

Secondary stroke prevention through pathway management

Submission date 22/09/2022	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 12/10/2022	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 27/01/2025	Condition category Circulatory System	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Every year, more than 795,000 people in the United States have a stroke. Stroke-related costs in the United States came to nearly \$46 billion between 2014 and 2015. These totals include the cost of health care services, medicines to treat stroke, and missed days of work. Stroke is a leading cause of serious long-term disability and reduces mobility in more than half of stroke survivors aged 65 and over. In February 2020, the Global Research Report looked at ICM adoption barriers for cryptogenic stroke. Of over 100 cardiologists/electrophysiologists and neurologists in the United States, 70% reported having significant care pathway challenges; 50% reported having no existing care pathway. A clinical need for care pathway creation exists. The intention of the DiVERT Stroke II Study (derived from DiVERT Phase I study learnings) is to evaluate how a multi-disciplinary care pathway affects short-term clinical and economic outcomes.

Who can participate?

Patients 18 years of age or older with a cryptogenic stroke or large artery atherosclerosis or small vessel occlusion hospitalization between 2023-2024 at participating clinical study sites.

What does the study involve?

The DiVERT Stroke II study care pathway is prospective, and patient data collection is retrospective, similarly, to DiVERT Stroke Phase I (ISRCTN87407792) data collection. The purpose of the study is to assess the DiVERT Stroke II study care pathway at hospitals that participated in DiVERT Stroke Phase I. The study will investigate care pathway adherence and evaluate short-term clinical and economic outcomes. Medtronic will conduct a qualitative and quantitative assessment of stroke hospitalizations at the participating clinical study sites.

What are the possible benefits and risks of participating?

The information gained from this study may result in the improvement of stroke care by developing and utilizing pathways in the future. Because data will be retrospectively collected and de-identified by the sites before retrieval at Medtronic, there are no known foreseeable risks.

Where is this study run from?
Medtronic (USA)

When is the study starting and how long is it expected to run for?
June 2022 to January 2025

Who is funding the study?
Medtronic (USA)

Who is the main contact?
Jessica Mikacevich, jessica.m.mikacevich@medtronic.com

Contact information

Type(s)
Public

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number

MDT22040

Study information

Scientific Title

SecoNdary Stroke PreVEntion ThRough Pathway Management (DiVERT Stroke Phase II)

Acronym

DiVERT Stroke Phase II

Study objectives

Current study hypothesis as of 23/08/2023:

Medtronic will conduct a qualitative and quantitative assessment of stroke hospitalizations at the participating clinical study sites. This assessment will evaluate short-term clinical and economic outcomes and pathway adherence of the DiVERT Stroke II study care pathway.

Previous study hypothesis:

Medtronic will conduct a qualitative and quantitative assessment of stroke hospitalizations at the participating clinical study sites. This assessment will evaluate short-term clinical and economic outcomes and pathway adherence of the DiVERT Stroke Phase II care pathway.

Ethics approval required

Old ethics approval format

Ethics approval(s)

1. Approved 29/08/2022, WCG IRB (1019 39th Ave SE, Suite 120, Puyallup, WA 98374, USA; +1 855 818 2289; clientservices@wcgirb.com), ref: 20224624
2. Approved 21/03/2023, WCG IRB (1019 39th Ave SE, Suite 120, Puyallup, WA 98374, USA; +1 855 818 2289; clientservices@wcgirb.com), ref: 20224624
3. Approved 31/07/2023, WCG IRB (1019 39th Ave SE, Suite 120, Puyallup, WA 98374, USA; +1 855 818 2289; clientservices@wcgirb.com), ref: 20224624
4. Approved 06/04/2023, USF Research & Innovation – Research Integrity & Compliance IRB (3702 Spectrum Blvd Suite 165 Tampa, FL 33612, USA; +1 813 974 5638; RSCH-arc@usf.edu)

Study design

Multicenter interventional non-randomized study

Primary study design

Interventional

Study type(s)

Other

Health condition(s) or problem(s) studied

Stroke

Interventions

Current interventions as of 23/08/2023:

The DiVERT Stroke II study care pathway will enable physicians to use stroke etiology, presentation characteristics, neuroimaging factors and other clinical risk factors to recommend no cardiac monitoring, external cardiac monitoring, or internal cardiac monitoring. The stroke care pathway leverages current standard of care best practices and poses no safety risks for participating clinical study sites due to the quality improvement nature of the clinical study. All other care aspects including follow-up activity will remain the same as the standard of care. No referral methods will be utilized. No randomization process will be utilized. No screening methods will be utilized.

Previous interventions:

The DiVERT Stroke Phase II care pathway will enable physicians to use stroke etiology, presentation characteristics, neuroimaging factors and other clinical risk factors to recommend no cardiac monitoring, external cardiac monitoring, or internal cardiac monitoring. The stroke care pathway leverages current standard of care best practices and poses no safety risks for participating clinical study sites due to the quality improvement nature of the clinical study. All other care aspects including follow-up activity will remain the same as the standard of care. No referral methods will be utilized. No randomization process will be utilized. No screening methods will be utilised.

Intervention Type

Other

Primary outcome(s)

Current primary outcome measure as of 23/08/2023:

1. The following information will be collected within 180 days prior to the index stroke hospitalization from patient records and measured through chart review:
 - 1.1. Medical history
 - 1.2. Alcohol consumption
 - 1.3. CHA2DS2 VASc Score (if congestive heart failure +1, if hypertension +1, if age ≥ 75 +2, if diabetes +1, if previous stroke +2, if vascular disease +1, if age 65 to 74 +1, and if sex category (female) +1) (most recent within 180 days prior to index hospitalization, if available)
 - 1.4. Lab Tests: CRP (C-reactive protein), BNP (brain natriuretic peptide) (most recent within 180 days prior to index hospitalization, if available)
2. The following information will be collected during the index stroke hospitalization from patient records:
 - 2.1. Hospitalization Dates measured by admission and discharge dates
 - 2.2. Neurology diagnostic testing measured through chart review
 - 2.3. EP Consultation measured through chart review
 - 2.4. Short-term/external monitors, wearables, and/or ICM recommendation (if applicable /available) measured through DiVERT Stroke Phase II Care Pathway and chart review
 - 2.5. Short-term/external monitors, wearables, and/or ICM use (if applicable/available) measured through DiVERT Stroke Phase II Care Pathway and chart review

3. The following information will be collected at follow-up visits through 180 days post-index stroke

hospitalization (i.e., discharge) from patient records and measured through chart review:

3.1. Discharge location (SNF (skilled nursing facility), inpatient, home, etc.)

3.2. Prescribed stroke-related follow-up cadence (office and remote)

3.3. Stroke-related follow-up dates

3.4. Neurology diagnostic testing

4. Economic information to be collected from patient records and measured via claims data and chart review include:

4.1. Total cost of stroke diagnostic work-up for index hospitalization and through 180 days of follow-up

4.2. Total cost of index stroke hospitalization

4.3. Total cost short-term/external monitoring

4.4. Total cost pre- and post-ICM insertion

4.5. Total cost of care 30, 60, 90, 180 days post-stroke, including cardiovascular disease and AF healthcare utilization costs

4.6. Total cost of stroke readmissions and stroke recurrences, including healthcare utilization

Previous primary outcome measure:

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1.2. Alcohol consumption

1.3. CHA2DS2 VASc Score (if congestive heart failure +1, if hypertension +1, if age ≥ 75 +2, if diabetes +1, if previous stroke +2, if vascular disease +1, if age 65 to 74 +1, and if sex category (female) +1) (most recent within 180 days prior to index hospitalization, if available)

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2.5. Short-term/external monitors, wearables, and/or ICM use (if applicable/available) measured through DiVERT Stroke II study Care Pathway and chart review

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Key secondary outcome(s)

There are no secondary outcome measures

Completion date

20/01/2025

Eligibility

Key inclusion criteria

Current inclusion criteria as of 23/08/2023:

1. Patients with a cryptogenic stroke or large artery atherosclerosis or small vessel occlusion hospitalization between 2023 and 2024

2. Age ≥ 18 years

Previous inclusion criteria:

1. Patients with a cryptogenic stroke or large artery atherosclerosis or small vessel occlusion hospitalization between 2022 and 2024

2. Age ≥ 18 years

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

18 years

Sex

All

Total final enrolment

1756

Key exclusion criteria

Does not meet inclusion criteria

Date of first enrolment

21/08/2023

Date of final enrolment

31/10/2024

Locations

Countries of recruitment

United States of America

Study participating centre

Overland Park Regional Medical Center

10500 Quivira Road

Overland Park

United States of America

66215

Study participating centre

Kansas City Heart Rhythm Institute

5100 W 110th St. Suite 200

Overland Park

United States of America

66211

Study participating centre

St. David's Hospital

919 E 32nd St

Austin

United States of America

78705

Study participating centre

Trident

9330 Medical Plaza Dr

Charleston

United States of America

29406

Study participating centre**TriStar Centennial**

2300 Patterson St

Nashville

United States of America

37203

Study participating centre**Research Medical Center**

2330 East Meyer Blvd Suite T509

Kansas City

United States of America

64132

Study participating centre**University of South Florida Health including Tampa General Hospital**

2 Tampa General Circle

Tampa

United States of America

33606

Sponsor information

Organisation

Medtronic (United States)

ROR

<https://ror.org/00grd1h17>

Funder(s)

Funder type

Industry

Funder Name

Medtronic

Alternative Name(s)

Medtronic Inc.

Funding Body Type

Private sector organisation

Funding Body Subtype

For-profit companies (industry)

Location

United States of America

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are not expected to be made available as this is a retrospective data pull based on inclusion/exclusion criteria

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes