

Ongoing Clinical Trials Posters II

Thursday, January 25, 2018, 6:15 PM – 6:45 PM

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Presentation Number: CTP1

Publishing Title: Shine Hyperglycemia Insulin Network Effort (SHINE) Trial

Author Block: Heather M Haughey, Amy Fansler, Karen C Johnston, Univ of Virginia, Charlottesville, VA

Abstract Body:

Background: Hyperglycemia is common in acute stroke patients. Ischemic stroke patients with hyperglycemia have worse outcomes than those with euglycemia. There is clinical equipoise regarding management of hyperglycemia in acute ischemic stroke patients.

Objective: To assess the safety and efficacy of glucose control (80 - 130 mg/dL) using insulin infusion versus standard sliding scale insulin with target glucose >110 mg/dL or glucose of ≥ 150 mg/dL for patients without diabetes at the time of enrollment. Study participants must be enrolled within 12 hours of stroke symptom onset and are expected to be enrolled within 3 hours of hospital arrival. Study participants will be recruited from approximately 60 sites including Neurological Emergencies Treatment Trials (NETT) sites and StrokeNet sites.

Design: SHINE is a multicenter, randomized, controlled trial with 2 treatment arms. The randomization algorithm prevents serious imbalance in NIH Stroke Scale (NIHSS) score, IV thrombolysis and clinical center.

Sample Size: Expected to require 1400 subjects

Intervention: Study participants are randomized to intervention (IV insulin with target glucose 80-130 mg/dL) or control treatment (subcutaneous sliding scale insulin with target glucose 80-179 mg/dL). The intervention group uses the GlucoStabilizer[®] computerized decision support tool to guide therapy. Treatment continues for up to 72 hours.

Outcome Measures: The primary efficacy outcome is 90 day modified Rankin Scale with favorable outcome dependent on baseline stroke severity (sliding dichotomy). The primary safety outcome is severe hypoglycemia (<40 mg/dL).

Statistical Analysis: The efficacy analysis using a two sided alpha = 0.05, will have 80% power to demonstrate a clinically relevant treatment effect, defined as an absolute increase in favorable outcome of $\geq 7\%$. Safety will be declared if the absolute rate of severe hypoglycemia in the intervention group does not exceed that of the control group by more than 4%.

Trial Status: Enrollment is ongoing with over 1,050 subjects enrolled and over 60 sites that have contributed to the trial success.

Sponsor: NIH-NINDS U01NS069498, U01NS056975, U01NS059041

Author Disclosure Block: **H.M. Haughey:** Research Grant; Significant; NIH-NINDS U01 NS069498. **A. Fansler:** None. **K.C. Johnston:** Employment; Modest; Special employee of federal government NINDS advisory council. Research Grant; Modest; NIH-NINDS U01NS056975, NIH-NINDS U01 NS059041, NHLBI R01 HL128492, NIH-NINDS U01 NS080168, NIH-NINDS U01 NS079077. Research Grant; Significant; NIH-NINDS U01 NS069498. Honoraria; Modest; ANA, AAN, NINDS. Consultant/Advisory Board; Modest; Diffusion Pharmaceuticals, Roche/Genentech, Biogen, NIH-NHLBI SPRINT DSMB.

Presentation Number: CTP2

Publishing Title: PreHospital Acute Stroke Therapy with Trans Sodium Crocetin (PHAST-TSC)

Author Block: Andrew M Southerland, Univ of Virginia Health System, Charlottesville, VA; Nerses Sanossian, Univ of Southern California, Los Angeles, CA; John L Gainer, Guy M Chisholm III, Diffusion Pharmaceuticals, Inc., Charlottesville, VA; Steven Piantadosi, Cedars-Sinai Medical Ctr, Los Angeles, CA; Karen C Johnston, Univ of Virginia Health System, Charlottesville, VA; Jeffrey L Saver, Univ of California, Los Angeles, Los Angeles, CA

Abstract Body:

Background: Prehospital neuroprotection is a desirable treatment strategy in acute ischemic stroke, stabilizing threatened brain to deliver more salvageable tissue to hospital-administered reperfusion treatments. Trans sodium crocetin (TSC, Diffusion Pharmaceuticals, Inc.) is a promising neurotherapeutic that enhances the diffusion of oxygen to hypoxic tissues by altering the structure of water molecules in plasma. TSC has shown benefit for both ischemic and hemorrhagic stroke in preclinical studies, and safety in early human trials in patients with glioblastoma multiforme and peripheral arterial disease.

Objective: To preliminarily characterize the safety and efficacy of patients with suspected acute stroke in the prehospital setting. Design: Phase II randomized, double-blind, placebo-controlled trial. Population Studied: Ambulance-transported patients age 40-90 yo, within 2 hours of onset of suspected acute stroke by the modified Los Angeles Prehospital Stroke Screen. The planned sample size will be 80 participants/group (n=160). Intervention: Single injection of intravenous TSC (0.25 mg/kg) versus placebo (normal saline) during ambulance transport.

Outcome Measures: The primary efficacy outcome will be disability-related quality of life at 90 days, on the utility-weighted modified Rankin Scale (UW-mRS). Secondary efficacy outcomes include disability level (ordinal mRS) and functional independence (mRS 0-2) at 90d. Exploratory efficacy outcomes include activities of daily living (Barthel Index), neurologic deficit (NIH Stroke Scale), health-related QOL (EQ-5D). Safety endpoints include all serious adverse events and all-cause mortality, with oversight by an independent DSMB.

Analysis: The study will use a multistage, gatekeeper analytic plan. The lead primary analysis of the UW-mRS will be performed in patients with final diagnoses of acute cerebral ischemia (explanatory efficacy in target patients). The hierarchical, nested, co-primary analysis of the UW-mRS will be performed in all enrolled patients, including final diagnosis cerebral ischemia, intracranial hemorrhage, and neurovascular mimics (pragmatic efficacy analysis as a treatment strategy).

Trial Status: Anticipated enrollment beginning in 2018.

Author Disclosure Block: **A.M. Southerland:** Employment; Modest; Section Editor, Neurology(R) Podcast. Research Grant; Modest; HRSA GO1RH27869-01-00. Honoraria; Modest; AHA/ASA. Expert Witness; Modest; Legal Expert Review. Ownership Interest; Modest; U.S. Provisional Patent Application Serial No. 61/867,477. **N. Sanossian:** None. **J.L. Gainer:** Employment; Significant; Chief Scientific Officer, Diffusion Pharmaceuticals, Inc. **G.M. Chisholm:** Consultant/Advisory Board; Significant; Chair, Scientific Advisory Board, Diffusion Pharmaceuticals, Inc.. **S. Piantadosi:** None. **K.C. Johnston:** Employment; Modest; Special employee of federal government NINDS advisory council. Research Grant; Modest; NIH-NINDS U01NS056975, NIH-NINDS U01 NS059041, NHLBI R01 HL128492, NIH-NINDS U01 NS080168, NIH-

NINDS U01 NS079077, NHLBI HHSN268200900040C. Research Grant; Significant; NIH-NINDS U01 NS069498. Honoraria; Modest; ANA, AAN, NINDS. Consultant/Advisory Board; Modest; Diffusion Pharmaceuticals, Roche/Genentech, Biogen, SPRINT DSMB. **J.L. Saver**: Consultant/Advisory Board; Modest; Diffusion Pharmaceuticals, Inc..

Presentation Number: CTP3

Publishing Title: Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis: CREST-2 Update

Author Block: James F Meschia, Mayo Clinic Florida, Jacksonville, FL; Brajesh K Lal, Univ of Maryland, Baltimore, MD; George Howard, Univ of Alabama at Birmingham, Birmingham, AL; Gary S Roubin, Brookwood Medical Ctr, Birmingham, AL; **Robert D Brown Jr**, Mayo Clinic, Rochester, MN; Kevin M Barrett, Mayo Clinic Florida, Jacksonville, FL; Seemant Chaturvedi, Univ of Miami Miller Sch of Med, Miami, FL; Marc I Chimowitz, Medical Univ of South Carolina, Charleston, SC; Bart M Demaerschalk, Mayo Clinic, Phoenix, AZ; Virginia J Howard, Univ of Alabama at Birmingham, Birmingham, AL; John Huston III, Mayo Clinic, Rochester, MN; Ronald M Lazar, Univ of Alabama at Birmingham, Birmingham, AL; Wesley S Moore, Univ of California Los Angeles, Los Angeles, CA; Claudia S Moy, Natl Inst of Neurological Disorders and Stroke, Bethesda, MD; Tanya N Turan, Jenifer H Voeks, Medical Univ of South Carolina, Charleston, SC; Thomas G Brott, Mayo Clinic Florida, Jacksonville, FL

Abstract Body:

Introduction: Over 100,000 carotid revascularization procedures are done annually in the US for asymptomatic carotid arterial stenosis. The safety of carotid endarterectomy (CEA) and carotid stenting (CAS), and the efficacy of medical therapy in altering the progression of atherosclerosis have improved. Therefore, the applicability of prior randomized trials in asymptomatic carotid stenosis to current treatment decisions has been called into question.

Methods: The aim of the NINDS-funded CREST-2 is to compare CEA and intensive medical therapy (IMT) versus IMT alone (n=1240), and CAS and IMT versus IMT alone (n=1240), through two parallel randomized clinical trials at approximately 120 medical centers, including collaboration with NIH-StrokeNet. The composite primary outcome is any stroke or death within 44 days after randomization or ipsilateral ischemic stroke thereafter up to 4 years. Secondary outcomes include cognitive function, which is assessed on a regular schedule through computer-assisted telephone interview. IMT is directed centrally and includes tight control of blood pressure (systolic target < 140 mm Hg) and cholesterol (LDL target < 70 mg/dl) as well as lifestyle coaching.

Results: As of October 8, 2017, the Site Selection Committee has approved 159 sites, of which 113 (71%) have enrolled at least one patient. The Surgical and Interventional Management Committees have credentialed 370 surgeons and 160 interventionists. An additional 182 interventionists have been approved to submit additional cases via the CREST-2 Companion Registry which provides a CMS-reimbursed pathway for full credentialing in CREST-2. 784 patients have been randomized, 383(49%) patients in the endarterectomy trial, and 401 (51%) patients in the stent trial.

Conclusion: CREST-2 is designed to identify the best approach for asymptomatic carotid stenosis. An update will be provided regarding the numbers of patients randomized, centers certified, as well as surgeons and interventionists fully approved. The CREST-2 Registry will provide the option of CAS while enhancing interventionists' credentials for participation in CREST-2.

Author Disclosure Block: **J.F. Meschia:** None. **B.K. Lal:** None. **G. Howard:** None. **G.S. Roubin:** None. **R.D. Brown:** None. **K.M. Barrett:** None. **S. Chaturvedi:** None. **M.I. Chimowitz:** None. **B.M. Demaerschalk:** None. **V.J. Howard:** None. **J. Huston:** None. **R.M. Lazar:** None. **W.S. Moore:** None. **C.S. Moy:** None. **T.N. Turan:** None. **J.H. Voeks:** None. **T.G. Brott:** None.

Presentation Number: CTP4

Publishing Title: Extension of Stroke Care by Added Neuroprotection to Endovascular Treatment

Author Block: Charlotte Zerna, Mayank Goyal, Bijoy K Menon, Univ of Calgary, Calgary, AB, Canada; Michael Tymianski, Univ of Toronto, Toronto, ON, Canada; Michael D Hill, Univ of Calgary, Calgary, AB, Canada; ESCAPE-NA1 investigators

Abstract Body:

Introduction: Evolution of endovascular therapy (EVT) has brought a true ischemia-reperfusion model in human ischemic stroke. Despite EVT, 40-50% of patients still have poor outcome; adjuvant therapy is needed. NA-1 is a novel peptide molecule that has proven neuroprotective effect in rodents and old-world primates (cynomolgus macaques). Efficacy and safety have been shown in human model of small volume ischemia (ENACT trial, NCT00728182). ESCAPE-NA1 is a phase 3 randomized clinical trial (NCT02930018) targeting community-onset, anterior circulation ischemic stroke patients who will undergo EVT.

Methods: International sites in Canada, US, Europe, South Korea, and Australia are recruiting adult acute ischemic stroke patients with good pre-morbid status and proven proximal large artery occlusion within 12-hours from time last seen well. Written informed consent is obtained according to local law. Imaging selection focuses on small core, large vessel occlusion, and moderate-good pial collaterals. (Table 1). Patients are randomized 1:1 to receive either NA-1 or saline placebo using a randomized minimization algorithm with dynamic allocation to conceal group assignment. NA-1 or saline placebo is delivered by 10-minute intravenous infusion immediately after baseline CT. All patients are treated with EVT. Concurrent treatment with IV alteplase will be provided according to the best standard of care. The primary efficacy outcome is modified Rankin Scale at 90 days, dichotomized as mRS 0-2 vs. 3-6, and analysed using a multivariable model adjusting for baseline minimization variables. Secondary outcomes are hierarchical and include 'shift' along the mRS using a proportional odds model. Safety outcomes include hypotension and intracerebral hemorrhage.

Progress: Up to 45 international sites are in site activation phase. The study is expected to take 2.5 years to complete. Seventy-three patients have been enrolled to date.

Inclusion Criteria	Exclusion Criteria
Age 18 or greater	ASPECTS 0-4
Onset (last-seen-well) time to randomization within 12 hours	Absence of collateral circulation on CTA (Collateral score of 0 or 1).
Disabling acute ischemic stroke with baseline NIHSS > 5 at the time of randomization	Use of any intravenous thrombolytic other than alteplase or use of non-approved endovascular devices
Pre-stroke independent functional status in activities of daily living with modified Barthel Index > 90	Angioarchitecture, chronic intracranial occlusions, suspected intracranial dissection, medical contraindications (e.g. severe contrast allergy) predicted to result in an inability to deliver timely endovascular therapy and obtain reperfusion
Symptomatic intracranial occlusion in intracranial carotid T/L or M1 middle cerebral artery	Estimated or known weight > 120 kg or < 45 kg.
Endovascular treatment intended to be initiated (arterial access) within 60 minutes of NCCT and to first recanalization of 90 minutes	Pregnant or breastfeeding women
Study drug intended to be administered within 60 minutes of the NCCT	Creatinine clearance < 29 mL/min
Signed informed consent from subject or legally authorized representative	Prior enrolment in the ESCAPE-NA1 trial or prior receipt of NA-1 for any reason
	Severe or fatal comorbid illness that will prevent improvement or follow-up
	Participation in another clinical trial investigating a drug, medical device, or a medical procedure in the 30 days preceding study inclusion

Author Disclosure Block: **C. Zerna:** None. **M. Goyal:** None. **B.K. Menon:** None. **M. Tymianski:** Ownership Interest; Significant; President and CEO of NoNO Inc. **M.D. Hill:** Research Grant; Significant; Grant from NoNO Inc. to the University of Calgary to support the trial, grant from CIHR to the University of Calgary to support the trial.

Presentation Number: CTP5

Publishing Title: Rapid Intervention with Glyceryl Trinitrate in Hypertensive Stroke Trial-2 (RIGHT-2): Safety and Efficacy of Transdermal Glyceryl Trinitrate, a Nitric Oxide Donor

Author Block: Mark Dixon, Jason P Appleton, Polly Scutt, Timothy England, Diane Havard, Harriet Howard, Univ of Nottingham, Nottingham, United Kingdom; Malcolm Jarvis, Univ of Nottingham (Patient representative), Nottingham, United Kingdom; Alan Montgomery, Univ of Nottingham, Nottingham, United Kingdom; Stuart Pocock, London Sch of Hygiene and Tropical Med, Dept of Statistics, London, United Kingdom; John Potter, Norwich Medical Sch, Univ of East Anglia, Norwich, United Kingdom; Christopher Price, The Medical Sch, Univ of Newcastle, Newcastle, United Kingdom; Tom Robinson, Univ Hosp of Leicester, Dept of Cardiovascular Sciences, Leicester, United Kingdom; Christine Roffe, Keele Univ, Inst of Science and Technology in Med, Keele, United Kingdom; A. Niro Siriwardena, Univ of Lincoln, Sch of Health and Social Care, Lincoln, United Kingdom; Nikola Sprigg, Univ of Nottingham, Nottingham, United Kingdom; Joanna Wardlaw, Univ of Edinburgh, Ctr for Clinical Brain Sciences, Edinburgh, United Kingdom; **Philip M Bath**, Univ of Nottingham, Nottingham, United Kingdom

Abstract Body:

Introduction: High blood pressure (BP) is common in acute stroke and is associated with poor outcome. Previous hospital-based trials testing the effects of BP lowering on functional outcome have been inconclusive. The PIL-FAST and RIGHT pilot trials confirmed the feasibility of performing single-centre ambulance-based stroke trials in the UK. In both RIGHT and a subgroup of patients recruited within 6 hours into the large ENOS trial, transdermal glyceryl trinitrate (GTN, a nitric oxide donor) lowered BP and reduced death or disability. Based on these results, the Rapid Intervention with Glyceryl trinitrate in Hypertensive Stroke Trial-2 (RIGHT-2) is testing the safety and efficacy of transdermal GTN in the pre-hospital setting.

Methods Over 1250 Paramedics from 7 UK ambulance services serving over 40 comprehensive or primary stroke care centres are screening, consenting, randomising and treating 1050 patients presenting within 4 hours of FAST-positive stroke and with systolic BP >120 mmHg. Treatment comprises GTN or similar sham patch, and is continued in hospital for 3 days. The primary outcome is the modified Rankin Scale at day 90. Secondary outcomes include vascular events, disability, quality of life, mood and cognition. Neuroimaging and biomarkers are examining potential mechanisms of action.

Status Recruitment commenced in October 2015. As of Friday 13th October 2017, 767 patients have been recruited from seven ambulance trusts conveying patients into 46 active stroke centres. Experiences with the trial and baseline characteristics of the recruited patients-to-date will be presented.

Author Disclosure Block: **M. Dixon:** None. **J.P. Appleton:** None. **P. Scutt:** None. **T. England:** None. **D. Havard:** None. **H. Howard:** None. **M. Jarvis:** None. **A. Montgomery:** None. **S. Pocock:** None. **J. Potter:** None. **C. Price:** None. **T. Robinson:** None. **C. Roffe:** None. **A. Siriwardena:** None. **N. Sprigg:** None. **J. Wardlaw:** None. **P.M. Bath:** None.

Presentation Number: CTP6

Publishing Title: RE-SPECT ESUSTM, a Study of Dabigatran Etexilate versus Acetylsalicylic Acid for Stroke Prevention in Patients with Embolic Stroke of Undetermined Source: Rationale, Design and Interim Baseline Characteristics

Author Block: Hans-Christoph Diener, Dept of Neurology, Univ Hosp Essen, Essen, Germany; J Donald Easton, Univ of California–San Francisco, Dept of Neurology, San Francisco, CA; Christopher B Granger, Duke Clinical Res Inst, Durham, NC; Martina Brueckmann, Boehringer Ingelheim GmbH & Co. KG, Ingelheim am Rhein, Germany; Lisa Cronin, Boehringer Ingelheim Ltd/Lte, Burlington, ON, Canada; Claudia Grauer, Boehringer Ingelheim Pharma GmbH & Co. KG, Biberach, Germany; Dan Cotton, Boehringer Ingelheim Pharmaceuticals Inc., Ridgefield, CT; Ralph L Sacco, Univ of Miami, Dept of Neurology, Miami, FL

Abstract Body:

Introduction: Approximately 92% of all strokes are ischemic, of which around 25% are cryptogenic. The term “Embolic Strokes of Undetermined Source (ESUS)” describes a subset of cryptogenic strokes defined as non-lacunar infarcts, without relevant arterial stenoses or cardiac sources, with no other specific known cause. The optimal antithrombotic treatment for prevention of recurrent stroke in ESUS is unknown.

Methods: RE-SPECT ESUS is a phase III, double-blind, randomized trial, which was initiated in December 2014. The trial will compare the safety and efficacy of dabigatran etexilate 150 mg twice daily (or 110 mg twice daily in patients aged ≥ 75 years or with creatinine clearance ≥ 30 to < 50 mL/min) with acetylsalicylic acid (100 mg once daily) for secondary stroke prevention in up to 6000 patients with ESUS from more than 40 countries. Eligibility criteria include ESUS diagnosed within 3 months prior to randomization (6 months in selected patients), modified Rankin score ≤ 3 and age ≥ 60 years or 18-59 years with a stroke risk factor (e.g., mild-moderate symptomatic heart failure, diabetes mellitus, hypertension, patent foramen ovale [PFO], prior stroke or transient ischemic attack [TIA], or CHA₂DS₂-VASc ≥ 3). The trial is event driven and powered to detect superiority (observation period: 0.5-3 years). The primary efficacy outcome is time to first recurrent stroke; the main safety outcome is time to first major hemorrhage.

Results: As of Sept 7, 2017, 4,609 patients have been randomized; baseline characteristics are available for 4,606 patients (table). Duration of cardiac monitoring before inclusion into the trial was 20-48 hrs. in 83% of patients; > 48 -72 hrs. in 5% of patients and > 72 hrs. to 7 days in 11% of patients. An update on the number of patients randomized and their baseline characteristics will be presented.

Conclusion: Findings from RE-SPECT ESUS will help physicians optimally treat patients with ESUS to prevent secondary strokes.

Baseline characteristics (for subjects enrolled as of September 07, 2017)	
Number of patients, n	4,606
Mean age, years	64
Female, %	37
Median time to study entry, days	43
CHA ₂ DS ₂ -VASc scores, %	
2	5
3	25
4	28
5	23
≥ 6	18
Transient ischemic attack or stroke prior to index event, %	18
History of hypertension, %	74
Diabetes mellitus, %	23
Patent foramen ovale, %	13

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Presentation Number: CTP7

Publishing Title: Clinical Trial Update: Early Minimally Invasive Removal of Intracerebral Hemorrhage (ENRICH) Clinical Trial

Author Block: Jonathan J Ratcliff, Alex J Hall, Emory Univ, Atlanta, GA; Brian T Jankowitz, Bradley J Molyneaux, Univ of Pittsburgh Medical Ctr, Pittsburgh, PA; Mark D Bain, Joao A Gomes, Cleveland Clinic, Cleveland, OH; Penny Sekerak, Nico Corp, Indianapolis, IN; Michael Frankel, David W Wright, Daniel Barrow, Gustavo Pradilla, Emory Univ, Atlanta, GA; ENRICH Clinical Trial Investigators

Abstract Body:

Introduction: Spontaneous intracerebral hemorrhage (ICH) is a common form of stroke that often results in severe morbidity or death. For most ICH, there are no proven therapies for acute management. Evidence suggests minimally invasive surgical evacuation of ICH may result in improved patient outcomes. The ENRICH clinical trial is designed to determine the efficacy and economic impact of early ICH evacuation using minimally invasive, transulcal, parafascicular surgery (MIPS) compared to standard guideline-based management. In this abstract we present an update of the ENRICH clinical trial.

Methods: ENRICH is an adaptive, prospective, multi-center clinical trial designed to enroll up to 300 patients with acute ICH. Patients are block-randomized based on hemorrhage location (lobar vs basal ganglia) 1:1 to MIPS or standard management. Included patients are 18 - 80 years, GCS 5-14, baseline mRS < 1, and NIHSS > 6, presenting within 24 hours from last known well and found to have a spontaneous, CTA-negative, supratentorial ICH (30-80 mL).

Results: ENRICH opened for enrollment December 2016. Currently, there are 18 active sites with 47 subjects enrolled. The mean (SD) age at enrollment is 57.1 years (+ 14.2), with 40% being female, and 29% black. The mean (SD) time from LKW to randomization is 13.3 hours (+ 5.3) and among those randomized to MIPS the average time from randomization to the OR is 3.5 hours (+ 5.4). The mean (SD) hemorrhage volume is 52mL (+ 14) with 49% of hemorrhages located in the anterior basal ganglia. Follow up at 180 days has been completed in 9/47 enrolled patients.

Conclusion: ENRICH is designed to establish the clinical and economic value of early MIPS in the treatment of ICH. Enrollment is progressing according to plan. Centers have successfully randomized 47 subjects.

Author Disclosure Block: J.J. Ratcliff: Research Grant; Significant; Nico Corporation. **A.J. Hall:** Research Grant; Significant; Nico Corporation. **B.T. Jankowitz:** None. **B.J. Molyneaux:** None. **M.D. Bain:** None. **J.A. Gomes:** None. **P. Sekerak:** Employment; Significant; Nico Corporation. **M. Frankel:** None. **D.W. Wright:** None. **D. Barrow:** None. **G. Pradilla:** Research Grant; Significant; Nico Corporation.

Presentation Number: CTP8

Publishing Title: The Bleeding with Antithrombotic Therapy Study 2 (BAT2): Study Protocol and Baseline Clinical Characteristics of Initial 1500 Participants

Author Block: Masahito Takagi, Shoichiro Sato, Natl Cerebral and Cardiovascular Ctr, Osaka, Japan; Teruyuki Hirano, Kyorin Univ, Tokyo, Japan; Makoto Sasaki, Inst for Biomedical Sciences, Iwate Medical Univ, Yahaba, Japan; Masatoshi Koga, Natl Cerebral and Cardiovascular Ctr, Osaka, Japan; Yusuke Yakushiji, Saga Univ, Saga, Japan; Masafumi Ihara, Natl Cerebral and Cardiovascular Ctr, Osaka, Japan; Kenji Kamiyama, Nakamura Memorial Hosp, Sapporo, Japan; Shinichi Takahashi, Keio Univ Sch of Med, Tokyo, Japan; Kanta Tanaka, Natl Cerebral and Cardiovascular Ctr, Osaka, Japan; Yoshitaka Yamaguchi, Yamagata Prefectural Central Hosp, Yamagata, Japan; Kazunori Toyoda, Natl Cerebral and Cardiovascular Ctr, Osaka, Japan; the BAT2 investigators

Abstract Body:

Background and Aim: Antithrombotic therapy to prevent ischemic stroke and cardiovascular diseases is widespread, but the risk of bleeding complications has not been well studied in the direct oral anticoagulant (DOAC) era. We conduct an observational study to provide detailed information regarding oral antithrombotic usage and its bleeding complications and to develop risk-stratification models.

Methods: The Bleeding with Antithrombotic Therapy Study 2 (BAT2) is an investigator initiated, prospective, multicenter, observational study (Clinical Trial Registration: <http://www.clinicaltrial.gov>. Unique identifier: NCT02889653). Six thousand individuals with cerebro- or cardiovascular diseases who take oral antiplatelet agents, vitamin K antagonist, or DOACs will be enrolled in this study across the Network for Clinical Stroke Trials (NeCST). All the participants will have multimodal magnetic resonance imaging of the brain at baseline for the assessment of imaging markers of cerebral small-vessel disease (e.g. cerebral microbleeds); and be followed up every 6 months for 2 years. The primary outcome is major bleeding defined by the International Society on Thrombosis and Haemostasis (ISTH). We describe the demographic characteristics of initial 1500 participants enrolled from October 2016 to September 2017.

Results: Median age was 72 years, and 1059 patients were male. Indications for antithrombotics included ischemic stroke (n=1353), atrial fibrillation (n=130), asymptomatic stenosis of carotid artery and/or intracranial arteries (n=98), coronary heart disease (n=45), peripheral artery disease (n=9), and others (n=49). A variety of antithrombotic therapies were categorized as follows: single antiplatelet therapy (n=895), dual (or more) antiplatelet therapy (n=151), vitamin K antagonist monotherapy (n=137), monotherapy with DOAC (n=245), and combination of anticoagulant and antiplatelet agent (n=72). Previous bleeding events were observed in 129, including intracranial hemorrhage (n=59).

Conclusions: This study will provide data regarding bleeding events in patients taking oral antithrombotics for prevention of cerebro- and cardiovascular diseases as well as novel risk stratification models for bleeding risk.

Author Disclosure Block: M. Takagi: None. **S. Sato:** None. **T. Hirano:** Honoraria; Modest; Boehringer Ingelheim, Dai-ichi Sankyo, Pfizer, Bristol-Myers, Medtronic. **M. Sasaki:** None. **M. Koga:** Honoraria; Modest; Bayer Yakuin, Ltd., Pfizer Japan Inc, Otsuka Pharmaceutical Co., Ltd., Daiichi Sankyo Company, Ltd., AstraZeneca K. K., Boehringer Ingelheim Japan, Ltd.. **Y. Yakushiji:** None. **M. Ihara:** None. **K.**

Kamiyama: None. **S. Takahashi:** None. **K. Tanaka:** None. **Y. Yamaguchi:** None. **K. Toyoda:** Speakers' Bureau; Modest; Daiichi Sankyo Company, Boehringer Ingelheim, Bayer, Bristol-Myers.

Presentation Number: CTP9

Publishing Title: Shuxuetong for Prevention of Recurrence in Acute Cerebrovascular Events with Embolism

Author Block: Yongjun Wang, Yilong Wang, Xia Meng, Xingquan Zhao, Hao Li, Liping Liu, **Xuwei Xie**, Hongqiu Gu, Jing Jing, Jie Xu, Beijing Tiantan Hosp, Capital Medical Univ, Beijing, China

Abstract Body:

Embolitic stroke is a main type of ischemic stroke. Antiplatelet treatment is recommended after non-cardioembolic ischemic strokes and anticoagulant therapy is recommended after cardioembolic ischemic strokes. However embolic stroke is still at high risk for recurrence. Shuxuetong injection, a compound traditional Chinese medicine extracted from leech and earthworm, has been widely and safely used to treat thrombus diseases in clinical practice. However, the effect of Shuxuetong for embolic stroke has not been tested in randomization clinical trials. The SPACE (Shuxuetong for Prevention of Recurrence in Acute Cerebrovascular Events with Embolism) trial is a randomized, double-blind, placebo-controlled, parallel, multicenter trial to evaluate the efficacy and safety of Shuxuetong injection in reducing recurrence or silent new ischemic lesions on acute embolic stroke patients in 10 days. (Figure 1) In the proposed study, we will recruit 2,416 patients with embolic stroke within 72 hours of symptom onset from 80 hospitals in China. The subjects will be randomly assigned to one of two groups receiving Shuxuetong injection or Placebo injection for 10 days. The primary end point is symptomatic or asymptomatic new cerebral infarction at 10 days. While recurrent symptomatic stroke at 90 days is the secondary outcome. 344 patients recruited to SPACE between June 2017 and October 2017. For the primary hypothesis, the difference in the proportion of a composite outcome of symptomatic and asymptomatic new cerebral infarction at 10 days between the two treatment groups will be compared using χ^2 tests. Relative risk (RR) and 95% Confident interval will also be calculated to assess the relative effective size of Shuxuetong injection. The results of SPACE trial will suggest whether Shuxuetong injection preventing symptomatic or asymptomatic new cerebral infarction at 10 days for patients with acute embolic stroke.

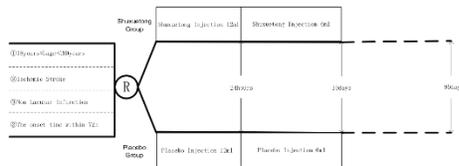


Figure 1: Study flow chart of SPACE

Author Disclosure Block: Y. Wang: None. Y. Wang: None. X. Meng: None. X. Zhao: None. H. Li: None. L. Liu: None. X. Xie: None. H. Gu: None. J. Jing: None. J. Xu: None.

Presentation Number: CTP10

Publishing Title: Thrombolysis for Acute Wake-up and Unclear-onset Strokes with Alteplase at 0.6mg/kg (THAWS) Trial: An Update and Baseline Characteristics with Initial 77 Patients

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Abstract Body:

Purpose: About one fourth of acute ischemic stroke patients suffer with unclear-onset time, e.g., during sleep. A large group of these patients have a potential to recover with intravenous thrombolysis. MRI findings with positive DWI and negative FLAIR (negative FLAIR pattern) can identify ischemic stroke patients within 4.5 h from symptom onset.

Aim and hypothesis: We aim to test the efficacy and safety of intravenous thrombolysis with alteplase at 0.6mg/kg (official dosage in Japan) in ischemic stroke patients with unclear-onset time and a negative FLAIR pattern. We hypothesize that these patients will improve with intravenous thrombolysis more frequently than those without.

Design: The THAWS (ClinicalTrials.gov identifier: NCT02002325) is an investigator initiated, multicenter (38 hospitals in Japan), prospective, randomized, open label, blinded-endpoint assessment clinical trial. Trial protocol was published in International Journal of Stroke (2014;9:1117-1124). Three hundred patients with a negative FLAIR pattern and a baseline NIHSS between 2 and 25 will be randomized 1:1 to either intravenous thrombolysis with alteplase (n=150) or standard treatment (n=150) within 4.5 h after symptom discovery but over 4.5 h since last time known normal. We generally follow the trial design of the WAKE-UP (ClinicalTrials.gov Identifier: NCT01525290). Intracranial hemorrhage will be assessed on follow-up MRI after 22-36 h.

Study outcomes: The primary efficacy endpoint is favorable outcome defined by 90-day mRS 0-1. The safety outcome measures are 24-h symptomatic intracranial hemorrhage, serious bleeding during study period and 90-day mortality. Update: Patient enrollment was started in May 2014. Until OCT 2017, 103 patients were enrolled. Of the initial 77 patients (31 women, 74.3±13.0 years), 52 (67.5%) had wake-up stroke. Regarding risk factors, 52 had hypertension, 16 had diabetes mellitus, 28 had dyslipidemia and 29 had cardiac diseases involving 17 with atrial fibrillation. Median initial NIHSS was 8 (IQR, 5-14).

Discussion: This trial may help determine whether low-dose alteplase should be recommended for ischemic stroke patients with unclear-onset time using MRI-based selection.

Author Disclosure Block: M. Koga: None. **K. Toyoda:** None. **R. Kondo:** None. **T. Kanzawa:** None. **M. Ohtaki:** None. **R. Itabashi:** Honoraria; Modest; Tanabe Mitsubishi Pharma, Johnson & Johnson, TMS, Stryker Japan. **K. Kamiyama:** None. **T. Iwama:** None. **J. Aoki:** None. **M. Inoue:** None. **S. Yoshimura:**

None. **A. Oita:** None. **T. Hamasaki:** None. **H. Yamamoto:** None. **T. Kitazono:** None. **M. Sasaki:** None. **K. Kimura:** None. **K. Minematsu:** None.

Presentation Number: CTP11

Publishing Title: Atrial Cardiopathy and Antithrombotic Drugs in Prevention After Cryptogenic Stroke

Author Block: Hooman Kamel, Weill Cornell Medical Coll, New York, NY; ARCADIA Investigators

Abstract Body:

Background: One-third of ischemic strokes have no identifiable cause. Recent data suggest that a thrombogenic atrial substrate can cause stroke even in the absence of atrial fibrillation. Such an atrial cardiopathy may explain some proportion of cryptogenic strokes.

Objective: The primary aim of the ARCADIA trial is to test the hypothesis that apixaban is superior to aspirin for the prevention of recurrent stroke in subjects with cryptogenic ischemic stroke and atrial cardiopathy. The secondary aim is to test the hypothesis that the relative efficacy of apixaban over aspirin increases with the severity of atrial cardiopathy.

Design: Biomarker-driven, randomized, double-blind, active-control, phase 3 clinical trial conducted at 120 U.S. centers participating in NIH StrokeNet.

Population Studied: Patients ≥ 45 years of age with embolic stroke of undetermined source and evidence of atrial cardiopathy, defined as ≥ 1 of the following markers: P-wave terminal force $> 5,000 \mu\text{V}\cdot\text{ms}$ in ECG lead V1, serum NT-proBNP $> 250 \text{ pg/mL}$, and left atrial diameter index $\geq 3 \text{ cm/m}^2$ on echocardiogram. Patients are excluded if they have any atrial fibrillation, an indication or contraindication to anticoagulant therapy, an indication for antiplatelet therapy other than aspirin, or a bleeding diathesis. At least 24 hours of post-stroke continuous heart-rhythm monitoring is required to rule out atrial fibrillation before enrollment.

Intervention: Apixaban 5 mg twice daily (2.5 mg twice daily if standard dose-adjustment criteria are met) versus aspirin 81 mg once daily. Randomization must occur between 3 and 120 days after stroke onset.

Outcome Measure: The primary efficacy outcome is recurrent stroke of any type. The primary safety outcomes are symptomatic intracranial hemorrhage and major hemorrhage other than intracranial hemorrhage.

Analysis: Survival analysis and the log-rank test will be used to compare treatment groups. All subjects will be analyzed according to the intention-to-treat principle, including subjects who cross over to open-label anticoagulant therapy due to detection of atrial fibrillation after randomization.

Trial Status: Eleven hundred subjects will be recruited from November 1, 2017 through April 30, 2020. Follow-up will end on October 31, 2021.

Author Disclosure Block: H. Kamel: None.

Presentation Number: CTP12

Publishing Title: The Stroke Recovery Initiative-A Nationwide Online Participant Recruitment Registry for Stroke Recovery

Author Block: Anthony S Kim, Karla Zurita, Daniel Toussaint, Mary Farrant, Emerald Wan, UC San Francisco, San Francisco, CA

Abstract Body:

Introduction. Despite the unmet clinical need for better interventions to promote recovery after stroke, efficiently identifying participants for stroke recovery trials remains a significant challenge.

Methods. We developed the Stroke Recovery Initiative, a nationwide, online participant recruitment registry for stroke recovery studies at the University of California, San Francisco (UCSF) (<http://strokerecoveryinitiative.ucsf.edu>; NCT03318432) to match interested individuals who have had an ischemic or hemorrhagic stroke with ongoing and future stroke recovery studies. Eligible participants that are 18 years of age or older and have a diagnosis of ischemic or hemorrhagic stroke complete an online survey that elicits information about the stroke, past medical history, and ongoing stroke symptoms and deficits. This information is then used to match a participant to stroke recovery studies for which they might be eligible, and allowed for targeted telephone follow-up, and additional medical record and neuroimaging screening for potential candidates. We provide pre-qualified participants with an enrollment dossier to facilitate an individual's initial contact with a research coordinator at a nearby clinical site to continue the screening process to enroll in specific stroke recovery studies.

Results. Since February 9, 2013, over 7,000 participants have enrolled in the registry (mean age 58; 51% male; average 5 years since stroke). A total of 27% of participants reported having had a hemorrhagic stroke, and 73% reported having had an ischemic stroke. To date, we have interviewed 1,957 participants, evaluated 551 sets of medical records and neuroimaging studies, and referred 253 pre-qualified participants for further screening for specific clinical trials at sites in 40 states. **Conclusion.** Online participant recruitment registries have the potential to enhance enrollment for stroke recovery studies. Enrollment into the registry is ongoing and we continue to seek collaborators to continue to apply this approach to recruitment into stroke recovery studies.

Author Disclosure Block: A.S. Kim: Research Grant; Significant; SanBio. Expert Witness; Significant; Larson O'Brien. Consultant/Advisory Board; Significant; Neuravi. **K. Zurita:** None. **D. Toussaint:** None. **M. Farrant:** None. **E. Wan:** None.

Presentation Number: CTP13

Publishing Title: Nursing-driven Acute Stroke Care (NAS-Care): A Texas State-wide Study of Telestroke

Author Block: Michelle Provencher, Robin Novakovic, Stephen A. Figueroa, Mark P. Goldberg, UT Southwestern Medical Ctr, Dallas, TX

Abstract Body:

Introduction: Many Emergency Departments (ED) struggle to meet the American Heart Association/American Stroke Association's recommended Door-to-Needle (hospital arrival to administration of IV tPA) time of ≤ 45 minutes. Previous studies show that there are additional delays in EDs that use telestroke. We set out to reduce these delays by implementing a standardized nursing education process.

Methods: The NAS-Care study is a multi-site, prospective, baseline controlled study that was implemented in seven hospitals throughout Texas within the Lone Star Stroke Consortium Clinical Trials Network. The study begins with three months of blinded baseline data collection, followed by these interventions: ED nursing education including mock codes, NIHSS certification, and the implementation of a standardized stroke code flow sheet - the NAS-Care Run Sheet. The study concludes with six months of intervention data collection using the NAS-Care Run Sheet, which serves as both an organizational tool for the ED nurses, as well as a data collection form for study purposes.

We measure five primary metrics: Door-to-ED Provider, Door-to-CT, Door-to-Ready (which signifies the time point in which all necessary data needed to make an IV tPA decision is collected), Door-to-Stroke Specialist, and Door-to-Needle. These time points are captured on the NAS-Care Run Sheet.

Status: Six hospitals have completed the NAS-Care study since February 2015, and one hospital was unable to complete the study due to staffing issues. To date, 435 patients have been enrolled in the study, and we are actively recruiting two additional hospitals for participation. We aim to close the study by the end of 2018 with a better understanding of how standardized nursing education affects stroke code time metrics in Emergency Departments that use telestroke.

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Author Disclosure Block: M. Provencher: None. **R. Novakovic:** None. **S.A. Figueroa:** None. **M.P. Goldberg:** None.

Presentation Number: CTP14

Publishing Title: POINT: Platelet-Oriented Inhibition in New TIA and Minor Ischemic Stroke

Author Block: J Donald Easton, Anthony S. Kim, **Mary Farrant**, UC San Francisco, San Francisco, CA; Jordan Elm, Yuko Palesch, MUSC, Charleston, SC; William Barsan, Univ of Michigan, Ann Arbor, MI; Anne Lindblad, EMMES Corp, Bethesda, MD; Robin Conwit, NINDS, Bethesda, MD; SC Johnston, Univ of Texas at Austin, Austin, TX

Abstract Body:

Introduction. With continued attention focused on TIA and the need for urgent evaluation and treatment, the Platelet-Oriented Inhibition in New TIA and minor ischemic stroke (POINT) Trial, a prospective, randomized, double-blind, multi-center international trial, is designed to address the optimal anti-thrombotic treatment of acute TIA for prevention of secondary stroke.

Hypothesis. The primary null hypothesis is that in patients with TIA or minor ischemic stroke treated with aspirin 50-325 mg/day, there is no difference in survival free of ischemic stroke, myocardial infarction, and ischemic vascular death at 90 days in those treated with clopidogrel (600 mg loading dose then 75 mg/day) compared to placebo when therapy is initiated within 12 hours of the time last known free of new ischemic symptoms.

Methods. Subjects are 18 years of age or older with high-risk TIA, defined as an ABCD2 score greater than or equal to 4, or minor ischemic stroke, defined as an NIHSS score less than or equal to 3, who can be randomized within 12 hours of the time last known free of new ischemic symptoms. Subjects are randomized 1:1 (clopidogrel:placebo), controlling for clinical center. A total of 5,840 patients will be recruited at 225 domestic and international clinical sites and followed for 90 days from randomization.

Results. Since May 28, 2010, 4,785 subjects, representing over 80% of the target sample, have been enrolled. International sites joined POINT in August 2013; nearly 20% of current enrollments are from outside the US. Sponsor. University of California, San Francisco (UCSF); National Institute of Neurological Disorders and Stroke (NINDS). ClinicalTrials.gov Identifier NCT00991029. Collaborators: The University of Texas at Austin; Department of Neurology, University of California, San Francisco; Neurological Emergencies Treatment Trials Network (NETT); Statistics and Data Management Center (SDMC) at Medical University of South Carolina (MUSC); POINT Clinical Research Collaboration (POINT-CRC) at EMMES Corporation.

Conclusions. Enrollment into the study is ongoing, with the last enrollment projected for late 2018.

Author Disclosure Block: **J. Easton:** None. **A. Kim:** None. **M. Farrant:** None. **J. Elm:** None. **Y. Palesch:** None. **W. Barsan:** None. **A. Lindblad:** None. **R. Conwit:** None. **S. Johnston:** None.

Presentation Number: CTP15

Publishing Title: Phase I Clinical Trial Of Intracerebral Transplantation Using Bone Marrow Stromal Cell (bmSC) Against Acute Ischemic Stroke (rainbow Project)

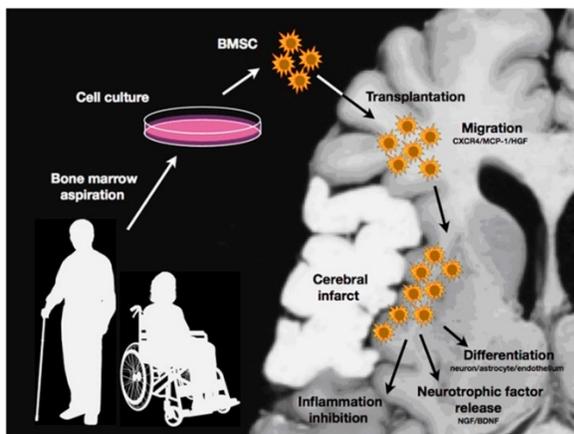
Author Block: Masahito Kawabori, Hideo Shichonohe, Neurosurgery, Hokkaido Univ, Sapporo, Japan; Satoshi Kuroda, Neurosurgery, Hokkaido Univ, Toyama, Japan; Shunsuke Terasaka, Kiyohiro Houkin, Neurosurgery, Hokkaido Univ, Sapporo, Japan

Abstract Body:

Background: Recent breakthrough in cell therapy is expected to reverse the neurological sequelae of stroke. Prior studies have demonstrated that bone marrow stromal cells (BMSCs) have therapeutic potential against stroke, however, there are several problems remain unsolved. In this study, we investigated the use of autologous BMSC transplantation for acute ischemic stroke with several new aspects as a next-generation cell therapy for treating stroke. This study is called the Research on Advanced Intervention using Novel Bone marrOW stem cell (RAINBOW, UNIN ID: UMIN000026130).

Methods/Design: RAINBOW is a phase 1, open-label, uncontrolled, dose-response study, with the primary aim to determine the safety of the autologous BMSC administered to the patients with acute ischemic stroke. Estimated enrollment is 6-10 patients suffering from moderate to severe neurological deficits. Approximately 50 mL of the bone marrow is extracted from the iliac bone of each patient 15 days or later from the onset, and BMSCs are cultured with allogeneic human platelet lysate (PL) as a substitute for fetal calf serum and are labeled with superparamagnetic iron oxide for cell tracking using magnetic resonance imaging (MRI). BMSCs are stereotactically administered around the area of infarction in the subacute phase. Each patient will be administered a dose of 20 or 50 million cells. Neurological scoring, MRI for cell tracking, 18F-fluorodeoxyglucose positron emission tomography, and 123I-iodemazenil single-photon emission computed tomography will be performed throughout 1 year after the administration.

Discussion: This is a first-in-human trial to use labelled BMSC to the patients with acute ischemic stroke. We expect that intraparenchymal injection can be a more favorable method for cell delivery to the lesion and improvement of the motor function. Moreover, it is expected that the bio-imaging techniques can clarify the therapeutic mechanisms.



Author Disclosure Block: M. Kawabori: None. **H. Shichonohe:** None. **S. Kuroda:** None. **S. Terasaka:** None. **K. Houkin:** None.

Presentation Number: CTP16

Publishing Title: Secondary Stroke Prevention by Uniting Community and Chronic Care Model Teams Early to End Disparities: The SUCCEED Trial

Author Block: Amytis Towfighi, Univ of Southern California, Los Angeles, CA; Monica Ayala Rivera, Rancho Los Amigos Natl Rehabilitation Ctr, Downey, CA; Magaly Ramirez, Heather McCreath, Univ of California Los Angeles, Los Angeles, CA; Jeremy Wacksman, Dimagi, Inc., Cambridge, MA; Eric M. Cheng, Univ of California Los Angeles, Los Angeles, CA; Nerses Sanossian, Univ of Southern California, Los Angeles, CA; Bijal Mehta, Univ of California Los Angeles, Los Angeles, CA; Ali Razmara, Kaiser Permanente, Irvine, CA; Tara Dutta, Kaiser Permanente, Sacramento, CA; Shlee Song, Cedars Sinai Medical Ctr, Los Angeles, CA; Robert Bryg, Neal Rao, Univ of California Los Angeles, Los Angeles, CA; Shinyi Wu, Univ of Southern California, Los Angeles, CA; Jamie Tran, Harbor UCLA Medical Ctr, Torrance, CA; Chris Ediss, Renee Johnson, Rancho Los Amigos Natl Rehabilitation Ctr, Downey, CA; Theresa Sivers-Teixeira, Elizabeth Mojarro Huang, Univ of Southern California, Los Angeles, CA; Ana Montoya, Harbor UCLA Medical Ctr, Torrance, CA; Marissa Castro, Patricia Gomez, Rancho Los Amigos Natl Rehabilitation Ctr, Downey, CA; Phyllis Willis, Watts Labor Community Action Committee, Los Angeles, CA; Lilian Moreno, Enrique Lopez, Rancho Los Amigos Natl Rehabilitation Ctr, Downey, CA; Sarah Valdez, Harbor UCLA Medical Ctr, Torrance, CA; Maura Fernandez, Univ of Southern California, Los Angeles, CA; Frances Barry, Univ of California Los Angeles, Los Angeles, CA; Brian Mittman, Veterans Admin Greater Los Angeles Healthcare System, Los Angeles, CA; William Cunningham, Honghu H. Liu, David Ganz, Univ of California Los Angeles, Los Angeles, CA; Diane Factor, Worker Education and Resource Ctr, Los Angeles, CA; Nancy Ibrahim, Esperanza Community Housing, Los Angeles, CA; Barbara Vickrey, Icahn Sch of Med at Mount Sinai, New York, NY

Abstract Body:

Background: Recurrent stroke can be mitigated by controlling vascular risk factors, but few stroke survivors achieve this, particularly indigent populations with poor access to care.

Objective: To develop and test an outpatient team intervention's impact on risk factor control among adults with recent stroke or TIA enrolled from the 2nd largest US safety-net health care system.

Design: Randomized controlled trial.

Population: Participants were recruited from 4 Los Angeles County Department of Health Services hospitals and 1 comprehensive stroke center serving low income zip codes.

Inclusion criteria: ≥ 40 years of age, recent (< 90 days) TIA, ischemic stroke or intracerebral hemorrhage and either systolic BP (SBP) ≥ 130 mm Hg, or SBP 120-130 mm Hg with a history of hypertension or on antihypertensive medications. Exclusion criteria: inability to give informed consent; not fluent in English or Spanish.

Intervention arm: Advanced practice clinician (Nurse Practitioner or Physician Assistant)-community health worker (CHW) team provides care, including self-management tools, ≥ 3 clinic visits, and ≥ 3 home visits, and Chronic Disease Self-Management workshops over 12 months. The teams use a mobile platform with evidence-based protocols, decision support, and panel management tools.

Control arm: Usual care.

Outcomes: Primary: SBP control. Secondary: Control of other vascular risk factors, medication adherence, cost-effectiveness.

Analyses: Intention-to-treat analysis to determine effectiveness of intervention at 12 months, cost-effectiveness, and sustainability plan.

Trial status: Enrollment completed on 8/31/2017 (n=488). Outcomes will be collected through 8/31/2018.

Baseline Characteristics of Population: Of 488 individuals, 78% had ischemic stroke, 17% had intracerebral hemorrhage, and 5% had TIA. Mean age was 57.1 years and 65% were men; ethnically 71% Hispanic and racially 68% white, 18% black, 6% Asian, and 8% other classifications. 28% were born in the USA and 62% had ≤12th grade education. Mean SBP was 145 mmHg, mean LDL was 69 mg/dL, 75% had a BMI≥25 kg/m², and 22% had smoked in the prior year.

Author Disclosure Block: **A. Towfighi:** None. **M. Ayala Rivera:** None. **M. Ramirez:** None. **H. McCreath:** None. **J. Wacksman:** None. **E.M. Cheng:** None. **N. Sanossian:** None. **B. Mehta:** None. **A. Razmara:** None. **T. Dutta:** None. **S. Song:** None. **R. Bryg:** None. **N. Rao:** None. **S. Wu:** None. **J. Tran:** None. **C. Ediss:** None. **R. Johnson:** None. **T. Sivers-Teixeira:** None. **E. Mojarro Huang:** None. **A. Montoya:** None. **M. Castro:** None. **P. Gomez:** None. **P. Willis:** None. **L. Moreno:** None. **E. Lopez:** None. **S. Valdez:** None. **M. Fernandez:** None. **F. Barry:** None. **B. Mittman:** None. **W. Cunningham:** None. **H.H. Liu:** None. **D. Ganz:** None. **D. Factor:** None. **N. Ibrahim:** None. **B. Vickrey:** None.

Presentation Number: CTP17

Publishing Title: A Multifaceted Intervention to Increase adherence to Evidence-based Care In Patients with Acute Ischemic Stroke and Transient Ischemic Attack: The Bridge Stroke International Cluster-randomized Trial

Author Block: Maria Julia Machline Carrion, Karina Normilio-Silva, Eliana Santucci, Res Inst HCor - Hosp do Coração, Sao Paulo, Brazil; Cecilia Bahit, INECO, Rosario, Argentina; German Málaga, Hosp Cayetano Heredia, Lima, Peru; Lucas Damiani, Hosp Do Coracao, Sao Paulo, Brazil; Octávio Marques Pontes-Neto, Univ de São Paulo Ribeirão Preto, Ribeirão Preto, Brazil; Sheila Crisrina Martins, Univ Federal do Rio Grande do Sul, Porto Alegre, Brazil; Viviane Flumignan Zétola, Univ Federal do Paraná, Curitiba, Brazil; Gabriel Rodrigues de Freitas, Insto D'or de Ensino e Pesquisa, Rio de Janeiro, Brazil; Antônio de Salles, Hosp Do Coração, Sao Paulo, Brazil; Alessandra Gorgulho, Hosp Do Coracao, Sao Paulo, Brazil; Hélio Penna Guimarães, Alexandre Biasi Cavalcanti, Res Inst HCor - Hosp do Coração, Sao Paulo, Brazil; Ying Xian, Janet Prvu Bettger, Renato D Lopes, Eric Peterson, Duke Clinical Res Inst, Durham, NC; Otávio Berwanger, Hosp Do Coracao, Sao Paulo, Brazil; BRIDGE Stroke Investigators

Abstract Body:

Abbreviation: BRIDGE-Stroke, Registry Number:NCT02223273 **Background:** Studies have consistently demonstrated that the quality of care for stroke patients in routine clinical practice is often suboptimal especially in middle- and low-income countries.

Objective: To evaluate whether a multifaceted implementation initiative can increase adherence to evidence-based care in patients with acute ischemic stroke and transient ischemic attack. **Design:** International, multicenter, cluster-randomized, controlled, clinical outcomes trial.

Population Studied and Intervention: Patients diagnosed with acute ischemic stroke and transient ischemic attack presenting within 24 hours of symptom onset. The pragmatic and sustainable multifaceted intervention consists of a case manager, provider care reminders, educational materials, clinical algorithms, and an audit and feedback.

Outcome Measure and Analysis: The primary endpoint is a composite adherence score to 10 quality measures similar to validated GWTG-Stroke performance measures which include thrombolysis in eligible patients, door-to needle time < 60 minutes, early use of antithrombotics, deep venous thrombosis (DVT) prophylaxis, screening for dysphagia, antithrombotics at discharge, statins prescribed to patients with LDL > 100mg/dL or not documented, anticoagulation for atrial fibrillation or flutter, assessment for rehabilitation and smoke cessation education. Secondary outcomes include: 90-day all-cause mortality, stroke recurrence and disability assessed by the modified Ranking score.

Trial Status: As of October 17th, 1300 patients have been enrolled across 32 sites in Brazil, Argentina and Peru. Final planned sample size is 1440 patients. **PI:** M. Julia Machline Carrion (Research Institute HCor) **Funding:** This trial is funded by the Brazilian Ministry of Health (PROADI) in partnership with Hospital do Coração (HCor), São Paulo, Brazil, and has Educational Support from Boehringer-Ingelheim. **Innovation:** To our knowledge this is the first major international quality-improvement trial in stroke. **Contact**

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Author Disclosure Block: M.J. Machline Carrion: Research Grant; Significant; Amgem. Consultant/Advisory Board; Modest; Boehringer-Ingelheim. **K. Normilio-Silva:** None. **E.V. Santucci:**

None. **C. Bahit**: None. **G. Málaga**: None. **L.P. Damiani**: None. **O.M. Pontes-Neto**: None. **S.C.O. Martins**: Honoraria; Modest; Boehringer-Ingelheim, Medtronic, Pfizer, Bayer. **V.F. Zétola**: None. **G.R. de Freitas**: None. **A. de Salles**: None. **A. Gorgulho**: None. **H.P. Guimarães**: None. **A.B. Cavalcanti**: None. **Y. Xian**: None. **J.P. Bettger**: None. **R.D. Lopes**: None. **E. Peterson**: None. **O. Berwanger**: Research Grant; Significant; Astra Zeneca, Amgem, Bayer, Boehringer Ingelheim.

Presentation Number: CTP18

Publishing Title: Optimal Delay Time to Initiate Anticoagulation After Ischemic Stroke in Atrial Fibrillation (START)

Author Block: Steven Warach, Truman J Milling, Patrick Lawrence, Benjamin King, Dell Medical Sch at The Univ of Texas at Austin, Austin, TX

Abstract Body:

Background: An estimated 15% of all strokes are a result of untreated atrial fibrillation (AF). Long-term secondary stroke prevention in AF can be achieved using novel oral anticoagulants (NOACs). However the optimal time to initiate NOACs following an ischemic event is not yet known. Starting too soon risks hemorrhagic transformation of the index stroke while too long of a delay could result in a recurrent ischemic event.

Objectives: To determine the optimal time to initiate anticoagulation with a NOAC after ischemic stroke in patients with non-valvular AF.

Outcomes: The primary outcome will be the composite incidence of hemorrhagic events and ischemic events in patients within each cohort.

Methodology: 1000 subjects will be randomized to initiate their NOAC at one of four time-to-treatment intervals. An adaptive randomization involves interim analyses of the primary outcome event rate after every 50 subjects are enrolled and new allocation ratios for randomization calculated to favor the intervals that have a better risk-benefit profile. Primary outcome testing will identify whether one of the threshold tests demonstrate a superior interval window either by superiority of one interval or inferiority one of any single interval. By not deviating from standard medical practice except for the randomization of the time to start the prescribed NOAC and following a pragmatic design, START will be able to offer results that can directly advise clinical practice.

Trial Status: START has been enrolling patients since 14-June-2017 at participating sites within the Lone Star Stroke Consortium across the State of Texas and will continue to expand to more participating sites over the next four years.

Author Disclosure Block: S. Warach: None. **T.J. Milling:** None. **P. Lawrence:** None. **B. King:** None.

Presentation Number: CTP19

Publishing Title: Tama-Registry of Acute Endovascular Thrombectomy (TREAT) in Tokyo Japan

Author Block: Takahiro Ota, Tokyo Metropolitan Tama Medical Ctr, Tokyo, Japan; Keigo Shigeta, Natl Hosp Organization Disaster Medical Ctr, Tokyo, Japan; Tatsuo Amano, Kyorin Univ, Tokyo, Japan; Masayuki Ueda, Tokyo Metropolitan Tama Medical Ctr, Tokyo, Japan; Junya Kaneko, Nippon Medical Sch Tama Nagayama Hosp, Tokyo, Japan; Hirotaka Yoshida, Kitahara Intl Hosp, Tokyo, Japan; Atsushi Shimada, Sassa General Hosp, Tokyo, Japan; Takahisa Fuse, Fussa Hosp, Tokyo, Japan; Yoshiaki Kuroshima, Hino Municipal Hosp, Tokyo, Japan; Osamu Ishikawa, Showa General Hosp, Tokyo, Japan; Shigeru Nogawa, Tokai Univ Hachioji Hosp, Tokyo, Japan; Yuji Matsumaru, Tsukuba Univ, Tokyo, Japan; Teruyuki Hirano, Yoshiaki Shiokawa, Kyorin Univ, Tokyo, Japan

Abstract Body:

Background: Given the highly selected patient population in 5 seminal randomized trials in 2015, questions remain whether process timelines, technical and functional outcomes can be achieved in a “real world” setting.

Objectives: TREAT is a registry of patients with large vessel occlusion treated with endovascular thrombectomy, and designed to capture a “real world experience” at all stroke centers in the Tama area (about 4.3 million people), Tokyo, Japan. Design: retrospective and prospective, multicenter, observational registry

Methods: Twelve treatment stroke centers were included in this registry. Patients with acute large vessel occlusion treated by endovascular recanalization therapy from Jan 2015 to Sep 2017 were enrolled. Good clinical outcome was defined as mRS 0-2 at 90 days.

Results: A total of 470 patients (pts) at 12 sites were treated, and 393 pts had data of mRS at 90days. The mean age was 75.0 years; 57.0% were male. The median NIHSS was 18. IV-tPA was administered in 46.3%. Two hundreds ninety-one pts were directly admitted to an endovascular center, 70 pts (17.8%) were transferred from primary stroke center, and in-hospital stroke occurred in 51 pts (13.0%). The occluded vessel was internal carotid artery in 128 pts (32.6%), middle cerebral artery in 214 pts (54.4%), and basilar artery in 45 pts (11.4%). The etiologies of infarction were cardiogenic emboli in 289 pts (73.5%) and atherosclerosis in 72 pts (18.3%). The rates of successful recanalization of \geq TICI 2b after all passes were 80.4%. Only 5.1% suffered a symptomatic intracranial hemorrhage. At 90 days, 41.7% achieved a mRS of 0-2 and the all-cause mortality was 14.0%.

Conclusion: This large registry in a certain area documents that mechanical thrombectomy can be safely performed in the Tama area with similar process metrics and clinical outcomes to those observed in randomized trials. This real world data can provide valuable information for optimization of the pre-hospital and hospital systems of care in Japan. UMIN-CTR ID:UMIN000026888 Contact information: Dr.Takahiro Ota, M.D.(toota-ky@umin.org), Tokyo Metropolitan Tama Medical Center, Japan. This registry is partially supported by Clinical research Fund of Tokyo Metropolitan Government (H290502003).

Author Disclosure Block: T. Ota: None. K. Shigeta: None. T. Amano: None. M. Ueda: None. J. Kaneko: None. H. Yoshida: None. A. Shimada: None. T. Fuse: None. Y. Kuroshima: None. O. Ishikawa: None. S. Nogawa: None. Y. Matsumaru: Honoraria; Modest; Medtronic, Stryker. T. Hirano: Honoraria; Modest;

Bayer, Boehringer-Ingelheim, Bristol-Myers Squibb, Daiichi-Sankyo, Otsuka Pharma, Pfizer, Sanofi. **Y. Shiokawa**: Research Grant; Modest; AbbVie GK, ONO PHARMACEUTICAL CO., LTD.

Presentation Number: CTP20

Publishing Title: Neuroimaging In Cessation Education (NICE) Trial

Author Block: Margy McCullough-Hicks, Gena Coelho, Caroline Briggs, Paul Novello, Karin Nystrom, Patricia Giannelli, Hardik Amin, Yale Univ, New Haven, CT

Abstract Body:

Background and Objective: Smoking is an independent risk factor for stroke, and smoking cessation can reduce this risk to levels similar to nonsmokers within 2-4 years. Approximately 1 in 6 stroke survivors experiences recurrent stroke within 5 years. People who develop life-threatening medical problems are often motivated to change behaviors, and studies have shown that patients who are given an easier way to understand the damage done to their bodies by smoking are more likely to quit. We hypothesize that active smokers with new strokes who are shown CT or MR images of their hemorrhage or infarct, respectively, in the setting of smoking cessation education will be more likely to quit smoking than those who receive standard smoking cessation education alone.

Design: NICE is a prospective, single site, double blind randomized controlled trial. Patients admitted to Yale New Haven Hospital with new ischemic stroke or primary intraparenchymal hemorrhage who smoked ≥ 4 cigarettes daily prior to their admission are eligible. Interested patients undergo a baseline MMSE to ensure sufficient cognitive reserve to understand the education session being provided. Patients are then randomized by coin flip to one of two arms: standard smoking cessation education vs standard smoking cessation education plus review of his/her neuroimaging. Those enrolled in the intervention group are also provided printouts with the CT or MRI axial slice with the largest volume of hemorrhage or infarct, respectively. Approximately 350 patients will be enrolled in order to have 80% power to detect a 15% difference in smoking cessation rates. Primary outcome measures will be cessation of smoking at 30 days, 90 days, and 1 year after enrollment. Secondary outcomes will include reduction in daily consumption of cigarettes as well as correlation between infarct or hemorrhage volume and smoking cessation rates.

Status: Recruitment commenced in March 2017 and is ongoing. To date, 10 subjects have been enrolled. The trial is currently registered on clinicaltrials.gov ID NCT02769871.

Author Disclosure Block: M. McCullough-Hicks: None. G. Coelho: None. C. Briggs: None. P. Novello: None. K. Nystrom: None. P. Giannelli: None. H. Amin: None.

Presentation Number: CTP21

Publishing Title: A Randomized Controlled Trial of Direct Endovascular Clot Retrieval versus Standard Thrombolysis with Endovascular Clot Retrieval Within 4.5 Hours of Stroke Onset

Author Block: **Bernard Yan**, Peter Mitchell, Bruce Campbell, Leonid Churilov, Royal Melbourne Hosp, Parkville, Australia; Henry Ma, Monash Medical Ctr, Melbourne, Australia; Geoffrey Donnan, Florey Inst, Parkville, Australia; Stephen Davis, Royal Melbourne Hosp, Parkville, Australia

Abstract Body:

Background: The risk of symptomatic intracerebral haemorrhage (sICH) remains an important contributor to poor outcome after stroke treatment. Observational data suggest that tPA may amplify this risk in patients treated with endovascular clot retrieval, especially in the setting of intracranial atherosclerotic disease (ICAD). We propose that equipoise exists between these 2 therapeutic strategies (standard bridging thrombolysis with ECR and direct ECR), and a study to investigate this question is justified. Objective: To test the hypothesis that direct ECR (DIRECT therapy) in ischemic stroke patients within 4.5 hours onset will be associated with lower incidence of (sICH) compared with standard bridging thrombolysis followed by ECR (STANDARD therapy).

Design: DIRECT-SAFE is an investigator initiated, randomised, open label, blinded endpoint (PROBE) phase 3 trial of DIRECT therapy vs STANDARD therapy in patients with ischemic stroke within 4.5 hours from stroke onset.

Methods: Patients with ischemic stroke within 4.5 hours from stroke onset are eligible for recruitment (n=680). Criteria for entry into the trial include eligibility to receive IV tPA and radiological evidence of large artery occlusion (Intracranial ICA, MCA M1 or M2, basilar artery). Post ECR angiogram will be assessed for ICAD. Angioplasty or intracranial stenting with or without anti-thrombotics are at the treating physician's discretion. CT or MRI will be performed at 18 hours to 30 hours to assess for ICH. Other safety endpoints include distal thrombus embolization and death.

Outcome measures: The primary endpoint is sICH. Secondary endpoints will include mRS ordinal analysis and sICH in subgroup with ICAD.

Author Disclosure Block: **B. Yan:** None. **P. Mitchell:** None. **B. Campbell:** None. **L. Churilov:** None. **H. Ma:** None. **G. Donnan:** None. **S. Davis:** None.

Presentation Number: CTP22

Publishing Title: TEMPO-2 Trial

Author Block: Shelagh Coutts, Carol Kenney, Univ of Calgary, Calgary, AB, Canada; Amy Y Yu, Sunnybrook Health Sciences Ctr, Calgary, AB, Canada; Mark Parsons, Univ of Melbourne, Calgary, AB, Canada; Mayank Goyal, Univ of Calgary, Calgary, AB, Canada; Peter Kelly, Mater Misericordia Hosp, Dublin, Ireland; Christopher Levi, Sydney Partnership for Health, Education, Res and Enterprise, Sydney, Australia; Keith Muir, Univ of Glasgow, Glasgow, United Kingdom; Stefan Greisenegger, Medical Univ of Vienna, Vienna, Austria; Carlos Molina, Val d'Hebron Hosp, Barcelona, Spain; **Michael D Hill**, Univ of Calgary, Calgary, AB, Canada

Abstract Body:

Background: Minor stroke and TIA with an intracranial occlusion are associated with a 20-30% risk of deterioration and disability. Tenecteplase (TNK-tPA) compared to alteplase is easier to administer, has a longer half-life, higher fibrin specificity and possibly less intracerebral hemorrhage (ICH). It may be an ideal thrombolytic agent in this population. A pilot study, TEMPO-1, showed feasibility and safety. TEMPO-2 (NCT02398656) examines tenecteplase for the treatment of minor stroke with imaging defined intracranial occlusion.

Methods: Multi-center, prospective, open-label, randomized controlled trial comparing tenecteplase to best standard of care. Patients with an NIHSS < 6, intracranial arterial occlusion on CTA, and within a 12h treatment window will be enrolled (expected sample size of 1274 patients). Patients will be randomized 1:1 to receive 0.25mg/kg intravenous tenecteplase or control, defined as the best standard of care and minimally must include immediate treatment with ASA. The primary outcome will be a responder analysis defined by the modified Rankin Scale score at 90 days. Safety will be assessed by the rate of symptomatic ICH. Secondary outcomes include complete neurological (NIHSS 0-1) and functional (mRS 0-1) recovery at 90 days, recanalization at 4-8h on CTA and minor bleeding.

Trial status: The study has received regulatory approval and is registered and currently running in Canada, Europe and Australia. 123 patients have been enrolled. This study is in the site activation phase and is expected to continue for up to 5 years. **Sponsor:** The Governors of the University of Calgary

Author Disclosure Block: **S. Coutts:** Research Grant; Significant; Support to the University of Calgary from Boehringer-Ingelheim Canada Inc.. **C. Kenney:** None. **A.Y. Yu:** None. **M. Parsons:** None. **M. Goyal:** None. **P. Kelly:** None. **C. Levi:** None. **K. Muir:** None. **S. Greisenegger:** None. **C. Molina:** None. **M.D. Hill:** Research Grant; Significant; Support to the University of Calgary from Boehringer-Ingelheim Canada Inc..

Presentation Number: CTP23

Publishing Title: Rosuvastatin Treatment for Symptomatic Middle Cerebral Artery Stenosis Based on High-resolution Magnetic Resonance Imaging (REALM): A Comparison Between Baseline and 6 Months

Author Block: Yilong Wang, Jing Jing, Dept of Neurology, Beijing Tiantan Hosp, Beijing, China; Xihai Zhao, Dept of Biomedical Engineering, Tsinghua Univ, Beijing, China; Chun Yuan, Jie Sun, Dongxiang Xu, Dept of Radiology, Univ of Washington, Seattle, WA; Liping Liu, Jie Xu, Yongjun Wang, Dept of Neurology, Beijing Tiantan Hosp, Beijing, China

Abstract Body:

Background and Purpose: Long-term statin therapy can stabilize and prevent progression of atherosclerotic plaques carotid and coronary arteries, even regression, however, the effects on intracranial atherosclerotic plaques remained unclear. We aimed to evaluate the change of middle cerebral artery atherosclerotic plaque after rosuvastatin treatment using high-resolution magnetic resonance imaging (HR-MRI).

Methods Rosuvastatin Treatment for Symptomatic Middle Cerebral Artery Stenosis Based on High-resolution Magnetic Resonance Imaging (REALM) is a multicenter, open-label, single-arm and blind assessment study. Ischemic stroke patients caused by atherosclerotic middle cerebral artery stenosis (30-70%) within 1 month after stroke onset were enrolled. All patients received 10mg rosuvastatin for the first 4 weeks, then the dose of rosuvastatin was adjusted by lowering LDL-C level to less than 1.8 mmol/L. The maximum dose of rosuvastatin was 20 mg/d and the whole therapy lasted for two years. MR exam was performed for imaging the intracranial arterial wall on Philips 3.0T MR scanners with same imaging protocol (spatial resolution, 0.6mm³) at baseline, 6 months, 12 months and 24 months after randomization. The area and volume for lumen and wall and wall thickness of intracranial arteries with plaques were measured. The primary outcome of REALM was the change of middle cerebral artery atherosclerotic plaque (more than 5% change in area or volume for arterial wall with plaques) based on HR-MRI between baseline and follow-up after rosuvastatin treatment within 2 years.

Results In total, 121 patients (mean age: 48.2±11.5 years, 75 males) with baseline and 6 months HR-MRI data were included in our interim analyses. Rosuvastatin lowered LDL-C levels by 29.6% (2.7±1.1 mmol/L vs. 1.9±0.6 mmol/L, p < 0.001). No significant different was found in lumen area and lumen volume between baseline and 6-month follow-up (p > 0.05 for all). Among 121 patients, 53 (43.8%), 34 (28.1%), and 34 (28.1%) were found to have plaque regression, no change and progression, respectively after 6 months treatment.

Conclusions: Rosuvastatin treatment may stabilize and prevent progression of intracranial atherosclerotic plaques in patients with recent stroke at 6-month follow-up.

Author Disclosure Block: Y. Wang: None. J. Jing: None. X. Zhao: None. C. Yuan: None. J. Sun: None. D. Xu: None. L. Liu: None. J. Xu: None. Y. Wang: None.

Presentation Number: CTP24

Publishing Title: Frame: Multimodal Imaging Before Mechanical Thrombectomy

Author Block: Jean Marc Olivot, Jean François Albucher, Toulouse Univ Hosp Stroke Unit, Toulouse, France; Igor Sibon, Bordeaux Univ Hosp Stroke Unit, Bordeaux, France; Nicolas Raposo, Toulouse Univ Hosp Stroke Unit, Toulouse, France; Thomas Tourdias, Bordeaux Univ Hosp Diagnostic and Interventional Neuroradiology, Bordeaux, France; Lionel Calviere, Toulouse Univ Hosp Stroke Unit, Toulouse, France; Patrice Menegon, Bordeaux Univ Hosp Interventional Neuroradiology, Bordeaux, France; Anne Christine Januel, Toulouse Univ Hosp Diagnostic and Interventional Neuroradiology, Toulouse, France; Pauline Renou, Bordeaux Univ Hosp Stroke Unit, Bordeaux, France; Alain Viguier, Toulouse Univ Hosp Stroke Unit, Toulouse, France; Fabrice Bonneville, Toulouse Univ Hosp Diagnostic and Interventional Neuroradiology, Toulouse, France; Agnes Sommet, Toulouse Univ Hosp Clinical Investigation Ctr, Toulouse, France; Patrice Menegon, Bordeaux Univ Hosp Diagnostic and Interventional Neuroradiology, Bordeaux, France; Claire Thalamas, Toulouse Univ Hosp Clinical Investigation Ctr, Toulouse, France; Christophe Cognard, Toulouse Univ Hosp Diagnostic and Interventional Neuroradiology, Toulouse, France; FRAME Investigators

Abstract Body:

FRAME study

Trial Registry number NCT03045146

Background: Randomized controlled trials investigating thrombectomy efficacy among patients with a target mismatch (TMM) on multimodal imaging demonstrate a larger therapeutic effect than those who did not. Whether thrombectomy may be limited to patients with a significant amount of penumbra remains controversial.

Objective: We aim to investigate in a prospective cohort of patients treated by thrombectomy within 6-8 hours after onset the relationship between the prevalence of TMM on pretreatment brain imaging with the rate of clinical recovery after thrombectomy.

Design: Prospective Multicentric Cohort Study. Consecutive patients eligible to a mechanical thrombectomy will systematically undergo before revascularization treatment a multimodal imaging (CTP or MRI) and will be treated according to the current recommendations. The processing and the prevalence of a TMM will be assessed after treatment blinded of the success of thrombectomy and the clinical evolution of the patients. TMM prevalence will be defined according to the EXTEND-IA study criteria.

Population, sample size: 220 consecutive patients evaluated and treated at investigating centers for thrombectomy.

Outcome: Compare the rate of good functional outcome defined by a modified Rankin Scale of 0-2, 3 months after treatment, with the success of endovascular treatment and the prevalence of a TMM on baseline MRI/CTP. In the exploratory part of the study we will evaluate different imaging software processing, different TMM and other mismatch definition (clinical/DWI mismatch, MRA/DWI mismatch...), to define which imaging profile has the highest accuracy to predict which patients will benefit from thrombectomy.

Trial Status Ongoing 17 Oct2017 55 patients were enrolled. exp end Jan 2019

PI Dr Jean Marc Olivot, MD, PhD, Toulouse University Medical Center, jmolivot@gmail.com

Investigating centers: Toulouse and Bordeaux

Sponsor Toulouse University Medical Center, Toulouse France

Author Disclosure Block: **J. Olivot:** None. **J. Albucher:** None. **I. Sibon:** None. **N. Raposo:** None. **T. Tourdias:** None. **L. Calviere:** None. **P. Menegon:** None. **A. Januel:** None. **P. Renou:** None. **A. Viguier:** None. **F. Bonneville:** None. **A. Sommet:** None. **P. Menegon:** None. **C. Thalamas:** None. **C. Cognard:** None.

Presentation Number: CTP25

Publishing Title: Phase -1b Clinical Trial of Dodecafluoropentane Emulsion as a Neuroprotective Agent in Acute Ischemic Stroke

Author Block: Sanjeeva Onteddu, **Aliza T Brown**, Ben Tan, Krishna Nalleballe, Robert Skinner, Kristine Carlson, William Culp, UAMS, Little Rock, AR

Abstract Body:

Introduction: While acute ischemic stroke (AIS) treatment has improved, neuroprotection remains successful primarily in animal models. Translation of neuroprotection into human AIS care is still urgently needed. The IV nanodroplet perfluorocarbon Dodecafluoropentane emulsion (DDFPe), an oxygen transportation drug, has provided excellent neuroprotection in animal AIS models reducing infarct volumes >80% and preserving neurological function. There it has widened the window for successful IV tPA therapy to >9 hours. In humans, DDFPe was well tolerated in >2,000 non-AIS subjects. Here we announce a Phase-1b dose escalation safety trial of DDFPe in AIS.

Hypothesis: A Maximum Tolerated Dose (MTD) of DDFPe in AIS patients will be defined.

Methods: This is a 24 patient randomized, controlled, double-blind, dose escalation trial with three cohorts of eight AIS patients. Each cohort is either a low, mid or high IV DDFPe dose and is comprised of six DDFPe patients and two placebo patients. The FDA required design has IND approval. Inclusion criteria include: age 18 - 80, AIS to 12 hours LKWT, NIHSS of 2 to 20, and body weight > 45kg. Exclusion criteria include: hemorrhagic stroke, prior stroke or head trauma in the last three months, pre-stroke mRS >2, unstable angina, uncontrolled hypertension or arrhythmia, severe COPD, pregnancy or breast feeding, impaired renal or hepatic function, and other minor criteria.

Design: three IV DDFPe doses will be given by slow push at 90 minute intervals starting following ED arrival and head CT. Drug application is not to interfere with any standard AIS therapy. Labs, NIHSS, ECG and vitals are all obtained. A medical monitor analyzes each case and cohort for determining adverse events and the tolerated dose level prior to progression of the next cohort. This study is powered for safety and not efficacy. We are registered as NCT02963376 at ClinicalTrials.gov.

Results: Eight patients have been enrolled thus far, progression to the second dose is authorized, and enrolment is open. Results to date remain blinded. Conclusion: This dose escalation study will define the MTD and provide guidance in structuring a future multicenter Phase-2 efficacy trial.

Author Disclosure Block: **S. Onteddu:** None. **A.T. Brown:** None. **B. Tan:** None. **K. Nalleballe:** None. **R. Skinner:** Ownership Interest; Modest; Patent application: US 14/017,975. **K. Carlson:** None. **W. Culp:** Ownership Interest; Modest; Patent application: US 14/017,975.

Presentation Number: CTP27

Publishing Title: Effects of the Hybrid Exercise-Cognitive Training in Mild Ischemic Stroke with Cognitive Decline by Functional Magnetic Resonance Imaging

Author Block: Ku Chou Chang, Chang Gung Memorial Hosp, Kaohsiung, Taiwan; HECT Stroke Study Group

Abstract Body:

Introduction: Cognitive decline after stroke is highly associated with functional disability. Empirical evidence shows that exercise combined cognitive training may induce neuroplastic changes that modulate cognitive function. However, it is unclear whether hybridized exercise-cognitive training can facilitate cortical activity and physiological outcome measures and further influence on the cognitive function after stroke. This study will investigate the effects of two hybridized exercise-cognitive trainings on brain plasticity, physiological biomarkers and behavioral outcomes in stroke survivors with cognitive decline.

Method and analysis: This study is a single-blind randomized controlled trial. A target sample size of 75 participants is needed to obtain a statistical power of 95 % with a significance level of 5 %. Stroke survivors with mild cognitive decline will be stratified by Mini-Mental State Examination scores and then randomized 1:1:1 to sequential exercise-cognitive training, dual-task exercise-cognitive training or control groups. All groups will undergo training 60 min/day, 3 days/week, for a total of 12 weeks. The primary outcome is the resting-state functional connectivity and neural activation in the frontal, parietal and occipital lobes in functional magnetic resonance imaging. Secondary outcomes include physiological biomarkers, cognitive functions, physical function, daily functions and quality of life.

Significance: This study may differentiate the effects of two hybridized trainings on cognitive function and health-related conditions and detect appropriate neurological and physiological indices to predict training effects. This study capitalizes on the groundwork for a non-pharmacological intervention of cognitive decline after stroke.

Author Disclosure Block: K. Chang: None.

Presentation Number: CTP28

Publishing Title: Remote Preconditioning Over Time to Empower Cerebral Tissue (REM-PROTECT)

Author Block: Latisha Katie Sharma, Ivie Tokunboh, Johanna L Avelar, David Liebeskind, Jeffrey Saver, UCLA1972545085, Los Angeles, CA

Abstract Body:

Background and Objective: Remote ischemic preconditioning (RPreC) activates multiple endogenous cellular and molecular mechanisms that protect brain (and myocardial) tissues against ischemia by applying repetitive short ischemic periods to a patient's limbs. RPreC has shown preliminary signals of efficacy in preventing ischemic stroke in small pilot trials in large artery atherosclerotic stroke and in cerebral vasospasm after subarachnoid hemorrhage. We plan to evaluate RPreC as a novel therapeutic strategy to prevent stroke, progressive ischemic brain injury, and cognitive decline in patients with moderate to severe cerebral small vessel ischemic disease.

Design: This is a single site, feasibility dose-ranging randomized trial of ischemic preconditioning. The study will have a randomized phase and a follow-up phase. 60 enrolled patients will be randomized 2:1 to best standard medical care plus active RPreC for 1 year and then follow-up for 1 year versus best standard medical care alone for 1 year and then active RPreC for 1 year.

Intervention: During periods of active treatment, RPreC will be induced using a device which delivers four remote ischemic conditioning cycles of five minute intervals followed by five-minutes of normal blood flow around both upper body extremities. The RPreC intervention will be add-on therapy to guideline-based best standard medical prevention therapy.

Outcome Measures: Primary outcome measures will be obtained at the end of the first randomized year. Successful completion of this trial will delineate the feasibility and safety. We plan to explore biomarker indicators of potential efficacy, of inducing brain ischemic tolerance by measuring volumetric progression of white matter ischemic injury on diffusion tensor imaging and cognitive battery performance and recurrent stroke events.

Analysis: The primary endpoints are descriptive statistics describing the implementation of the RPreC procedure, including behavioral adherence to treatment, physiologic attainment of limb ischemia, and patient self-reported comfort-discomfort during treatment.

Trial Status: Actively recruiting as of October 2014 (NCT02169739)

Author Disclosure Block: L.K. Sharma: None. I. Tokunboh: None. J.L. Avelar: None. D. Liebeskind: None. J. Saver: None.

Presentation Number: CTP29

Publishing Title: Womens Imaging of Stroke Hemodynamics Study

Author Block: Adrienne N Dula, Dell Medical Sch at UT Austin, Austin, TX; Lone Star Stroke Consortium

Abstract Body:

Background: There is evidence that women and men have differential stroke clinical outcomes and responses to reperfusion therapies, thrombolysis and thrombectomy. Cerebrovascular measurements on imaging exist that predict stroke outcome. However, there are no systematic studies in clinical populations directly relating cerebrovascular factors known to predict stroke outcome to observed sex differences in outcomes.

Objectives: 1. Determine candidate sex differences in cerebrovascular and hemodynamic predictors of stroke outcome from a retrospective database. 2. Prospectively test the hypothesis that sex differences in cerebrovascular and hemodynamic factors predict sex differences in stroke outcome.

Design: A multicenter retrospective cohort study of ischemic stroke cases across state-wide research network to explore relations between sex and imaging factors (core volume, penumbra volume, and collateral grade). Additionally, a prospective cohort study of baseline imaging and sex with additional outcome of mRS at 90-days.

Population Studied: (n = 1000 retrospective, n=1000 prospective)

Inclusion criteria: • Ischemic Stroke • ≥ 18 y.o. • Non-contrast CT/CTA or MRI/MRA • Initial NIHSS ≥ 4
• Time from Last known well to scan initiation is less than or equal to 24 hours • Independent functioning prior to stroke (pre-Stroke Rankin ≤ 2) • Clinical data available

Exclusion criteria: • Prior inclusion in study Intervention(s): N/A

Outcome Measure(s): 90-day mRS

Analysis: Descriptive summaries will be reported with means and standard deviations or ranges: including diagnostic testing, treatment, and clinical variables. Correlation coefficients and univariate odds ratios will be calculated within exposures, covariates, and outcomes. Step-wise development of multivariate linear and logistic regression models with generalized estimating equations and post-hoc deviance and fit testing will control for potential confounders.

Author Disclosure Block: A.N. Dula: None.

Presentation Number: CTP30

Publishing Title: Randomized Study of Endovascular therapy with versus without Intravenous Tissue Plasminogen Activator in Acute Stroke with Ica and M1 Occlusion (skip Study)- A Prospective, Multicenter, randomized Trial

Author Block: Kentaro Suzuki, Kazumi Kimura, Nippon Medical Sch, Tokyo, Japan; Masataka Takeuchi, Seisho Hosp, Kanagawa, Japan; Keigo Shigeta, Natl Hosp Organization Disaster Medical Ctr Hosp, Tokyo, Japan; Ryuzaburo Kanazawa, Nagareyama Central Hosp, Chiba, Japan; Takahiro Ota, Tokyo Metropolitan Tama Medical Ctr, Tokyo, Japan; Norihiro Ishii, New Tokyo Hosp, Chiba, Japan; Akio Hyodo, Dokkyo Medical Univ Koshigaya Hosp, Saitama, Japan; Masafumi Morimoto, Yokohama Shintoshi Neurosurgical Hosp, Kanagawa, Japan; Seiji Okubo, NTT Medical Ctr Tokyo, Tokyo, Japan; Yuki Kamiya, Showa Univ Koto Toyosu Hosp, Tokyo, Japan; Kazunori Akaji, Mihara Memorial Hosp, Gunma, Japan; Noriyuki Kato, Mito Medical Ctr, Ibaraki, Japan; Hiromichi Naito, Funabashi Municipal Medical Ctr, Chiba, Japan; Tatsuo Amano, Kyorin Univ Faculty of Med, Tokyo, Japan; Masato Inoue, Natl Ctr For Global Health and Med, Tokyo, Japan; Kazunori Miki, Tokyo Medical And Dental Univ, Tokyo, Japan; Wataro Tsuruta, Toranomon Hosp, Tokyo, Japan; Toshihiro Ueda, St. Marianna Univ Toyoko Stroke Ctr, Kanagawa, Japan; Toshihiro Ishibashi, Yasuyuki Iguchi, The Jikei Univ Sch of Med, Tokyo, Japan; Tomohisa Denbo, Saitama Medical Ctr. Saitama Medical Univ, Saitama, Japan; Shigeru Fujimoto, Jichi Medical Univ Hosp, Tochigi, Japan; Teruyuki Hirano, Kyorin Univ Faculty of Med, Tokyo, Japan; Akio Morita, Hiroyuki Yokota, Nippon Medical Sch, Tokyo, Japan; Yuji Matsumaru, Univ of Tsukuba Hosp, Ibaraki, Japan

Abstract Body:

Rationale

Randomized trials showed endovascular therapy (EVT) addition to the best medical treatment improves outcome in patients with the large vessel occlusion (LVO) in anterior circulation. However, whether direct EVT is equally effective compared with combined intravenous thrombolysis with EVT (bridging thrombolysis) remains unclear. Because preceding intravenous rt-PA (IV-t-PA) may enhance the risk of bleeding and delay endovascular therapy initiation, IV-t-PA may be unnecessary for patients with EVT indication. The aim of this study is to determine whether direct EVT can reduce the rate of patients with poor outcome rather than bridging therapy in ischemic stroke patients with ICA or M1 occlusion within 4.5 hr from onset.

Design

This trial is an investigator-initiated, multicenter, prospective, randomized, open-treatment clinical trial. Inclusion criteria show that age is ≥ 18 and ≤ 85 years old, the National Institutes of Health Stroke Scale score is ≥ 6 , and onset to puncture time remains ≤ 240 min. IV-t-PA eligible patients are randomized to direct EVT group or bridging thrombolysis group and the clinical and radiological outcomes are compared between the 2 groups.

Study outcomes

The primary efficacy end-point is modified Rankin Scale (mRS) 5-6 at 90 days. Secondary end-points are mRS 0-2 at 90 days. The safety outcome measures are symptomatic intracranial hemorrhage within 24 hr.

Discussion This trial is ongoing from January 2017. It may help determine if direct EVT should be recommended as a routine clinical strategy for ischemic stroke patients with LVO.

Author Disclosure Block: **K. Suzuki:** None. **K. Kimura:** None. **M. Takeuchi:** None. **K. Shigeta:** None. **R. Kanazawa:** None. **T. Ota:** None. **N. Ishii:** None. **A. Hyodo:** None. **M. Morimoto:** None. **S. Okubo:** None. **Y. Kamiya:** None. **K. Akaji:** None. **N. Kato:** None. **H. Naito:** None. **T. Amano:** None. **M. Inoue:** None. **K. Miki:** None. **W. Tsuruta:** None. **T. Ueda:** None. **T. Ishibashi:** None. **Y. Iguchi:** None. **T. Denbo:** None. **S. Fujimoto:** None. **T. Hirano:** None. **A. Morita:** None. **H. Yokota:** None. **Y. Matsumaru:** None.

Presentation Number: CTP31

Publishing Title: Insights on Selected Procoagulation markers and Outcomes in Stroke Trials (I-SPOT)

Author Block: Nina T Gentile, A. Koneti Rao, Temple Univ, Philadelphia, PA; Askiel Bruno, Augusta Univ, Augusta, GA; Viswanathan Ramakrishnan, Medical Univ of South Carolina, Charleston, SC; **Hannah Reimer**, Temple Univ, Philadelphia, PA

Abstract Body:

Background Markers of blood coagulation activation rise immediately after stroke; and, persistent elevations in these levels are associated with poorer clinical outcomes in patients treated and not treated with IV tPA. Blood coagulation markers are particularly high in diabetic patients with hyperglycemia. While the effect of hyperglycemia control are not known, we hypothesize that the decrease in levels of markers of blood coagulation will be greater in patients treated with IV insulin to reduce BG than in patients treated with SQ Insulin as the standard fashion.

Objectives To determine the relationships between levels of blood coagulation markers and hyperglycemia control and functional neurological outcome in Stroke Hyperglycemia Insulin Network Effort (SHINE) treatment and control patients.

Design I-SPOT is designed to accompany SHINE clinical trial. SHINE is a multicenter, randomized, controlled trial with 2 treatment arms: glucose control (80 - 130 mg/dL) using insulin infusion vs standard sliding scale insulin with target glucose <180 mg/dL. Excluded are patients with known coagulation disorder and patients receiving endovascular treatment. Population SHINE enrolled subjects (adult AIS patients with hyperglycemia) who have not received anticoagulants, have no severe liver disease nor hypercoagulable disorders are eligible for I-SPOT. Sample Size 315 Subjects will be enrolled in the I-SPOT trial. 195 who have not received fibrinolytics and 120 who have received fibrinolytics.

Intervention/Outcome Measures Blood coagulation marker levels will be measured at baseline and 48 hours after randomization. Outcome

Measures: Baseline stroke-severity adjusted 90-day modified Rankin Scale Questionnaire for Verifying Stroke Free Symptoms (QVSFS) Statistical Analysis Baseline and 48-hour changes in biomarkers levels will be compared between SHINE treatment groups and between groups by clinical outcome.

Trial Status Enrollment is ongoing at 39 of the approximately 50 SHINE sites. 220 subjects have been enrolled as of October 19, 2017.

Author Disclosure Block: **N.T. Gentile:** Research Grant; Significant; NIH-NINDS 1U01NS079077. **A. Rao:** Research Grant; Significant; NIH-NINDS 1U01NS079077. **A. Bruno:** Research Grant; Significant; NIH-NINDS 1U01NS079077. **V. Ramakrishnan:** Research Grant; Significant; NIH-NINDS 1U01NS079077. **H. Reimer:** Research Grant; Significant; NIH-NINDS 1U01NS079077.

Presentation Number: CTP32

Publishing Title: Effectiveness of Intensive Cognitive-linguistic therapy in Post-stroke Aphasia Patients: A Randomized, Open-label, Controlled trial in Low-resource Health-care Setting

Author Block: Harsimarpreet Kaur, Senthil Kumaran, Sakshi Chopra, All India Inst of Medical Sciences, New Delhi, India; Rm Pandey, All India Inst of Medical Sciences, NEW DELHI, India; Rohit Bhatia, Ashima Nehra, All India Inst of Medical Sciences, New Delhi, India

Abstract Body:

Introduction: Cognitive impairments after stroke cause disability and impact the quality of life (QoL). Although the effectiveness of Neuropsychological Rehabilitation (NR) post-stroke is well documented, there is a paucity of cost-effective home-based retraining interventions for developing nations. The present trial aims to study the effectiveness of home-based comprehensive NR along with aphasia therapy in Persons with post-stroke Aphasia (PSA).

Methods: In this parallel group, open-label, single-blind, block-randomized controlled trial, 56 PWAs were randomized into an Intervention Group (IG) (n=28) and Standard of Care Group (SCG) (n=28). IG received 8 weeks of home-based NR along with aphasia therapy whereas the SCG continued to receive the standard pharmacological treatment along with standard speech therapy and counselling. Primary outcomes were assessed using WAB -Hindi, Indian Aphasia Battery (IAB) & Stroke Specific Quality of Life-Hindi adaptation and fMRI.

Results: The percentage change in scores for global aphasia quotient in IG showed significant reduction in scores as compared to SCG [IG= -35.0(-88.9, 0) versus SCG= -3.5(-88.4, 15.7); $p < 0.001$]. The percentage change in scores for QoL showed more improvement in the IG {44.4(0,135)} as compared to the SCG [2.2(-24.3, 61.4)] which was statistically significant ($p < 0.001$). fMRI revealed significant BOLD activations for IG compared to the SCG. IG made more gains in working memory and naming tasks following the intervention. Intervention-induced changes in BOLD suggested that improved language abilities along with the recruitment of the non-dominant hemisphere.

Conclusion: Frequently used cognitive-linguistic interventions have been found to be non-reproducible in developing nations like India. This intervention can be used with patients with low education levels & can help where it becomes difficult for patients for routine travel to the hospital due to physical & financial constraints, thereby, improving their QoL

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Presentation Number: CTP33

Publishing Title: Noninvasive cerebral Electrical Stimulation to Reduce Unilateral Spatial Neglect Afterstroke

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Abstract Body:

Title: Noninvasive cerebral electrical stimulation to reduce unilateral spatial neglect after stroke.

Trial Abbreviation: Eletron Trial.

Registry Number: RBR-78jvzx.

Background: Post-stroke unilateral spatial neglect (USN) can be caused by balance disorders of brain electrical activity in both hemispheres, predominantly in the right parietal lobe. Recent literature suggests that spatial perception could be improved by rebalancing of hemispheric activity through non-invasive brain stimulation.

Objective: To evaluate the effect of Transcranial direct-current stimulation (tDCS) on USN after stroke of the right hemisphere.

Population studied and intervention: this prospective, randomized controlled double-blind trial will include individuals of both genders, aged above 18 years, with diagnosis of stroke and USN, confirmed by imaging tests and USN diagnosis by Behavior Inattention Tests. Patients with USN will be randomized into three groups: 1 - Treatment with anodic tDCS in right parietal lobe; 2 - Treatment with cathodic tDCS in left parietal lobe; 3 - Sham. Randomization of a maximum of 45 patients is planned with 15 patients in each group. Individuals will be assessed by Catherine Bergego Scale, NIHSS, Functional Independence Measure, Barthel Scale, mRs, and Quality of Life Scale by an investigator blinded to treatment the patient received before the first session and 1 week after the last tDCS session. We will use regression models considering confounding factors for statistical analysis of the data.

Results: In March 2017, 32 patients were recruited, of which seven were effectively included. Our greatest difficulties were the delay in patient inclusion after a stroke, disinterest in participating in the study, difficulty in transportation to the study center, problems in the center's infrastructure and unavailability of trained personnel for patient recruitment.

Conclusion: Given the importance of USN in the stroke context, the effectiveness of tDCS in stroke rehabilitation is expected to be verified at the end of the study. PI/coordinator: Rodrigo Bazan.

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Author Disclosure Block: T.R. da Silva: None. J.T. de Souza: None. R.D.M. da Costa: None. P.W. Ribeiro: None. L.G. Martins: None. H.R.D. Nunes: None. L.C.A. Sartor: None. F.C. Winckler: None. G.P. Modolo: None. S.G.Z. Bazan: None. A.B. Conforto: None. E.D. Neto: None. M.O. Fogaroli: None. G.R. Soares: None. G.J. Luvizutto: None. R. Bazan: None.

Presentation Number: CTP34

Publishing Title: A European, Multicentre, Phase III, Clinical Trial of Hypothermia for Acute Ischaemic Stroke: EuroHYP-1

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Abstract Body:

Background: Cooling is a promising neuroprotective intervention in experimental ischaemic stroke; cooling to 35°C reduced infarct size by about one third. Cooling awake ischaemic stroke patients to 35°C has been shown feasible and safe, but whether this is safe and effective has not been tested in a large clinical trial.²

Aims: To determine whether systemic cooling to target temperature of 34 to 35°C, started within 6 hours of symptom onset and maintained for 12 hours, improves functional outcome at 3 months in patients with acute ischaemic stroke.

Methods: Open, randomised, phase III, multicentre, international clinical trial with masked outcome assessment testing the safety and efficacy of therapeutic cooling in 800 awake adult patients with acute ischaemic stroke. Cooling will be initiated within 6 hours of symptom onset with an intravenous infusion of 20 ml/kg cooled normal saline (4°C) over 30 to 60 minutes, followed by either surface or endovascular cooling to 34 to 35°C, maintained for 12 hours. Shivering and discomfort will be prevented and treated with anti-shivering drugs. All patients will receive best medical treatment, including alteplase, if indicated. The primary outcome is centrally adjudicated modified Rankin Scale at 90 days (shift analysis). A trial with 400 patients per arm has 80% power to detect a 7% absolute improvement in the mRS at the 5% significance level. As of 23rd October 2017, 87 patients have been recruited across 21 sites in 7 countries.

Conclusion: EuroHYP-1 is ongoing, funded by the European Commission 7th Framework Programme (FP7/2007-2013-278709).

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Presentation Number: CTP35

Publishing Title: NIH StrokeNet Evolving Network

Author Block: Joseph P Broderick, Univ of Cincinnati, Cincinnati, OH; Yuko Y. Palesch, Wenle Zhao, Medical Univ of South Carolina, Charleston, SC; Scott Janis, Claudia S. Moy, Natl Inst of Neurological Disorders & Stroke, Rockville, MD

Abstract Body:

Background: The NIH StrokeNet infrastructure consists of the National Coordinating Center (NCC) at the University of Cincinnati that provides leadership and coordination of network activities; the National Data Management Center (NDMC) at the Medical University of South Carolina that coordinates centralized and standardized data collection and sharing and provides statistical support; 25 Regional Coordinating Centers that recruit, treat, and manage study subjects at network sites (nearly 400); and the NINDS team that provides administrative and scientific input. The StrokeNet uses the central Institutional Review Board at the University of Cincinnati and also includes a Training and Education Core for the overall direction of the education and training for StrokeNet fellows.

Objective: The StrokeNet is open to clinical trialists with a trial proposal within or outside of the network. One innovative feature is the feasibility assessment that includes surveying the clinical sites for enthusiasm and availability of patients for the trial; and an epidemiological study that applies the trial eligibility criteria to the Greater Cincinnati/Northern Kentucky epidemiologic database.

Results: Of the 21 unique trial proposals that investigators have submitted at least once for NIH review, 29% have been approved for funding (3 prevention, 2 acute, and 1 recovery trials). The first StrokeNet trial approved for NIH funding, DEFUSE 3, recruited ahead of projection and was halted early by the DSMB for efficacy. In the past year, 26 of 27 StrokeNet fellows presented an abstract at a national meeting or published a manuscript with overall 58 first-author abstracts, 27 first-author manuscripts, and 23 submitted grants.

Conclusions: The NIH StrokeNet has demonstrated the ability to design trials that are scientifically important, innovative, and feasible and to recruit at or ahead of expected rate. It is also a tremendous resource for development of clinical stroke researchers.

Author Disclosure Block: J.P. Broderick, study medication provided by BMS for NIH funded Arcadia Trial, Significant, Other Research Support; Monies to Department of Neurology and Rehabilitation Medicine for my role on Steering Committee of Genentech funded PRISMS Trial., Significant, Other Research Support; Y.Y. Palesch, Brainsgate DSMB, Modest, Consultant/Advisory Board; W. Zhao, None; S. Janis, None; C.S. Moy, None.

Presentation Number: CTP36

Publishing Title: Telerehabilitation in the Home Versus Therapy In-Clinic for Patients With Stroke

Author Block: Steven C Cramer, Univ of California Irvine, Irvine, CA; Telerehabilitation in the Home Versus Therapy In-Clinic for Patients With Stroke Investigators

Abstract Body:

The current study will test the effectiveness of a novel home-based telehealth system designed to improve motor recovery and patient education after stroke. A total of 124 subjects with arm motor deficits 4-36 weeks after a stroke due to ischemia or to intracerebral hemorrhage will be randomized to receive 6 weeks of intensive arm motor therapy (a) in a traditional in-clinic setting or (b) via in-home telerehabilitation (rehabilitation services delivered to the subject's home via an internet-connected computer). The intensity, duration, and frequency of this therapy will be identical across the two groups, with subjects in both treatment arms receiving 36 sessions (18 supervised and 18 unsupervised), 80 minutes each (including a 10 minute break), over 6 weeks. The primary endpoint is within-subject change in the arm motor Fugl-Meyer (FM) score from the Baseline Visit to 30 Day Follow-Up Visit. Arm motor status is the focus here because it is commonly affected by stroke, is of central importance to many human functions, and is strongly linked to disability and well being after stroke. Additional study aims pertain to comparing methods for providing stroke education, and to understanding motivation in relation to patient compliance.

Author Disclosure Block: S.C. Cramer: Consultant/Advisory Board; Modest; Dart Neuroscience, Roche, MicroTransponder.