

## Library Current Awareness Bulletin Stroke – August 2020

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### News

#### [Research Projects](#)

Stroke Association

July 2020

[This page provides details on active research projects, explaining why the research is needed and the benefits it could have for people affected by stroke.]

### COVID-19: Impact on Stroke Services

#### [Acute stroke care is at risk in the era of COVID-19: Experience at a comprehensive stroke center in Barcelona](#)

Rudilosso, S. et al

*Stroke*, vol. 51(7) pp. 1991-1995

July 2020

[This study analyses how the coronavirus disease 2019 (COVID-19) pandemic has affected acute stroke care at the Hospital Clinic of Barcelona.]

### [Break in the stroke chain of survival due to COVID-19](#)

Montaner, J. et al

*Stroke*, vol. 51(8) pp. 2307-2314

August 2020

["A descriptive analysis of acute stroke care activity before and after the COVID-19 outbreak is given for a stroke network in southern Europe. To quantify the impact of the pandemic, the number of stroke code activations, ambulance transfers, consultations through telestroke, stroke unit admissions, and reperfusion therapy times and rates are described in temporal relationship with the rising number of COVID-19 cases in the region."]

### [Collateral damage – Impact of pandemic on stroke emergency services](#)

Desai, S.M. et al

*Journal of Stroke and Cerebrovascular Diseases*, vol. 29(8)

August 2020

[This study aimed to understand the impact of the COVID-19 pandemic on the utilisation of stroke emergency services at a single comprehensive stroke centre in the city of Pittsburgh, US.]

### [Decline in stroke presentations during COVID-19 surge](#)

Uchino, K. et al

*Stroke*, vol. 51(8) pp. 2544-2547

August 2020

[Using data from a health system with 19 emergency departments in northeast Ohio, US, the authors aimed to investigate the acute stroke presentations during the coronavirus disease 2019 (COVID-19) pandemic. The variables included were total daily stroke alerts across the hospital emergency departments, thrombolysis, time to presentation, stroke severity, time from door-to-imaging, time from door-to-needle in thrombolysis, and time from door-to-puncture in thrombectomy.]

### [Decrease in hospital admissions for transient ischemic attack, mild, and moderate stroke during the COVID-19 era](#)

Diegoli, H. et al

*Stroke*, vol. 51(8) pp. 2315-2321

August 2020

[This study investigated the impact of the COVID-19 pandemic in stroke admissions in Joinville, Brazil. Patients admitted after the onset of COVID-19 restrictions in the city (defined as March 17, 2020) were compared with those admitted in 2019. The differences between stroke incidence, types, severity, reperfusion therapies, and time from stroke onset to admission were analysed. Statistical tests were also performed to compare the 30 days before and after COVID-19 to the same period in 2019.]

### [Delayed presentation of acute ischemic strokes during the COVID-19 crisis](#)

Schirmer, C.M. et al

*Journal of Neurointerventional Surgery*, vol. 12(7) pp. 639-642

July 2020

[This study aimed to identify whether there was a delay in presentation for acute ischemic stroke patients in the first month of the pandemic in the US. The timing and severity of the presentation was analysed in the baseline period from February to March 2019 and results were compared with the timeframe of February and March 2020.]

### [Effect of lockdown on the management of ischemic stroke: an Italian experience from a COVID hospital](#)

Frisullo, G. et al

*Neurological Sciences*, vol. 41(9) pp. 2309-2313

September 2020

[This observational cohort study aimed to evaluate the impact of the lockdown measures on the quality of pre-hospital and in-hospital care of patients with acute ischemic stroke.]

### [Falling stroke rates during COVID-19 pandemic at a comprehensive stroke center](#)

Siegler, J.E. et al

*Journal of Stroke and Cerebrovascular Diseases*, vol. 29(8)

August 2020

[An exploratory single centre analysis was conducted to estimate the change in number of new stroke diagnoses and evaluate the reasons for this change during the COVID-19 pandemic at a tertiary care centre in New Jersey, US.]

### [Has COVID-19 played an unexpected “stroke” on the chain of survival?](#)

Naccarato, M. et al

*Journal of the Neurological Sciences*, vol. 414

July 2020

[This study aimed to evaluate the effects of the COVID-19 pandemic on stroke management during the first month of lockdown in Italy. The authors describe the emergency structured pathway adopted by an Italian University Hub Stroke Unit in the cross-border Italy-Slovenia area.]

### [Impact of the COVID-19 epidemic on stroke care and potential solutions](#)

Zhao, J. et al

*Stroke*, vol. 51(7) pp. 1996-2001

July 2020

["Data from the Big Data Observatory Platform for Stroke of China consisting of 280 hospitals across China demonstrated a significant drop in the number of cases of thrombolysis and thrombectomy. We designed a survey to investigate the major changes during the COVID-19 outbreak and potential causes of these changes. The survey was distributed to the leaders of stroke centers in these 280 hospitals."]

### [Optimization of resources and modifications in acute ischemic stroke care in response to the global COVID-19 pandemic](#)

Ford, T. et al

*Journal of Stroke and Cerebrovascular Diseases*, vol. 29(8)

August 2020

["Boston Medical Center has been particularly affected due to the underserved patient population we care for and the increased risk of ischemic stroke in patients with COVID-19 infection. Methods: We present protocol modifications developed to manage patients with acute ischemic stroke in a safe and effective manner while prioritizing judicious use of personal protective equipment and intensive care unit resources."]

### [Stroke priorities during COVID-19 outbreak: acting both fast and safe](#)

Pedicelli, A. et al

*Journal of Stroke and Cerebrovascular Diseases*, vol. 29(8)

August 2020

[This article analyses the current evidence on COVID-19 in the context of acute ischemic stroke and describes the model of behaviour being put into action to maintain a stroke pathway which is rapid for the patient and safe for the healthcare professionals.]

### [Telestroke in the time of COVID-19: The Mayo Clinic experience](#)

Huang, J.F. et al

*Mayo Clinic Proceedings*, vol. 95(8) pp. 1704-1708

August 2020

["To date, the effects of any pandemic on telestroke service lines have not been described. The purpose of this cross-sectional analysis of telestroke activations in the 30 days before and after the declaration of the COVID-19 pandemic is to describe the difference in case volumes of telestroke activations, the characteristics of patients, and treatment recommendations between the 2 time frames."]

## COVID-19: Stroke Patients

### [Clinical characteristics and outcomes of COVID-19 patients with a history of stroke in Wuhan, China](#)

Qin, C. et al

*Stroke*, vol. 51(7) pp. 2219-2223

July 2020

["The aim of this study was to describe specific clinical characteristics and outcomes of patients with COVID-19 with a history of stroke. Methods: All the confirmed cases of COVID-19 at Tongji Hospital from January 27 to March 5, 2020, were included in our cohort study. Clinical data were analyzed and compared between patients with and without a history of stroke."]

### [Incidental COVID-19 related lung apical findings on stroke CTA during the COVID-19 pandemic](#)

Kihira, S. et al

*Journal of Neurointerventional Surgery*, 12(7) pp. 669-672

July 2020

["In this retrospective multicenter institutional review board-approved study, assessment was made of CTA findings of code patients who had a stroke [n = 118] between March 16 and April 5, 2020 at six hospitals across New York City. Demographic data, comorbidities, COVID-19 status, and neurological findings were collected. Assessment of COVID-19 related lung findings on CTA was made blinded to COVID-19 status. Incidence rates of COVID-19 related apical findings were assessed in all code patients who had a stroke and in patients with a stroke confirmed by imaging."]

### [Management of acute ischemic stroke in patients with COVID-19 infection: report of an international panel](#)

Qureshi, A.I. et al

*International Journal of Stroke*, vol. 15(5) pp. 540-554

July 2020

[The authors present a comprehensive set of practice implications for clinicians caring for adult patients with acute ischemic stroke with confirmed or suspected COVID-19 infection.]

### [SARS-CoV-2 and stroke in a New York healthcare system](#)

Yaghi, S. et al

*Stroke*, vol. 51(7) pp. 2002-2011

July 2020

[The authors note there is mounting evidence that patients affected by the illness may develop clinically significant coagulopathy with thromboembolic complications including ischemic stroke. Acknowledging that there is limited data on the clinical characteristics, stroke mechanism, and outcomes of patients who have a stroke and COVID-19, they conducted a retrospective cohort study of consecutive patients with ischemic stroke hospitalised, between March 15, 2020, and April 19, 2020, within a major health system in New York. The clinical characteristics of stroke patients with a concurrent diagnosis of COVID-19 were compared to stroke patients without COVID-19 (contemporary controls).]

### [Treatment of acute ischemic stroke due to large vessel occlusion with COVID-19: Experience from Paris](#)

Escalard, S.M. et al

*Stroke*, vol. 51(8) pp. 2540-2543

August 2020

[The authors report their initial experience in the treatment of acute ischemic stroke with large vessel occlusion in patients with COVID-19.]

## Diagnosis and Assessment

### [Atrial fibrillation trial to evaluate real-world procedures for their utility in helping to lower stroke events: A randomized clinical trial](#)

Huang, W-Y. et al

*International Journal of Stroke*

July 2020

[This randomised controlled trial compared the detection rates of paroxysmal atrial fibrillation between serial electrocardiograms and 24-h Holter from October 2015 to October 2018 at six hospitals in Taiwan. Eligible participants were acute ischemic stroke patients with aged  $\geq 65$  years, with no history of atrial fibrillation or any presence of atrial fibrillation on baseline electrocardiogram at admission. The primary outcome was newly detected electrocardiogram in the serial electrocardiograms and 24-h Holter group.]

## Drug Therapy

### [Blood transfusion for preventing primary and secondary stroke in people with sickle cell disease](#)

Estcourt, L.J. et al

*Cochrane Systematic Review – Intervention*

July 2020

[This is an update of a Cochrane Review first published in 2002, and last updated in 2017. The review aims to assess risks and benefits of chronic blood transfusion regimens in people with sickle cell disease for primary and secondary stroke prevention (excluding silent cerebral infarcts). Five trials (660 participants) published between 1998 and 2016 were included. Four of these trials were terminated early. The vast majority of participants had the haemoglobin (Hb)SS form of sickle cell disease. The quality of the evidence was very low to moderate across different outcomes according to GRADE methodology. This was due to the trials being at a high risk of bias due to lack of blinding, indirectness and imprecise outcome estimates.]

### [Cerebrolysin for acute ischaemic stroke](#)

Ziganshina, L.E. et al

*Cochrane Systematic Review – Intervention*

July 2020

[This is an update of a review first published in 2010 and last updated in 2017. The review aims to assess the benefits and harms of Cerebrolysin for treating acute ischaemic stroke. Seven RCTs (1,601 participants) met the inclusion criteria of the review. In this update the reviewers re-evaluated risk of bias through identification, examination, and evaluation of study protocols and judged it to be low, unclear, or high across studies.]

### [Hemorrhagic stroke and anticoagulation in COVID-19](#)

Dogra, S. et al

*Journal of Stroke and Cerebrovascular Diseases*, vol. 29(8)

August 2020

[This is a retrospective study of 33 patients, positive for COVID-19 with neuroimaging-documented intracranial haemorrhage, examining anticoagulation use in this population.]

### [Multiple versus fewer antiplatelet agents for preventing early recurrence after ischaemic stroke or transient ischaemic attack](#)

Naqvi, I.A. et al

*Cochrane Systematic Review – Intervention*

August 2020

[This review aimed to determine the effectiveness and safety of initiating, within 72 hours after an ischaemic stroke or TIA, multiple antiplatelet agents versus fewer antiplatelet agents to prevent stroke recurrence. The analysis explores the evidence for different drug combinations. 15 RCTs with a total of 17,091 participants are included.]

## Endovascular Therapy (EVT)

### [Acute Stroke Management During the COVID-19 Pandemic: Does confinement impact eligibility for endovascular therapy?](#)

Hajdu, S.D. et al

*Stroke*, vol. 51(8) pp. 2593-2596

August 2020

["The purpose of our study was to determine the effect on EVT for patients with acute ischemic stroke during the COVID-19 confinement. In this retrospective, observational study, data were collected from November 1, 2019, to April 15, 2020, at 17 stroke centers in countries where confinement measures have been in place since March 2020

for the COVID-19 pandemic (Switzerland, Italy, France, Spain, Portugal, Germany, Canada, and United States). This study included 1600 patients treated by EVT for acute ischemic stroke.”]

## Rehabilitation

### [Effectiveness of backward walking for people affected by stroke: A systematic review and meta-analysis of randomized controlled trials](#)

Chen, Z-H. et al

*Medicine*, vol. 99(27)

July 2020

[This systematic review aimed to determine the effect of backward walking (BW) training on patients with stroke. 10 studies were included and all described some positive influences of BW on stroke relative to the control group (forward walking or conventional treatment). Compared to control group, there is a statistically significant improvement for BW group in gait velocity, Berg balance score, and walk test.]

## Thrombolysis and Thrombectomy

### [Outcome of patients with large vessel occlusion stroke after first admission in telestroke spoke versus comprehensive stroke center](#)

Kaminsky, A-L. et al

*Journal of Neurointerventional Surgery*, vol. 12(8) pp. 753-757

August 2020

[This study aimed to compare three-month outcome in patients with large vessel occlusion after admission to a spoke centre using telestroke compared with first comprehensive stroke centre admission in a large French regional stroke network, irrespective of final treatment decision.]

### [Balloon anchoring technique for thrombectomy in hostile craniocervical arterial anatomy](#)

Sharashidze, V. et al

*Journal of Neurointerventional Surgery*, vol. 12(8) pp. 763-767

August 2020

[This study aimed to demonstrate the feasibility of the balloon-anchoring technique (BAT) that can be attempted before switching to alternative access sites.]

### [Impact of the COVID-19 pandemic on the process and outcome of thrombectomy for acute ischemic stroke](#)

Yang, B. et al

*Journal of Neurointerventional Surgery*, vol. 12(7) pp. 664-668

July 2020

[This study aimed to determine the impact of the COVID-19 pandemic on endovascular thrombectomy (EVT) for patients with acute ischemic stroke (AIS). 55 AIS patients who received EVT were included in the study.]

### [Preserving access: a review of stroke thrombectomy during the COVID-19 pandemic](#)

Leslie-Mazwi, T.M. et al

*American Journal of Neuroradiology*, vol. 41(7) pp. 1136-1141

July 2020

[This article considers the implications of COVID-19 on the emergency care of large-vessel occlusion stroke, reviewing specific infection-control recommendations, available literature, existing resources, and expert consensus.]

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