

Curriculum Vitae Andrea Soo, PhD

I. BIOGRAPHICAL DATA

McCaig Tower, Ground Floor, Room 0455
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E-mail: Andrea.Soo@ahs.ca

Adjunct Assistant Professor
Department of Critical Care Medicine
University of Calgary, Calgary, Alberta

Senior Biostatistician
Department of Critical Care Medicine
Alberta Health Services, Calgary, Alberta

II. ACADEMIC RECORD

Doctor of Philosophy, 2015
Biostatistics, Department of Community Health Sciences
University of Calgary, Calgary, Alberta
Thesis: Measuring Observer Agreement on Categorical Data
Supervisors: Dr. Gordon H. Fick and Dr. Misha Eliasziw

Master of Science (Course-based), 2008
Statistics, Department of Mathematics and Statistics
University of Calgary, Calgary, Alberta
Project: A Comparison of Two Methods: Detecting Change-Points
Supervisor: Dr. Murray Burke

Bachelor of Science (with Distinction), 2006
Statistics and Actuarial Science, Department of Mathematics and Statistics
University of Calgary, Calgary, Alberta

III. AWARDS AND DISTINCTIONS

2011 – 2014	Alberta Innovates – Health Solutions PhD Health Research Studentship
2009 – 2011	Graduate Student Support Funding, Department of Community Health Sciences, University of Calgary, Calgary, Alberta
2007 – 2008	Alberta Graduate Student Scholarship, Government of Alberta

2006	NSERC Undergraduate Research Award
2003 – 2005	Undergraduate Merit Award, University of Calgary, Calgary, Alberta
2002 – 2005	Jason Lang Scholarship, Government of Alberta

IV. **ACADEMIC APPOINTMENTS**

2016 – Present	Adjunct Assistant Professor, Department of Critical Care Medicine, Alberta Health Services, Calgary, Alberta
2015 – Present	Senior Analyst/Biostatistician, Department of Critical Care Medicine, Alberta Health Services, Calgary, Alberta
2009 – 2013	Data Analyst, Department of Paediatrics, University of Calgary, Calgary, Alberta
2010 – 2012	Research Associate, Department of Community Health Sciences, University of Calgary, Calgary, Alberta
2010 – 2011	Data Analyst, Department of Medicine, Division of Nephrology, University of Calgary, Calgary, Alberta
2009 – 2010	Statistical Researcher, Department of Mathematics and Statistics, University of Calgary, Calgary, Alberta

V. **EDUCATIONAL ACTIVITIES**

Undergraduate Teaching

2006 – 2008	Tutorial Assistant, Department of Mathematics and Statistics, University of Calgary, Calgary, Alberta. Taught tutorials for Introduction to Statistics I/II (STAT 213/217), Mathematical Probability (MATH 321), Introduction to Mathematical Statistics (MATH 323), Applied Regression Analysis (STAT 429), and Applied Probability (STAT 407). Reviewed or taught course material, administered and marked tests, assisted students in use of statistical software.
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Graduate Teaching

2010 – 2012	Tutorial Assistant, Department of Community Health Sciences, University of Calgary, Calgary, Alberta. Taught tutorials for Essentials of Biostatistics (MDCH 610, formerly MDSC 643.01) and Models for Health Outcomes (MDCH 611, formerly MDSC 643.02). Reviewed or taught course material, administered and marked tests and assignments, assisted students in use of statistical software. Delivered lectures when course instructor was not available.
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VI. ADMINISTRATIVE RESPONSIBILITIES**Mentorship**

2016 – Present Simon Guienguere, MSc (Statistics)
Analyst, Department of Critical Care Medicine, Alberta Health Services,
Calgary, Alberta
Providing weekly mentorship on statistical methodology, software, and
health research

Educational and/or Research Committees

2015 – Present Member of the University of Calgary Biostatistics Centre (UCBC) group,
Calgary, Alberta
2009 – 2010 Course Representative
Department of Community Health Sciences Student Executive,
University of Calgary, Calgary, Alberta
2005 – 2006 Vice President Academic
University of Calgary Actuarial Society (UCAS), Calgary, Alberta

VII. PROFESSIONAL ACTIVITIES**Professional Memberships**

Statistical Society of Canada (SSC)
Society of Critical Care Medicine (SCCM)

VIII. RESEARCH SUPPORT

2016 – 2018 Identifying Barriers and Facilitators to the De-adoption of Low-Value
Clinical Practices in Alberta Acute Care Hospitals. Co-Investigator
(Principal Investigator: Jeanna Parsons Leigh), 0% fund allocation,
\$108,000 (\$98,000 M.S.I. foundation, \$10,000 Critical Care Strategic
Clinical Network), M.S.I. foundation, Edmonton, Alberta
2016 – 2017 A Retrospective Cohort Study to Describe the Characteristics and
Outcomes of Patients Discharged Home from Intensive Care Units in
Alberta. Co-Investigator (Principal Investigator: Henry T. Stelfox), 0%
fund allocation, \$10,000, Clinical Research Fund Grant, University of
Calgary, Calgary, Alberta
2017 – 2018 Optimization of Acute Respiratory Distress Syndrome Management in
Calgary Intensive Care Units. Co-Investigator (Principal Investigator:
Ken Parhar), 0% fund allocation, \$10,000, Late Life Issues Team Seed
Grant (CIHR); Critical Care Strategic Clinical Network (AHS)

IX. INVITED ADDRESSES

- 2007 Case study of Demographic Methods, Annual Meeting of the Statistical Society of Canada, Memorial University of Newfoundland, St. John's, Newfoundland
- 2006 – 2008 Statistical research seminar presentations, Department of Mathematics and Statistics, University of Calgary, Calgary, Alberta
- Asymptotic Distributions for Two Estimators of the Single-Index Model, 2008
 - Propensity Score Methods, 2007
 - Statistical Modelling: The Two Cultures, 2007
 - Classification with Discrete and Continuous Variables via General Mixed-Data Models, 2006

X. PUBLICATIONS/PRESENTATIONS

Peer-Reviewed Publications

1. Gillis A, Morck M, Exner D, **Soo A**, Rose M, Sheldon R, Duff H, Kavanagh K, Mitchell L, and Wyse D. (2008) Beneficial effects of statin therapy for prevention of atrial fibrillation following DDDR pacemaker implantation. *European Heart Journal*. 29(15): 1873-1880.
2. de Leon A, **Soo A**, Bonzo D, and Rudnisky C. (2009). Joint estimation of diagnostic accuracy measures for paired organs: application in ophthalmology. *Biometrical Journal*. 51(5): 837-850.
3. de Leon A, **Soo A**, and Williamson T. (2010) Classification with discrete and continuous variables via general mixed-data models. *Journal of Applied Statistics*. 38(5): 1021-1032.
4. Samuel S, Tonelli M, Foster B, Nettel-Aguirre A, Na Y, Williams R, **Soo A**, Hemmelgarn B. (2010) Overview of the Canadian pediatric end-stage renal disease database. *BMC Nephrology* 2010, 11:21.
5. Samuel S, Tonelli M, Foster B, Alexander RT, Nettel-Aguirre A, **Soo A**, Hemmelgarn B. (2011) Survival in Pediatric Dialysis and Transplant Patients. *Clin J Am Soc Nephrol*, 6(5): 1094-1099.
6. Samuel S, Nettel-Aguirre A, Hemmelgarn B, Tonelli M, **Soo A**, Clark C, Alexander RT, Foster B. (2011) Graft failure and adaptation period to adult health care centers in pediatric renal transplant patients. *Transplantation*. 91(12): 1380-1385.
7. Samuel S, Foster B, Tonelli M, Nettel-Aguirre A, **Soo A**, Alexander RT, Crowshoe L, Hemmelgarn B. (2011) Dialysis and transplantation among Aboriginal children with kidney failure. *CMAJ*. 183(10): E665-E672.
8. Samuel S, Hemmelgarn B, Nettel-Aguirre A, Foster B, **Soo A**, Alexander RT, Tonelli M. (2012) Association between residence location and likelihood of transplantation

- among pediatric dialysis patients. *Pediatric Transplantation*. 16(7): 735-741.
9. Alexander RT, Foster B, Tonelli M, **Soo A**, Nettel-Aguirre A, Hemmelgarn B, Samuel S. (2012) Survival and transplantation outcomes of children less than 2 years of age with end stage renal disease. *Pediatric Nephrology*. 27(10): 1975-1983.
 10. Samuel S, Foster B, Hemmelgarn B, Nettel-Aguirre A, Crowshoe L, Alexander RT, **Soo A**, Tonelli M. (2012) Incidence and causes of end-stage renal disease among Aboriginal children. *CMAJ*. 184(14): E758-764.
 11. Deved V, Jette N, Quan H, Tonelli M, Manns BJ, **Soo A**, Barnabe C, Hemmelgarn BR. (2013) Quality of care for First Nations and non-First Nations with diabetes. *Clin J Am Soc Nephrol*. 8(7): 1188-1194.
 12. Maxwell CJ, **Soo A**, Hogan DB, Wodchis WP, Gilbert E, Amuah JE, Eliasziw M, Strain LA. (2013) Predictors of nursing home placement from assisted living settings: A first look at assisted living in Canada. *Canadian Journal on Aging*. 32(4): 333-348.
 13. Schorr M, Hemmelgarn BR, Tonelli M, **Soo A**, Manns BJ, Bresee LC. (2013) Assessment of serum creatinine and kidney function among incident metformin users. *Canadian Journal of Diabetes*. 37(4): 226-230.
 14. Thurston WE, **Soo A**, Turner D. (2013) Are there differences between the Aboriginal homeless population and the non-Aboriginal homeless population in Calgary. *Pimatisiwin Journal*. 11(2): 283-292.
 15. Samuel S, Nettel-Aguirre A, **Soo A**, Hemmelgarn B, Tonelli M, Foster B. (2014) Avoidable hospitalization in youth with kidney failure after transfer to or with only adult care. *Pediatrics*. 133(4): e993-e1000.
 16. Hogan DB, Amuah JE, Strain LA, Wodchis WP, **Soo A**, Eliasziw M, Gruneir A, Hagen B, Teare G, Maxwell CJ. (2014) High rates of hospital admission among older residents in assisted living facilities: opportunities for intervention and impact on acute care. *Open Medicine*. 8(1): e33-e45.
 17. Maxwell CJ, Amuah JE, Hogan DB, Cepoiu-Martin M, Gruneir A, Patten SB, **Soo A**, Le Clair K, Wilson K, Hagen B, Strain LA. (2015) Elevated Hospitalization Risk of Assisted Living Residents With Dementia in Alberta, Canada. *Journal of the American Medical Directors Association*. 16(7): 568-577.
 18. Dart AB, Zappitelli M, Sood MM, Alexander RT, Arora S, Erickson RL, Kroeker K, **Soo A**, Manns BJ, Samuel S. (2017) Variation in estimated glomerular filtration rate at dialysis initiation in children. *Pediatric Nephrology*. 32(2): 331-340.
 19. Au S, Roze des Ordons A, **Soo A**, Guienguere S, Stelfox HT. (2017) Family participation in intensive care unit rounds: Comparing family and provider perspectives. *Journal of Critical Care*. 38: 132-136.

Publications submitted or under revisions

1. Stelfox HT, Parsons Leigh J, Dodek P, Turgeon AF, Forster AJ, Lamontagne F, Fowler RA, **Soo A**, Bagshaw SM. A Multi-Center Prospective Cohort Study of Patient Transfers from the Intensive Care Unit to the Hospital Ward. Under revisions with *Intensive Care Medicine*.
2. Sauro KM, Bagshaw SM, Niven DJ, **Soo A**, Brundin-Mather R, Parsons Leigh J,

Cook DJ, Stelfox HT. Barriers and facilitators to adopting high value practices and de-adopting low value practices in the intensive care unit: a mixed methods study. Submitted to BMJ Quality & Safety, May 12, 2017.

Accepted Conference Abstracts

1. Samuel S, Tonelli M, Foster B, Nettel-Aguirre A, Na Y, Williams R, **Soo A**, Hemmelgarn B. Performing Clinical Research in Pediatric Nephrology: Using Canadian Registry and Administrative Datasets. Canadian Society of Nephrology Conference, Montreal, Canada, 2010.
2. Samuel S, Tonelli M, Foster B, Nettel-Aguirre A, **Soo A**, Hemmelgarn B. Long-term Survival of Pediatric End-Stage Renal Disease Patients in Canada. Canadian Society of Nephrology Conference, Montreal, Canada, 2010.
3. Maxwell CJ, Strain LA, Wodchis W, **Soo A**, Gilbert E, Hogan D, Teare G, Wanless D, Eliasziw M. Assisted Living in the continuum of continuing care in Canada: Implications for the health and well-being of residents and their family members. First International Conference on Evidence-based Policy in Long-term Care, Personal Social Services Research Unit, London School of Economics & Political Science, London, UK, 2010.
4. Samuel S, Hemmelgarn B, Tonelli M, Nettel-Aguirre A, **Soo A**, Clark C, Alexander RT, Foster B. Renal allograft loss during transfer of care to adult oriented health care services in Canadian pediatric renal transplant patients. American Society of Nephrology Renal Week, Denver, United States, 2010.
5. Samuel S, Tonelli M, Foster B, Nettel-Aguirre A, Alexander RT, **Soo A**, Crowshoe L, Hemmelgarn B. Death, dialysis and renal transplantation among Aboriginal children with kidney failure in Canada. American Society of Nephrology Renal Week, Denver, United States, 2010.
6. Alexander RT, Samuel S, Foster B, Tonelli M, **Soo A**, Nettel-Aguirre A, Hemmelgarn B. Survival of Neonates, Infants and Toddlers with End-Stage Renal Disease. American Society of Nephrology Renal Week, Denver, United States, 2010.
7. Samuel S, Tonelli M, Hemmelgarn B, **Soo A**, Nettel-Aguirre A, Alexander RT, Crowshoe L, Foster B. Incidence of end-stage renal disease in Canadian Aboriginal children. World Congress of Nephrology, Vancouver, Canada, 2011.
8. Samuel S, Foster B, Hemmelgarn B, **Soo A**, Nettel-Aguirre A, Alexander RT, Tonelli M. Association of distance to renal care center and death in pediatric end-stage renal disease patients. World Congress of Nephrology, Vancouver, Canada, 2011.
9. Maxwell CJ, Strain L, **Soo A**, Gilbert E, Wanless D, Hogan DB, Wodchis W. Factors associated with long-term care placement among residents of Assisted Living facilities. Canadian Geriatrics Society 31st Annual Scientific Meeting, Vancouver, Canada, 2011.
10. **Soo A**, Foster B, Samuel S. Cardiovascular Events in Pediatric Renal Transplant Patients. 6th Congress of the International Pediatric Transplant Association, Montreal, Canada, 2011.

11. Samuel S, Hemmelgarn B, Tonelli M, Nettel-Aguirre A, **Soo A**, Clark C, Alexander RT, Foster B. Renal allograft loss during transfer of care to adult oriented health care services in Canadian pediatric renal transplant patients. 6th Congress of the International Pediatric Transplant Association, Montreal, Canada, 2011.
12. Wang X, Chun J, **Soo A**, Ahmed S, Trpkov K, Hemmelgarn B, Muruve D. Association of NLRP3 gene expression with human IgA nephropathy progression. American Society of Nephrology Kidney Week, Philadelphia, United States, 2011.
13. Elliott M, Tonelli M, Manns B, Kline G, James M, **Soo A**, Hemmelgarn B. Fracture risk is not increased in patients with chronic kidney disease. American Society of Nephrology Kidney Week, Philadelphia, United States, 2011.
14. Samuel S, Hemmelgarn B, Nettel-Aguirre, Foster B, **Soo A**, Alexander RT, Tonelli M. Residence location and likelihood of transplantation among pediatric patients with end-stage renal disease. American Society of Nephrology Kidney Week, Philadelphia, United States, 2011.
15. Samuel S, **Soo A**, Nettel-Aguirre A, Hemmelgarn B, Tonelli M, Foster B. Care environment and avoidable hospitalizations in young dialysis and transplant patients. Canadian Society of Nephrology Annual Meeting, St. John's, Canada, 2012.
16. **Soo A**, Foster B, Alexander T, Samuel S. Infection related hospitalizations in pediatric and young adult dialysis and transplant patients. Canadian Society of Nephrology Annual Meeting, St. John's, Canada, 2012.
17. Maxwell CJ, Amuah JE, Cepoiu-Martin M, **Soo A**, Gruneir A, Hogan DB, Patten SB, LeClair K, Wilson K, Strain LA. Resident and facility predictors of hospitalization among older adults with dementia residing in assisted living facilities. Alzheimer's Association International Conference, Vancouver, Canada, 2012. Abstract published in Alzheimer's & Dementia 2012; 8(4) Suppl. P429.
18. Cepoiu-Martin M, **Soo A**, Strain LA, Hogan DB, Patten SB, Gruneir A, LeClair K, Wilson K, Amuah JE, Maxwell CJ. Resident and facility determinants of long-term care placement among older adults with dementia residing in assisted living facilities. Alzheimer's Association International Conference, Vancouver, Canada 2012. Abstract published in Alzheimer's & Dementia 2012; 8(4) Suppl. P251.
19. Au S, Roze des Ordon A, **Soo A**, Guienguere S, Stelfox HT. Determining Best Practices for Family Participation in ICU Rounds. Society of Critical Care Medicine, 45th Annual Critical Care Congress, Florida, United States, 2016.
20. **Soo A**, Zuege D, Fick G, Niven D, Berthiaume L, Stelfox HT, Doig C. Describing organ dysfunction in the intensive care unit. Society of Critical Care Medicine, 46th Annual Critical Care Congress, Honolulu, United States, 2017.
21. Zjadewicz K, **Soo A**, Coulthard J, Boucher P, Boiteau P. Considerations for implementing a successful OR-ICU handover procedure in a large trauma centre. Society of Critical Care Medicine, 46th Annual Critical Care Congress, Honolulu, United States, 2017.
22. Sauro KM, Bagshaw SM, Niven DJ, **Soo A**, Brundin-Mather R, Parsons Leigh J, Cook DJ, Stelfox HT. Barriers and facilitators to adoption of high value practices and de-adoption of low value practices in the Intensive Care Unit. KT Canada Scientific

- Meeting, Quebec City, Canada, 2017.
23. Parhar K, Zjadewicz K, **Soo A**, Sutton A, Zjadewicz M, Doig L, Ferland A, Lam C, Stelfox HT, Doig CJ. Epidemiology and predictors of outcome in patients with acute respiratory distress syndrome: The Calgary experience. European Society of Intensive Care Medicine, 30th Annual Congress, Vienna, Austria, 2017.