgeons Annual Meeting, September 2015.*

122. McGirt MJ, **Parker SL**, Coric D, Kim PK, Cahill KS, Devin CJ, Asher AL. Arthrodesis versus revision discectomy for recurrent lumbar disc herniation: Patient-reported outcomes in 417 patients from the N^2QOD registry. *Congress of Neurological Surgeons Annual Meeting, September 2015.*

123. McGirt MJ, Mehrlich M, **Parker SL**, Asher AL, Adamson T. ACDF in the outpatient ambulatory surgery setting: Analysis of 1,000 consecutive cases and comparison to hospital inpatient ACDF. *Congress of Neurological Surgeons Annual Meeting, September 2015.*

124. Asher AL, Chotai S, Devin CJ, **Parker SL**, Sivaganesan A, Harell FE, Hui N, Speroff T, Dittus R, McGirt MJ. Oswestry disability index scores 3 months after elective lumbar spine surgery does not accurately identify effective versus non-effective spine care at 12 months. *Congress of Neurological Surgeons Annual Meeting, September 2015.*

125. **Parker SL**, Chotai S, Sivaganesan A, McGirt MJ, Asher AL, Devin CJ. Factors associated with increased incidence of post-operative re-admission following elective spine surgery. *North American Spine Society Annual Meeting, October 2015.*

126. McGrit MJ, **Parker SL**, Coric D, Cahill KS, Devin CJ, Asher AL. Arthrodesis versus revision discectomy for recurrent lumbar disc herniation: Patient-reported outcomes in 417 patients from the N2QOD registry. *North American Spine Society Annual Meeting, October 2015.*

127. Chotai S, Sivaganesan A, **Parker SL**, Sielatycki JA, Wick J, McGirt MJ, Devin CJ. Patient reported outcomes after lumbar epidural steroid injection for degenerative spine disease in depressed versus non-depressed patients. *North American Spine Society Annual Meeting, October 2015.*

128. Chotai S, Sielatycki JA, Sivaganesan A, **Parker SL**, Kay HF, McGirt MJ, Devin CJ. Effect of obesity on cost per quality adjusted life years gained following anterior cervical discectomy and fusion in elective degenerative pathology. *North American Spine Society Annual Meeting, October 2015.*

129. **Parker SL**, Chotai S, Sielatycki JA, Sivaganesan A, Kay HF, Wick JB, McGirt MJ, Devin CJ. Cost utility analysis of anterior cervical discectomy and fusion for degenerative spine disease in elderly population. *Cervical Spine Research Society Annual Meeting, December 2015.* **Resident/Fellow Research Paper Award**

130. Chotai S, **Parker SL**, Sivaganesan A, Stonko D, McGirt MJ, Devin CJ. Where do true cost savings exist following elective surgery for degenerative spine disease? *Cervical Spine Research Society Annual Meeting, December 2015.*

131. Chotai S, **Parker SL**, Sivaganesan A, Sielatycki JA, Wick JB, McGirt MJ, Devin CJ. Quality of life and general health following elective surgery for cervical spine pathologies: Determining valid and responsive metric of health state utility. *Cervical Spine Research Society Annual Meeting, December 2015.*

132. Chotai, Sivaganesan A, **Parker SL**, Aaronson O, Cheng J, McGirt MJ, Devin CJ. Determining the drivers of cost for elective anterior cervical discectomy and fusion for cervical degenerative disease. *Cervical Spine Research Society Annual Meeting, December 2015.*

133. Chotai S, Sielatyck JA, Sivaganesan A, **Parker SL**, Kay HF, O'Neill KR, McGirt MJ, Devin CJ. Impact on obesity on cost per quality adjusted life years gained following anterior cervical discectomy and fusion in elective degenerative pathology. *Cervical Spine Research Society Annual Meeting, December 2015.*

134. Annaghani SJ, Chotai S, Sivaganesan A, **Parker SL**, Sielatycki JA, Stonko D, McGirt MJ, Devin CJ. Patient-specific factors predicting dissatisfaction after elective surgery for degenerative spine diseases. *Cervical Spine Research Society Annual Meeting, December 2015.*

135. Chotai S, Kay HF, Sivaganesan A, **Parker SL**, McGirt MJ, Devin CJ. Drivers of cost for anterior cervical discectomy and fusion for cervical degenerative disease. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2016.*

136. Stonko D, Chotai S, Sielatycki J, Sivaganesan A, **Parker SL**, McGirt MJ, Devin CJ. Effect of complications on the patient-reported outcomes after elective surgery for lumbar degenerative disease. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2016.*

137. Wick J, Chotai S, Kay HF, Sivaganesan A, **Parker SL**, Stonko D, McGirt MJ, Devin CJ. Patient-reported outcomes after lumbar epidural steroid injection in depressed versus non-depressed patients. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2016.*

138. Chotai S, Kay HF, Sivaganesan A, **Parker SL**, McGirt MJ, Devin CJ. Determining drivers of cost for elective laminectomy and fusion for lumbar degenerative disease. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2016.*

139. Devin CJ, Chotai S, Sivaganesan A, **Parker SL**, Kay HF, McGirt MJ. Determining the drivers of cost for elective microdiscectomy for single-level lumbar disc herniation. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2016.*

140. Wick JB, Chotai S, Kay HF, Sielatycki J, Sivaganesan A, **Parker SL**, McGirt MJ, Devin CJ. Patient-specific factors in dissatisfaction after elective surgery for degenerative spine diseases. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2016.*

141. **Parker SL**, Chotai S, Sivaganesan A, Sielatycki JA, McGirt MJ, Devin CJ. Effect of complications within 90-days on patient-reported outcomes 3-months and 12-monhts following elective surgery for degenerative pathology. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2016.* **J.A.N.E. Award**

142. **Parker SL**, Chotai S, Sielatycki JA, Sivaganesan A, Kay H, Stonko DP, Wick J, McGirt MJ, Devin CJ. Cost-utility analysis of anterior cervical discectomy and fusion for degenerative spine disease in elderly population. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2016.*

143. **Parker SL**, Sielatycki JA, Chotai S, Sivaganesan A, Stonko DP, McGirt MJ, Devin CJ. Effect of obesity on cost and effectiveness after decompression with and without fusion for degenerative lumbar disease. *AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2016.*

144. **Parker SL**, Chotai S, Sivaganesan A, Sielatycki JA, Wick JB, Stonko DP, McGirt MJ, Devin CJ. Effect of 90-day complications on cost-utility following lumbar decompression with and without fusion for degenerative spine disease. *American Association of Neurological Surgeons Annual Meeting, May 2016.*

145. **Parker SL**, Sielatycki JA, Chotai S, Sivaganesan A, Stonko D, McGirt MJ, Devin CJ. Effect of obesity on cost and effectiveness after decompression with and without fusion for degenerative lumbar disease. *American Association of Neurological Surgeons Annual Meeting, May 2016.*

146. **Parker SL**, McGirt MJ, Mummaneni P, Knightly J, Pfortmiller D, Foley K, Asher AL. Is the use of minimally invasive technologies associated with improved outcomes after elective lumbar fusion? Analysis of a nationwide prospective patient-reported outcomes registry. *American Association of Neurological Surgeons Annual Meeting, May 2016.*

147. Chotai S, Sivaganesan A, **Parker SL**, Wick J, Stonko DP, McGirt MJ, Devin CJ. Effect of complications within 90-days on cost-utility following elective spine surgery for degenerative lumbar spine disease. *Congress of Neurological Surgeons Annual Meeting, September 2016.* **Julius Goodman Resident Award**

148. Sivaganesan A, Chotai S, **Parker SL**, McGirt MJ, Devin CJ. Patient-reported outcomes after epidural steroid injections versus surgery for degenerative lumbar disease: A prospective, matched cohort study. *Congress of Neurological Surgeons Annual Meeting, September 2016.*

149. Asher AL, Chotai S, Devin CJ, Archer-Swygert K, **Parker SL**, Bydon M, Hui N, Harrell F, Speroff T, Dittus R, Philips S, Shaffrey CI, Foley KT, McGirt MJ, N^2QOD Investigative Group. Predictive model for return to work after elective surgery for lumbar degenerative disease: An analysis from the National Neurosurgery Quality Outcomes Database Registry. *Congress of Neurological Surgeons Annual Meeting, September 2016.*

150. Chotai S, Sivaganesan A, **Parker SL**, Sielatycki JA, Wick J, Stonko D, McGirt MJ, Devin CJ. Effect of complications within 90-days on cost-utility following lumbar decompression with and without fusion for degenerative spine disease. *North American Spine Society Annual Meeting, October 2016.*

151. Chotai S, Sivaganesan A, **Parker SL**, Sielatycki JA, McGirt MJ, Devin CJ. Determining the drivers of cost for elective laminectomy and fusion for lumbar degenerative disease. *North American Spine Society Annual Meeting, October 2016.*

152. Chotai S, Zuckerman SL, **Parker SL**, Stonko D, Hale A, Wick J, McGirt MJ, Cheng JS, Devin CJ. Healthcare resource utilization and patient-reported outcomes following elective spine surgery for intradural extramedullary spinal tumors. *North American Spine Society Annual Meeting, October 2016.*

153. Chotai S, Sivaganesan A, **Parker SL**, Sielatycki JA, Archer K, Nian H, McGirt MJ, Devin CJ. Determining the drivers of variability in 90-day cost for primary single-level microdiscectomy. *North American Spine Society Annual Meeting, October 2016.*

154. Zuckerman SL, Chotai S, Devin CJ, **Parker SL**, Stonko D, Wick J, Hale A, McGirt MJ, Cheng JS. Surgical resection of intradural extramedullary spinal tumors: Patient-reported outcomes and minimum clinically important difference. *North American Spine Society Annual Meeting, October 2016.*

155. Kim E, Wick J, Stonko D, Chotai S, Freeman T, Douleh DG, Mistry A, **Parker SL**, Devin CJ. Timing of operative intervention in traumatic spine injuries without neurologic deficit. *North American Spine Society Annual Meeting, October 2016.*

REGIONAL PLATFORM PRESENTATIONS

1. **Parker SL**, Chaichana KL, Mukherjee D, Cheng J, Gokaslan ZL, McGirt MJ. Preoperative grading scale to predict survival in patients undergoing resection of malignant primary osseous spinal neoplasms. *Southern Neurosurgical Society Annual Meeting, February 2011.*

2. **Parker SL**, Chaichana KL, Mukherjee D, Gokaslan ZL, Aaronson O, Cheng J, McGirt MJ. Association of surgical resection and survival in patients with malignant primary osseous spinal neoplasms: A 30-year population-based study. *Southern Neurosurgical Society Annual Meeting, February 2011.*

3. **Parker SL**, Adogwa O, Bydon A, Cheng J, McGirt MJ. Cost effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolithesis associated low-back and leg pain over two-years. *Southern Neurosurgical Society Annual Meeting, February 2011.*

4. **Parker SL**, Amin AG, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZL, Witham TF. Incidence of vascular encroachment resulting from free hand placement of pedicle screws in the thoracic and lumbar spine: Analysis of 6,816 consecutive screws. *Southern Neurosurgical Society Annual Meeting, February 2011.*

5. **Parker SL**, Chaichana KL, Mukherjee D, Cheng J, Gokaslan ZL, McGirt MJ. Preoperative grading scale to predict survival in patients undergoing resection of malignant primary osseous spinal neoplasms. *The Annual Johns Hopkins University School of Medicine Medical Student Research Day, March 2011.*

6. **Parker SL**, Mendenhall S, Shau D, Zuckerman S, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *Southern Neurosurgical Society Annual Meeting, March 2012.* **Augustus McCravey Award**

7. **Parker SL**, Zuckerman S, Shau D, Mendenhall S, McGirt MJ. Comprehensive assessment of one-year outcomes after suboccipital craniectomy for Chiari I malformation in adults. *Southern Neurosurgical Society Annual Meeting, March 2012.*

8. **Parker SL**, Zuckerman S, Shau D, Mendenhall S, McGirt MJ. Cost-utility and comparative effectiveness analyses of transforaminal lumbar interbody fusion (TLIF) versus comprehensive medical management for lumbar spondylolisthesis. *Southern Neurosurgical Society Annual Meeting, March 2012.*

9. **Parker SL**, Mendenhall S, Shau D, Zuckerman S, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *Tennessee Neurosurgical Society Annual Meeting, August 2012.*

10. Wong CC, **Parker SL**, Gates M, McGirt MJ. Living with chronic disease in the United States: The relative impact of lumbar spondylosis on health state. *Tennessee Neurosurgical Society Annual Meeting, August 2012.*

11. Dewan MC, Godil SS, Zuckerman SL, Mendenhall SK, Shau DN, **Parker SL**, McGirt MJ. Comparative effectiveness and cost-benefit analysis of topical vancomycin powder in posterior spinal fusion for spine trauma and degenerative spine disease. *Southern Neurosurgical Society Annual Meeting, March 2013.* **Augustus McCravey Award**

12. Godil SS, **Parker SL**, Mistry AM, Kilaru BK, McGirt MJ. Comparative effectiveness of anterior versus posterior approach for treatment of traumatic thoracolumbar burst fractures without neurological deficit. *Southern Neurosurgical Society Annual Meeting, March 2013.*

13. Godil SS, Zuckerman SL, **Parker SL**, Devin CJ, McGirt MJ. Comparative effectiveness and cost benefit analysis of intra-operative neuromonitoring in spine surgery: Where is the value? *Southern Neurosurgical Society Annual Meeting, March 2013.*

14. Godil SS, **Parker SL**, Zuckerman SL, Shau DN, Mendenhall SK, McGirt MJ. Effectiveness and value of adult spinal deformity surgery in real-world care. *Southern Neurosurgical Society Annual Meeting, March 2013.*

15. **Parker SL**, Engelhart L, Murphy JA, McGirt MJ. Comparative effectiveness and cost-benefit analysis of antibiotic-impregnated shunt catheters in the treatment of hydrocephalus: Analysis of 12,589 consecutive cases from 287 hospital systems. *Southern Neurosurgical Society Annual Meeting, March 2013.*

16. Wong CC, **Parker SL**, Godil SS, Shau DN, Mendenhall SK, McGirt MJ. Determination of minimum clinically important difference in pain, disability, and quality of life after anterior cervical discectomy and fusion. *Southern Neurosurgical Society Annual Meeting, March 2013.*

17. **Parker SL**, McGirt MJ. Antibiotic-impregnated shunt catheters. Evidence on their clinical and cost effectiveness. *Tennessee Neurosurgical Society Annual Meeting, August 2013.*

18. **Parker SL**, Godil SS, Shannon C, Cheng J, McGirt MJ. Anterior approach for cervical surgery is associated with decreased surgical morbidity compared to posterior approach: Analysis of 9,698 patients from NSQIP database. *Southern Neurosurgical Society Annual Meeting, February 2014.*

19. **Parker SL**, Godil SS, Shannon C, Dyer H, Adamson T, Coric D, Asher AL, McGirt MJ. Outpatient vs. inpatient anterior cervical discectomy and fusion is associated with improved patient safety: Analysis of 7,288 patients from NSQIP database. *Southern Neurosurgical Society Annual Meeting, February 2014.*

20. **Parker SL**, Devin CJ. Effect of pre-operative narcotic use on outcomes and complications of patients undergoing elective spine surgery. *Tennessee Neurosurgical Society Annual Meeting, August 2014.*

21. **Parker SL**, Asher AL, Dyer H, Adamson T, Coric D, Devin CJ, McGirt MJ. Lumbar discectomy in the ambulatory care setting: Defining its value across the acute and post-acute care episode. *Southern Neurosurgical Society Annual Meeting, March 2015.* **Augustus McCravey Award**

22. **Parker SL**, Sivaganesan A, Chotai S, Asher AL, McGirt MJ, Devin CJ. Development and validation of a predictive model for 90-day readmission following elective spine surgery. *Southern Neurosurgical Society Annual Meeting, March 2015.*

23. McGirt MJ, **Parker SL**, Dyer H, Adamson T, Kim P, Coric D, Asher A. Posterior micro-endoscopic discectomy vs. ACDF for single-level radiculopathy: Comparative effectiveness and cost-utility analysis. *Southern Neurosurgical Society Annual Meeting, March 2015.*

24. **Parker SL**, McGirt MJ, Devin CJ, Asher AL. Lumbar surgery in the elderly provides significant health benefit and value in the U.S. healthcare system: Patient-reported outcomes

in 4,370 patients from the N^2QOD registry. *Southern Neurosurgical Society Annual Meeting, March 2016.*

25. **Parker SL**, McGirt MJ, Pfortmiller D, Sorenson J, Foley K, Asher AL. Predictors of extended length of stay, discharge to inpatient rehab, and hospital readmission following elective lumbar spine surgery: Introduction of the Carolina-Semmes grading scale. *Southern Neurosurgical Society Annual Meeting, March 2016.*

26. **Parker SL**, Chotai S, Sivaganesan A, Devin CJ, McGirt MJ. Effect of complications within 90-days on cost-utility following lumbar decompressive with and without fusion for degenerative spine disease. *Southern Neurosurgical Society Annual Meeting, March 2016.*

27. **Parker SL**, Devin CJ, Chotai S, Bydon M, Archer K, McGirt MJ, Asher AL. Factors associated with non-improvement in patient-reported disability at 12-monhts post-operatively following elective lumbar surgery for degenerative pathology. *Southern Neurosurgical Society Annual Meeting, March 2016.*

28. Atkins T, **Parker SL**, McGirt MJ. Expandable TLIF graft placement via articulating delivery arm facilitates improved anterior graft placemtn and superior segmental lordosis. *Southern Neurosurgical Society Annual Meeting, March 2016.*

29. Atkins T, McGirt MJ, **Parker SL**, Mummaneni P, Knightly J, Pfortmiller D, Foley K, Asher AL. Is the use of minimally invasive fusion technologies associated with improved outcomes after elective lumbar fusion? Analysis of a nationwide prospective patient-reported outcomes registry. *Southern Neurosurgical Society Annual Meeting, March 2016.*

30. Sivaganesan A, Chotai S, **Parker SL**, McGirt MJ, Devin CJ. What pre- and intra-operative factors drive length of stay after elective cervical spine surgery? *Southern Neurosurgical Society Annual Meeting, March 2016.*

31. Chotai S, Sivaganesan A, **Parker SL**, Aaronson O, Cheng J, McGirt MJ, Devin CJ. Determining the drivers of cost for primary single-level microdiscectomy for lumbar degenerative disease. *Southern Neurosurgical Society Annual Meeting, March 2016.*

32. Zuckerman SL, Chotai S, Devin CJ, **Parker SL**, Stonko DP, Wick JB, Hale A, McGirt MJ, Cheng JS. Surgical resection of intradural extramedullary spinal tumors: Patient-reported outcomes and minimum clinically important difference. *Southern Neurosurgical Society Annual Meeting, March 2016.* **Augustus McCravey Award**

33. **Parker SL**, Chotai S, Sivaganesan A, Sielatycki JA, Wick JB, Stonko DP, McGirt MJ, Devin CJ. Effect of 90-day complications on patient outcomes and cost-utility following lumbar decompression with and without fusion for degenerative spine disease. *Tennessee Neurological Society Annual Meeting, July 2016.*

NATIONAL POSTER PRESENTATIONS

1. **Parker SL**, Samuels R, McGirt MJ, Bydon M, Liauw J, Weingart JD, Carson BS, Jallo GI. Incidence of symptomatic retethering after surgical management of pediatric tethered cord syndrome with or without duraplasty. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

2. **Parker SL**, Xu R, McGirt MJ, Bydon M, Bydon A. Recurrent back and leg pain after surgical resection of spinal synovial cysts: Systematic review of reported outcomes after decompression with and without fusion. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

3. **Parker SL**, McGirt MJ, Garces GL, Bydon M, Sciubba DM, Witham TF, Wolinsky JP, Jallo GI, Gokaslan ZL. Factors associated with long-term neurological outcome and tumor progression after resection of intramedullary spinal cord tumors: Analysis of 103 consecutive cases. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

4. Chaichana KL, **Parker SL**, Bydon M, McGirt MJ, Olivi A, Quinones-Hinojosa A. Long-term seizure outcomes in adult patients undergoing primary resection of malignant brain astrocytomas. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

5. Xu R, McGirt MJ, **Parker SL**, Bydon M, Liauw J, Wolinsky JP, Witham TF, Gokaslan ZL, Bydon A. Surgical factors associated with recurrent back pain and cyst recurrence after surgical resection of spinal synovial cysts: Analysis of 160 consecutive cases. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

6. Liauw J, McGirt MJ, Garces GL, **Parker SL**, Bydon M, Bydon A, Wolinsky JP, Gokaslan ZL, Witham TF. Progressive spinal deformity following laminoplasty versus laminectomy for resection of intradural spinal tumors: Analysis of 238 patients. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

7. McGirt MJ, **Parker SL**, Liauw J, Bydon M, Wolinsky JP, Witham TF, Bydon A, Gokaslan ZL. Vertebroplasty and kyphoplasty for the treatment of vertebral compression fractures: An evidenced based review of the literature. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

8. McGirt MJ, **Parker SL**, Xu R, Bydon M, Liauw J, Long DM, Bydon A. Long-term back pain after single level discectomy for radiculopathy: Incidence and health care cost analysis. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

9. McGirt MJ, **Parker SL**, Liauw J, Bydon M, Sciubba DM, Witham TF, Wolinsky JP, Gokaslan ZL, Bydon A. Recurrent disc herniation and long-term back pain after primary lumbar discectomy: Review of outcomes reported for limited or aggressive disc removal. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

10. McGirt MJ, Mehta VA, **Parker SL**, Liauw J, Bydon M, Ahn ES, Weingart JD, Samdani AF, Jallo GI. Pediatric tethered cord associated scoliosis: Incidence, time course, and factors associated with progression of spinal deformity after spinal cord untethering. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

11. McGirt MJ, Gottfried ON, Mehta VA, **Parker SL**, Liauw J, Bydon M, Gokaslan ZL, Samdani AF, Jallo GI. Safety and efficacy of concurrent pediatric spinal cord untethering with scoliosis correction and fusion. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

12. McGirt MJ, Chaichana KL, Mukherjee D, **Parker SL**, Liauw J, Quinones-Hinojosa A. Association of surgically acquired motor and language deficits on overall survival after resection of glioblastoma multiforme. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

13. **Parker SL**, McGirt MJ, Mehta VA, Bydon M, Sciubba DM, Bydon A, Witham TF, Gokaslan, ZL, Wolinsky JP. Trans-laminar versus pedicle screw fixation of C2: Comparison of surgical morbidity and analysis of 313 consecutive screws. *Congress of Neurological Surgeons Annual Meeting, October 2009.*

14. **Parker SL**, Adogwa O, Aaronson O, Cheng JS, McGirt MJ. Post-operative infection after minimally invasive versus open transforaminal lumbar interbody fusion (TLIF): Literature review and cost analysis. *Congress of Neurological Surgeons Annual Meeting, October 2010.*

15. Adogwa O, **Parker SL**, Bydon A, Cheng JS, McGirt MJ. Comparative effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion: Two-year assessment of pain, disability, quality of life, and return to work. *Congress of Neurological Surgeons Annual Meeting, October 2010.*

16. Lebow RL, Adogwa O, **Parker SL**, Aaronson O, Cheng JS, McGirt MJ. Microdiscectomy improves pain-associated depression, somatic anxiety, and mental well being in patients with herniated lumbar disc. *Congress of Neurological Surgeons Annual Meeting, October 2010.*

17. Chaichana KL, Garzon T, **Parker SL**, Weingart JD, Olivi A, Bennett R, Brem H, Quinones A. Supratentorial glioblastoma multiforme: The role of surgical resection versus biopsy among older patients. *Congress of Neurological Surgeons Annual Meeting, October 2010.*

18. Chaichana KL, Halthore A, **Parker SL**, Olivi A, Weingart JD, Brem H. Factors involved in maintaining prolonged functional independence following supratentorial glioblastoma multiforme resection. *Congress of Neurological Surgeons Annual Meeting, October 2010.*

19. **Parker SL**, Adogwa O, Shau D, Mendenhall SK, Devin CJ, Cheng J, McGirt MJ. Determination of minimum clinically important difference (MCID) in pain, disability, and quality of life after extension of fusion for adjacent segment disease. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

20. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Devin CJ, Cheng J, McGirt MJ. Revision decompression and fusion improves two-year pain, disability, and quality of life in patients with same level recurrent lumbar stenosis: Defining the long-term effectiveness of surgery. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

21. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, McGirt MJ. Extent of preoperative depression predicts outcome after revision lumbar surgery for adjacent segment disease, recurrent stenosis, and pseudoarthrosis. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

22. Adogwa O, **Parker SL**, Shau D, Mendenhall SK, Devin CJ, Cheng J, McGirt MJ. Laminectomy and extension of instrumented fusion improves two-year pain, disability, and quality of life in patients with adjacent segment disease: Defining the long-term effectiveness of surgery. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

23. Chambless LB, **Parker SL**, Hassam-Malani L, McGirt MJ, Thompson RC. Diabetes mellitus and elevated body mass index are independent risk factors in patients with high-grade glioma. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

24. Chambless LB, **Parker SL**, Hassam-Malani L, McGirt MJ, Thompson RC. Greater extent of resection is associated with prolonged survival in patients with glioblastoma multiforme. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

25. Chambless LB, **Parker SL**, Hassam-Malani L, McGirt MJ, Thompson RC. Karnofsky performance status is a more reliable indicator of prognosis in patients with high-grade glioma when assessed postoperatively. *Congress of Neurological Surgeons Annual Meeting, October 2011.*

26. Adogwa O, **Parker SL**, Shau D, Mendenhall S, Aaronson O, Cheng J, Devin C, McGirt MJ. Cost-effectiveness of revision instrumented fusion for lumbar pseudoarthrosis. *26th Annual North American Spine Society Meeting, November 2011.*

27. Adogwa O, **Parker SL**, Shau D, Mendenhall S, Aaronson O, Cheng J, Devin C, McGirt MJ. Effectiveness of revision decompression and fusion for same level recurrent lumbar stenosis: Two-year improvement in pain, disability, quality of life, and health-state utility. *26th Annual North American Spine Society Meeting, November 2011.*

28. **Parker SL**, Shau D, Mendenhall S, Adogwa O, Cheng J, Devin C, McGirt MJ. Determination of minimum clinically important difference (MCID) in pain, disability, and quality of life after revision fusion for symptomatic pseudoarthrosis. *26th Annual North American Spine Society Meeting, November 2011.*

29. Adogwa O, **Parker SL**, Shau D, Mendenhall S, Aaronson O, Cheng J, Devin C, McGirt MJ. Effectiveness of revision fusion for lumbar pseudoarthrosis: Two-year improvement in pain, disability, quality of life, and health-state utility. *26th Annual North American Spine Society Meeting, November 2011.*

30. **Parker SL**, Grahovac G, Vukas D, Ledic D, Vilendecic M, McGirt MJ. Comparative effectiveness and cost-utility of a novel annular closure device for prevention of recurrent disc herniation following lumbar discectomy: A prospective cohort study. *International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2013.*

REGIONAL POSTER PRESENTATIONS

1. **Parker SL**, Attenello FJ, Garces GL, Sciubba DM, Ahn E, Weingart J, Carson B, Jallo GI. Comparison of shunt infection incidence in high risk subgroups receiving antibiotic-impregnated versus standard shunts. *The Annual Johns Hopkins University School of Medicine Medical Student Research Day, May 2009.*

2. Xu R, McGirt MJ, **Parker SL**, Bydon M, Olivi A, Wolinsky JP, Witham TF, Gokaslan ZL, Bydon A. Factors associated with recurrent back pain and cyst recurrence after surgical resection of 195 spinal synovial cysts: Analysis of 167 consecutive cases. *The Annual Johns Hopkins University School of Medicine Medical Student Research Day, May 2009.*

3. **Parker SL**, Farber SH, Rigamonti D, McGirt MJ. Cost-utility analysis of an institutional experience with antibiotic impregnated catheters in the treatment of adult hydrocephalus. *The Annual Johns Hopkins University School of Medicine Medical Student Research Day, March 2010.*

4. Amin AG, **Parker SL**, McGirt MJ, Farber SH, Rick AM, Bydon A, Sciubba DM, Wolinsky JP, Gokaslan ZG, Witham TF. Accuracy of free hand pedicle screws in the thoracic and lumbar spine: Analysis of 6816 consecutive screws. *The Annual Johns Hopkins University School of Medicine Medical Student Research Day, March 2010.*

5. **Parker SL**, Zuckerman SL, Shau DN, Mendenhall SK, McGirt MJ. Cost-utility and comparative effectiveness analyses of transforaminal lumbar interbody fusion (TLIF) versus comprehensive medical management for lumbar spondylolisthesis. *The Annual Vanderbilt University Research Forum, April 2012.*

6. **Parker SL**, Devin CJ, McGirt MJ. Use of a prospective web-based registry to determine the relative value of surgical and medical treatments of degenerative spine disorders: Proving the real-world value of surgical care. *The Annual Vanderbilt University Research Forum, April 2012.*

7. **Parker SL**, Godil SS, Mendenhall SK, Shau DN, Adogwa O, McGirt MJ. Determination of minimum clinically important difference in pain, disability, and quality of life after extension of fusion for adjacent-segment disease. *The Annual Vanderbilt University Research Forum, April 2012.*

8. **Parker SL**, Shau DN, Mendenhall SK, McGirt MJ. Factors influencing 2-year healthcare costs in patients undergoing revision lumbar fusion procedures. *The Annual Vanderbilt University Research Forum, April 2012.*

9. **Parker SL**, Mendenhall SK, Shau DN, Zuckerman SL, Cheng J, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis. *The Annual Vanderbilt University Research Forum, April 2012.*

10. **Parker SL**, Kilaru B, Zuckerman SL, Shau DN, Mendenhall SK, Godil SS, McGirt MJ. Comprehensive assessment of one-year outcomes after suboccipital craniectomy for Chiari I malformation in adults. *The Annual Vanderbilt University Research Forum, April 2012.*

11. Godil SS, **Parker SL**, Zuckerman SL, Mendenhall SK, McGirt MJ. Determining the quality and effectiveness of spine surgery: Is patient satisfaction a valid proxy. *The Annual Vanderbilt University Research Forum, April 2012.*

12. Zuckerman SL, **Parker SL**, Godil SS, Shau DN, Mendenhall SK, McGirt MJ. Cost-utility and comparative effectiveness analyses of laminectomy versus comprehensive medical management for lumbar stenosis. *The Annual Vanderbilt University Research Forum, April 2012.*

13. Wong CC, **Parker SL**, Godil SS, Gates M, McGirt MJ. Defining the relative utility of lumbar spine surgery: A systematic literature review of common surgical procedures and their impact on health states. *The Annual Vanderbilt University Research Forum, April 2012.*

14. Wong CC, **Parker SL**, Godil SS, Gates M, McGirt MJ. Living with chronic disease in the United States: The relative impact of lumbar spondylosis on health state. *The Annual Vanderbilt University Research Forum, April 2012.*

15. Zuckerman SL, Godil SS, **Parker SL**, Mendenhall SK, Shau DN, Adogwa O, McGirt MJ. Preoperative Zung depression scale predicts outcome and patient satisfaction after revision lumbar surgery. *The Annual Vanderbilt University Research Forum, April 2012.*