



CANADIAN STROKE BEST PRACTICE RECOMMENDATIONS

Acute Stroke Management **Seventh Edition, Update 2022 & Endovascular** **Thrombectomy, Interim Update 2025**

Appendix 1 &2 : Writing Group Members and External Reviewers

*Heran M, Shamy M (Writing Group Chairs)
on Behalf of the Canadian Stroke Best Practice Recommendations
Acute Stroke Management Writing Group and in collaboration with the
Canadian Stroke Consortium*

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APPENDIX 1: ACUTE STROKE MANAGEMENT WRITING GROUP 2022

Name	Professional role	Location	Declared conflicts of interest
Heran, Manraj MD, FRCPC	Diagnostic and Interventional Neuroradiologist Associate Professor University of British Columbia	Vancouver, BC	None to declare
Shamy, Michel MD MA FRCPC	Attending Neurologist, The Ottawa Hospital Associate Professor, Department of Medicine, Division of Neurology University of Ottawa	Ottawa, ON	CIHR SPOR Grant, New Frontiers in Research Fund Grant Participation on a Data Safety Monitoring Board or Advisory Board - FRONTIER Trial
Arsenault, Sasha OT, MAL(H)	Provincial Director, Stroke Services BC	Vancouver, BC	March of Dimes After Stroke Advisory Board
Bickford, Doug MSc, MBA, CHE, CD	Director, Southwestern Ontario Stroke Network London Health Sciences Centre	London, ON	None to declare
Derbyshire, Donnita MA, CCP	Saskatchewan College of Paramedics, Paramedic Practice Committee Critical Care Paramedic Representative	Saskatoon, SK	None to declare
Doucette, Shannon RN, BScN, MN	Project Lead, Heart Failure, Mission, Health Systems, Heart and Stroke Previously, Clinical Nurse Specialist, Stroke Care, Enhanced District Stroke Program, Royal Victoria Regional Health Centre	Barrie, ON	None to declare
Foley, Norine	WorkHORSE Consulting Group	London, ON	None to declare
Ganesh, Aravind MD DPhil FRCPC	Vascular and Cognitive Neurologist Assistant Professor Departments of Clinical Neurosciences and Community Health Sciences, University of Calgary Cumming School of Medicine	Calgary, AB	Payments to institution Canadian Institutes of Health Research, Alberta Innovates Canadian Institutes of Health Research, Canadian Cardiovascular Society, Alberta Innovates, Campus Alberta Neuroscience, Sunnybrook Research Institute INOVAIT, Government of Canada – New Frontiers in Research Fund, Microvention, Alzheimer Society of Canada Consulting fees MD Analytics, MyMedicalPanel, Figure 1, CTC Communications Corp, Atheneum, DeepBench, Research on Mind, Creative

Name	Professional role	Location	Declared conflicts of interest
			Research Designs Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events Figure 1, Alexion, Biogen Patent filed for a system for patient monitoring and delivery of remote ischemic conditioning or other cuffbased therapies Member of editorial board Neurology: Clinical Practice, Neurology, Stroke, Frontiers in Neurology Stock options SnapDx, Advanced Health Analytics (AHA Health Ltd), TheRounds.com, Collavidence
Ghrooda, Esseddeeg MD, FRCPC	Assistant Professor, Director of Telestroke Program, Medical Lead of stroke program, Manitoba University of Manitoba. Co-section Head of Neurology Section of Neurology, Department of Internal Medicine, University of Manitoba	Winnipeg, MB	None to declare
Gubitz, Gord MD, FRCPC	Stroke Neurologist, Queen Elizabeth II Health Sciences Center, Dalhousie University Professor of Neurology, Dalhousie University	Halifax, NS	Site Investigator: AcT, ESCAPE-NEXT, ECSC-2, ESCAPE-MeVO, Participation on a Data Safety Monitoring Board or Advisory Board -DSMB Member: CATIS-ICAD Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid - Canadian Association of MAiD Assessors and Providers(CAMAP) Co-Chair - Canadian MAiD Curriculum Development Committee (funded by Health Canada)
Harris, Devin MD, MHSC.	Executive Medical Director, Quality and Patient Safety, Interior Health Clinical Professor University of B.C., Department of Emergency Medicine	Kelowna, BC	CIHR, Brain Canada - Payments made to institution Participation on a Data Safety Monitoring Board or Advisory Board - PulsePoint Randomized Controlled Trial (DSMB) Council Chair, B.C. Patient Safety and Quality Council
Kanya-Forstner, Nick BSc MD	Assistant Professor, Northern Ontario School of Medicine, Stroke Team Physician, Timmins &	Sudbury, ON	None to declare

Name	Professional role	Location	Declared conflicts of interest
	District Hospital		
Kaplovitch, Eric MD, FRCPC	Attending Physician Lecturer University of Toronto	Toronto, ON	External consulting for the Canadian government through RCGT re: vaccine safety Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid - Canadian Society of Vascular Medicine (unpaid)
Liederman, Zachary MD, MScCH, FRCPC	Hematologist, Clinician Teacher Assistant Professor University of Toronto and University Health Network, Department of Medicine	Toronto, ON	No payment has currently been received but agreement for honoraria (to personal account) for presentation at annual thrombosis Canada conference (warfarin in 2022) as well as creation of patient education pamphlet (cancer associated thrombosis) Advisory board work with SOBI regarding ITP treatment (Avatrombopag) CanVECTOR Training, Mentoring, & Early Career Development Platform (unpaid)
Lindsay, M. Patrice RN, PhD, FWSO	Heart and Stroke Foundation of Canada	Toronto, ON	None to declare
Lund, Rebecca MSc(OT), OT Reg. (Ont.)	Heart and Stroke Foundation of Canada	Toronto, ON	None to declare
Martin, Chelsy PT, MSc(PT)	Heart and Stroke Foundation of Canada	Toronto, ON	None to declare
Martiniuk, Shauna MD, CCFP (EM), FCFP	Emergency Physician, Schwartz-Reisman Emergency Centre, Mount Sinai Hospital Assistant Professor University of Toronto, Department of Family and Community Medicine	Toronto, ON	MSH Emergency Associates - hourly funding for time spent in meetings
McClelland, Marie RN, CRC	Clinical Research Coordinator, Interior Health Authority Interior Health Research Department	Kelowna, BC	None to declare
Milot, Genevieve MD FRSCP	Neurosurgeon Associate Professor Laval University, surgery dept	Quebec City, QC	Participation on a Data Safety Monitoring Board or Advisory Board - Royal college of Canada council member Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid - Fellowship affair board
Minuk, Jeffrey MD, MSc, FRCPC	Chief, Division of Neurology, The Integrated Health and Social Services University Network for West	Montreal, QC	McCarthy-Tetreault - Medical expertise for CMPA cases

Name	Professional role	Location	Declared conflicts of interest
	Central Montreal Associate Professor of Neurology and Neurosurgery McGill University		Payment for expert testimony - McCarthy-Tetreault - Written expertise only
Mountain, Anita MD, FRCPC	Medical Lead, Acquired Brain Injury Program Queen Elizabeth II Health Sciences Centre Assistant Professor Division of Physical Medicine & Rehabilitation Department of Medicine Dalhousie University	Halifax, NS	No conflicts
Otto, Erica BScPharm, ACPR, PharmD	Clinical Pharmacy Specialist, Island Health, Vancouver Island, BC Clinical Assistant Professor, Faculty of Pharmaceutical Sciences, University of British Columbia	Victoria, BC	Canadian Society of Hospital Pharmacists (CSHP); Canadian Pharmacists Association (CPhA) - Received speaker honoraria from CSHP; Received review honoraria from CPhA for reviewing neurology topic chapters; peer reviewed salary support grant from the Ontario Heart and Stroke Foundation; peer reviewed grant funding from the Canadian Institutes of Health Research.
Perry, Jeffrey J. MD, MSc, CCFPEM	Professor and Vice-Chair Research, Department of Emergency Medicine, Senior Scientist, Ottawa Hospital Research Institute Professor University of Ottawa	Ottawa, ON	Mid-Career Award (paid to institution) – HSFC
Schlamp, Robert	CCP Practice Education BCEHS	Vancouver, BC	None to declare
Smith, Eric E. MD, MPH, FRCPC, FAHA	Neurologist Department of Clinical Neurosciences, Cumming School of Medicine, University of Calgary Calgary Stroke Program, Foothills Medical Centre	Calgary, AB	Canadian Institutes of Health Research, Brain Canada, Weston Brain Institute. Weston Family Foundation Payments made to University of Calgary – Grant UpToDate Payments made to me. Not related to manuscript topic. Royalties/Licenses Alnylam, Bayer, Biogen, Cyclorion, Javelin, Eli Lilly Payments made to me. On topics not related to the manuscript. Consulting Fees U.S. National Institutes of Health Payments made to me Associate Editor, American Heart

Name	Professional role	Location	Declared conflicts of interest
			Association Payments made to me Participation on a board
Tampieri, Donatella MD, FRCPC	Diagnostic and Interventional Neuroradiologist , KHSC Ontario Full Professor Dept of Radiology , Queen's University	Kingston, ON	None to declare
Van Adel, Brian A. BSc, MSc, PhD, MD, FRCPC	Director of Neurointerventional Surgery, McMaster University Associate Professor McMaster University	Hamilton, ON	None to declare
Volders, David MD	Sub-Section Head, Interventional Neuroradiology Assistant Professor Dalhousie University, Department of Radiology	Halifax, NS	Medtronic Inc - Donation for organizing an endovascular thrombectomy training day for radiologists from Newfoundland
Whelan, K. Ruth RN, CNS, MN	Clinical Nurse Specialist Stroke Service, Royal University Hospital	Saskatoon, SK	None to declare
Yip, Samuel PhD, MD, FRCPC	Director, Vancouver Stroke Program, Vancouver General Hospital Clinical Associate Professor University of British Columbia, Division of Neurology, Department of Medicine	Vancouver, BC	None to declare
Yu, Amy Y. X. MDCM, MSc	Stroke neurologist, Sunnybrook Health Sciences Centre Assistant Professor University of Toronto, Department of Medicine	Toronto, ON	National New Investigator Award from the Heart & Stroke Foundation of Canada

ENDOVASCULAR THROMBECTOMY FOR ACUTE ISCHEMIC STROKE, INTERIM UPDATE 2025, WRITING GROUP

Name	Professional role	Location	Declared conflicts of interest
Manraj Kanwal Singh Heran MD, FSIR, FRCPC Module Co-Chair	Head, Section of Interventional Neuroradiology, Division of Neuroradiology, University of British Columbia Associate Professor, University of British Columbia	Vancouver, BC	None to declare
Michel Shamy, MD, MA, FRCPC Module Co-Chair	Attending Neurologist, The Ottawa Hospital Stroke Program Associate Professor, University of Ottawa, Department of Medicine (Neurology),	Ottawa, ON	Grants from HSFC 2025- 2027; UOttawa Department of Medicine 2025-2027; Brain Heart Interconnectome 2025- 2027; CIHR 2022-2024; NFRF 2021-2023
Dylan Blacquiére, MD, MSc, FRCPC	Medical Director, Champlain Regional Stroke Network Assistant Professor, University of Ottawa, Department of Medicine, Division of Neurology	Ottawa, ON	Payment or honoraria for support for travel/presentation from Diabetes Canada Support for attending meetings and/or travel from Diabetes Canada Participation on a data safety Advisory board, Roche Canada Board Member, Canadian Stroke Consortium
Norine Foley, MSc	WorkHORSE Consulting Group	London, ON	None to declare
Gordon Gubitz, MD, FRCPC	Vascular Neurologist, Queen Elizabeth II Health Sciences Centre, Stroke Program Professor, Dalhousie University, Division of Neurology	Halifax, NS	None to declare
Michael D. Hill, MD,	Medical Director for Stroke,		Grants from NoNO Inc to

MSc, FRCPC	Alberta Health Services PIN Professor, University of Calgary, Cumming School of Medicine, Department of Clinical Neurosciences and Community Health Sciences	the University of Calgary for the ESCAPE-NA1 trial, ESCAPE-NEXT trial; Canadian Institutes for Health Research to the University of Calgary for the ESCAPE-NA1 trial, ESCAPE-NEXT trial; Medtronic to the University of Calgary for the ESCAPE-MeVO Study; Canadian Institutes for Health Research University of Calgary for the TEMPO-2 trial; Heart and Stroke Foundation of Canada to the University of Calgary for the TEMPO- 2 trial Consulting fees from Sun Pharma and Brainsgate Inc - Paid work for adjudication of clinical trial outcomes Patents - US Patent 62/086,077 Licensed to Circle NVI US Patent 10,916,346 Licensed to Circle NVI Data Safety Monitoring Board Chair - Oncovir Hiltonel trial (end 2023) and DUMAS trial (end 2023) Data Safety Monitoring Board member ARTESIA trial (end 2023); BRAIN-AF trial (end 2023);LAAOS-4 trial (ongoing) President - Canadian Neurological Sciences Federation (not for profit) Stock - Circle Inc, Basking
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			Biosciences - Private stock ownership
M. Patrice Lindsay RN, M.Ed., PhD, FWSO	MarcLind Health Consulting	Toronto, ON	Contracts with Canadian Neurological Sciences Federation; Health PEI; Heart and Stroke Foundation of Canada - payments to self Honorarium from CHEP Plus - payment to self Advisory Board Member, ICRH, voluntary
Rebecca Lund MSc (OT)	Heart and Stroke Foundation of Canada	Toronto, ON	None to declare
Anita Mountain, MD, FRCPC	Medical lead Acquired Brain Injury Program, Nova Scotia Rehabilitation and Arthritis Centre Assistant Professor, Dalhousie University, Division of Physical Medicine & Rehabilitation, Department of Medicine	Halifax, NS	All support for the present manuscript, Heart and Stroke Foundation of Canada, no payments Grants or contracts from any entity - Qualified site investigator for research supported by Brain Canada, Heart and Stroke Foundation of Canada, Canadian Partnership for Stroke Recovery/CIHR/Governors of the University of Calgary. No payments to self. Support for research coordinator and research activities related to research grants from primary organization Leadership or fiduciary role as Rehabilitation co- chair for Canadian Stroke Best Practice Recommendations Advisory Committee, no payments.
David Volders MD	Associate Professor, University of Toronto, Department of Medical Imaging	Toronto, ON	Consulting fees from Penumbra

APPENDIX 2: ACUTE STROKE MANAGEMENT EXTERNAL REVIEWERS 2022

Name	Professional role	Location	Declared conflict of interest
Barber, Philip A MB ChB, MD	Director Stroke Prevention Clinic Associate Professor University of Calgary, Dept Clinical Neuroscience	Calgary, AB	Heart and Stroke Foundation of Canada - Principle Investigator I hold a patent for a drug, product, or device. Andromeda Medical Imaging. Imaging software ESCAPE Na1 RCT - Co-Investigator
Bilous, Treena RSLP, M.Sc., CCC-SLP	Manager of Patient Care – Acute Stroke Unit, HSC Winnipeg – Shared Health	Winnipeg, MB	None to declare
Cashin, Renee Denise RN,BN,MN	Regional Stroke Program Manager, Eastern Health	St. John's, NL	None to declare
Catanese, Luciana MD	Director, Neurovascular Unit, Hamilton General Hospital Physician-Lead, Hyperacute Stroke Services, Hamilton Health Sciences. Assistant Professor of Medicine (Neurology), McMaster University Medicine (Neurology), McMaster University	Hamilton, ON	Service Inc – Grant Funding Circle NV – Consulting AcT trial and TIMELESS - Site-PI
Chaturvedi, Seemant MD	System-Wide Stroke Program Director University of Maryland Medical System Professor of Neurology University of Maryland School of Medicine	Baltimore, MD USA	BrainsGate – Advisory Board
Chow, Michael MD, MPH, FRCS(C)	Clinical Associate Professor Staff Neurosurgeon and Neurointerventionalist University of Alberta, Department of Surgery, Division of Neurosurgery	Calgary, AB	None to declare
Dmytriw, Andrew MD, MPH, MSc	Stroke Prevention Clinic, Heart & Stoke Hospital): Interventional Neuroradiology & Endovascular Neurosurgery Harvard Medical School, Department of Radiology	Boston, MA	None to declare
Dowlatsahi, Dar MD PhD FRCP(C)	Professor, Medicine, School of Epidemiology and Public Health University of Ottawa	Ottawa, ON	CIHR grant co-PI; no payment to my institution

Name	Professional role	Location	Declared conflict of interest
	Stroke Neurologist, Medicine, Neurology, Ottawa Hospital		Astrazeneca Canada - Consulting fee for advisory board on anticoagulation reversal Castle Stroke Course - Honoraria for ICH lecture 5T conference 2022 - travel support for ESCAPE-NEXT investigator meeting Canadian Stroke Consortium - Vice Chair
Drennan, Ian ACP PhD	Advanced Care Paramedic Assistant Professor Division of Emergency Medicine, Department of Family and Community Medicine and The Institute of Health Policy, Management, and Evaluation, Dalla Lana School of Public Health, University of Toronto	Toronto, ON	None to declare
Dyason, Claire MD CCFP-PC	Palliative Medicine Consultant, The Ottawa Hospital Lecturer, Division of Palliative Medicine, Department of Medicine, University of Ottawa	Ottawa, ON	None to declare
Field, Barb BSW, RSW	Social Worker (casual), Island Health, Social Work Services - Heart Health, ICU and Emergency Department	Victoria, BC	Previously received consultant fee from SharedCare/Doctors of BC Description of Relationship: project member - Supportive Cardiology Project (2019-April 2022)
Gallagher, Romyne MD, CCFP	Treasurer, Canadian Society of Palliative Care Physicians	Vancouver, BC	None to declare
Gooderham, Peter A. MD	Head, Division of Neurosurgery, Vancouver General Hospital Clinical Assistant Professor University of British Columbia, Division of Neurosurgery, Department of Surgery	Vancouver, BC	The Aneurysm and AVM foundation – Grant Recipient Styker Canada and Baxter Canada – Product development consulting and educational consulting
Hussain, M. Shazam MD, FRCP(C), FAHA	Director, Cerebrovascular Center Professor of Neurology, CCLCM Vice Chair of Operations, Neurological Institute Staff, Vascular Neurology and Endovascular Surgical Neuroradiology	USA	Cerenovus; Stryker; Rapid Medical – Scientific Advisory Board, CEC; DSMB; CEC Medtronic; Johnson and Johnson; Cerenovus – Core lab PI; site PI; Site PI

Name	Professional role	Location	Declared conflict of interest
	Cerebrovascular Center Cleveland Clinic		
Kaya, Ebru MBBS, MRCP (UK)	President, Canadian Society of Palliative Care Physicians Associate Professor of Medicine, University of Toronto	Toronto, ON	None to declare
Lin, Katie MD, MPH	Emergency and Stroke physician, Foothills Medical Centre, Calgary Stroke Program Clinical Assistant Professor University of Calgary Department of Emergency Medicine and Department of Clinical Neurosciences	Calgary, AB	ACT-QUICR (tPA vs TNK), ESCAPE-2, SEGUE-PS, TEMPO-1 Co-PI – Clinical Trial
McDonald, Gordon MD, CCFP	Secretary Canadian Society of Palliative Care Physicians	Fredericton, NB	None to declare
Pagliuso, Stefan MPT, B.A. Kin(Hon.)	Central South Regional Stroke Program Director Hamilton Health Sciences	Hamilton, ON	None to declare
Robertson, Trudy RN, MSN, CNNI	Clinical Nurse Specialist Fraser Health Stroke Neurology Services Surrey, British Columbia Adjunct Professor University of British Columbia School of Nursing	Vancouver, BC	None to declare
Savoie, Julie B.Sc.Inf. I.I.	Regional Coordinator, Stroke Strategy / Vitalité health Network	Campbellton, NB	None to declare
Schaafsma, Joanna Danielle MD, MSc (hon), PhD	Vascular Neurologist, University Health Network Assistant Professor University of Toronto, Department of Internal Medicine, Division of Neurology, Stroke Program	Toronto, ON	Site PI – Clinical Trial
Semenko, Brenda MSc (Rehab), BMR (OT)	Professional Lead, Occupational Therapy Winnipeg Regional Health Authority	Winnipeg, MB	Allergan Inc. – Consultant on OT/PT Advisory Board

Name	Professional role	Location	Declared conflict of interest
Singh, Ravinder Jeet MBBS, DM (Neurology), PDF (Stroke)	Medical Director, Northeastern Stroke Network; Stroke Neurologist, Health Sciences North Professor Northern Ontario School of Medicine University, Division of Clinical Sciences	Sudbury, ON	Speaker's honorarium; Unrestricted education grant from Pfizer
Taylor, Sean William MD MSc FRCPC	Attending Neurologist Halifax Infirmary Stroke Unit Assistant Professor & Attending staff Dalhousie University Dept medicine, Div. neurology	Halifax, NS	ESCAPE, AcT – Sub-investigator
Tkatch, Aleksander MD FRCPC	Vascular Neurology, Medical Director for Stroke, Interior Health, BC	Kelowna, BC	None to declare
Tsai, Jenny P. MDCM, FRCPC(C)	Interventional and Vascular Neurologist Spectrum Health West Michigan Clinical Assistant Professor Division of Clinical Neurosciences Michigan State University College of Human Medicine	Michigan, USA	Cerenovus: speaker for a career development podcast (Women In Stroke). Microvention: Clinical Events Committee consultant for two trials (respectively aneurysm and AVM related). No compensation related to this work.
Walker, Gregory Brett MD, FRCPC	Royal Columbian Department of Neurology Clinical Assistant Professor of Neurology University of British Columbia	Vancouver, BC	None to declare
Weisenberg, Hope RN, BScN	District Stroke Educator, Pembroke Regional Hospital	Pembroke, ON	None to declare

Endovascular Thrombectomy for Acute Ischemic Stroke, Interim Update 2025, External Reviewers

Name	Professional role	Location	Declared conflicts of interest
Andrew M Demchuk, MD FRCPC	Director, Calgary Stroke Program Professor University of Calgary, Cumming School of Medicine, Department of Clinical Neurosciences	Calgary, AB	Grant or honorarium from Medtronic; Boehringer Ingelheim, Company co-funded OPTIMIZING ACCESS grant of which I am co-PI; funding ACT Global platform domains of which I am Co-PI Consulting fees from Roche, Ad Board Consultant Currently participating or have participated within the past two years in a clinical trial with Medtronic, Escape MeVO trial site PI
Robert Fahed, MD, MSc	Interventional Neurologist Associate Professor Department of Medicine, Division of Neurology, The Ottawa Hospital	Ottawa, ON	Consultant for Medtronic, Stryker Neurovascular, Terumo Neuro, Johnson and Johnson Received payment from Medtronic, Stryker Neurovascular, Terumo Neuro, Johnson and Johnson, consultant Currently participating or have participated within the past two years in a clinical trial with ESCAPE MeVO, EASI TOC, Site co-PI
Michael Kelly, MD, PHD, FRCSC	Provincial Head of Surgery Professor University of Saskatchewan, Division of Neurosurgery	Saskatoon, SK	Shareholder of Endostream Inc., Basecamp Vascular, Custom Health, Radical Catheters Inc. Consultant with Medtronic Inc., J&J Medtec,

			Penumbra Support for attending meeting and/or travel for work from Microvention Inc., industry site visit Currently participating or have participated within the past two years in a clinical trial with University of Manitoba, Site Principle Investigator - EMMA Can
Jai Shankar, MD, DM, MSc, FRCPC	Interventional Neuroradiologist Professor University of Manitoba, Max Rady College of Medicine, Department of Radiology	Winnipeg, MB	All support for the work reported in the manuscript from Medtronic Canada, PI for EMMA Can study funded by Medtronic Canada Grant or honorarium from Medtronic Canada, PI for EMMA Can study funded by Medtronic Canada Currently participating or have participated within the past two years in a clinical trial with Medtronic Canada, PI for EMMA Can study funded by Medtronic Canada