

Alexandra Stratton, MD, MSc, FRCSC

STAFF APPOINTMENTS Orthopaedic Spinal Surgeon The Ottawa Hospital—Civic Campus	2017-present
Clinician Investigator in Clinical Epidemiology Program Ottawa Hospital Research Institute	2017-present
Assistant Professor University of Ottawa	2018-present
EDUCATION/TRAINING	
Spine Surgery Fellowship Combined adult/paediatric Oxford, UK	2016-2017
Spine Surgery Fellowship Combined orthopedic/neurosurgery University of Calgary, Canada	2014-2016
Masters of Science Clinical Epidemiology specialization University of Calgary, Canada	2014-2016
Post-graduate Orthopaedic Surgery Residency Memorial University of Newfoundland, Canada	2008-2014
Doctor of Medicine University of Calgary, Canada	2005-2008
Bachelor of Health Science in Biomedical Science University of Calgary, Canada	2004-2005
Bachelor of Science in Kinesiology University of Calgary, Canada	2002-2004

PEER-REVIEWED PUBLICATIONS

1. *A scoping review of complication prediction models in spinal surgery: An analysis of model development, validation and impact.* Canturk, T., Czikk, D., Wai, E., Phan, P., Stratton, A., Michalowski, W., Kingwell, S. North American Spine Society Journal. 2022; Vol. 11.

2. *The effect of a quality improvement project on post-operative opioid use following outpatient spinal surgery.* Magnan, M-C., Wai, E., Kingwell, S., Phan, P., Tierney, S., Stratton, A. British Journal of Pain. May 2022.
3. *Surgical Outcomes of Patients That Fail to Reach Minimal Clinically Important Differences: Comparison of Minimally Invasive vs Open Transforaminal Lumbar Interbody Fusion.* Ayling, O., Stratton, A. et al. Journal of Neurosurgery. Spine, 2022. P.1-8.
4. *Allogeneic blood transfusions and infection risk in lumbar spine surgery: An American College of Surgeons National Surgery Quality Improvement Program (ACS-NSQIP) study.* Amadeo Falsetto, Darren Roffey, Hussam Jabri, MD, Stephen Kingwell, Alexandra Stratton, Phillippe Phan, Eugene Wai; Transfusion. 2022, Vol. 62 (5).
5. *Outcome of Spine Surgery in Patients with Depressed Mental States: a Canadian Spine Outcome Research Network study.* Cushnie, D., Soroceanu, A., Stratton, A., et al. The Spine Journal, 2022.
6. *Minimally invasive tubular lumbar discectomy versus conventional open lumbar discectomy: An observational study from the Canadian Spine Outcomes and Research Network.* Evaniew, N., Stratton, A. et al. Global Spine J. 2021 Jul 9.
7. *National adverse event profile after lumbar spine surgery for lumbar degenerative disorders and comparison of complication rates between hospitals: a CSORN registry study.* Ayling, O., Stratton, A. et al. J Neurosurg Spine 2021 Aug 20; 1-6.
8. *Comparing area under the curve and F1-score for the prediction of surgical complications using a national database.* Phan, P., Wai, E., Locke, E., Stratton, A., Devries, Z., Kingwell, S.. Submitted for publication Feb 2020
9. *Beneficial Effects of Preoperative Exercise on the Outcomes of Thoracolumbar Spinal Surgery.* Phan, Kim; Wai, Eugene; Montazeri, Aman; Lawrence Wai, Denise; McIntosh, Greg; Roffey, Darren ; Phan, Philippe; Stratton, Alexandra; Kingwell, Stephen et al. **Submitted for publication Physiotherapy Canada March 16 2021**
10. *Factors associated with using an interbody fusion in low grade lumbar degenerative versus isthmic spondylolisthesis: A retrospective cohort study.* Bailey, C., Stratton, A. et al. J Neurosurg Spine. 2021 Jul 2; 1-9.
11. *Using a national surgical database to predict complications following posterior lumbar surgery and comparing the area under the curve and F1-score for the assessment of prognostic capability.* Zachary DeVries, BSc, Eric Locke, BSc, Mohamad Hoda, PhD, Dita Moravek, PhD, Alexandra Stratton, MSc MD, Stephen Kingwell, MD, Eugene Wai, MSc MD, Philippe Phan, PhD MD. Spine Journal, 2021 Jul; 21(7):1135-1142.
12. *Comparison of Clinical Outcomes Between Posterior Instrumented Fusion With and Without Interbody Fusion for Isthmic Spondylolisthesis.* Chan V, Nataraj A, Bailey C, Abraham E, Soroceanu A, Johnson M, Paquet J, Christie S, Stratton A, Hall H, Manson N, Rampersaud YR, Thomas K, Fisher C. Clin Spine Surg. 2020 May 15.
13. *A comparison of patient and surgeon expectations of spine surgical outcomes.* Aoude, Ahmed; Litowski, Madison; Aldebeyan, Sultan; Fisher, Charles; Hall, Hamilton ; Manson, Neil; Bailey, Chris; Ahn, Henry; Abraham, Edward; Nataraj,

- Andrew; Paquet, Jerome; Stratton, Alexandra; Christie, Sean; Cadotte, David; Nicholls, Fred; Soroceanu, Alex; Rampersaud, Raja; Thomas, Kenneth. *Global Spine J.* 2020 Mar 10
14. *Opioid Use Trends in Elective Thoracic and Lumbar Spine Surgery Patients.* Stratton, A., et al. *Canadian Journal of Surgery*, 2020 May 28;63(3).
 15. Preoperative factors predict postoperative trajectories of pain and disability following surgery for degenerative lumbar spinal stenosis. Hebert, Jeffrey, Stratton, Alexandra, et al. *Spine*. 2020 Nov 1; 45 (21).
 16. *Development of an unsupervised machine learning algorithm for the prognostication of walking ability in spinal cord injury patients.* DeVries Z, Hoda M, Rivers CS, Maher A, Wai E, Moravek D, Stratton A, Kingwell S, Fallah N, Paquet J, Phan P; RHSCIR Network. *Spine J.* 2020 Feb;20(2):213-224.
 17. *Patients undergoing surgery for lumbar spinal stenosis experience unique courses of pain and disability: a group-based trajectory analysis.* Jeffrey J. Hebert, Edward Abraham, Niels Wedderkopp, Erin Bigney, Eden Richardson, Mariah Darling, Neil Manson, Alexandra Stratton and the CSORN investigators; *PLOS ONE*, 14 (11) 2019 Nov.
 18. *A critical thoracic kyphosis is required to prevent sagittal plane deterioration in selective thoracic fusions in Lenke I and II AIS.* Rothenfluh, D., Stratton, A., Nnadi, C., Beresford-Cleary, N.; *Eur Spine J.* 2019 Aug.
 19. *Impact of resident involvement on cervical and lumbar spine surgery outcomes.* Phan K., Phan P., Stratton A., Kingwell S., Hoda M., Wai E.; *Spine J.* 2019 Jul.
 20. *Effect of spinal decompression on back pain in lumbar spinal stenosis: A Canadian Spine Outcomes Research Network (CSORN) study.* Srinivas S, Paquet J, Bailey C, Nataraj A, Stratton A, Johnson M, Salo P, Christie S, Fisher C, Hall H, Manson N, Rampersaud YR, Thomas K, McIntosh G, Dea N. *Spine J.* 2019 Jun;19(6):1001-1008.
 21. *Increased Prevalence of Chronic Disease in Back Pain Patients Living in Cardependent Neighbourhoods in Canada: A Cross-sectional Analysis.* Zeglinski-Spinney, A., Wai, D., Phan, P., Tsai, E., Stratton, A., Kingwell, S., Roffey, D., Wai, E.; *J Prev Med Public Health*. 2018 Sep;51(5):227-233.
 22. *Clinical outcomes research in spine surgery: what are appropriate follow-up times.* Ayling OGS, Ailon T, McIntosh G, Soroceanu A, Hall H, Nataraj A, Bailey CS, Christie S, Stratton A, Ahn H, Johnson M, Paquet J, Thomas K, Manson N, Rampersaud YR, Fisher CG; *J Neurosurg Spine*. 2018 Dec 21;30(3):397-404.
 23. *The Canadian Spine Surgeon's Perspective: Avoiding Opioid Use in Spine Patients.* Stratton, A., Roffey, D., Stone, E., El Koussy, M., Wai, E.; *Journal of Current Clinical Care* Volume 8, Issue 2, May 2018.
 24. *The Prognostic Accuracy of Suggested Predictors of Failure of Medical Management in Patients with Nontuberculous Spinal Epidural Abscess.* Stratton, A., Thomas, K., Faris, P.; *Global Spine Journal*. 2018 May;8(3):279-285.
 25. *Incidence and risk factors for failed medical management of spinal epidural abscess: a systematic review and meta-analysis.* Stratton, A., Gustafson, K.,

- Thomas, K., James, M.; Journal of Neurosurgery: Spine. 2017 Jan;26(1):81-89.
26. *The Effects of Sleep Deprivation on Resident Situational Awareness in a Trauma Scenario.* Stratton A., Furey A., Hogan M.; J Orthop Trauma. 2014 Jul;28(7).

PODIUM PRESENTATIONS

1. "The effect of pre-operative opioid use on hospital length of stay in patients undergoing elective spine surgery" – Canadian Spine Society Annual Meeting (2020)
2. "Opioid Use Trends in Elective Thoracic and Lumbar Spine Surgery Patients" – Canadian Spine Society Annual Meeting (2018), Canadian Orthopaedic Association Annual Meeting (2018), North American Spine Society Annual Meeting (2018), International Society for the Study of the Lumbar Spine (special poster, 2018)
3. "A simplified clinical prediction rule for prognosticating independent walking after spinal cord injury: a prospective study from a Canadian multicenter spinal cord injury registry" – North American Spine Society Annual Meeting (2018)
4. "Allogeneic blood transfusions and infection risk in lumbar spine surgery: An American College of Surgeons National Surgery Quality Improvement Program (ACS-NSQIP) study" – Canadian Spine Society Annual Meeting (2018), Canadian Orthopaedic Association Annual Meeting (2018)
5. "Wait Times for Spinal Surgery Across Canada: Report from the Canadian Spine registry." – Canadian Spine Society Annual Meeting (2015), Canadian Orthopedic Association Annual Conference (2015)
6. "The Effects of Sleep Deprivation on Resident Situational Awareness in a Trauma Scenario" – American College of Surgeons Committee on Trauma Resident Paper Competition (San Diego 2013), Canadian Surgery Forum representing Newfoundland & Labrador (2012), & Canadian Orthopedic Residents Association Research Forum (2011)
7. "A Biomechanical Study of Cyclic Loading of Volar Distal Radius Plates for the Treatment of Distal Radius Osteotomies" – Canadian Orthopedic Association Annual Conference (2013), Canadian Medical and Biological Engineering Society Conference (2014), Orthopedic Trauma Association (OTA) annual meeting (poster, 2012)
8. "Traumatic Atlanto-Occipital Dissociation: A Case Presentation" – Atlantic Spine Society Meeting (2012)

CERTIFICATIONS

- Fellow of the Royal College of Physicians and Surgeons of Canada (2014)
- LMCC MCCQE 1 & 2 (2008, 2009)
- American Board of Orthopaedic Surgery (ABOS) Part I (2015)
- USMLE Step 1, 2 CK & CS, 3 (2008, 2009)

AWARDS

- The Ottawa Hospital Academic Medical Organization Innovation Award, co-PI, “The Feasibility of a Multidisciplinary Transitional Pain Service in Spine Surgery Patients to Minimize Opioid Use and Improve Peri-Operative Outcomes” – \$54,350 (February 2020)
- The Ottawa Hospital Department of Surgery Professionalism and Collegiality Award (2019, 2020)
- Queen Elizabeth II Graduate Scholarship (2015-2016)
- Regional winner, Eastern Canada, American College of Surgeons Committee on Trauma (ACS COT) resident paper competition (2013)
- Jimmie Condon Athletic Award (annually, 2002-2007)
- University of Calgary Outstanding Achievement Scholarship Award (2002-2005)
- University of Calgary Athlete of the Year (2003-2004)
- Alberta Heritage Foundation for Medical Research (AHFMR) Summer Studentship Award (2002 & 2003)

MEMBERSHIPS and COMMITTEES

- University of Ottawa Orthopaedic Surgery Residency Training Committee (2022-present)
- Canadian Spine Society (2016-present), Executive Committee (2020-2022)
- University of Ottawa Orthopaedic Surgery Residency Program Competency Committee (2020-2021)
- North American Spine Society (2018-2019)
- Federation of Medical Women of Canada (2018-2020)
- AO Spine (2014-2016)
- Canadian Orthopaedic Association (2008-2019)
- Ontario Medical Association (2017-present)
- Canadian Medical Association (2008-present)
- American Academy of Orthopaedic Surgeons (2008-2015)
- Professional Association of Interns and Residents of Newfoundland (PAIRN) – (2008-2014), orthopedic representative (2010-2011)
- Team Broken Earth, Port-au-Prince, Haiti (2013)
- Canadian Orthopaedic Residents Association – co-President (2010-2011)
- Ruth Jackson Orthopedic Society (2008-2011)
- MUN Wellness Committee – resident representative (2009-2010)
- Canadian Olympic Swim Team (2000)

EDUCATIONAL PORTFOLIO

- Mentor, University of Ottawa Surgery Interest Group mentorship program
- Participant, Ottawa Hospital Research Institute (OHRI) Clinical Research Training Course, Oct. 2018
- Participant, North American Spine Society Minimally Invasive Spine Surgery Course, Sept. 2018

- Participant, Annual Canadian Contemporary Spine Techniques program (CCST), 2018
- Participant, Stryker Minimally Invasive Spine Surgery Course, 2018
- Presenter, Division of Orthopaedic Surgery Grand Rounds, The Ottawa Hospital, 2018
- Participant, University of Ottawa Opioids in 2018: Tools for Primary Care Providers to Stem the Epidemic Conference
- Participant, University of Calgary Oblique Lateral Interbody Fusion Course, 2018
- Examiner, resident mock-exams, University of Ottawa, 2017-present
- Physical examination instructor, MSK course, University of Calgary Cumming School of Medicine, 2016
- Participant, University of Calgary Surgery Fellows Educator Course, 2016
- Participant, Annual University of California San Francisco Techniques in Complex Spine Surgery Program, 2015
- Abstract reviewer, Campus Alberta Student Health Conference, Banff AB 2015
- Preceptor, medical student Anatomy and Clinical Skills teaching, St. John's NL, Port-au-Prince, Haiti, Calgary AB, 2010-2016
- Chair, Canadian Orthopaedic Residents Association annual meeting, 2011
- Presenter, MUN Orthopedic Grand Rounds, yearly, 2010-2013