

CURRICULUM VITAE

I. BIOGRAPHICAL DATA

Name: Claire Ellen Hawkins Barber
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II. ACADEMIC RECORD

Final Degree: PhD
Date completed: February 12, 2016
Specialty: Epidemiology
Institution/City/Country: University of Calgary, Calgary, Canada

i. Undergraduate

2002/05 BSc Honors, Microbiology and Immunology, Dalhousie University, Halifax, Nova Scotia, Canada (Supervisor Dr. Roy Duncan)
2006/05 MD, Medicine, Dalhousie University, Halifax, Nova Scotia, Canada

iii. Graduate and Post-Doctoral

2009/06 PGY1-3, Internal Medicine, Dalhousie University, Halifax, Nova Scotia, Canada (Program Director Dr. Darrell White and Research Mentor John Hanly)
2011/06 PGY4-5, Rheumatology, University of Toronto, Toronto, Ontario, Canada (Program Director Dr. Arthur Bookman and Research Mentor Paul Fortin)
2016/02 PhD, Epidemiology, University of Calgary, Calgary, Alberta, Canada (Supervisors Drs. Deborah Marshall and John Esdaile)

iv. Licensure, Certification and Boards

2006/05 Licentiate of the Medical Council of Canada I, Medical Council of Canada
2006/05 Medical Doctor, Dalhousie University
2007/12 Licentiate of the Medical Council of Canada II, Medical Council of Canada
2010/06 Fellow of the Royal College of Physicians and Surgeons of Canada (FRCPC) -

Internal Medicine, Royal College of Physicians and Surgeons of Canada, 696513

- 2011/07 College of Physicians and Surgeons of Alberta, College of Physicians and Surgeons of Alberta, 018416
- 2011/09 Fellow of the Royal College of Physicians and Surgeons of Canada (FRCPC) - Rheumatology, Royal College of Physicians and Surgeons of Canada, 696513

III. AWARDS AND DISTINCTIONS

- 2017/02 Best Abstract, Development of a National Rheumatoid Arthritis Core Clinical Dataset (RACCD) in Canada to Support High Quality Care for RA Patients. Canadian Rheumatology Association Annual Meeting. \$ 1000.
- 2015/11 Nomination for the 2015 Summer Studentship Mentor Award (Canadian Rheumatology Association - CRA).
- 2015/09 ARC/Lilly Travel Scholarship, to attend ACR 2015 in San Francisco, CA, USA, \$1,700.
- 2015/02 Best Abstract, Developing System Level Performance Measures for Evaluating Models of Care for Inflammatory Arthritis, Canadian Rheumatology Association Annual Meeting. \$1,000
- 2014/11 Nomination by the Canadian Rheumatology Association (CRA) for the Canadian Medical Association (CMA) Award for Young Leaders (Early Career Physician Leadership Award)
- 2014/09 Travel Award, Lupus 2014 Meeting September 18-20th 2014 in Quebec City, Quebec.
- 2010/06 Travel Award, International Lupus Congress June 24-27th 2010 in Vancouver, British Columbia. \$1,000
- 2009/01 - 2009/12 The Arthritis Society Rheumatology Student Essay Prize. Prize was awarded for an essay in the field of musculoskeletal disorders. Topic: Lupus Nephritis.
- 2006/04 Best Case Presentation, Dalhousie University Resident Research Day. Prize awarded for my presentation entitled : “BK virus nephropathy in a heart transplant recipient- Case report and review of the literature”
- 2005/11 Charles E. Frosst Scholarship, Dalhousie University, “Awarded to a medical student entering fourth year who has shown general proficiency throughout the course.” \$1,000
- 2005 The Arthritis Society Rheumatology Student Essay Prize. \$1,000
- 2004 Dalhousie Summer Student Research Award, Dalhousie University. Summer Research Award to work on lupus nephritis research with Dr. John Hanly
- 2004 Dalhousie University Faculty of Medicine Student Research Competition- 2nd Prize Oral Presentation, entitled: “Predictors of sustained remission in lupus nephritis”
- 2003 Canadian Rheumatology Association (CRA)-Merck Summer Studentship Research Award. Summer studentship awarded granted to work with Dr. Mosher in the Division of Rheumatology at Dalhousie University in Halifax, Nova Scotia
- 2001 Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Research Award. Summer research award to work with Dr. Roy Duncan in the Department of Microbiology and Immunology at Dalhousie University in Halifax, Nova Scotia
- 2000 G H Campbell Memorial Scholarship, Dalhousie University, Halifax, Nova Scotia

1999 - 2002	Dean's list Dalhousie University, Academic Scholarship, Dalhousie University, Halifax, Nova Scotia
1999	Frederick MacMillan Scholarship, Academic Scholarship, Dalhousie University, Halifax, Nova Scotia
1999	Harold Oxley Scholarship, Academic Scholarship, Dalhousie University, Halifax, Nova Scotia
1998	Dalhousie University Entrance Scholarship. Dalhousie University, Halifax, Nova Scotia, \$3,000

IV. ACADEMIC APPOINTMENTS

2016/01/11- ongoing	Assistant Professor, Department of Community Health Sciences, Cumming School of Medicine University of Calgary, Alberta, Canada
2015/10/01 – ongoing	Assistant Professor, Division of Rheumatology, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada
2014/04/01 - 2015/05/31	Clinical Assistant Professor, Department of Medicine, Division of Rheumatology, University of Calgary, Calgary, Alberta, Canada
2012/05/01 - 2014/04/01	Clinical Scholar, Department of Medicine, Division of Rheumatology, University of Calgary, Calgary, Alberta, Canada
2011/07/01 - 2012/05/01	Locum tenens, Department of Medicine, Division of Rheumatology, University of Calgary, Calgary, Alberta, Canada

V. EDUCATIONAL ACTIVITIES

i. Undergraduate

2016/12/09-2016/12/09	Supervisor for medical students Course 4 Clinical Core Teaching (University of Calgary, Department of Medicine, Division of Rheumatology). Ran 2 physical exam stations to review rheumatology patient and physical exam for 6-8 students.
2016/12/08-2016/12/08	Tutorial leader for six medical student tutorials during Course 2 Musculoskeletal (MSK)/Dermatology block (University of Calgary, Department of Medicine)
2016/05/05-2016/08/26	Supervisor for two Canadian Rheumatology Association (CRA) Summer Students (undergraduate medical students). Brook Wilson from the University of Northern Ontario who did a clinical studentship but also wrote a paper: "Standards of care for inflammatory arthritis: a literature review. The manuscript has been published in Seminars in Arthritis & Rheumatism. Azin Rouhi from the University of Alberta for a research studentship. Project: A Systematic Review of Liver Fibrosis Using Transient Elastography in Patients with Inflammatory Arthritis. Her work was presented at the McCaig Summer Student Research Day and was presented at the Canadian Rheumatology Association Annual Scientific Meeting in Ottawa 2017. The manuscript has been published in Clinical & Experimental Rheumatology). Both students were awarded travel awards to attend the 2017 Canadian Rheumatology Association Annual Meeting
2015/12/10-2015/12/10	Supervisor for medical students Course 2 Clinical Core Teaching (University of

- Calgary, Department of Medicine, Division of Rheumatology). Ran 2 physical exam stations to review rheumatology patient and physical exam for 6-8 students.
- 2015/11/20-2015/11/24 Tutorial leader for three medical student tutorials during Course 2 Musculoskeletal (MSK)/Dermatology block (University of Calgary, Department of Medicine)
- 2015/07/01-2015/08/25 Supervisor for Canadian Rheumatology Association (CRA) Summer Student Selynne Guo from the University of Toronto (Medical student Class of 2017) for a clinical summer studentship.
- 2014/08/12 - 2014/10/31 Supervisor for medical student Connie Liao Applied Evidence Based Medicine (ABEM) (University of Calgary, Department of Medicine, Division of Rheumatology).
- 2013/11/13 - 2013/11/18 Supervisor for medical student Course 2 Clinical Core Teaching (University of Calgary, Department of Medicine, Division of Rheumatology). Ran 2 physical exam stations to review rheumatology patient and physical exam for 6-8 students.
- 2013/11/13 - 2013/11/18 Tutorial leader for three medical student tutorials during Course 2 Musculoskeletal (MSK)/Dermatology block (University of Calgary, Department of Medicine).
- 2012/12/01 - 2012/12/21 Supervisor for medical student Clinical Core Teaching (University of Calgary, Department of Medicine, Division of Rheumatology). Ran 2 physical exam stations to review rheumatology patient and physical exam for 6-8 students.
- 2012/05 - 2012/08 Co-supervision of summer student (Linda Wang, University of Alberta, Class of 2015) with Drs. Cheryl Barnabe for a Canadian Rheumatology Association (CRA) Summer Studentship. I devised the project for Linda and conducted the systematic review with her entitled: Invasive fungal disease in systemic lupus erythematosus: a systematic review of disease characteristics, risk factors and prognosis. She presented this at the CRA Annual Scientific Meeting in Whistler BC in 2014 and the manuscript was published in *Seminars in Arthritis & Rheumatism* in 2014.
- 2011/03/16 Tutor: Art and Science of Medicine (ASCM 1), Faculty of Medicine, University of Toronto.
- 2011/02/16 Tutor: Art and Science of Medicine (ASCM 2), Faculty of Medicine, University of Toronto.
- 2010/09/01 - 2010/12/01 Tutor: Physical Exam Teaching to 3rd Year Medical Students, Faculty of Medicine, University of Toronto.
- 2010/11/12 Seminar leader: Foundation of Medical Practice Clerkship Musculoskeletal Seminars - "Rheum Reach for the Top", Faculty of Medicine, University of Toronto.
- 2010/05/06 Examiner: Art and Science of Clinical Medicine (ASCM 1) Clinical Exam (Observed Structured Clinical Encounter, OSCE), Faculty of Medicine, The University of Toronto

ii. Graduate (course and student supervision)

- 2016/09-2017/08 C0-Supervisor for **Stephanie Yu, PharmD**, Health Economics and Outcomes Research Fellow & Master's student Baylor Scott & White Health, The University of Texas at Austin College of Pharmacy Health Outcomes and Pharmacy Practice Division. Supervisory Committee for Master's Thesis.

- 2017/03-2018/06 Research Project Supervisor Alexandra Charlton, University of Calgary PharmD;
Research Project Supervisor
- 2015/11 – present PhD Co-Supervisor Elena Lopatina PhD, University of Calgary, Supervisory
Committee.
- 2013/06 - 2013/08 Co-Supervisor for Jenney Wang: student summer practicum (along with Dr. Deborah
Marshall), Master's (non-Thesis), University of Saskatchewan.

iii. Postgraduate (research and clinical fellows)

- 2016/06/06-2017/06/30 Research Supervisor for Rheumatology Resident (Dr. M. Cooper), University of
Calgary. Project: A systematic review of quality measures for inflammatory arthritis.
Work presented at the 2016 American College of Rheumatology conference in
Washington DC and highlighted on a poster tour. Has been submitted to the Journal of
Rheumatology.
- 2016/09/01-2017/06/30 Research Supervisor for Rheumatology Resident (Dr. M. Eldoma), University of
Calgary. Project: Immune-mediated necrotizing myopathy with underlying central
core disease: A Case Report. Work presented at the Canadian Rheumatology
Association Annual Meeting in Ottawa 2017. A manuscript is under preparation.
- 2014/12/01-2015/06/01 Supervisor for Research for Rheumatology Resident (Dr. J Brophy), University of
Calgary. Project: Measuring the Rheumatology Workforce in Canada: A literature
review. Her work has been published in the Journal of Rheumatology in 2016.
- 2013/04/18 Tutor: Bedside physical exam teaching for internal medicine residents (Faculty of
Medicine, University of Calgary).
- 2011/03/01 - 2011/06/30 Examiner: National Assessment Collaboration (NAC) Objective Structured Clinical
Examination (OSCE), Toronto, Ontario, Canada.
- 2010/08/06 Instructor: Internal Medicine Procedure Workshop for internal medicine residents,
University of Toronto

iv. Continuing Medical Education

- 2015/11/16 Presenter, Heart Attack and Stroke in patients with Rheumatoid Arthritis, Annual
Family Practice Review and Update (Continuing Medical Education and Professional
Development, University of Calgary).
- 2013/05/31 Tutor: Rheumatology Update and Review 2013 (Continuing Medical Education and
Professional Development, University of Calgary).

VI. ADMINISTRATIVE RESPONSIBILITIES

i. Departmental

2017-03-on-going	Member, Department of Medicine Health Analytics Working Group, HAWG
2015/06 – present	Co-Chair, Calgary Rheumatology Steering Committee for the Rheumatology Longitudinal Database – The University of Calgary
2014/02 – 2015/06	Member, Rheumatology Database Working Group - The University of Calgary
2011/06/01 - 2011/07/01	Trainee Member, Internal Review Committee - Neonatal-Perinatal Medicine Program - The University of Toronto

VII. PROFESSIONAL ACTIVITIES

i. Membership in professional and learned societies

2016/08/04 - present	Member, O'Brien Institute for Public Health
2016/05/09 - present	Affiliation appointment, Research Scientist for the Arthritis Research of Canada
2015/06/01 – present	Member, McCaig Institute for Bone and Joint Health
2014 - 2015/05	Member, Graduate Leaders Circle- The University of Calgary
2014 - present	Member, Arthritis Alliance of Canada
2011/09/01 -present	Member, Canadian Rheumatology Administrative Data Network (CANRAD)
2011/07/01 - present	Member, Alberta Medical Association (AMA)
2009/09/01 -present	Member, Canadian Network for Improved Outcomes in Systemic Lupus (CaNIOS)
2009/07/01 - present	Member, Canadian Rheumatology Association (CRA)
2009/07/01 - present	Member, American College of Rheumatology (ACR)
2002/09/01 - present	Member, Canadian Medical Association (CMA)

ii. Professional service

Grant Panels

2015/12/13	Department of Medicine Internal Research Development Competition, University of Calgary, Cumming School of Medicine
2015/04 – 2015/04	Dutch Arthritis Foundation
2014/03 - 2014/12/31	Canadian Initiative for Outcomes in Rheumatology Care (CIORA)

Journal Reviews

2010/04 - present	Journal of Rheumatology
2014/01 – 2014/12	Annals of Internal Medicine
2013/11- present	BMJ Quality & Safety
2013/11	Seminars in Arthritis and Rheumatism
2013/06	Arthritis Research & Therapy

2013/05	Oncology
2013/02	Arthritis & Rheumatism (now Arthritis & Rheumatology)
2012/03 - 2012/12/31	Journal of Clinical Rheumatology

National and International Committees

2017/01-2017/02	Arthritis Alliance of Canada Research Awards Program reviewer for thirteen applicants (total 46 applicants) for seven award categories.
2016/01– present	Member, Optimal Care Committee (formerly access to care committee); Canadian Rheumatology Association (CRA)
2015 – 2016/01	Member, Access to Care Committee - Canadian Rheumatology Association (CRA)
2015/11 - present	Member, Canadian Chronic Disease Surveillance Arthritis Working Group, Public Health Agency of Canada
2015/06/24	Participant, Evaluation Framework Subcommittee – Alberta Bone & Joint Health Institute
2014/12 - present	Member, Choosing Wisely - Canadian Rheumatology Association (CRA)
2014/12 - present	Member, Human Resources (HR) Committee- Canadian Rheumatology Association (CRA)
2014/03/12-2015/01	Member, Canadian Medical Association (CMA) Quality Collaborative Steering Committee (CRA representative to this committee)
2013/09 - present	Member, Guidelines Committee (formerly Therapeutics Committee) - Canadian Rheumatology Association (CRA)
2013/05 - present	Consultant, National Arthritis Framework - Arthritis Alliance of Canada (AAC)
2012/10 - present	Member, Quality Measures Subcommittee - American College of Rheumatology (ACR)

Provincial Committees

2015/11/01 – present	Member, Bone and Joint Strategic Clinical Network’s Arthritis Working Group (BJH SCN)
2015/06/24	Participant, Evaluation Framework Subcommittee – Alberta Bone & Joint Health Institute

VIII. RESEARCH SUPPORT

Development of a patient-centered balanced scorecard approach to improve quality of care in rheumatoid arthritis patients in Canada

Principal Co-Investigators: **C.E.Barber**, D. Lacaille

Co-Applicants: P. MacMullan, L. Li, D. Mosher, J. Homik, G. Hazlewood, C. Barnabe, D.A. Marshall, K. Then, J. Rankin, K. English, K. Tsui

Funding Agency: CIHR Project Grant

Funding Period: April 2017- March 2019

Total Budget: \$ 183,600

Description: This study aims to develop a balanced scorecard for rheumatoid arthritis care and test it In Alberta.

Alberta Precision Health Initiative for Arthritis and Complex Immune Diseases

Principal Investigator: D.A. Marshall

Co-Applicants: D Muruve; DP Mosher; **CE Barber**, S Benselar, M Twilt, P Kubes, S Boyd, B Scott, M. Fritzler, S Wiebe, P Faris, S Dean, R Tsuyuki, N Scott-Douglas, B Kathol, J Miller, S Teare

Funding Agency: Alberta Innovates; APhi Development Grant

Funding Period: 07/2017 to 12/2018

Total Budget: \$ 319,000

Description: This study aims to overcome the barriers to integrate precision health data and accelerate its translation and application into practice.

Establishing the foundation for a patient-centered pragmatic-registry randomized trial of treatment tapering in rheumatoid arthritis

Principal Investigator: G. Hazlewood

Co-Applicants: V. Bykerk, G. Wells, D. Richards, D.A. Marshall, S. Bartlett, J. Pope, N. Bansback, c. Barber, C. Barnabe, G. Boire, R. Deardon, A. Loyola-Sanchez, L. Proulx, O. Schieir, G. Tomlinson, P. Tugwell.

Funding Agency: Canadian Institutes for Health Research (CIHR)

Funding Period: March 2017- February 2018

Total Budget: \$ 99,724

Description: In this catalyst research initiative the foundation work for a patient-centered pragmatic trial on treatment tapering will be conducted.

Measuring geographic variation in access to care for rheumatoid arthritis patients and related outcomes: A patient-centered approach

Co-Principal Investigators: D.A. Marshall, C. Barber

Co-applicants: S. Bertazzon, A. Patel, D. Mosher, J. Homik, S. Katz, M. Nasr

Collaborators: C. Smith, J. Robert

Funding Agency: Canadian Initiative for Outcomes in Rheumatology Care (CIORA)

Funding Period: 2016/07-2019/01

Total Budget: \$117,846

Description: This study aims to assess geographic variation in use and access to rheumatology care and related outcomes for patients with rheumatoid arthritis using a geospatial framework.

Incorporating Patients' Preferences into Canadian Rheumatology Association Treatment Recommendations for Rheumatoid Arthritis

Principal Applicant: G.Hazlewood

Co-applicants: C. Barnabe, C. Barber, C. Bombardier, C. Thorne, P. Akhavan, D. Richards, L. Proulx, A. Dooley, O. Shieir, J. Pope, M. Zimmer, B. Haraoui

Funding Agency: Canadian Initiative for Outcomes in Rheumatology Care (CIORA)

Funding Period: 2016/07-2017/06

Total Budget: \$ 49,470

Description: This study aims to update the current Canadian Rheumatology Association (CRA) treatment Recommendations for rheumatoid arthritis (RA) while incorporating an explicit consideration of best evidence and patients' preferences.

Testing of System-Level Performance for Inflammatory Arthritis

Principle Applicant: C. Barber

Co-Applicants: D. Lacaille, C. Barnabe, D.A. Marshall, S. Bensler, G. Hazlewood, D. Mosher, V. Bykerk,

J. Burt, C. Thorne, V. Ahluwalia, L. Denning, N. Schiff, S. Katz, J. Homik.

Funding Agency: Canadian Initiative for Outcomes in Rheumatology Care (CIORA)

Funding Period: 2015/07-2018/01

Total Budget: \$110,000

Description: This study aims to evaluate the Arthritis Alliance of Canada (AAC) System Level Performance Measures for Inflammatory Arthritis. The 6 measures evaluate access to care and treatment for patients with inflammatory arthritis. The measures will be evaluated in 10 arthritis care settings in 5 Canadian provinces and an Early Arthritis Cohort. Testing of the Measures is critical prior to implementation to ensure feasibility of measurement.

Vanier Canada Graduate Scholarship (training grant)

Principle Applicant: C. Barber

Co-Supervisors: D.A. Marshall, J.M. Esdaile

Funding Agency: Vanier Canada Graduate Scholarships

Funding Period: 2014/09-2015/05

Total Budget: \$150,000 (\$50,000 per annum)

Description: This is a training grant to support my doctoral work on developing and testing quality indicators for Cardiovascular Care in Rheumatoid Arthritis.

Canadian Institutes of Health Research Fellowship Award (training grant)

Principle Applicant: C. Barber (trainee)

Co-Supervisors: D.A. Marshall, J.M. Esdaile

Funding Agency: 2014 (Declined)

Total Budget: Declined

Description: This award was declined as I accepted the Vanier Canada Graduate Scholarship.

Alberta Innovates Health Solutions Clinical Research Fellowship (training grant)

Principle Applicant: C. Barber (trainee)

Co-Supervisors: D.A. Marshall, J.M. Esdaile

Funding Agency: Alberta Innovated Health Solutions

Funding Period: 2011/09-2015/05

Total Budget: \$212,000 (annual funding amount varied depending on other funding sources)

Description: This is a training grant to support my doctoral work on Developing and Testing Quality Indicators for Cardiovascular Care in Rheumatoid Arthritis.

Developing System-Level Arthritis Performance Measures for AAC Framework

Principle Applicant: C. Barber

Co-Supervisors: D.A. Marshall, D.P. Mosher, D. Lacaille

Funding Agency: Canadian Institutes of Health Research (CIHR)

Funding Period: 2014/04-2015/03

Total Budget: \$21,367 (Institution paid Arthritis Alliance Canada)

Description: This planning grant supported the use of an online platform called ExpertLens (RAND Corporation). A national panel on arthritis stakeholders used the platform to complete a 3-round, online modified Delphi procedure to develop a set of System-Level Performance Measures for Inflammatory Arthritis. This work was done in collaboration with the Arthritis Alliance of Canada (AAC).

Optimizing Centralized Intake to Improve Arthritis Care in Albertans

Principle Investigator: DA Marshall

Co-Principle Investigator: L Woodhouse

Co-Investigators: C Barber, L. Phillips, J. Homik, C. Barnabe, A. Bichel, D. Bischak, E. Carr, S. Chambers, Z. Damani, D. Dick, T. Gelber, J. Hendricks, B. Kathol, S. LeClercq, T. Lupton, W. Maksymowych,

D. Millette, D. Mosher, J. Robert, C. Scott, M. Slomp, C. Smith, J. Squire-Howden, C. Steed, E. Suter, R. Swanson, T. Wasylak, S. Weiss, J. Werle.

Funding Agency: Alberta Innovates Health Solutions (AIHS), OA Team PRIHS Grant

Funding Period: 2014/01-2017/01

Total Budget: \$1,138,435

Description: The overall objective is to identify, implement and evaluate an evidence-based approach to optimize centralized intake province-wide, enabling early access and comprehensive multidisciplinary assessment that is consistent with Alberta Health Service's vision for transforming MSK care.

PRECISION: Preventing Complications from Inflammatory Skin, Joint and Bowel Conditions

Principle Investigator: J.M. Esdaile

Co-Investigators: M. Abrahamowicz, J.A. Avina-Zubeita, C. Barnabe, M.A. De Vera, J.P. Dutz, G Kaplan, D. Lacaille, L. Li, C.A. Marra. Note: C. Barber is listed as a trainee on this grant

Funding Agency: Canadian Institutes of Health Research (CIHR)

Funding Period: 2013/10-2018/10

Total Budget: \$2,422,690 (+ \$19,375 for equipment)

Description: This grant will study 600,000 Canadians with inflammatory conditions including psoriasis, rheumatoid arthritis, systemic autoimmune rheumatic disease, ankylosing spondylitis, gout, osteoarthritis, Crohn's disease and ulcerative colitis.

The aims of the study are to

- 1) Evaluate and prevent inflammatory complications (including cardiovascular disease, infections, osteoporosis and fractures, diabetes and obstructive lung disease);
- 2) Assess the exact role of inflammation in causing various complications;
- 3) Test pilot health interventions to reduce or prevent complications using pharmacists, primary care physicians (PCPs) and case managers;
- 4) Develop tools to improve patient self-management by monitoring physical activity through wearable digital technology.

Development of Cardiovascular Quality Indicators for Rheumatoid Arthritis

Principle Investigator: C Barber

Co-Investigators: C Barnabe, DA Marshall, JM Esdaile

Funding Agency: Canadian Institutes of Health Research (CIHR)

Funding Period: 2013/02-2014/02

Total Budget: \$15,000

Description: This planning grant supported the use of an online platform called ExpertLens (RAND Corporation). An international panel of cardiologists, rheumatologists, general practitioners and rheumatoid arthritis patients used the platform to complete a 3-round, online modified Delphi procedure to develop a set of cardiovascular quality indicators for rheumatoid arthritis. This was the first time this platform had been used for quality measure development.

UCB Canada/Canadian Rheumatology Association (CRA)/The Arthritis Society (TAS) Rheumatology Postgraduate Fellowship (training grant)

Principle Applicant: C Barber

Co-Supervisors: DA Marshall, JM Esdaile

Funding Agency: UCB/CRA/TAS

Funding Period: 2011/09-2013/08

Total Budget: \$120,000 (\$60,000 per annum)

Description: This is a training grant to support my doctoral work on Developing and Testing Quality Indicators for Cardiovascular Care in Rheumatoid Arthritis.

X. INVITED ADDRESSES / PRESENTATIONS

i. Invited addresses

- 2017/06/02 Invited talk on the Rheumatology Workforce in Canada (Co-Presenter with Dr. Diane Mosher); at National Specialty Societies Human Resources for Health Dialogue; Royal College of Physicians and Surgeons of Canada , Ottawa.
- 2016/28/10 Invited Speaker and workshop leader.AAC Inflammatory Arthritis Models (IA) of Care Workshop: A Pan-Canadian Core Clinical Dataset for Rheumatoid Arthritis. Montreal, Quebec.
- 2016/01/10 Invited Speaker, Reducing the Risks of Cardiovascular problems in patients with arthritis ROAR (Reaching out with Arthritis Research), Burnaby, British Columbia
- 2016/03/08 Presenter, Heart Disease in Rheumatoid Arthritis: Bridging the Gap. ARC – Arthritis Patient Advisory Board monthly meeting. Richmond, British Columbia, Canada.
- 2013/09/28 Presenter, Update from the ACR QMS Subcommittee (Part of a larger workshop entitled: “Towards a Unified Framework for Disseminating & Implementing Guidelines in Rheumatology”); Canadian Rheumatology Association Therapeutics Committee, Toronto, Ontario, Canada.

ii. Presentations

- 2017/04/20 Rheumatology Residents half day academic course.
Topic: Functional Status Measures
- 2017/04/20 Rheumatology Residents Journal Club,
Topic: Challenges of developing a cardiovascular risk calculator for Patient’s with rheumatoid arthritis
- 2017/02/07 Presenter (Oral) Development of a National Rheumatoid Arthritis Core Clinical Dataset (RACCD) in Canada to Support High Quality Care for RA Patients. 2017 Proceedings of the Canadian Rheumatology Association Annual Scientific Meeting.
- 2017/01/19 Developing, testing and implementing tools to improve the quality of healthcare delivered to Canadians with arthritis. Presented at the Board Meeting of Arthritis Research Canada (ARC)
- 2016/16/16 Presenter (Oral) Assessing System Level Performance Measures for Early Rheumatoid Arthritis in a Large Multi-Centre Cross-Country Perspective 8-Year Observational Cohort Study. 2016 American College of Rheumatology (ACR) Annual Meeting, Washington, DC. United States.
- 2015/11/09 Presenter (poster), Measuring the Rheumatologist Workforce in Canada: Preliminary Results of the Stand Up and Be Counted Survey, 2015 American College of Rheumatology (ACR) Annual Meeting, San Francisco, CA, United States.
- 2015/06/26 Presenter (workshop), What Should our Practice Indicators Be and How Will We Measure them

- Using EMRs? Arthritis Alliance of Canada Data Registry Harmonization Planning Meeting, Calgary, Alberta, Canada.
- 2015/02/06 Presenter (podium), Developing System-Level Performance Measures for Evaluation of Models of Care for Inflammatory Arthritis Framework, Canadian Rheumatology Association (CRA) Annual Scientific Meeting, Quebec City, Quebec, Canada.
- 2014/11/01 Presenter (workshop), Models of Care Performance Measurement Workshop, Arthritis Alliance of Canada Annual Conference, Toronto, Ontario, Canada.
- 2014/09/09 Presenter (poster), Methods for Development of System Level Performance Measures for Arthritis Care in Canada, Lupus 2014, Quebec City, Quebec, Canada.
- 2014/09/04 Presenter (poster), Cardiovascular Quality Indicators in Rheumatoid Arthritis, Arthritis Research Centre (ARC) - University of California/San Francisco (UCSF) Meeting, Richmond, British Columbia, Canada
- 2014/08/22 Presenter (workshop), Developing System-Level Performance Measures for Evaluation of Models of care for Inflammatory Arthritis Framework, Arthritis Alliance of Canada Inflammatory Arthritis Model of Care Champion Meeting, Toronto, Ontario, Canada
- 2014/06/26 Presenter, Quality Indicators, Arthritis Research Centre Retreat, Vancouver, British Columbia, Canada.
- 2014/02/26 Presenter (poster) Development of Cardiovascular Quality Indicators (QIs) for Rheumatoid Arthritis (RA) - Defining the Evidence Base and Identifying Candidate QIs, Canadian Rheumatology Association (CRA) Annual Scientific Meeting, Whistler, British Columbia, Canada
- 2014/02/26 Presenter (poster), Systematic Review of Best Practices for Cardiovascular Disease Prevention in Persons with Rheumatoid Arthritis, Canadian Rheumatology Association (CRA) Annual Scientific Meeting, Whistler, British Columbia, Canada
- 2013/11/21 Presenter (workshop), Performance Measurement for Continuous Improvement, Arthritis Alliance of Canada Pan-Canadian Model of Care for Inflammatory Arthritis Meeting, Toronto, Ontario, Canada
- 2012/11/09 Presenter (poster), A Systematic Review and Meta-Analysis of Antibiotic Treatment for Reactive Arthritis, American College of Rheumatology (ACR) Annual Scientific Meeting, Washington, District of Columbia, United States
- 2012/05/26 Presenter (poster), Is Antibiotic Therapy Effective in the Treatment of Reactive Arthritis? A Systematic Review and Meta-Analysis, Western Alliance of Rheumatology, Kelowna, British Columbia, Canada
- 2011/11/04 Presenter (poster), A Systemic Review of Validation Studies of Administrative Data used to Identify Infections, American College of Rheumatology (ACR) Annual Scientific Meeting, Chicago, Illinois, United States
- 2011/11/04 Presenter (poster), Clinical-Pathological Correlates of Proliferative Lesions in Lupus Nephritis, American College of Rheumatology (ACR) Annual Scientific Meeting, Chicago, Illinois, United States
- 2011/06/27 Presenter (podium), Vascular Lesions on Renal Biopsy in Patients with Lupus Nephritis are Associated with Poor Clinical Outcomes, The University of Toronto Rheumatology Research Day, Toronto, Ontario, Canada
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- 2011/02/11 Presenter (poster), Clinical Significance of Renal Vascular Lesions (RVL) on Renal Biopsy in Lupus Nephritis, 2nd Canadian-Mexican Rheumatology Congress, Cancun, Mexico
- 2010/09/24 Co-presenter, Public Lecture “Understanding Arthritis” presented with Dr. Arthur Bookman, Toronto Western Hospital, Toronto, Ontario, Canada
- 2010/06/24 Presenter (poster), Clinical Correlates of Renal Vascular Lesions (RVL) in Lupus Kidney Disease, 9th International Lupus Conference, Vancouver, British Columbia, Canada
- 2008/10/24 Presenter (poster), The Impact of Rheumatologic Consultation on Diagnostic Accuracy and Management of Gout in Hospitalized Patients, American College of Rheumatology (ACR) Annual Scientific Meeting, San Francisco, California, United States
- 2006/02/17 Presenter (poster), Sustained Remission in Lupus Nephritis, 1st Canadian-Mexican Rheumatology Congress, Acapulco, Mexico.

X. PUBLICATIONS

i. Peer Reviewed Manuscript

1. Rouhi A, Hazlewood G, Shaheen A, Swain M, **Barber CE**. A systematic review of the prevalence of liver fibrosis using transient elastography in patients with inflammatory arthritis. **Clin Exp Rheumatol**. June 2017, In Press.
2. Wilson B.A., Cooper M., **Barber C**. Standards of care for inflammatory arthritis: a literature review. *Seminars in Arthritis and Rheumatism.*, 2017 Mar 6. pii: S0049-0172(16)30442-5. doi: 10.1016/j.semarthrit.2017.02.009. [Epub ahead of print] In press.
3. **Barber C**, Jewett L, Badley E.M., Lacaille D, Cividino A, Avens H, *et al*. Stand Up and Be Counted: Measuring & Mapping the Rheumatology Workforce in Canada. *J Rheumatol* 2017 Feb;44(2):248-257. doi: 10.3899/jrheum.160621
4. Khodyakov D, Grant S, **Barber C**, Marshall D, Esdaile J, Lacaille D. Acceptability of an Online Modified-Delphi Panel Approach for Developing Health Services Performance Measures. *J Eval Clin Pract.* 2017 Apr;23(2):354-360. doi: 10.1111/jep.12623. Epub 2016 Sep 13.
5. **Barber CE**, Esdaile J, Martin L, Faris P, Barnabe C, Guo S, Lopatina E, Marshall DA. Gaps in Addressing Cardiovascular Risk in Rheumatoid Arthritis: Assessing Performance using Cardiovascular Quality Indicators. *J Rheum* 2016; 43(11):1965-1973.
6. Yazdany J, Myslinski R, Miller A, Francisco M, Desai S, Schmajuk G, Lacaile D, **Barber C**, Orozco C, Bunyard M, Bergman MJ, Harrington T, Passo M, Morris E, Matteson E, Olson R, Silverman S, Warren R, Nola K, Robbins M. Methods for Developing the American College of Rheumatology’s Electronic Health Record Quality Performance Measures (“eMeasures”). *Arthritis Care Res (Hoboken)*. 2016. 68(10):1390- 401.
7. Brophy J, Marshall D, Badley E, Hanly J, Avers H, Ellsworth J, Pope J, **Barber C**. Measuring the Rheumatology Workforce in Canada: A Literature Review. 2016. *J Rheumatol*; 43(6): 1121-9.
8. Choi M, Barber M, **Barber C**, Clarke A, Fritzler M. Preventing the Development of SLE: Identifying Risk Factors and Proposing Pathways for Clinical Care. *LUPUS*; 25(8):838-49.
9. Suter L, **Barber C**, Herrin J, Leong A, Losina E, Miller A, Newman E, Robbins M, Tory H, Yazdany J. American College of Rheumatology White Paper on Performance Outcome Measures in Rheumatology. *Arthritis Care Res. (Hoboken)* 2016 68(10): 1390–1401.
10. **Barber CE**, Marshall D, Mosher D, Akhavan P, Tucker L, Houghton K, Batthish M, Levy D, Schmeling H, Ellsworth J, Tibollo H, Grant S, Khodyakov D, Lacaille D. Development of System-Level Performance Measures for Evaluation of Models of Care for Inflammatory Arthritis. *J Rheumatol* 2016; Mar; 43(3):530-40.
11. **Barber C**, Patel J, Woodhouse L, Smith C, Weiss S, Homik J, LeClercq S, Mosher D, Christiansen T,

- Howden J, Wasylak T, Greenwood-Lee J, Emrick A, Suter E, Kathol B, Khodyakov D, Grant Sean, Campbell-Scherer D, Phillips L, Hendricks J, Marshall D. Development of Key Performance Indicators to Evaluate Centralized Intake for Patients with Osteoarthritis and Rheumatoid Arthritis. *Arthritis Res Ther* 2015; 17:322.
12. **Barber C**, Marshall D, Alvarez N, Mancini GBJ, Aviña-Zubieta JA, Khodyakov D, Barnabe C, Faris P, Hazlewood G, Martin LO, Esdaile JM. Development of Cardiovascular Quality Indicators for Rheumatoid Arthritis: Results from an International Expert Panel Using a Novel Online Process. *J Rheumatol* 2015; 42(9):1548-55.
 13. **Barber C**, Smith A, Esdaile J, Barnabe C, Martin L, Faris P, Hazlewood G, Noormohamed R, Alvarez N, Mancini GBJ, Lacaille D, Keeling S, Avina-Zubieta A, Marshall D. Best Practices for Cardiovascular Disease Prevention in Rheumatoid Arthritis: A Systemic Review of Guideline Recommendations and Quality Indicators. *Arthritis Care Res (Hoboken)* 2015; 67(2): 169-179.
 14. Wang LR, **Barber CE**, Johnson AS, Barnabe C. Invasive Fungal Disease in Systemic Lupus Erythematosus: A Systemic Review of Disease Characteristics, Risk Factors and Prognosis. *Semin Arthritis Rheum* 2014; 44(3):325-30.
 15. **Barber C**, Lacaille D, Fortin PR. A Systematic Review of Validation Studies of the use of Administrative Data to Identify Serious Infections. *Arthritis Care Res (Hoboken)* 2013 65(8):1343-573.
 16. **Barber CE**, Kim J, Inman R, Esdaile J, James M. Antibiotics for Treatment of Reactive Arthritis: A Systematic Review and Meta-Analysis. *J Rheumatol* 2013; 40 (6):916-28.
 17. Touma Z, Gladman DD, MacKinnon A, Carette S, Abu-Shakra M, Askanase A, Nived O, Hanly JG, Landolt-Marticorena C, Tam LS, Toloza S, Nikpour M, Riddell C, Steiman A, Eder L, Haddad A, **Barber C**, Urowitz MB. Development and Assessment of Users' Satisfaction with the Systemic Lupus Erythematosus Disease Activity Index 2000 Responder Index-50 Website. *J Rheumatol* 2013; 40(1):34-9.
 18. Bernatsky S, Lix L, O'Donnell S, Lacaille D; CANRAD Network (Hudson M, Markland J, Docherty P, Fritzler M, Jones N, Kaminska E, Khalidi N, Ligier S, Masetto A, Mathieu JP, Robinson D, Smith D, Sutton E, Abu-Hakim M, Leclercq S, Lix L, O'Donnell S, Badley E, Hanly J, Hawker G, Henderson J, Lim S, Peschken C, Stringer E, Svenson L, Labrecque J, Widdifield J, Bernatsky S, Askling J, Bergeron L, Dixon W, Kopec J, Paterson M, Raymond C, Solomon D, Suissa S, Vinet E, Lacaille D, Avina-Zubieta A, Fortin P, Hudson M, Jean S, Rahme E, Solomon D, Whitehead G, **Barber C**, Kuriya B, Labrecque J, Leong A, Sirois C). Consensus Statements for the Use of Administrative Health Data in Rheumatic Disease Research and Surveillance. *J Rheumatol* 2013; 40(1):66-73.
 19. **Barber CE**, Herzenberg A, Aghdassi E, Su J, Lou W, Qian G, Yip J, Nasr SH, Thomas D, Scholey J, Wither Urowitz M, Gladman D, Reich H, Fortin PR. Evaluation of Clinical Outcomes and Renal Vascular Pathology Among Patients with Lupus. *Clin J Am Soc Nephrol* 2012; 7(5):757-764.
 20. **Barber C**, Leclerc R, Gladman DD, Urowitz MB, Fortin PR. Posterior Reversible Encephalopathy Syndrome: An Emerging Disease Manifestation in Systemic Lupus Erythematosus. *Semin Arthritis Rheum* 2011; 23(4):358-365.
 21. **Barber CE**, Lee P, Steinhart AH, Lazarou J. Multifocal Motor Neuropathy with Conduction Block Following Treatment with Infliximab. *J Rheumatol* 2010; 37(8):1778-1780
 22. **Barber CE**, Thompson K, Hanly JG. Impact of a Rheumatology Consultation Service on the Diagnostic Accuracy and Management of Gout in Hospitalized Patients. *J Rheumatol* 2009; 36(8):1699-1704
 23. Horton R, **Barber CE**. Opioid-Induced Respiratory Depression Resulting from Trans-dermal Fentanyl-Clarithromycin Drug Interaction in a Patient with Advanced COPD. *J Pain Symptom Manage* 2009; 37(6):e2-5
 24. **Barber CE**, Geldenhuys L, Hanly JG. Sustained Remission of Lupus Nephritis. *Lupus* 2006; 15(2):94-101
 25. **Barber CE**, Hewlitt TJ, Geldenhuys L, Kiberd BA, Acott PD, Hatchette TF. BK Virus Nephropathy in a Heart Transplant Recipient: Case Report and Review of the Literature. *Transpl Infect Dis* 2006; 8(2):113-121
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iii. Submitted Manuscripts

1. Rouhi A., Hazlewood G., Shaheen A., Swain M., **Barber C.** Prevalence and risk factors for liver fibrosis detected by transient elastography or shear wave elastography in inflammatory arthritis: A systematic review, *Clin Exp Rheumatol*. In Press *Clin Exp Rheumatol*
2. Cooper M., Rouhi A., **Barber C.** A Systematic Review of Quality Measures for Inflammatory Arthritis. *J Rheumatology*. (Submitted)
3. **Barber CE**, Mosher D., Ahluwalia V., Zummer M., Marshall D, Choquette D., Lacaille D., Bombardier C., Chandran V., Lydiatt A., Khodyakov D., Dao E., Barnabe C. Development of a Canadian Core Clinical Dataset to Support High Quality Care for Rheumatoid Arthritis Patients in Canada. *J Rheumatology* (Submitted)
4. **Barber C.E.**, Nasr M., Barnabe C., Badley E., Lacaille D., Pope J., Cividino A., Yacyshyn E., Baillie, Mosher D., Thomson G.J., Charnock C., Thorne J.C., Zummer M., Brophy J., Ruban T.N., Ahluwalia A., McDougall R., Marshall D. Planning for the rheumatologist workforce: Factors associated with work hours and volumes. *Journal of Clinical Rheumatology*. (Submitted)

iv. Non-Peer Reviewed Manuscripts

1. **Barber CE**, Gold W, Fortin PR. Infections in the Lupus Patient: Perspectives on Prevention. *Current Opin Rheumatol* 2011; 23(4):358-3652.
2. Hanly JG, **Barber CE**. Insight into SLE-Related Migraine using Brain Single-Photon-Emission Computed Tomography. *Nat. Clin Pract Rheumatol* 2007; 3(4):200-201.

iv. Books, Chapters Non-Peer Reviewed

1. **Barber C**, Carette S. Vasculitis as a Paraneoplastic Syndrome and Direct Tumor Invasion. *Inflammatory Diseases of Blood Vessels*, Second Edition. Ed. Hoffman GS, Weyand CM, Langford CA, Goronzy JJ. Wiley-Blackwell Publishing, 2012:460-472.

v. Abstracts - Published Peer Reviewed

1. Zummer M., Ahluwalia V., Mosher D., **Barber C.** Implementation and evaluation of inflammatory arthritis models of care in Canada. *Proceedings of Laurentian Conference, Quebec*. May 12, 2017.
2. Nasr M., Seidel J., Patel A.B., Shahid R., **Barber C.E.**, Sharma R., Bertazon S., Waters N., Vanderby S., Faris P., Briggs T. McDonald T., Marshall D.A. Exploratory Spatial Analysis of Osteoarthritis Patients in Alberta Conference proceedings: the Sixth Spatial Knowledge and Information Canada Conference, Banff, AB. February, 2017.
3. Eldoma M, Resch L, Ebadi H, **Barber C.** Immune-mediated necrotizing myopathy with underlying central core disease: a case report. *J Rheumatol* 2017; 44; 888
4. Rouhi A, Hazlewood G, Shaheen AA, Swain G, **Barber C.** Immune-mediated necrotizing myopathy with underlying central core disease: a case report. *J Rheumatol* 2017; 44; 888
5. **Barber C**, Nasr M, Barnabe C, Yacyshyn E, Pope J, Cividino A, Baillie C, Mosher D, Thomson J, Charnock C, McGowan C, Ruban T, McDougall R, Marshall D. Predictors of Canadian Adult

Rheumatologist Clinical Workload and Working Hours. *J Rheumatol* 2017; 44; 883

6. **Barber C**, MacMullan P, Barnabe C, Marshall D, Benseler S, Twilt M, Hazelwood G, Fifi-Mah A, Emrick A, Sandhu N, Stevenson M, Ziouzina O, Mosher D, Rheum4U Working Group. Rheum4U – Preliminary Results of Piloting a Web-based Tool for Quality Improvement in Rheumatology Clinics. *J Rheumatol* 2017; 44; 884
7. **Barber C**, Schieir O, Lacaille D, Marshall D, Barnabe C, Hazlewood G, Nadeau L, Thorne C, Ahluwalia V, Bartlett S, Boire G, Haraoui B, Hitchon C, Keystone E. Assessing System-Level Performance Measures for Early Rheumatoid Arthritis in the Canadian Early Arthritis Cohort Study (CATCH): An 8-Year Observational Cohort Study. *J Rheumatol* 2017; 44; 885
8. **Barber C**, Ahluwalia V, Zimmer M, Mosher D, Marshall D, Choquette D, Lacaille D, Bombardier C, Dao E, Khodyakov D, Barnabe C, RACCD Working Group. Development of a National Rheumatoid Arthritis Core Clinical Dataset (RACCD) in Canada to Support High Quality Care for RA Patients. *J Rheumatol* 2017; 44; 855
9. **Barber C**, Thorne C, Burt J, Barnabe C, Hamilton S, Szamko I, Denning L, Ahluwalia V. Challenges in Measuring Wait Times for Rheumatology Care in Canada: A Demonstration Using Four Models of Care. *J Rheumatol* 2017; 44; 884
10. **Barber C**, Jewett L, Ahluwalia V, Averns H, Baillie C, Badley E, Mosher D, Thorne C, Cividino A, Zimmer M, Barnabe C, Lacaille D, Ellsworth J, Levy D, Ruban T, Brophy J, Pope J, McDougall R, Landon K, Thomson J, Charnock C, Yacyszyn E, Marshall D. Measuring the Rheumatologist Workforce in Canada: Stand Up and Be Counted! *J. Rheum.*2016; 43(6): 1204-5
11. **Barber C**, Esdaile J, Martin L, Faris P, Barnabe C, Guo S, Lopatina E, Marshall D. Quality of Cardiovascular Care in RA: Assessing the Current State and Identifying Areas of Improvement. *J Rheumatol.*2016; 43(6): 1204
12. **Barber C**, Patel J, Woodhouse L, Smith C, Homik J, LeClercq S, Mosher D, Christiansen T, Squire Howden J, Wasylak T, Greenwood-Lee J, Emrick A, Suter E, Kathol B, Khodyakov D, Grant S, Campbell-Scherer D, Phillips L, Hendricks J, Marshall D. Key Performance Indicators for Evaluation of Centralized Intake Systems for Osteoarthritis and Rheumatoid Arthritis Healthcare Teams in Alberta. *J Rheumatol.* 2016; 43(6): 1205
13. **Barber CE**, Jewett L, Ahluwalia V, Baillie C, Mosher D, Zimmer M, Thorne JC, Ellsworth J, Averns H, Barnabe C, Cividino A, Pope JE, Badley E, Levy D, Ruban TL, Landon K, McDougall R, Brophy J, Lacaille D, Marshall DA. Measuring the Rheumatologist Workforce in Canada: Preliminary Results of the Stand Up and Be Counted Survey. *Arthritis Rheum.*2015;67 (suppl 10).
14. **Barber CE**, Lacaille D, Mosher D, Akhavan P, Ellsworth J, Houghton K, Batthish M, Levy D, Schmelting H, Tibollo H, Grant S, Khodyakov D, Marshall D. Developing System Level Performance Measures for Evaluation Models of Care for Inflammatory Arthritis. *J Rheumatol* 2015;42:1266
15. **Barber CE**, Lacaille D, Mosher D, Akhavan P, Ellsworth J, Houghton K, Batthish M, Levy D, Schmelting H, Tibollo H, Grant S, Khodyakov D, Marshall D. Methods for Development of System Level Performance Measures for Arthritis Care in Canada. *Proceedings of Lupus* 2014.

16. **Barber C**, Marshall D, Alvarez N, Mancini J, Lacaille D, Keeling S, Avina-Zubieta JA, Smith A, Noormohamed R, Barnabe C, Martin L, Faris P, Esdaile J. Development of Cardiovascular Quality Indicators (QIs) for Rheumatoid Arthritis (RA) - Defining the Evidence Base and Identifying Candidate QIs. *J Rheumatol* 2014;41:1445
17. **Barber C**, Smith A, Esdaile J, Barnabe C, Martin L, Faris P, Noormohamed R, Alvarez N, Mancini J, Lacaille D, Keeling S, Avina-Zubieta A, Marshall D. Systematic Review of Best Practices for Cardiovascular Disease Prevention in Persons with Rheumatoid Arthritis. *J Rheumatol* 2014;41:1445-1446.
18. Wang LR, **Barber CE**, Johnson AS, Barnabe C. Invasive Fungal Disease in Systemic Lupus Erythematosus: A Systematic Review of Disease Characteristics, Risk Factors, and Prognosis. *J Rheumatol* 2014; 41:1536-1537.
19. Charlton A, Johns C, Mosher D, **Barber C**, Martin L. Patient Medication Knowledge and Satisfaction with Inflammatory Arthritis Medication Information as Justification for Pharmacist-led Medication Education Program. *J Rheumatol* 2014;41:1511.
20. **Barber C**, Kim J, Inman R, Esdaile J, James M. A Systematic Review and Meta-Analysis of Antibiotic Treatment for Reactive Arthritis. *Arthritis Rheum* 2012; 64 (Suppl 10): 172.
21. **Barber C**, Barnabe C, Marshall D, Esdaile J. Population-Based Study of Preventable Infections in Hospitalized Patients with Systemic Lupus Erythematosus. *Arthritis Res There* 2012; 14 (Suppl 3): S75.
22. **Barber C**, Kim J, Inman R, Esdaile J, James M. Is Antibiotic Therapy Effective in the Treatment of Reactive Arthritis? A Systemic Review and Meta-Analysis. *J Rheumatol*. 2013 June; 40(6):916-928.
23. **Barber C**, Lacaille D, Fortin PR. A Systemic Review of Validation Studies of Administrative Data used to Identify Infections. *Arthritis Rheum* 2011; 63 (Suppl 10): 1180.
24. **Barber C**, Urowitz M, Gladman DD, Wither JE, Landolt-Marticorena C, Reich H, Lou W, Jiandong S, Yip J, Qian G, Thomas D, Nasr S, John R, Aghdassi E, Fortin PR. Clinical-Pathological Correlates of Proliferative Lesions in Lupus Nephritis. *Arthritis Rheum* 2011; 63 (Suppl 10): 1398.
25. **Barber CE**, Herzenberg A, Aghdassi E, Su J, Lou W, Yip J, Nasr S, Thomas D, Wither J, Urowitz M, Gladman D, Fortin PR. Clinical Correlated of Renal Vascular Lesions (RVL) in Lupus Kidney Disease. Proceedings of the Ninth International Congress on Systemic Lupus Erythematosus 2010.
26. **Barber C**, Hersenberg A, Aghdassi E, Su J, Lou W, Yip J, Nasr S, Thomas D, Wither J, Urowitz M, Gladman D, Fortin PR. Clinical Significance of Renal Vascular Lesions (RVL) on Renal Biopsy in Lupus Nephritis. Proceedings of the Second Canadian-Mexican Rheumatology Congress 2010.
27. **Barber CE**, Thompson K, Hanly JG. The Impact of Rheumatologic Consultation on Diagnostic Accuracy and Management of Gout in Hospitalized Patients. Proceedings of the American College of Rheumatology Annual Scientific Meeting 2008 (S747-S748).
28. **Barber CE**, Hanly JG. Sustained Remission in Systemic Lupus Nephritis. Proceedings of the First Mexican-Canadian Rheumatology Congress 2006.

vi. *Communications - Non-Peer Reviewed*

1. **Barber C.**, Lundon K., Shupak R., Marshall D.A. So We Stood Up and Got Counted...Now What? *CRAJ* 2017; 27(1): 7-7A
2. Ahluwalia V, **Barber C**, Mosher D, Zimmer M, Couto S.A Pan-Canadian Clinical Dataset for Rheumatology. *CRAJ* 2016; 26(1):14-5
3. **Barber C**, Lacaille D, Mosher D, Marshall D. Towards a Performance Measurement Framework for Inflammatory Arthritis Care in Canada. *CRAJ* 2016. 26(1): 12-13
4. Ahluwalia V, Frank C, Mosher D, Zimmer M and Expert Advisor's Including **Barber CE**. A Pan-Canadian Approach to Inflammatory Arthritis Models of Care. Arthritis Alliance of Canada.

www.arthritisalliance.ca. Apr 30, 2014

5. **Barber CE**, Jewett L, Mosher P, Baillie C, Ahluwalia V, Thorne C, Zummer M, Cividino A, Averno H, Marshall D. Stand up and be Counted. *CRAJ* 2014; 24(4): 6 & 11
6. **Barber C**. Reflections on the CRA's Summer Studentship Program. *Journal of the Canadian Rheumatology Association*. 2013 Jun; 22(2):6.
7. **Barber C**, Barnabe C. Another Consequence of Severe Lupus: Invasive Fungal Disease. *J Rheumatol*. 2012; 39(9):1772-4. (Editorial)
8. **Barber CE**. *Rheumatology and the Kidney*, 2nd Edition. *J Rheumatol*, 2012; 39(11): 2231 (Book review)
9. **Barber CE**. Gout: Diagnosis and Management of Gouty Arthritis and Hyperuricemia. *J Rheumatol* 2012; 39(2): 454 (Book review)