

Hemorrhagic Stroke Initiative ICH

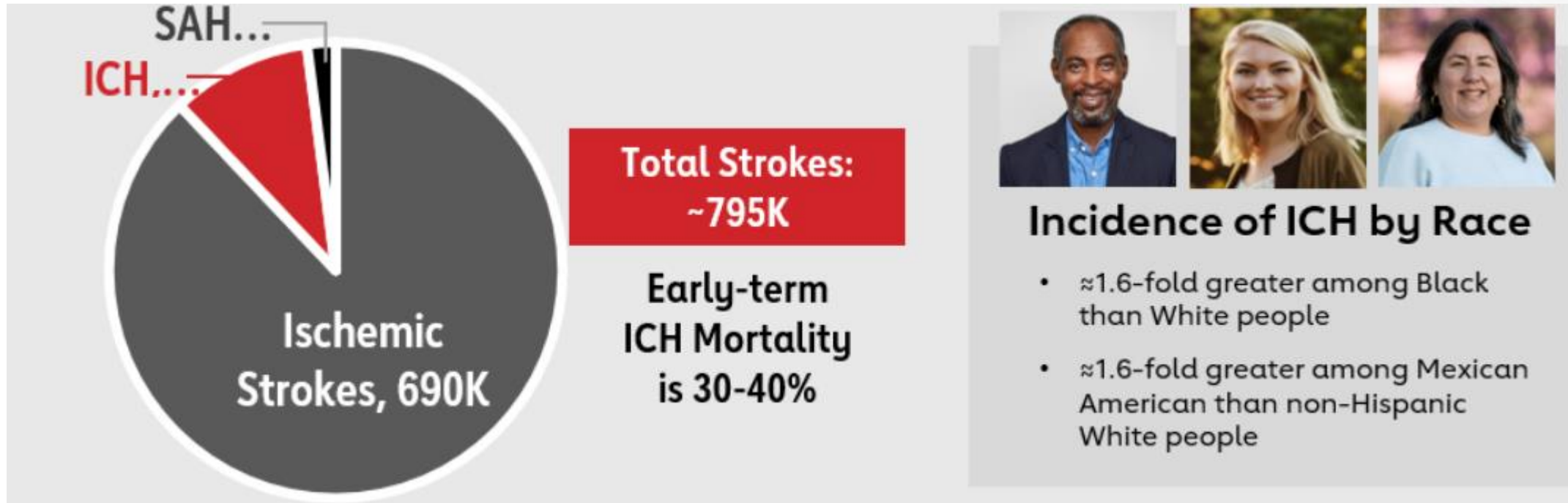
NC Stroke Coordinator Meeting
June 26, 2024

Why ICH?

- ICH accounts for \approx 10% to 15% of all strokes and carries a disproportionately high risk of early death and long-term disability
- Evidence for optimal treatment of ICH has lagged behind that for ischemic stroke
- Translation of guidelines into actionable metrics for data collection will further enhance outcomes for ICH patients

Population Health Implications

Annual Ischemic Stroke & ICH Incidence



Stroke

Volume 53, Issue 7, July 2022; Pages e282-e361
<https://doi.org/10.1161/STR.0000000000000407>

AHA/ASA GUIDELINE

2022 Guideline for the Management of Patients With Spontaneous Intracerebral Hemorrhage: A Guideline From the American Heart Association/American Stroke Association

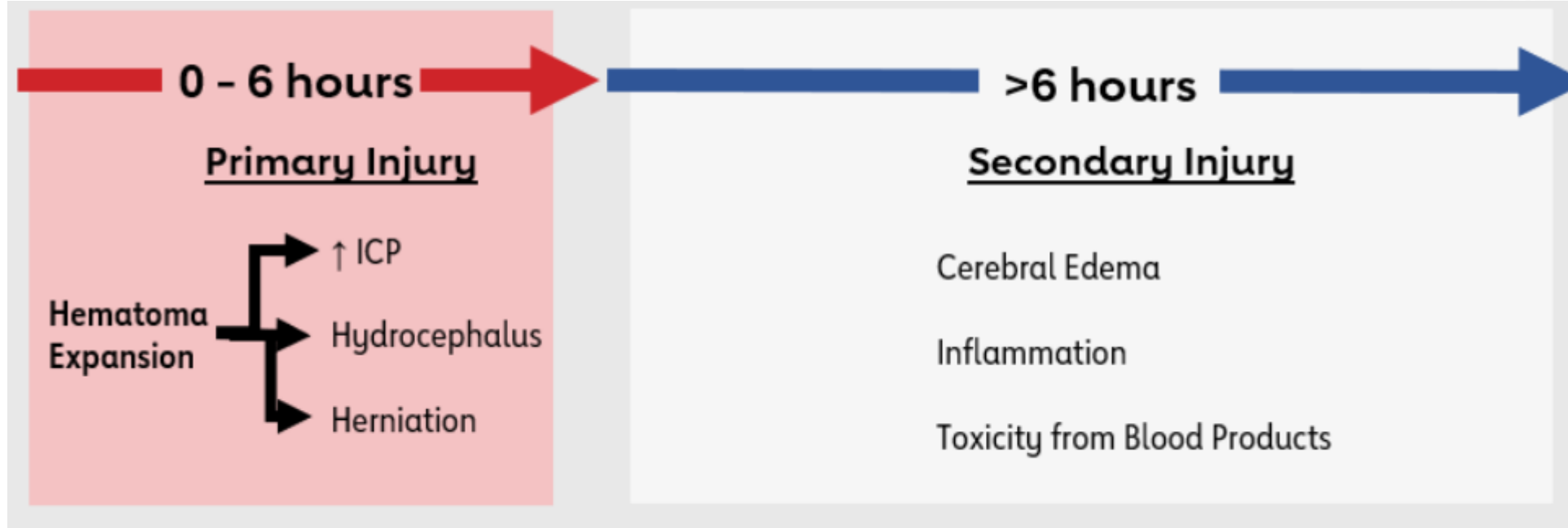
Steven M. Greenberg, MD, PhD, FAHA, Chair, Wendy C. Ziai, MD, MPH, FAHA, Vice Chair, Charlotte Cordonnier, MD, PhD, Dar Dowlatshahi, MD, PhD, FAHA, Brandon Francis, MD, MPH, Joshua N. Goldstein, MD, PhD, FAHA, J. Claude Hemphill III, MD, MAS, FAHA, Ronda Johnson, MBA, Kiffon M. Keigher, MSN, ACNP-BC, RN, SCRNP, William J. Mack, MD, MS, FAHA*, J. Mocco, MD, MS, FAHA†, Eileena J. Newton, MD, Ilana M. Ruff, MD‡, Lauren H. Sansing, MD, MS, FAHA, Sam Schulman, MD, PhD, Magdy H. Selim, MD, PhD, FAHA, Kevin N. Sheth, MD, FAHA*§, Nikola Sprigg, MD, Katharina S. Sunnerhagen, MD, PhD, and on behalf of the American Heart Association/American Stroke Association

Acknowledgments

Gusler, M., Joseph, N., Quin, S., Ravishankar, K., Srinivas, M., Teitcher, M., Ulep, R., Bezanson, J. L., & Antman, E. M. (2022). Clinical Update; Adapted from: 2022 Guideline for the Management of Patients With Spontaneous Intracerebral Hemorrhage: A Guideline From the American Heart Association/American Stroke Association [PowerPoint slides].

<https://professional.heart.org/en/science-news>

Mechanism of ICH Injury



Acute ICH management targets these mechanisms

Goals and Objectives Phase I

20 Hospitals
participated
in a 3-year
learning
collaborative

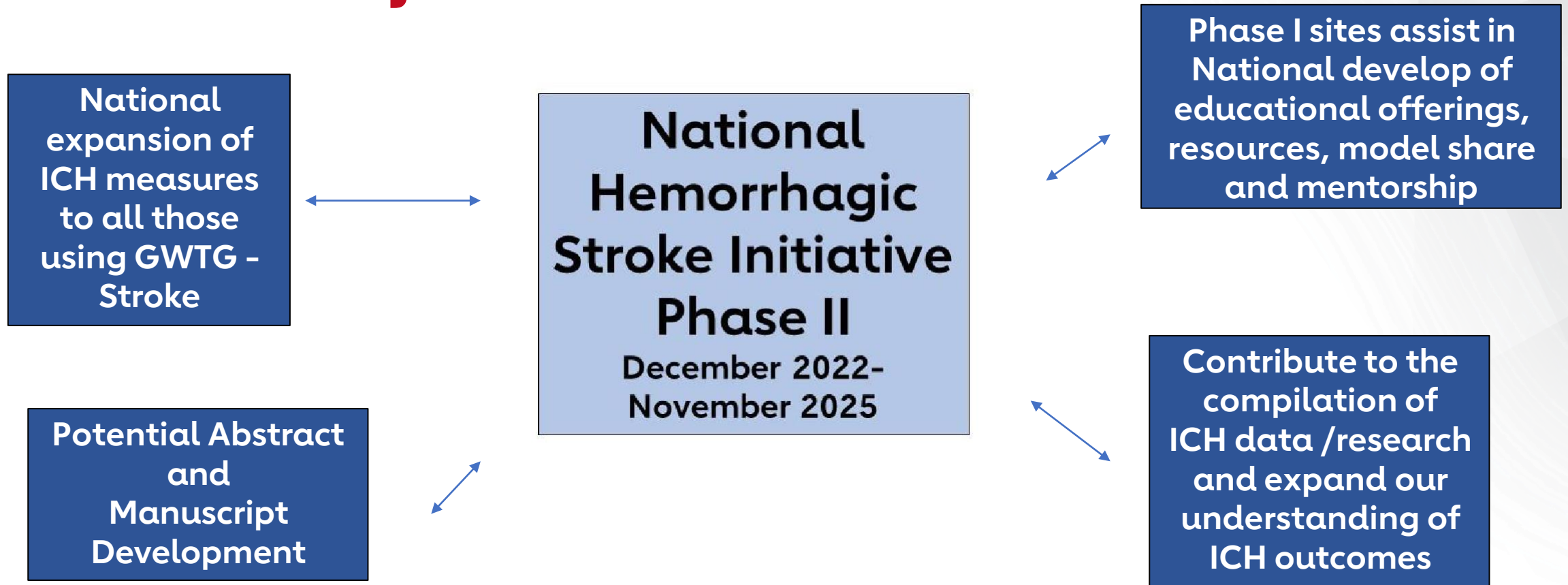
**National
Hemorrhagic
Stroke Initiative
Phase 1**

Initiative built on
existing quality
improvement stroke
work hospitals were
already engaged in

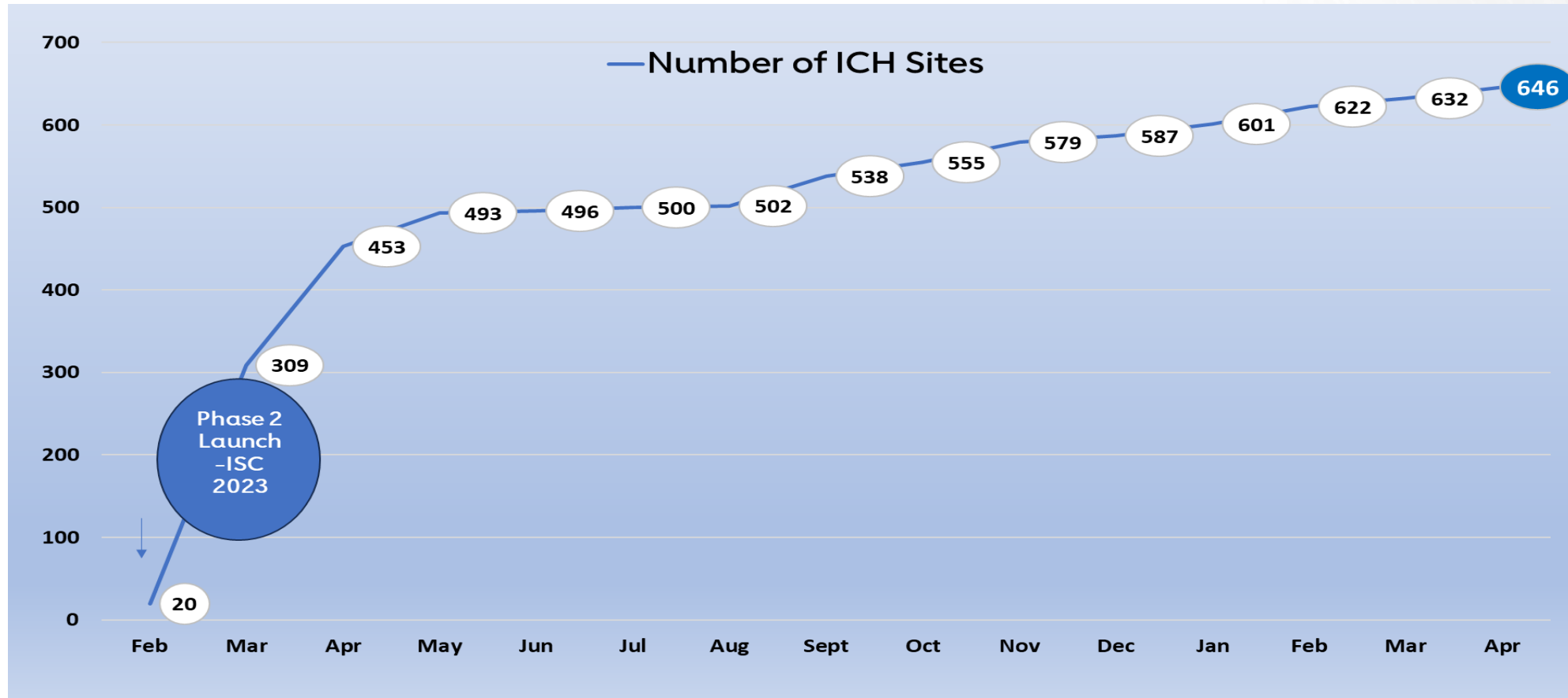
Promote ICH specific
education, model share
events, policy & protocol
contribution, hospital level
improvements, testing of new
Get With The Guidelines®
data elements

These hospitals
informed feasibility,
created national
education all to
improve stroke
outcomes for ICH
patients

Goals and Objectives Phase II



Hospitals with ICH Layer



ICH Form Group Measures

Performance Measures (Rate Based)

- AHASTR155: Admission Unit
- AHASTR296: Anticoagulant Reversal (DOACs)
- AHASTR156: Assessed for Rehabilitation
- AHASTR157: Avoidance of Corticosteroid Use
- AHASTR158: Baseline Severity Score
- AHASTR159: Blood Pressure Treatment at Discharge
- AHASTR160: Coagulopathy Reversal (Warfarin)
- AHASTR161: Dysphagia Screening within 24 Hours
- AHASTR163: Passed Dysphagia Screen Before First Oral Intake
- AHASTR164: Venous Thromboembolism (VTE) Prophylaxis

Descriptive Measures

- AHSTR162: ICH Records with Missing Times
- AHASTR299: Anticoagulant Reversal Agents
- AHASTR300: Reasons No Anticoagulant Reversal was Administered
- AHASTR301: Time to Anticoagulant Reversal

Case Report Form

ICH Form Group = Existing GWTG-Stroke & CSTK elements + New ICH elements

- **24 new ICH elements** related to the evaluation and treatment of ICH patients
- Form logic enables and requires capture of pertinent ICH elements based on “Final Clinical Diagnosis of Stroke” = Intracerebral Hemorrhage

Intracerebral Hemorrhage (ICH)

^Was an initial ICH score done at this hospital? Yes No

^^If yes, ICH score:

^What is the date and time that the ICH score was first performed at this hospital?

MM/DD/YYYY HH:MM

/ / :

MM DD YYYY HH MM

ICH Volume:

ICH Volume Not Documented

IVH Present Not present

Lobar Hemorrhage present on imaging? Yes No

Was the ICH etiology documented in the patient medical record? Yes No

Documented ICH etiology (select all that apply) :

- Hypertension
- Anticoagulant-associated (warfarin, DOACs)
- Coagulopathy (liver cirrhosis hemophilia, sickle cell anemia, DIC, thrombocytopenia)
- Vascular malformations (cerebral aneurysms, AVM, dural AV fistula, capillary telangiectasia, cavernous malformation)
- Tumor
- Substance use (cocaine, stimulants)
- Amyloid angiopathy
- Spontaneous/Idiopathic
- Cortical vein thrombosis and venous sinus thrombosis
- Other determined cause

Case Report Form

Enhancement–Aug 2023

- Added 'Prior Antithrombotic Class (1), 'Prior Antithrombotic Class (2), and 'Prior Antithrombotic Class (3)
- Added 'What is the first platelet count obtained prior to or after hospital arrival?'
- Added 'Was the patient administered a platelet transfusion at your hospital and 'Initial platelet transfusion date/time'
- Added validation to require 'Blood Pressure (Systolic) – Initial' and 'Blood Pressure (Diastolic) –Initial'
- Added 'BP lowering agent administered at your hospital', 'Date/time of first administration of a BP lowering agent at your hospital', and 'Date/time Systolic BP first sustained at ≤ 149 for ≥ 5 minutes'

ICH Form Group Benchmark

- Benchmark group including all sites enrolled in the ICH Form Group



Standard Exclusions

Common exclusions present in ICH Form Group Measures

CMO Anytime	CMO Day 0 or 1	CMO Before Arrival
<ul style="list-style-type: none">• Blood Pressure Treatment at Discharge• Assessed for Rehabilitation	<ul style="list-style-type: none">• VTE Prophylaxis	<ul style="list-style-type: none">• Baseline Severity Score• Coagulopathy Reversal (Warfarin)• Anticoagulant Reversal (DOACs)• Admission Unit

Stroke Occurred After Arrival

- All Measures

Patient Not Admitted As Inpatient

- All Measures

Length of Stay > 120 Days

- All Measures

Clinical Trial

- Anticoagulant Reversal (DOACs)
- Assessed for Rehabilitation
- Avoidance of Corticosteroid Use
- Blood Pressure Treatment at Discharge
- Coagulopathy Reversal (Warfarin)
- Dysphagia Screening with 24 Hours
- Passed Dysphagia Screen Before First Oral Intake
- VTE Prophylaxis

Potential Registry Updates: Promoting Systems of Care Work

Opportunities to leverage GWTG-Stroke to promote ICH SOC work

Many referring facilities participate in ICH Layer for data collection, however Performance Measures exclude Not Admitted patients

**ICH Referring Center
Performance
Measures**

GWTG-Stroke has existing Ischemic Stroke SOC tools that can be updated for ICH purposes

ICH Details Added to:
Metrics At A Glance
Transfer-In Feedback Report
Time Tracker Report

Advanced Analytic reports allow for comparison of performance of a hospital to other blinded hospitals within their transfer system

**Formalize “Regions”
for Advanced
Analytics**

AHA Healthcare Network for Intracerebral Hemorrhage

- Launched May 2nd for Stroke Month
- Connect with peers to share resources, tools, challenges, and success in an online community
- Initial invite was to the 20 Phase 2 Mentor Sites
- Invitation will be sent in the next few weeks to all **participating ICH** hospitals

My Home ▾ My Groups ▾ Resources ▾ Connect ▾ Heart.org ▾

Pat ▾ 🔔 🔍

Intracerebral Hemorrhage

Private Invite

Home Discussions Members Program Materials Recordings Group Events News Resources Message Search Settings

Glad You Joined Us

Thank you for joining the Intracerebral Hemorrhage Group! Connect with your peers to share resources, tools, challenges and successes in this online community.

We're here to help! Contact your local AHA manager with questions.

Upcoming Events

Search 🔍

Date ↑

Share a Success
Found something to help your team on their quality improvement journey? Share your lesson learned.

Share a Challenge
Has your team hit a roadblock? Post a question for feedback or a call for resources from peers and expert

Share a Resource
Use a patient or professional resource to provide better heart failure care? Submit and share a tool or template.

Meet Your American Heart Association Staff

Partnering with you at every step

ICH Resources

<https://www.heart.org/en/professional/quality-improvement>

Healthy Living ▾ Health Topics ▾ **Professionals ▾** Get In



Professional Resources

Professional Heart Daily

Research

Guidelines & Statements

Quality Improvement

Get With The Guidelines®

International Quality Care

Target: Aortic Stenosis™

Professional Membership

Journals

Mission: Lifeline®

Research and Publications

Hemorrhagic Stroke Initiative

Hemorrhagic Stroke Initiative

The hemorrhagic stroke initiative aims to extend and improve patients' lives.

Contact Us to Enroll

View Early Adopters



<https://www.heart.org/en/professional/quality-improvement>