Editors

The Puzzle of Predicting the Impact of Brain Infarcts on Cognitive Impairment in the Aging Brain

Bernhard T. Baune, PhD, MD, MPH ................................................................. 667

The Art of Primary Prevention and Risk Assessment: Homocysteine Revisited

Thomas Jax, MD, PhD, FESC, FACC; Thomas Lauer, MD ................................................................. 670

Are Unadjusted Analyses of Clinical Trials Inappropriately Biased Toward the Null?

David M. Kent, MD, MS; Thomas A. Trikalinos, MD, PhD; Michael D. Hill, MD, MS ................................................................. 672

Understanding Stroke in Women: Similar Care, Worse Outcomes?

Gustavo Saposnik, MD, MSc, FAHA; Moira K. Kapral, MD, MSc, FRCPC ................................................................. 674

Quantitative Magnetic Resonance Angiography: A Promising Tool in the Assessment of Intracranial In-Stent Stenosis?

Andrew Clifton, MA, MRCP, FRCR ................................................................. 676

Original Contributions

Cerebral Infarcts and Cognitive Performance: Importance of Location and Number of Infarcts

Jane S. Saczynski, PhD; Sigurdur Sigurdsson, MSc; Maria K. Jonsdottir, PhD; Guðny Eiríksdottir, MSc; Palmi V. Jonsson, MD; Melissa E. Garcia, MPH; Olafur Kjartansson, MD; Oscar Lopez, MD; Mark A. van Buchem, MD; Vilmunder Guðnason, MD; Lenore J. Launer, PhD ................................................................. 677

A Meta-Analysis of Candidate Gene Polymorphisms and Ischemic Stroke in 6 Study Populations: Association of Lymphotoxin-Alpha in Nonhypertensive Patients

Xingyu Wang, PhD; Suzanne Cheng, PhD; Victoria H. Brophy, PhD; Henry A. Erlich, PhD; Christine Mannhalter, PhD; Klaus Berger, MD; Wolfgang Lalouschek, MD; Warren S. Browner, MD; Yu Shi, MS; E. Bernd Ringelstein, MD; Christof Kessler, MD; Jan Luedemann, PhD; Klaus Lindpaintner, MD; Lisheng Liu, MD; Paul M. Ridker, MD; Robert Y.L. Zee, PhD; Nancy R. Cook, ScD; for the RMS Stroke SNP Consortium ................................................................. 683

Genetic Variation in the Leukotriene Pathway and Carotid Intima-Media Thickness: A 2-Stage Replication Study

Steve Bevan, BSc; PhD; Matthias W Lorenz, MD; Matthias Sitzer, MD; Hugh S. Markus, FRCP ................................................................. 696

Correlates of Common Carotid Artery Lumen Diameter in Black and White Younger Adults: The Bogalusa Heart Study

Litao Ruan, MD, PhD; Wei Chen, MD, PhD; Sathanur R. Srinivasan, PhD; Meihung Sun, MPH; Hongwei Wang, MS; Ahmet Toprak, MD; Gerald S. Berenson, MD ................................................................. 702

Frequency and Outcome of Carotid Atheromatous Disease in Patients With Stroke in Pakistan

Mohammad Wasay, MD, FAAN, FRCR; Muhammad Azemuddin, FCPs; Muhammad Asiamuddin, FCPs; Imrana Masroor, FCPs; Zafar Sajjad, FRCR; Rasheed Ahmed, MD; Bhojo A. Khealani, FCPs; Muhammad Ashar Malik, MSc; Maria Babar Afridi, MBBS; Ayeesha Kamal, MD, FAHA ................................................................. 708

Autopsy Prevalence of Proximal Extracranial Atherosclerosis in Patients With Fatal Stroke

Mikael Mazighi, MD, PhD; Julien Labreuche, BS; Fernando Gongora-Rivera, MD; Charles Dayckaerts, MD, PhD; Jean-Jacques Hauw, MD, PhD; Pierre Amarenco, MD CME ................................................................. 713
Racial Differences in Vascular Risk Factors and Outcomes of Patients With Intracranial Atherosclerotic Arterial Stenosis
Salina P. Waddy, MD; George Cotsonis, MA; Michael J. Lynn, MS; Michael R. Frankel, MD; Seemant Chaturvedi, MD; Janice E. Williams, PhD, MPH; Marc Chimowitz, MBChB 719

Detection of Intracranial Atherosclerosis: Which Imaging Techniques Are Available in European Hospitals?
Clotilde Balucani, MD; Didier Leys, MD, PhD; E. Bernd Ringelstein, MD, PhD; Markku Kaste, MD, PhD; Werner Hacke, MD, PhD; for the Executive Committee of the European Stroke Initiative 726

High-Dose B Vitamin Supplementation and Progression of Subclinical Atherosclerosis: A Randomized Controlled Trial
Howard N. Hodis, MD; Wendy J. Mack, PhD; Laurie Dustin, MS; Peter R. Mahrer, MD; Stanley P. Azen, PhD; Robert Detrano, MD; Jacob Selhub, PhD; Petar Alulaovici, PhD; Chao-ran Liu, MD; Ci-hua Liu, MD; Juliana Hwang, PharmD; Alison G. Wilcox, MD; Robert H. Selzer, MS; for the BVATI Research Group 730

Impaired Baroreceptor Reflex Sensitivity in Acute Stroke Is Associated With Insular Involvement, But Not With Carotid Atherosclerosis
Marek Sykora, MD; Jennifer Diedler, MD; Andre Rupp, PhD; Peter Turcani, MD; Thorsten Steiner, MD 737

Oxfordshire Community Stroke Project Clinical Stroke Syndrome and Appearances of Tissue and Vascular Lesions on Pretreatment CT in Hyperacute Ischemic Stroke Among the First 510 Patients in the Third International Stroke Trial (IST-3)
Adam Kobayashi, MD, PhD; Joanna M. Wardlaw, MBChB, MD, FCRCP, FRCP, FMedSci; Richard I. Lindley, MD, FRCP, FRACP; Steff C. Lewis, MD, MSci; Peter A.G. Sandercock, DM, FRCPE, FMedSci; Anna Czlonkowska, MD, PhD; Richard I. Lindley, MD, FRCP, FRACP; Steff C. Lewis, MD, MSci; Adam Kobayashi, MD, PhD; on behalf of the IST-3 Collaborative Group 743

ABCD2 Scores and Prediction of Noncerebrovascular Diagnoses in an Outpatient Population: A Case–Control Study
Terence J. Quinn, MRCP; Alan C. Cameron, BSc(Hons); Jesse Dawson, MRCP; Kennedy R. Lees, MD; Matthew R. Walters, MD 749

Lack of Impact of Paramedic Training and Use of the Cincinnati Prehospital Stroke Scale on Stroke Patient Identification and On-Scene Time
Daniel M. Frendl, BA, EMT-B; David G. Strauss, BA, EMT-I; B. Kevin Underhill, EMT-P; Larry B. Goldstein, MD, FAAN, FAHA 754

A Population-Based Study of the Prevalence of Fatigue After Transient Ischemic Attack and Minor Stroke
Charlotte Winward, MSc; Catherine Sackley, PhD; Ziyah Metha, DPhil; Peter M. Rothwell, MD, PhD, FRCP, FMedSci 757

Exploring the Reliability of the Modified Rankin Scale
Terence J. Quinn, MRCP; Jesse Dawson, MRCP; Matthew R. Walters, MD; Kennedy R. Lees, MD 762

Associations Between Diffusion and Perfusion Parameters, N-Acetyl Aspartate, and Lactate in Acute Ischemic Stroke
Vera Cvoro, MRCP; Joanna M. Wardlaw, MD, FCRCP, FRCP, FMedSci; Ian Marshall, PhD; Paul A. Armitage, PhD; Carly S. Rivers, PhD; Mark E. Bastin, DPhil; Trevor K. Carpenter, PhD; Karolina Wartolowska, MD; Andrew J. Farrall, BSc, MSc, MD, FRCP; Martin S. Dennis, MD, FRCP (ed) 767

Regional White Matter Integrity Differentiates Between Vascular Dementia and Alzheimer Disease
Mojtaba Zarei, MRCP; Jeske S. Damosiaux, PhD; Ciro Morgese, DPhil; Christian F. Beckmann, DPhil; Steve M. Smith, DPhil; Paul M. Matthews, FRCP; Philip Scheltens, MD; Serge A.R.B. Rombouts, PhD; Frederik Barkhof, MD 773

Corticospinal Tract Pre-Wallerian Degeneration: A Novel Outcome Predictor for Pediatric Stroke on Acute MRI
Trish Domi, MA; Gabrielle deVeber, MD; Manohar Shroff, MD; Elizabeth Kouzmitcheva, BSc; Daune L. MacGregor, MD; Adam Kirton, MD 780

Stroke in Fabry Disease Frequently Occurs Before Diagnosis and in the Absence of Other Clinical Events: Natural History Data From the Fabry Registry
Katherine Sims, MD; Juan Politei, MD; Maryam Banikazemi, MD; Philip Lee, FRCP 788
Cerebral Blood Flow Measurement in Children With Sickle Cell Disease Using Continuous Arterial Spin Labeling at 3.0-Tesla MRI
Xandra W. van den Tweel, MD; Aart J. Nederveen, PhD; Charles B. L. M. Majoie, MD, PhD; Johanna H. van der Lee, MD, PhD; Laetitia Wagener-Schimmel, MD; Marianne A. A. van Walderveen, MD, PhD; Bwee Tien Poll The, MD, PhD; Paul J. Nederkoorn, MD, PhD; Harriët Heijboer, MD, PhD; Karin Fijnvandraat, MD, PhD ................................................................. 795

Thrombolysis in Childhood Stroke: Report of 2 Cases and Review of the Literature
Marcel Arnold, MD; Maja Steinlin, MD; Andreas Baumann, MD; Krassen Nedeltchev, MD; Luca Remonda, MD; Sonya Jourdan Moser, MD; Marie-Luise Mono, MD; Gerhard Schloth, MD; Heinrich P. Mattle, MD; Ralf W. Baumgartner, MD ................................................................. 801

Dynamic Cerebral Autoregulation in Homozygous Sickle Cell Disease
Yu-Sok Kim, MD; Erfan Nur, MD; Eduard J. van Beers, MD, PhD; Jasper Truijen, MD; Shyrin C.A.T. Davis, MSc; Bart J. Biemond, MD, PhD; Johannes J. van Lieshout, MD, PhD ................................................................. 808

Impaired Cerebral Vasomotor Activity in Spontaneous Intracerebral Hemorrhage
Jennifer Diedler, MD; Marek Sykora, MD; Andre Rupp, PhD; Sven Poli, MD; Georg Karpel-Massler, MD; Oliver Sakowitz, MD; Thorsten Steiner, MD ................................................................. 815

Involvement of PTEN Promoter Methylation in Cerebral Cavernous Malformations
Yuan Zhu, PhD; Andreas Wloch, MSc; Qun Wu, MSc; Christian Peters, MSc; Axel Pagenstecher, MD; Helmut Bertalanffy, MD; Ulrich Sure, MD ................................................................. 820

Thrombolytic Therapy for Patients Who Wake-Up With Stroke
Andrew D. Barreto, MD; Sheryl Martin-Schild, MD, PhD; Hen Hallevi, MD; Miriam M. Morales, BS; Anitha T. Abraham, MD; Nicole R. Gonzales, MD; Kachi Illoh, MD, MPH; James C. Grotta, MD; Sean I. Savitz, MD ................................................................. 827

Can a Subset of Intracerebral Hemorrhage Patients Benefit From Hemostatic Therapy With Recombinant Activated Factor VII?
Stephan A. Mayer, MD; Stephen M. Davis, MD; Brett E. Skolnick, PhD; Nikolai C. Brun, MD, PhD; Kamilla Begtrup, MSc; Joseph P. Broderick, MD; Michael N. Diringer, MD; Thorsten Steiner, MD ................................................................. 833

Protection or Nonprotection in Carotid Stent Angioplasty: The Influence of Interventional Techniques on Outcome Data From the SPACE Trial
Olov Jansen, PhD; Jens Fiehler, PhD; Marius Hartmann, PhD; Hartmut Brückmann, PhD ................................................................. 841

Stent Placement in Acute Cerebral Artery Occlusion: Use of a Self-Expandable Intracranial Stent for Acute Stroke Treatment
Caspar Brekenfeld, MD; Gerhard Schloth, MD; Heinrich P. Mattle, MD; Do-Dai Do, MD; Luca Remonda, MD; Pasquale Mordini, MD; Marcel Arnold, MD; Krassen Nedeltchev, MD; Niklaus Meier, MD; Jan Gralla, MD ................................................................. 847

Treating Visual Speech Perception to Improve Speech Production in Nonfluent Aphasia
Julius Fridriksson, PhD; Julie M. Baker, MA; Janet Whiteside, PhD; David Eoute, Jr, MSP; Dana Moser, PhD; Roumen Vesselinov, PhD; Chris Rorden, PhD ................................................................. 853

Danqi Piantang Jiaonang (DJ), a Traditional Chinese Medicine, in Poststroke Recovery
Christopher Chen, MD; N. Venketasubramanian, MD; Robert N. Gan, MD; Caroline Lambert, MD; David Picard, MSc; Bernard P.L. Chan, MD; Edwin Chan, PhD; Marie G. Bousser, MD; Shi Xuemin, MD ................................................................. 859

Ambulatory Activity of Stroke Survivors: Measurement Options for Dose, Intensity, and Variability of Activity
Patricia J. Manns, PhD, PT; Evan Baldwin, MSc, PT; M ................................................................. 864

Outcome of Patients With Negative CT Angiography Results for Arterial Occlusion Treated With Intravenous Thrombolysis
Robert Mikulik, MD, PhD; David Goldemund, MD; Michal Reif, MD; Petr Aulicky, MD; Petr Krupa, MD ................................................................. 868

Can Self-Reported Strokes Be Used to Study Stroke Incidence and Risk Factors? Evidence From the Health and Retirement Study
M. Maria Glymour, ScD; Mauricio Avendano, PhD ................................................................. 873

Randomized, Double-Blinded, Placebo Controlled Study of Neuroprotection With Lidocaine in Cardiac Surgery
Joseph P. Mathew, MD; G. Burkhard Mackensen, MD, PhD; Barbara Phillips-Bute, PhD; Hilary P. Grocott, MD; Donald D. Glower, MD; Daniel T. Laskowitz, MD; James A. Blumenthal, PhD; Mark F. Newman, MD; for the Neurologic Outcome Research Group (NORG) of the Duke Heart Center ................................................................. 880
Should Stroke Trials Adjust Functional Outcome for Baseline Prognostic Factors?
The Optimising the Analysis of Stroke Trials (OAST) Collaboration .......................................................... 888

Extending Acute Trials to Remote Populations: A Pilot Study During Interhospital Helicopter Transfer
Enrique C. Leira, MD, MS; Azeemuddin Ahmed, MD; Diane L. Lamb, RN, BSN; Heena M. Olalde, RN, MNHP; R. Charles Callison, MD; James C. Torner, PhD; Harold P. Adams, Jr, MD; for the AIRDOC study Investigators .......................................................... 895

Long-Term Effects of Specialized Stroke Care With Telemedicine Support in Community Hospitals on Behalf of the Telemedeval Project for Integrative Stroke Care (TEMPiS)
Heinrich J. Audebert, MD; Kathrin Schultes, MD; Viola Tietz, MD; Peter U. Heuschmann, MD, MPH; Ulrich Bogdahn, MD; Roman L. Haberl, MD; Johannes Schenkel, MD, MPH; Writing Committee for the Telemedeval Project for Integrative Stroke Care (TEMPiS) .......................................................... 902

Sex Differences in Stroke Care and Outcome in the Swedish National Quality Register for Stroke Care
Marie Eriksson, PhD; Eva-Lotta Glader, PhD; Bo Norving, PhD; Andreas Terént, PhD; Birgitta Stegmayr, PhD .......................................................... 909

Estimating the Long-Term Costs Of Ischemic and Hemorrhagic Stroke for Australia: New Evidence
Derived From the North East Melbourne Stroke Incidence Study (NEMESIS)
Dominique A. Cadilhac, PhD; Rob Carter, PhD; Amanda G. Thrift, PhD; Helen M. Dewey, PhD .......................................................... 915

Anoxia-Induced NF-κB-Dependent Upregulation of NCX1 Contributes to Ca2+ Refilling Into Endoplasmic Reticulum in Cortical Neurons
Rossana Sirabella, PhD, MD; Agnese Secondo, PhD; Anna Pannaccione, PhD; Antonella Scorziello, PhD, MD; Valeria Valsecchi, PhD; Annagrazia Adornetto, PhD; Leonilda Bilo, MD; Gianfranco Di Renzo, MD; Lucio Annunziato, MD .......................................................... 922

Roles of Glia Limitans Astrocytes and Carbon Monoxide in Adenosine Diphosphate-Induced Pial Arteriolar Dilation in Newborn Pigs
Ali Kau, MD; Charles W. Leffler, PhD .......................................................... 930

MRI Identification of White Matter Reorganization Enhanced by Erythropoietin Treatment in a Rat Model of Focal Ischemia
Lian Li, PhD; Quan Jiang, PhD; Guangliang Ding, PhD; Li Zhang, MD; Zheng Gang Zhang, PhD, MD; Qingjiang Li, MS; Swayamprava Panda, MS; Alissa Kapke, MS; Mei Lu, PhD; James R. Ewing, PhD; Michael Chopp, PhD .......................................................... 936

Impact of Monocyte Chemoattractant Protein-1 Deficiency on Cerebral Aneurysm Formation
Tomohiro Aoki, MD; Hiroharu Kataoka, MD, PhD; Ryota Ishibashi, MD; Kazuhiko Nozaki, MD, PhD; Kensuke Egashira, MD, PhD; Nobuo Hashimoto, MD, PhD .......................................................... 942

An Original Flow Diversion Device for the Treatment of Intracranial Aneurysms: Evaluation in the Rabbit Elastase-Induced Model
Chander Sadasivan, PhD; Liliana Cesar, DVM; Jaesoon Seong, PhD; Audrey Rakian, MSc; Qing Hao, MSc; Fermin O. Tio, MD; Ajay K. Wakhloo, MD, PhD; Baruch B. Lieber, PhD .......................................................... 952

The Asymmetric Vascular Stent: Efficacy in a Rabbit Aneurysm Model
Ciprian N. Ionita, PhD; Ann M. Paciorek, MS; Andreea Dohatcu, BSc; Kenneth R. Hoffmann, PhD; Daniel R. Bednarek, PhD; John Kolega, PhD; Elad I. Levy, MD; L. Nelson Hopkins, MD; Stephen Rudin, PhD; J. Duffy Mocco, MD .......................................................... 959

Research Letters

Prevalence of Stroke and Transient Ischemic Attack in Korean Elders: Findings From the Korean Longitudinal Study on Health and Aging (KLoSHA)
Moon-Ku Han, MD, PhD; Yoonseok Huh, MD; Seok Bum Lee, MD; Joon Hyuk Park, MD; Jung Jae Lee, MD; Eun Ae Choi, MD; Jae-Young Lim, MD, PhD; Soo Lim, MD, PhD; Kwang-il Kim, MD, PhD; Young Joo Park, MD, PhD; Nam-Jong Paik, MD, PhD; Tae Kyun Kim, MD, PhD; Hak C. Jang, MD, PhD; Ki Woong Kim, MD, PhD; Korean Consortium for Health and Aging Research .......................................................... 966

Genetic Variation in the Lymphotoxin-Alpha Pathway and the Risk of Ischemic Stroke in European Populations
Tobias Freilinger, MD; Steve Bevan, PhD; Stephan Ripke, MD; Andreas Gschwendtner, MD; Peter Lichtner, PhD; Bertram Müller-Myhsok, MD; H.-Erich Wichmann, PhD; Hugh S. Markus, FRCP; Thomas Meitinger, MD, PhD; Martin Dichgans, MD .......................................................... 970
Upregulation of Macrophage Migration Inhibitory Factor Gene Expression in Stroke
Lijuan Wang, MD, PhD; Odysseus Zis, BSc; Guixian Ma, MD, MSc; Zhixin Shan, MD; Xiong Zhang, MD; Shuo Wang, MD; Chengbo Dai, MD; Jiehao Zhao, MD; Qixiong Lin, MD; Shuguang Lin, MD; Weihong Song, MD, PhD .......................... 973

Elevated C-Reactive Protein and Long-Term Mortality After Ischaemic Stroke: Relationship With Markers of Endothelial Cell and Platelet Activation
Saran Shantikumar, MBChB; Peter J. Grant, MD; Andrew J. Catto, PhD; John M. Bamford, MD; Angela M. Carter, PhD .......................... 977

Gender-Related Differences in Diagnostic Evaluation and Outcome of Ischemic Stroke in Poland
Wojciech Turaj, MD; Agnieszka Slowik, PhD; Marcin Wnuk, MD; Andrzej Szczudlik, PhD .......................... 980

Interhemispheric Distribution of Alzheimer Disease and Vascular Pathology in Brain Aging
Panteleimon Giannakopoulos, MD; Emikó Kövari, MD; François R. Herrmann, MD, MPH; Patrick R. Hof, MD; Constantin Bouras, MD .......................... 983

Transcranial Duplex Sonography for Monitoring Hyperacute Intracerebral Hemorrhage
Estevo Santamaria Pérez, MD, PhD; Raquel Delgado-Mederos, MD; Marta Rubiera, MD, PhD; Pilar Delgado, MD, PhD; Marc Ríbó, MD, PhD; Olga Maisterra, MD; Gema Ortega; José Álvarez-Sabin, MD, PhD; Carlos A. Molina, MD, PhD .......................... 987

The Utility of Quantitative Magnetic Resonance Angiography in the Assessment of Intracranial In-Stent Stenosis
Shyam Prabhakaran, MD, MS; Lakshmi Warrior, MD; Kalani R. Wells, RN; Miral D. Jhaveri, MD; Michael Chen, MD; Demetrius K. Lopes, MD .......................... 991

AHA/ASA Guideline
Guidelines for the Management of Aneurysmal Subarachnoid Hemorrhage: A Statement for Healthcare Professionals From a Special Writing Group of the Stroke Council, American Heart Association
Joshua B. Bederson, MD, Chair; E. Sander Connolly, Jr, MD, FAHA, Vice-Chair; H. Hunt Batjer, MD; Ralph G. Dacey, MD, FAHA; Jacques E. Dion, MD, FRCPC; Michael N. Diringer, MD, FAHA; John E. Duldner, Jr, MD, MS; Robert E. Harbaugh, MD, FAHA; Aman B. Patel, MD; Robert H. Rosenwasser, MD, FAHA .......................... 994

Case Reports
Inadvertent Intra-Arterial Contrast Agent Injection Mimicking Bilateral Occlusion of the Internal Carotid Arteries in a Patient With Suspected Stroke on Maximum-Slope, Nondeconvolution Perfusion Computed Tomography
Dominik Morhard, MD; Hannah Pellkofer, MD; Maximilian F. Reiser, Prof; Birgit Ertl-Wagner, MD [Web Site Feature] .......................... ★e46

Comments, Opinions, and Reviews
Good Laboratory Practice: Preventing Introduction of Bias at the Bench
Malcolm R. Macleod; Marc Fisher; Victoria O’Collins; Emily S. Sena; Ulrich Dirnagl; Philip M.W. Bath; Alistair Buchan; H. Bart van der Worp; Richard Traystman; Kazuo Minematsu; Geoffrey A. Donnan; David W. Howells [Web Site Feature] .......................... ★e50

Special Report
Personal Reflections From a Front-Row Seat at the Greatest Show on Earth (Life): Part II (Stroke Research Commentary)
Henry J.M. Barnett, CC, MD, FRCP(c), FRCP(UK), FACP [Web Site Feature] .......................... ★e53

Progress Review
Which Reported Estimate of the Prevalence of Malnutrition After Stroke Is Valid?
Norine C. Foley, MSc; Katherine L. Salter, BA; James Robertson, MSc; Robert W. Teasell, MD; M. Gail Woodbury, PhD [Web Site Feature] .......................... ★e66
Letters to the Editor

Luis Castilla-Guerra, MD, PhD; María del Carmen Fernández-Moreno, MD; María Dolores Jiménez-Hernandez, MD

Response to Letter by Castilla-Guerra et al
Graeme J. Hankey, MD, FRACP, FRCP, FRCP Edin

MRA for Carotid Artery Stenosis
Paul J. Nederkoorn, MD, PhD; Yolanda van der Graaf, MD, PhD

Response to Letter by Nederkoorn and van der Graaf
Sarah M. Debrey, BA; Alison E. Baird, FRACP, PhD

Meta-Analysis of Statins for Aneurysmal Subarachnoid Hemorrhage Falls Short
Aaron M. Cook, PharmD; Eugene A. Hessel II, MD

Statins in the Management of Aneurysmal Subarachnoid Hemorrhage—Not (Yet) a Standard of Care
Andreas H. Kramer, MD, MSc, FRCPC

Response to Letters by Cook and Hessel, and Kramer
Jeffrey J. Perry, MD, MSc
