System-Integrated Technology-Enabled Model of Care Aiming to Improve the Health of Stroke Patients in Resource-Poor Settings in China (The SINEMA Study)

Background

Stroke imposes major societal and economic burdens and is one of the leading causes of death and disability in rural China.

For the vulnerable population of stroke patients in resource-limited rural areas, secondary prevention and rehabilitation are largely unavailable and where present are far below evidence-based standard.

Study Focus

Stroke treatment and rehabilitation, mHealth, primary healthcare services

Locations

Nanhe county, Hebei Province, China

Duration

April , 2016– March, 2019

Principal Investigator

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Investigators (listed alphabetically)

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Main Collaborators

- China Mobile Research Institute
- Hebei Provincial Center for Disease Control and Prevention

Funders (Key)

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Aims

The principal research question is: Can trained village doctors and family caregivers, equipped with digital health technology, provide essential evidence-based care to stroke survivors in rural China? The specific aims are:
1) To conduct a barriers analysis to understand the opportunities and constraints experienced by stroke patients and their families in accessing essential healthcare delivery for stroke patients
2) To assemble and integrate each component of the SINEMA model piloted in previous studies into a holistic model of practical, scalable and seamless essential healthcare delivery for stroke patients
3) To implement the SINEMA model in a resource-poor rural area in China and evaluate its impact on the primary outcome of systolic blood pressure and a number of secondary outcomes

Study Design

The SINEMA study is a cluster randomized trial designed to improve essential evidence-based care to stroke survivors in rural China through equipping village doctors and family caregivers with training and digital health technology. With a plan to involve village doctors, more than 1,250 stroke patients and family caregivers, the study will be conducted in 50 villages in Nanhe county of Hebei Province, an area within the "stroke belt" in China.

Impact

- The impact of SINEMA Trial is expected to reverberate throughout the patient population, healthcare system, industry and government.
- This study has the potential to extend its influence beyond China, and to other low- and middle-income countries searching for effective and low-cost population solutions to the burden of non-communicable disease.

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