

# Clinical research in adult vasculitis in Canada

Calgary – October 9<sup>th</sup>, 2015

# **Disclosures**

- Consulting and speaker fees
  - Hoffmann-La Roche
  - BMS
- Advisory boards
  - Hoffmann-La Roche
  - GSK
- Educational subventions (CanVasc)
  - Hoffmann-La Roche
  - Terumo BCT
  - Abbott Immunology
  - BMS
  - Pfizer-Amgen
  - Janssen-Cilag
  - Euroimmun



## **Learning Outcomes**



- 1. To review some of the ongoing studies on adult vasculitis, in which Canada participates
- 2. To review CanVasc activities and projects in adult vasculitis















| 5503 + | 10 accruing sites                              | 2  | 194 | 2  | 192 |
|--------|--|----|-----|----|-----|
| 5504 + | 9 accruing sites                               | 0  | 101 | 0  | 99  |
| 5505 - | 10 accruing sites                              | 12 | 793 | 12 | 785 |
|        | Boston University School of<br>Medicine (VCRC) | 0  | 78  | 0  | 77  |
|        | Cleveland Clinic<br>Foundation (VCRC)          | 0  | 130 | 0  | 129 |
|        | Johns Hopkins University<br>(VCRC)             | 0  | 81  | 0  | 81  |
|        | Mayo Clinic (VCRC)                             | 3  | 117 | 3  | 116 |
|        | Mount Sinai Hospital, Toronto (VCRC)           | 0  | 155 | 0  | 153 |
|        | St. Joseph's Healthcare<br>Hamilton (VCRC)     | 8  | 125 | 8  | 124 |
|        | University of Pennsylvania<br>(VCRC)           | 0  | 30  | 0  | 30  |
|        | University of Pittsburgh<br>(VCRC)             | 0  | 42  | 0  | 40  |
|        | University of Utah (VCRC)                      | 0  | 34  | 0  | 34  |
|        | VCRC Lab (VCRC)                                | 1  | 1   | 1  | 1   |
| 5506 - | 9 accruing sites                               | 1  | 218 | 1  | 215 |
|        | Boston University School of<br>Medicine (VCRC) | 0  | 30  | 0  | 28  |
|        | Cleveland Clinic<br>Foundation (VCRC)          | 0  | 24  | 0  | 24  |
|        | Johns Hopkins University<br>(VCRC)             | 0  | 26  | 0  | 26  |
|        | Mayo Clinic (VCRC)                             | 0  | 20  | 0  | 20  |
|        | Mount Sinai Hospital,<br>Toronto (VCRC)        | 1  | 53  | 1  | 52  |
|        | St. Joseph's Healthcare<br>Hamilton (VCRC)     | 0  | 28  | 0  | 28  |
|        | University of Pennsylvania<br>(VCRC)           | 0  | 14  | 0  | 14  |
|        | University of Pittsburgh<br>(VCRC)             | 0  | 10  | 0  | 10  |
|        | University of Utah (VCRC)                      | 0  | 13  | 0  | 13  |
| 5510 + | 13 accruing sites                              | 5  | 590 | 5  | 584 |
| 5515 + | 5 accruing sites                               | 0  | 26  | 0  | 26  |
| 5522 + | 3 accruing sites                               | 0  | 20  | 0  | 20  |
| 5523 + | 11 accruing sites                              | 0  | 98  | 0  | 83  |
| 5526 + | 7 accruing sites                               | 7  | 42  | 6  | 40  |
| 5527 + | 5 accruing sites                               | 2  | 8   | 2  | 8   |
| 5531   | Contact Registry Protocol<br>(Online accrual)  | 0  | 467 | 0  | 467 |
| 5533   | Contact Registry Protocol (Online accrual)     | 0  | 707 | 0  | 707 |

| <u>5505</u> | VCRC Longitudinal Protocol for Granulomatosis with Polyangiitis (       |  |
|-------------|---|--|
| <u>5506</u> | VCRC Longitudinal Protocol for<br>Eosinophilic granulomatosis with<br>p |  |
| <u>5510</u> | VCRC Genetic Repository<br>One-Time DNA Protocol                        |  |
| <u>5515</u> | VCRC Imaging Protocol for<br>Magnetic Resonance and<br>Positron Emissio |  |
| <u>5522</u> | A Multi-Center, Open-label Pilot<br>Study of Abatacept (CTLA4-lg)<br>in |  |
| <u>5523</u> | Concurrent Pilot Studies in Giant<br>Cell Arteritis and Takayasu's A    |  |
| <u>5526</u> | The Assessment of Prednisone in Remission Trial (TAPIR)                 |  |
| <u>5527</u> | Abatacept (CTLA4-Ig) for the<br>Treatment of Relapsing, Non<br>Severe,  |  |
| <u>5531</u> | Reproductive Health in Men and<br>Women with Vasculitis                 |  |
| 5533        | Illness Perception, Fatigue, and<br>Function in Systemic Vasculitis     |  |
| <u>5534</u> | Educational Needs of Patients<br>with Systemic Vasculitis- an<br>Intern | >  |
| <u>5535</u> | VCRC Patient Contact Regard<br>Patient-Reported Data Valida<br>St       |  |
| <u>5536</u> | Impact of Vasculitis d<br>Employment and Income an<br>online survey o   | 5  |
| <u>5541</u> | PCORI - PROMIS in Vasculitis  | The state of the s |
| <u>5599</u> | Diagnostic Questionnaire for<br>VCRC Contact Registry<br>Participants   |  |
|             |   |  |
|             |   |  |



## **PEXIVAS**

a RCT of plasma exchange and glucocorticoid dosing in ANCA associated vasculitis

On behalf of the PEXIVAS Trial Group

# DCVAS Study

## Latest recruitment is over 5032 patients from 129 sites

|    | Region | Country | Site | Site Name                                      | Site Investigator | Total<br>Patients |
|----|--------|---------|------|--|-------------------|-------------------|
|    |        |         |      |  |                   |                   |
| 1  | EU     | SI      | IJ   | University Medical Centre Ljubljana            | Alojzija Hočevar  | 327               |
| 2  | EU     | GB      | NO   | Nuffield Orthopaedic Centre Oxford             | Joanna Robson     | 249               |
| 3  | EU     | GB      | NU   | Nottingham University Hospitals NHS Trust      | Peter Lanyon      | 222               |
| 4  | NA     | CA      | ON   | St Joseph's Healthcare London, Ontario         | Lillian Barra     | 199               |
| 5  | EU     | DE      | TU   | Universitätsklinikum Tübingen                  | Joerg Henes       | 177               |
| 6  | OR     | RU      | МО   | First Moscow State Medical University          | Sergey Moiseev    | 155               |
| 7  | NA     | US      | BU   | Boston University Medical Campus               | Peter Grayson     | 139               |
| 8  | NA     | CA      | то   | Mount Sinai Hospital, Toronto                  | Christian Pagnoux | 130               |
| 8  | EU     | DE      | JE   | Universitätsklinikum Jena                      | Thomas Neumann    | 130               |
| 8  | EU     | IT      | SS   | Santa Maria Nuova Hospital, Reggio Emilia      | Carlo Salvarani   | 130               |
| 9  | EU     | GB      | IP   | Ipswich Hospital NHS Trust                     | Richard Watts     | 118               |
| 10 | NA     | CA      | SJ   | St Joseph's Healthcare Hamilton, Ontario       | Nader Khalidi     | 117               |
| 11 | EU     | СН      | UB   | University Hospital Basel                      | Thomas Daikeler   | 114               |
| 12 | EU     | GB      | SE   | Southend University Hospital NHS Trust         | Bhaskar Dasgupta  | 113               |
| 13 | EU     | DE      | SH   | Klinikum Bad Bramstedt                         | Julia Holle       | 111               |
| 14 | EU     | CZ      | PR   | General University Hospital, Prague            | Vladimir Tesar    | 100               |
| 15 | OR     | CN      | PU   | Peking Union Medical College Hospital, Beijing | Xinping Tian      | 95                |
| 15 | EU     | IE      | VU   | St Vincent's University Hospital, Dublin       | Eamonn Molloy     | 95                |
| 15 | EU     | TR      | IS   | Istanbul University, Istanbul Medical School   | Sevil Kamali      | 95                |
| 16 | NA     | US      | cs   | Cedars- Sinai Medical Centre, Los Angeles      | Michael Weisman   | 93                |
| 17 | EU     | GB      | GR   | NHS Grampian, Aberdeen, Scotland               | Neil Basu         | 90                |
| 18 | EU     | TR      | HU   | Hacettepe University                           | Ömer Karadağ      | 85                |
| 19 | EU     | DE      | ES   | Kreiskliniken Esslingen                        | Bernhard Hellmich | 78                |
| 19 | NA     | US      | KU   | University of Kansas Medical Centre            | Jason Springer    | 78                |
| 20 | EU     | DE      | BE   | Immanuel Krankenhaus Berlin                    | Wolfgang Schmidt  | 77                |

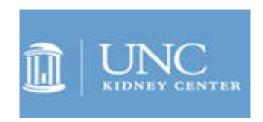












## CanVasc founded in November 2010

### CanVasc Objectives

The CanVasc group was officially created the 1st November 2010, in Toronto.

The proposed CanVasc objectives are to:

- organize a dedicated health and research network with identification of referral (multidisciplinary) centers across Canada for patients with vasculitis. Establishment and regular updates of Recommendations for the diagnostic and therapeutic management of patients is part of this objective.
- initiate, conduct, and promote studies (from CanVasc, VCRC or other vasculitis research groups) on vasculitides across Canada (epidemiological, observational, fundamental and, ultimately, therapeutic studies), using an efficient, established and rapidly mobilisable network.
- 3. develop educational and awareness programs for health care providers (training sessions, fellowship, annual meeting...).
- stand as the Canadian referral group to identify needs in vasculitis and consider new drug approvals for vasculitis in Canada (advisory group).





# The CanVasc core members centers





#### Executive committee

(to be elected every 4 years, as of June 2014)

President: Dr. Simon Carette
Vice-president: Dr. Christian Pagnoux
Secretary: Dr. Nader Khalidi

#### Core members

| Province | City     | Principal core member | Associated core members        | Affiliated core members / colleagues | Contact                                   |
|----------|----------|-----------------------|--------------------------------|--------------------------------------|---|
|          |          | (level 1)             | (level 2)                      | (level 3)                            |   |
| Ontario  | Toronto  | Dr. Simon Carette;    | Dr. Christian Pagnoux;         | Dr. Laurence Rubin;                  | Division of Rheumatology, Mount Sinai     |
|          |          | Dr. Rae Yeung (Peds.) | Dr. Heather Reich (Nephr.)     | Dr. Ian Witterick (ENT);             | Hospital and University Health Network,   |
|          |          |                       |                                | Dr. Joanne Bargman (Nephr.);         | The Joseph and Wolf Lebovic Building      |
|          |          |                       |                                | Dr. Mary Bell                        | 60 Murray Street, Ste 2-220               |
|          |          |                       |                                |                                      | Toronto, Ontario M5T 3L9                  |
|          |          |                       |                                |                                      | Tel. 416-586-4800 Ext. 8549 or 5519       |
|          |          |                       |                                |                                      | E-mail: VasculitisClinic@mtsinai.on.ca    |
|          | Hamilton | Dr. Nader Khalidi     | Dr. Michael Walsh (Nephr.);    |                                      | Division of Rheumatology                  |
|          |          |                       | Dr. Gerard P. Cox (Respi.);    |                                      | St. Joseph's Healthcare Hamilton          |
|          |          |                       | Dr. Parameswaran Nair (Respi.) |                                      | 25 Charlton Suite 708, Hamilton, Ontario, |
|          |          |                       |                                |                                      | L8N 4A6                                   |
|          |          |                       |                                |                                      | Phone: 905-521-9034                       |
|          |          |                       |                                |                                      | Fax: 905-521-8099                         |
|          | Ottawa   | Dr. Nataliya Milman   | Dr. Douglas C. Smith           | Dr. Shaun Kilty (ENT);               | Arthritis Centre at the Ottawa Hospital,  |
|          |          |                       |                                | Dr. Brendon McCormick (Nephr.);      | Riverside Campus                          |
|          |          |                       |                                | Dr. Peter Magner (Nephr.);           | 1967 Riverside Drive, box 37, K1H 7W9,    |
|          |          |                       |                                | Dr. Nav Voduc (Respi.);              | Tel: 613-738-8400, ext. 81871             |
|          |          |                       |                                | Dr. Shawn Aaron (Respi.);            | Fax: 613-738-8228                         |
|          |          |                       |                                | Dr. Kanigsberg (Derm.);              |   |
|          |          |                       |                                | Dr. Marco Gomez (Lung Pathol.)       |   |
|          | Kingston | Dr. Tanveer Towheed   | Dr. Marie Clements-Baker;      | Dr. Andre Tan (ENT);                 | Department of Medicine                    |
|          |          |                       | Dr. Michel Melanson (Neurol.)  | Dr. David Holland (Nephr.);          | Queen's University                        |
|          |          |                       |                                | Dr. Christine D'Arsigny (Respi.)     | Room 2066, Etherington Hall, Kingston,    |
|          |          |                       |                                |                                      | Ontario, K7L 3N6                          |
|          |          |                       |                                |                                      | Phone: 613-533-6896                       |



#### The CanVasc website



English - French

Home | About CanVasc | Vasculitides | Ongoing studies | Meetings | Tools for physicians | Links

#### Explore CanVasc and its affiliated centers across Canada



CanVasc is the Canadian network for research on vasculitides. It was created in November 2010 by Drs. Pagnoux, Carette and Khalidi. The first task was to identify referral medical centers and physicians across Canada with expertise in vasculitis and who were willing to be part of this new research group (core members). Among its several other aims, important ones are to help conduct studies on vasculitis, provide support and educational material on vasculitides for physicians and other health care professionals and, eventually, optimize the therapeutic management of patients with these rare diseases.

CLICK HERE for more information on CanVasc. CLICK HERE for more information on national CanVasc meetings

CanVasc FORUM (and link to CanVasc DropBox) can be ACCESSED FROM HERE (for CanVasc registered physicians only)

#### Review studies on vasculitis actively recruiting in Canada

Several prospective studies on vasculitis are ongoing across the world, including in several Canadian centers. Have a brief overview of these latter ones, including ABROGATE, CLASSIC, PEXIVAS, DCVAS, RITAZAREM and TAPIR on the study webpage and determine whether any of your patients could participate to any of them.

PATIENTS can also ENROLL THEMSELVES directly into the VCRC contact registry or the V-PPRN research network! Several studies are ongoing and rolling already with the active participation of patients leaving in North America, including some studies led by CanVasc researchers! See the links to these registry and network and get more information on this very innovative way to conduct patient-oriented research on the Link page.

#### Calgary Vasculitis Symposium - October 8, 2015 - Thursday (07:30-1700)

This symposium is an opportunity to learn about recent discoveries in clinical and translational research and innovations in care for patients with vasculitis aiming to improve the long term outcomes. Free registration HERE.

Topics include Treatment and outcome of ANCA associated vasculitis in 2015, Lung disease in vasculitis, Optimizing care for patients with vasculitis, CNS disease in vasculitis, Clinical research in adult vasculitis, Discoveries in childhood vasculitis, Clinical research in childhood systemic vasculitis, with a keynote presentation (New frontiers in vasculitis research) by Prof. Charles Jennette (University of North Carolina at Chapel Hill, NC, USA).

A research meeting for CanVasc members attending the symposium is planned on the following morning (October 9, 2015).

A Vasculitis Patient and Parent Forum will also be held on Thursday, October 8, 2015, from 6:00pm to 8:00pm in the Auditorium on







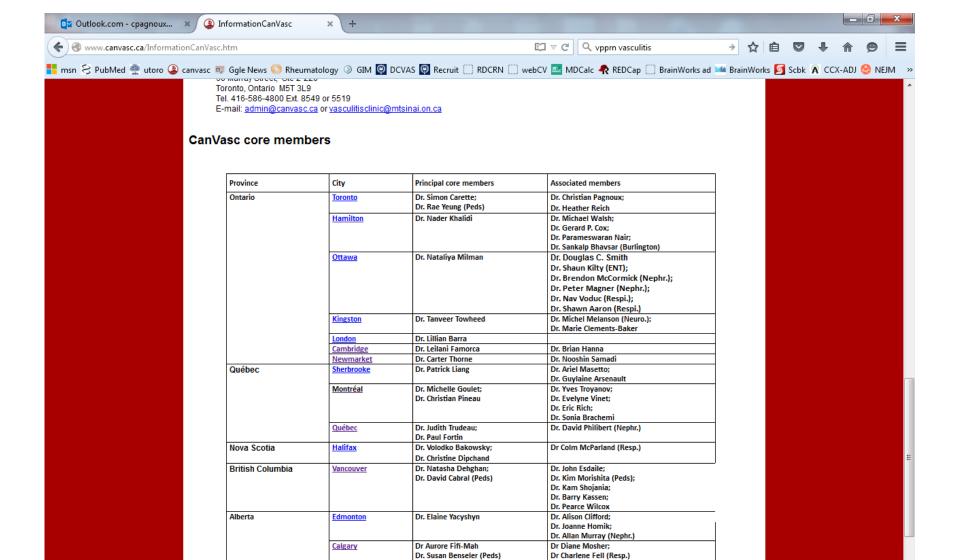












Download the updated and complete list of Principal Core, Associated and Affiliated members by clicking HERE

Saint John's

#### CanVasc Regular members

Regular members are defined as physicians other than those listed as core/associated/affiliated members (as listed above), as well as any other...

Dr. Bindu Nair;

Dr. Jim Barton (Nehpr.); Dr. Julian Midgley (Nephr. Peds)

Dr. David Robinson Dr. Regina Taylor-Gjevre

Dr. Majed Khraishi









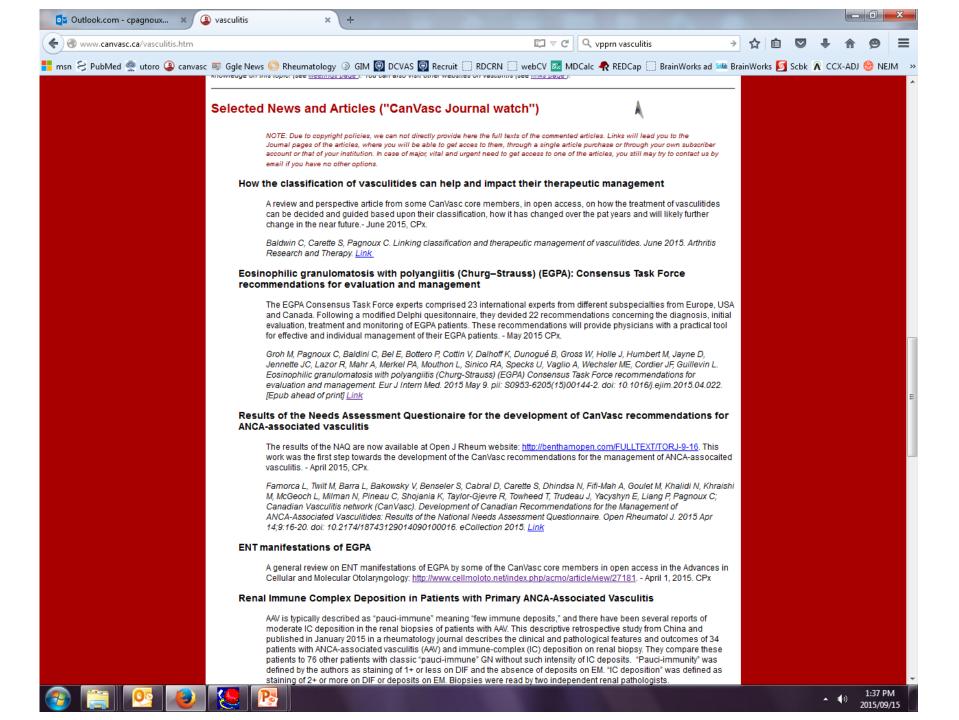


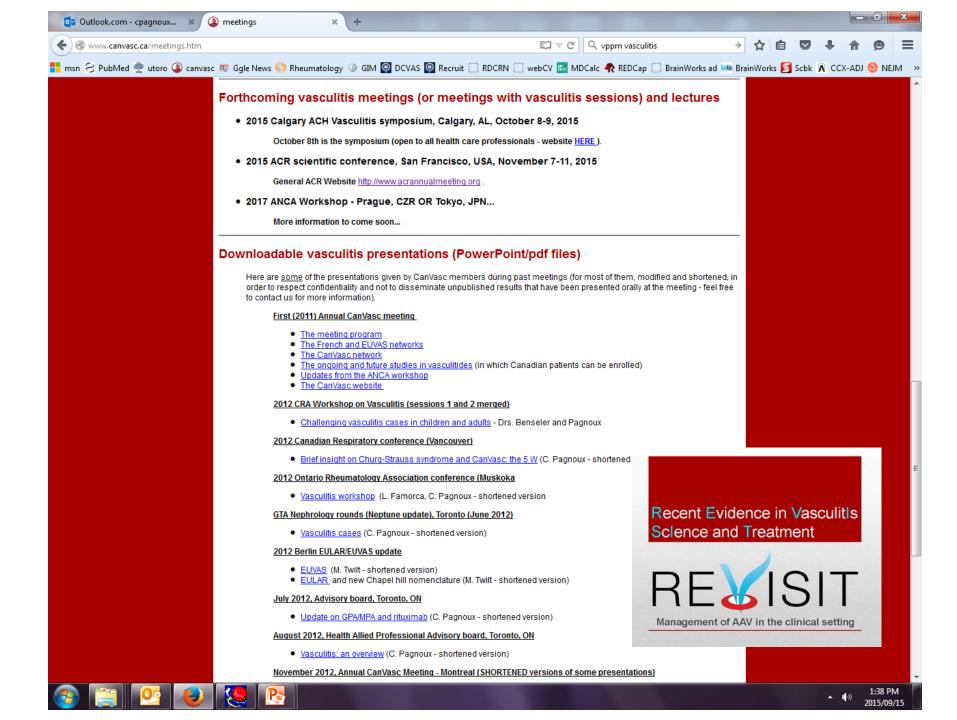
Manitoba

Saskatchewan

Newfoundland







#### For physicians



#### Canvasc MD member FORUM

Please note that <u>ONLY</u> medical doctors, registered as CanVasc members (first register to become CanVasc member then create a forum account - access to forum will then be granted). This is a secured and password-restricted forum.



#### Vasculitis Clinical Research Consortium (VCRC)

The Vasculitis Clinical Research Consortium is an integrated group of academic medical centers, patient support organizations, and clinical research resources dedicated to conducting clinical research in different forms of vasculitis. The website contain medical information for physicians, health care providers but also patients.



#### French Vasculitis Study Group (FVSG)

The FVSG (French Vasculitis Study Group) is a non-profit association created in 1981 by Prof. Loïc Guillevin. The FVSG's goals in the field of systemic vasculitides are to aid and promote research, diffuse updated information to doctors and patients, organize and coordinate therapeutic trials, and compile a register of doctors and investigators working in the field of vasculitis.



European Vasculitis Study group (EUVAS) is the open collaborative research group of European physicians interested in research and education in vasculitis. The website provide some information on EUVAS activities.

## 

The purpose of this Website is mainly to provide information about vasculitis for patients, including easy-to-print booklets on each of the main vasculitides, but physicians and research coordinators may also find a lot of useful information and practical tools.

#### Cleveland Clinic

#### Cleveland Clinic CME Website - Vasculitis

The Cleveland Clinic Center for Continuing Education has been committed to sharing a wealth of knowledge with physicians, nurses, and other medical professionals across the country and all over the world for more than 75 years. This website contains rich educational material and updates on vasculitis and vasculitis research.

#### Rheuminfo RheumInfo.com

RheumInfo.com is website developped by Dr. Andy Thompson & Marlene Thompson (London, ON) to provide free, honest, accurate, and reliable information for patients and physicians dealing with rheumatic disease. Many simple easy-to-use booklets on treatment, which can be given to help patients manage their treatment on a daily basis, are dowloadable.





#### Hello CanVasc Forum Administrator

Show unread posts since last visit. Show new replies to your posts. There is one member awaiting approval. 20 October 2014, 20:42:40

Search

News:

Home Help Search Admin Moderate Profile My Messages Calendar Members Logout.

CanVasc Forum

| Forum an | d CanVasc Information   |                     | Unread Posts =   |
|----------|---|---------------------|--|
|          | Forum Information Information about the the forum, its content, the setc  | 0 Posts<br>0 Topics |  |
|          | CanVasc Activities and Information Information on CanVasc annual and core member meetings, teleconferences etc.                     | 1 Posts<br>1 Topics | Last post by CanVasc Forum Administrator<br>in 2014 CanVasc annual meet<br>on 16 June 2014, 15:15:32 |
|          | CanVasc Dropbox Link to CanVasc dropbox (including top articles, CanVasc documents for core members etc)                            | 1 Posts<br>1 Topics | Last post by CanVasc Forum Administrator<br>in DropBox link<br>on 06 February 2013, 21:07:56         |
|          | Material for review and guidance for member Miscellaneous material for members to review and/or to help in the administrative tasks | 3 Posts<br>1 Topics | Last post by avfifima<br>in Redcap use for database<br>on 22 May 2014, 23:48:01                      |

| Vasculitis | Information   |                     | Unread Posts =  |
|------------|---|---------------------|---|
|            | General Discussion on Vasculitis  | 0 Posts<br>0 Topics |   |
|            | Difficult Cases Discussion about difficult cases (no patient ID allowed)  | 8 Posts<br>4 Topics | Last post by (barra<br>in Re: Hypocomplementemic U<br>on 19 July 2014, 18:11:38 |
|            | CanVasc Consensus and Recommendations Discussion about the CanVasc recommendations for the management of vasculitis | O Posts<br>O Topics |   |

New Posts No New Posts S Redirect Board

MARK ALL MESSAGES AS READ

# **CIORA** grant

- 1) develop recommendations for LVV
- 2) implement strategies to disseminate CanVasc recommendations across Canada
- 3) develop new educational materials, with a systematic web-based process
- 4) develop strategies to assess the use of the recommendations and educational materials and their impact on practice management of patients



# CanVasc

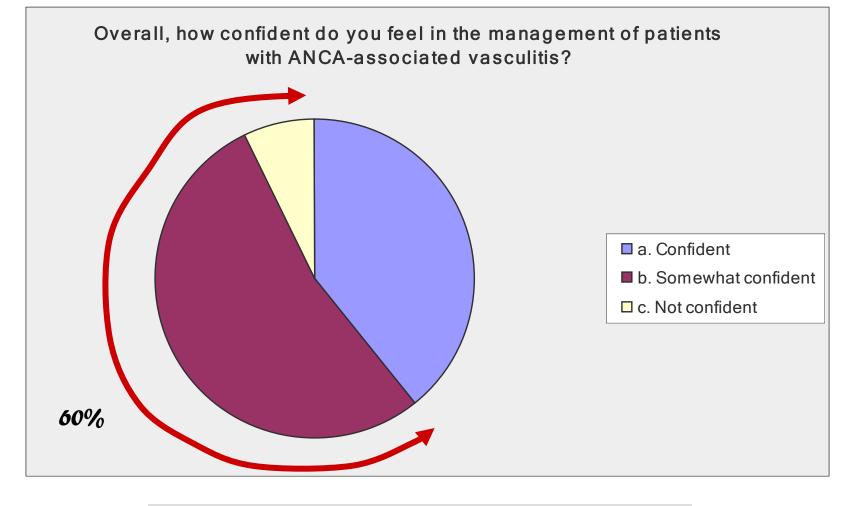
recommendations for the management of patients with ANCA-associated vasculitis

# **Process**

Establishment and regular updates
 of recommendations for the diagnostic
 and therapeutic management of patients
 with ANCA-associated vasculitis

## Needs assessment questionnaire

- CRA members
- CanVasc member list
- CTS (respirology) + CSN (nephrology)
- including pediatricians, and some GIM



| Overall, how confident do you feel in the management of patients with ANCA-associated vasculitis? |                                      |                   |
|---|--------------------------------------|-------------------|
| Answer Options  | Response<br>Percent                  | Response<br>Count |
| <ul><li>a. Confident</li><li>b. Somewhat confident</li><li>c. Not confident</li></ul>             | 39.2%<br>53.6%<br>7.2%               | 38<br>52<br>7     |
|   | nswered question<br>skipped question | 97<br>24          |

# **Process**

## → 37 identified questions

- Review of literature on these questions
  - existing recommendations
  - PubMed + grey literature + proceedings since 2008

Writing of draft 1 with grading of evidence

| Category of Evidence | Evidence Available   |
|----------------------|--|
| 1A                   | From meta-analysis of randomised controlled trials.  |
| 1B                   | From at least 1 randomised controlled trial.   |
| 2A                   | From at least 1 controlled study without randomization.  |
| 2B                   | From at least 1 quasi-experimental study.  |
| 3                    | From descriptive studies, such as comparative studies, correlation studies, or case-control studies. |
| 4                    | From expert committee reports or opinions and/ or clinical experience of respected authorities.      |

| Strength of Recommendation | Directly based on (level of evidence)  |
|----------------------------|--|
| А                          | Category 1 evidence  |
| В                          | Category 2 evidence or extrapolated recommendations from category 1 evidence.      |
| С                          | Category 3 evidence or extrapolated recommendations from category 1 or 2 evidence. |
| D                          | Category 4 evidence or extrapolated recommendations from category 2 or 3 evidence. |

Dougados M, Betteridge N, Burmester GR, et al. EULAR standardised operating procedures for the elaboration, evaluation, dissemination, and implementation of recommendations endorsed by the EULAR standing committees. Annals of the rheumatic diseases 2004;63(9):1172-6.

## **Process**

# Reviewed by 15 CanVasc core members



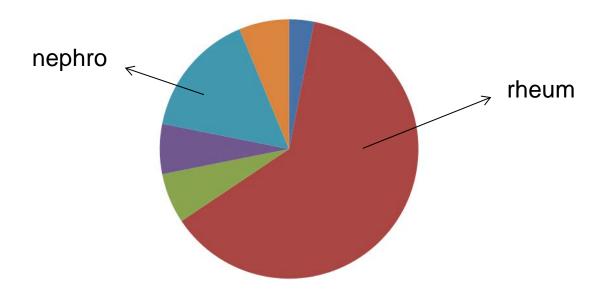
November 2013

## **Process**

- Revised draft (2) → 07/2014
- Revised draft (2)
- → CanVasc core members
- + subgroups (CTS, CSN, CRA members)
- → Patient association (VF Canada)
- → Nurses

# Thanks to all the reviewers!

Comments from 33 reviewers (+ VF)



## CanVasc Recommendations for the Management of Antineutrophil Cytoplasm Antibody-associated Vasculitides: Short Version

Lucy McGeoch, Marinka Twilt, Leilani Famorca, Volodko Bakowsky, Lillian Barra, Susan Benseler, David A. Cabral, Simon Carette, Gerald P. Cox, Navjot Dhindsa, Christine S. Dipchand, Aurore Fifi-Mah, Michelle Goulet, Nader Khalidi, Majed M. Khraishi, Patrick Liang, Nataliya Milman, Christian A. Pineau, Heather Reich, Nooshin Samadi, Kam Shojania, Regina Taylor-Gjevre, Tanveer E. Towheed, Judith Trudeau, Michael Walsh, Elaine Yacyshyn, and Christian Pagnoux, for the Canadian Vasculitis Research Network

ABSTRACT. Objective. The Canadian Vasculitis research network (CanVasc) is composed of physicians from different medical specialties and researchers with expertise in vasculitis. One of its aims is to develop recommendations for the diagnosis and management of antineutrophil cytoplasm antibody (ANCA)-associated vasculitides (AAV) in Canada.

Methods. Diagnostic and therapeutic questions were developed based on the results of a national needs assessment survey. A systematic review of existing non-Canadian recommendations and guidelines for the diagnosis and management of AAV and studies of AAV published after the 2009 European League Against Rheumatism/European Vasculitis Society recommendations (publication date: January 2009) until November 2014 was performed in the Medline database, Cochrane library, and main vasculitis conference proceedings. Quality of supporting evidence for each therapeutic recommendation was graded. The full working group as well as additional reviewers, including patients, reviewed the developed therapeutic recommendations and nontherapeutic statements using a modified 2-step Delphi technique and through discussion to reach consensus.

**Results.** Nineteen recommendations and 17 statements addressing general AAV diagnosis and management were developed, as well as appendices for practical use, for rheumatologists, nephrologists, respirologists, general internists, and all other healthcare professionals more occasionally involved in the management of patients with AAV in community and academic practice settings. **Conclusion.** These recommendations were developed based on a synthesis of existing international guidelines, other published supporting evidence, and expert consensus considering the Canadian healthcare context, with the intention of promoting best practices and improving healthcare delivery for patients with AAV. (J Rheumatol First Release xxxx; doi:10.3899/jrheum.150376)

Key Indexing Terms:

## Diagnosis of ANCA-associated vasculitis (AAV)

- Statement 1: The role of ANCA testing
- Statement 2: The role of tissue biopsy

## **Classification of Disease Severity**

Statement 3: Severe disease in AAV

## The Role of Referral Centers for Vasculitis

Statement 4: Management of AAV patients with Referral Centers for Vasculitis

## **Remission Induction of Newly Diagnosed AAV**

## Severe, Newly-Diagnosed AAV

**Recommendation 1:** The use of Cyclophosphamide (CYC)

Recommendation 2: Rituximab in remission induction

**Recommendation 3:** CYC dose adjustments

**Statement 5:** CYC monitoring

**Recommendation 4:** Duration of remission induction therapy with CYC

**Recommendation 5:** Glucocorticoids in remission induction

**Recommendation 6:** *Pneumocystis jiroveci* prophylaxis

Recommendation 7: Plasma exchange in remission induction

## Limited GPA and non-severe EGPA/MPA, Newly-Diagnosed

**Recommendation 8:** Methotrexate in limited GPA

Recommendation 9: Therapeutic options in non-severe EGPA and MPA

### **Remission Maintenance**

**Recommendation 10:** Choice of maintenance immunosuppressant

Recommendation 11: Rituximab in remission maintenance

Statement 6: Maintenance after rituximab-based induction

Recommendation 12: Glucocorticoids in maintenance

**Recommendation 13:** Duration of remission maintenance therapy

**Recommendation 14:** Trimethoprim/sulfamethoxazole for maintenance therapy

**Recommendation 15**: The role of topical therapies in localized Ear Nose and

Throat (ENT) disease

## **Relapsing Disease**

**Recommendation 16:** Treatment for major severe (life/organ-threatening) relapses

**Recommendation 17:** Plasma exchange in relapsing disease

**Recommendation 18:** Non-severe (non life/organ threatening) disease relapses

## Refractory Disease and Specific Disease manifestations

**Recommendation 19:** The role of rituximab in refractory disease

Statement 7: The management of subglottic stenosis and retro-orbital tumors

**Statement 8:** The management of refractory/resistant asthma in EGPA

## **Additional and Experimental Therapies**

**Statement 9:** The use of alternate/additional/experimental therapies in refractory AAV

## Follow-up and Monitoring

**Statement 10:** Long term follow-up

**Statement 11:** Screening for CYC-induced bladder toxicity

**Statement 12:** Assessment of cardiovascular risk profile in AAV

## **Special patient groups**

**Statement 13:** Planning and managing pregnancy

**Statement 14:** Management of pediatric patients

Statement 15: Classification of pediatric patients with AAV

**Statement 16:** Management of pediatric patients with newly diagnosed AAV

**Recommendation 20:** Management of pediatric patients with relapsing or

refractory AAV

#### **Recommendation 2**

We recommend using high dose glucocorticoids with rituximab as 1<sup>st</sup> line remission induction therapy in patients with severe GPA or MPA in whom cyclophosphamide is contraindicated or in whom cyclophosphamide presents an unacceptable risk of infertility.

Two RCTs have shown RTX (375mg/m² x 4 weekly infusions) to be non-inferior to cyclophosphamide at inducing remission in adults with organ or life-threatening disease<sup>40,50</sup>. In RITUXVAS (n= 44) remission at 6 months was achieved in 91% and 82% of patients treated with cyclophosphamide and rituximab respectively (a non-significant difference). In the Rituximab for ANCA-associated Vasculitis (RAVE) study (n= 197), 64% of the rituximab group patients were in remission off glucocorticoids at 6 months compared to 54% of the cyclophosphamide group (a non-significant difference). In both RCTs, there was no evidence that rituximab is a safer alternative to cyclophosphamide (comparable rate of adverse events in both treatment groups, including infections). For patients in whom cyclophosphamide is not tolerated or there is a valid contraindication to cyclophosphamide, we recommend presenting a case for the funding of rituximab, which is more expensive. We believe that preservation of fertility, when there are no clearly effective methods of doing so, is a valid justification for the use of rituximab in certain individuals, especially patients of child-bearing age. The approved regimen for rituximab in Canada is that used in the RAVE and RITUXVAS trials: 4x weekly infusions of 375mg/m2. An alternate regime of 2 x 1g rituximab infusions administered 14 days apart (as used in the treatment of rheumatoid arthritis) may be of comparable efficacy, based on retrospective studies only<sup>51-53</sup>. We therefore recommend using the former regimen when feasible. See *Appendix 4* for rituximab prescribing protocols.

#### Evidence 1B, Strength of recommendation A

**Barriers to implementation.** In August 2012, The Canadian Drug Expert Committee (CDEC) approved rituximab for the induction of remission in adult patients with severely active GPA or MPA who have a history of severe reaction to cyclophosphamide, in whom cyclophosphamide is contraindicated or who have failed an adequate trial of cyclophosphamide. Rituximab is currently approved according to these criteria in Ontario, British Columbia, Alberta, Saskatchewan, Nova Scotia and Newfoundland (see *Appendix 7*). The drug approval process is underway in the other provinces.

#### **Previous Guidance**

#### 2014 BSR<sup>21</sup>

All patients with newly diagnosed AAV should be considered as having a potentially severe life- or organ threatening disease and therefore should be assessed for treatment with glucocorticoids (GCs) and pulsed i.v. CYC or RTX. RTX is as effective as CYC for remission induction of previously untreated patients and is preferable when CYC avoidance is desirable (infertility, infection).

Both commonly used RTX protocols (375 mg/m2/week for 4 weeks; 1000mg repeated after 2 weeks) appear equally effective for induction of remission. The licensed and recommended RTX dosing protocol for the treatment of AAV is 375 mg/m2/week for 4 weeks.

#### 2011 FVSG<sup>20</sup>

For first-line treatment, rituximab may be prescribed for the same indications as cyclophosphamide to induce remission of certain GPA and MPA forms. It should preferentially be prescribed to women of childbearing age, especially when they are over 30 years old.

Because rituximab was not superior to cyclophosphamide in 2 randomized—controlled clinical trials, the therapeutic choice for a first disease flare is left to the discretion of the treating physician. That decision should be based on the patient's medical history, morbidity factors preexisting AAV, the vasculitis symptoms to be treated and the patient's opinion.

The dose of 375mg/m2/weekx 4 weeks, established to treat lymphoma, was evaluated in the randomized RAVE trial on AAV. Therefore, we recommend that dose with an evidence level of 1.

#### Guerry et al., 20117

Rituximab is as effective as CYC for remission induction of previously untreated patients. Rituximab may be preferred, especially when CYC avoidance is desirable.

#### KDIGO13

We recommend that rituximab and corticosteroids be used as an alternative initial treatment [of pauci-immune focal and segmental necrotizing GN] in patients without severe disease or in whom cyclophosphamide is contraindicated.

Drs. Lucy McGeoch (adult rheumatology), Marinka Twilt (pediatric rheumatology)

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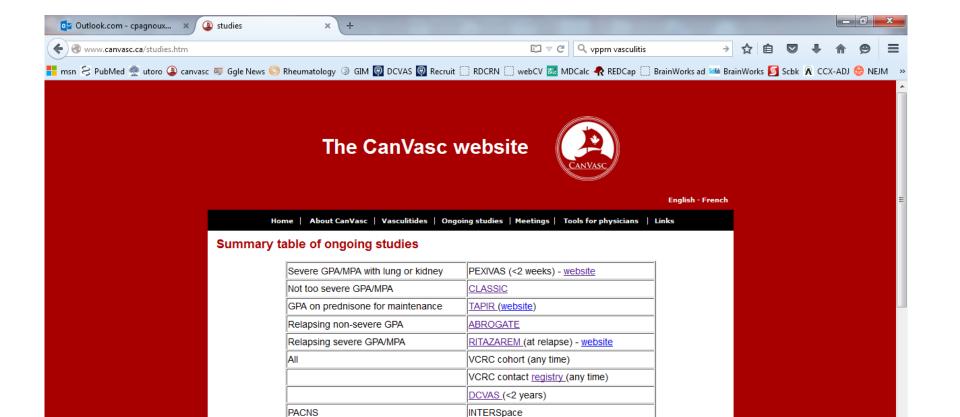
Sandra Messier



# Get enrolled in a study...



|                                    | Q2001 HowStuffWorks       |
|------------------------------------|---------------------------|
| Active GCA                         | GiACTA (<6 wks CS)        |
| GCA                                | Gevokizumab               |
| Severe GPA/MPA with lung or kidney | PEXIVAS (<2 wks CS)       |
| Active GPA/MPA (not too severe)    | CLASSIC                   |
| New GPA/MPA entering remission     | BREVAS (<6 wks remission) |
| GPA at 6-12 remission on CS 6-10mg | TAPIR                     |
| Relapsing limited GPA              | ABROGATE                  |
| Relapsing severe GPA/MPA           | RITAZAREM (at relapse)    |
| Refractory/relapsing EGPA          | MIRRA                     |
| All                                | Genetic/cytoflux MSH      |
|                                    | VCRC (any time)           |
|                                    | DCVAS (<2 years)          |



To read more information on each study, click on the name on the study when a link is available and/or read below.

NOTE (18 June 2015); inclusions in the BREVAS study (belimumab on top of AZA for maintenance in GPA/MPA) are closed (revised protocol with an achieved target of 100 patients).

BrainWorks (for children; adults soon)

NOTE (14 April 2015): Inclusions in the GIACTA study (tocilizumab for GCA) are closed in Canada.

NOTE (5 February 2015): Inclusions in the MIRRA study (mepolizumab in refractory EGPA) are closed in Canada. The study is still enrolling in US and Europe but should also reach its enrollement targets there soon.

If you still need more detail on these studies or if you think that one of your patients could be eligible for any of this study, do not hesitate to contact us as well (admin@canvasc.ca).

#### **PEXIVAS**

PEXIVAS trial is a multicentre, international, phase III, open label randomised controlled therapeutic trial to investigate plasma exchange and glucocorticoid dosing in the treatment of ANCA-associated vasculitis. It is conducted under the aegis of the VCRC, EUVAS and NIH. Several centers in Canada are participating, including centers involved in CanVasc, like Hamilton, where Dr. M. Walsh (associated member of CanVasc), who originally worked on the trial design and is the main investigator for Canada, is established.

The first Canadian patient has been enrolled in late March 2011 in Hamilton, which was the first open center in Canada. All other











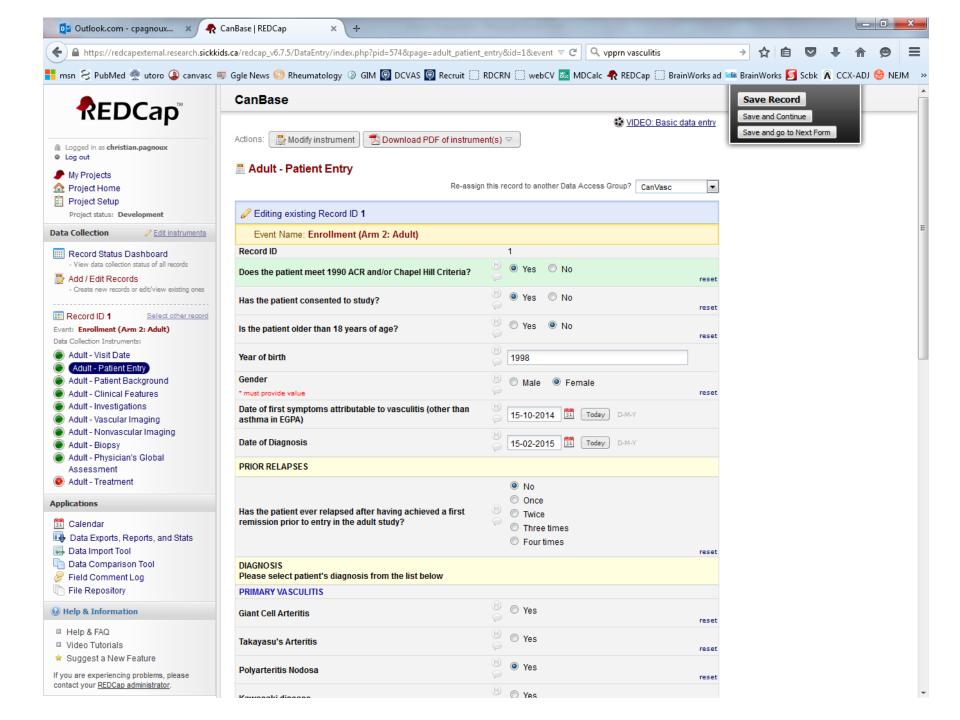


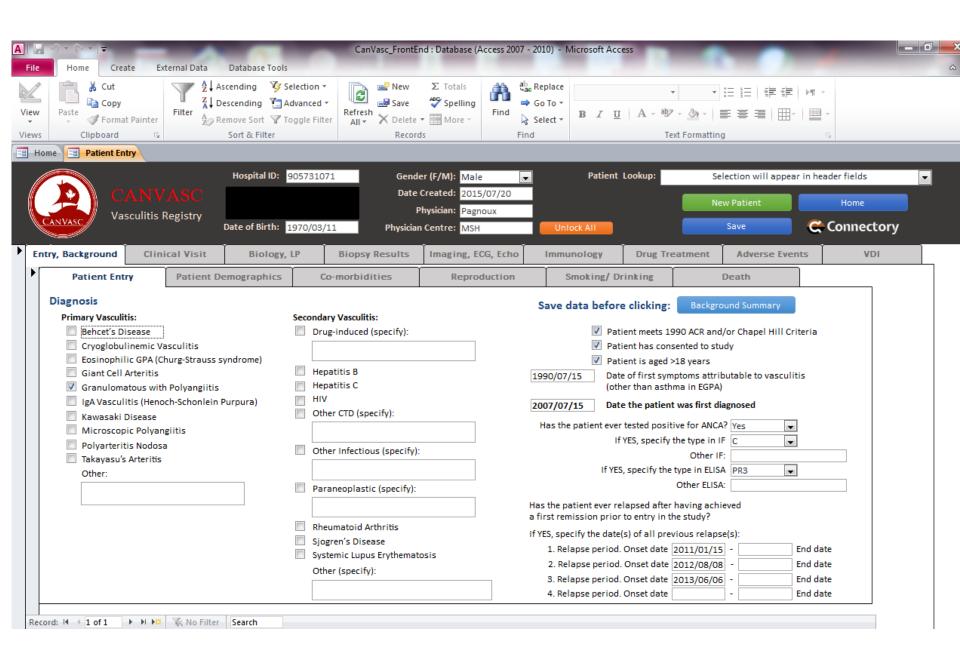


# Registries

- Different options, but the same structure and, eventually, items
  - Access
  - RedCap
  - BrainWorks







### Brainworks Workflows - Adult Patient

# Adult Patient – Screens Launching a patient's visit \*\*Observe the Green Banner for an Adult Patient Visit\*\*



# CanVasc/VCRC Toronto-led studies

- IBD and vasculitides
- GPA cardiac manifestations (with VCRC)

Genetic + cytoflux study (K. Siminovitch)



## Vasculitis Patient-Powered Research Network

A partnership of the Vasculitis Clinical Research Consortium and the Vasculitis Foundation







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Blueprint for Innovative Research

Studies Who

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## V-PPRN Research Studies

The goal of the V-PPRN research program is to conduct high-quality studies that will improve the care and the health of patients with vasculitis by exploring research questions that matter most to patients and advance medical knowledge about vasculitis.

The V-PPRN is currently conducting the following studies in partnership with the Vasculitis Clinical Research Consortium. These studies seek to address research questions that are important to both patients and researchers.



### VascWork Study

Although much progress has been made towards finding better medical therapies to treat vasculitis, patients with vasculitis often must manage substantial disease and treatment burdens. Patients with systemic vasculitis may have high rates of work disability and significant loss of personal income from employment. This study will ask questions about:

- Employment status (Do patients have to take a prolonged sick leave?)
- Work productivity (How many patients have to adjust their work because of the physical demands of the job?)
- Income (How many patients have a loss of income following the diagnosis of their disease?)

Learn more about this study >



## The ANCA Vasculitis Questionnaire (AAV-PRO®)

We are developing and validating a questionnaire to assess quality of life in patients with ANCA-associated vasculitis (AAV). Patients with AAV have inflammation in the small blood vessels leading to involvement of a range of organs, for

# Ready for...

- More studies and activities...
- + More centers to join VCRC...
- + Randomized controlled trials...

= More fun!

# Thank you!!!

