

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



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## 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 programs are largely unavailable and where present are far below evidence-based standard.

## Study Focus

Stroke, secondary prevention, mhealth

## Status

Active

## Location

Nanhe county, Hebei Province, China

## Duration

April 1, 2016 – March 31, 2019

## Milestone

- 05/03/2016: Contextual research
- 12/20/2016: Pilot study
- 05/23/2017: Main trial
- 06/30/2018: 12-month follow-up survey

## Principal Investigator

Dr. Lijing L. Yan, Duke Global Health Institute, Duke University and Global Health Research Center, Duke Kunshan University

## Investigators (listed alphabetically)

- Dr. Janet Bettger, Associate professor at Duke University
- Dr. Elizabeth Turner, Assistant professor at Duke University
- Dr. Shenglan Tang, Professor at Duke University and Duke Kunshan University.
- Dr. Ninghua Wang, Director of Department of Physical Medicine and Rehabilitation, Peking University First Hospital
- Dr. Yilong Wang, Beijing Tiantan Hospital

## Funders

Medical Research Council, UK  
Economic and Social Research Council, UK  
Department for International Development, UK  
Wellcome Trust, UK

## Study Overview

- The aim of the study is to improve essential evidence-based care to stroke survivors in rural China through strengthening the capacity of village doctors on delivering services, promoting medication adherence and physical activity among stroke patients.
- The SINEMA model, cognizant of health system's organization around tertiary, secondary, and primary levels in China, adopts the principles of cascade training with feedback and task-sharing, and relies on existing human resources available at the community level. It also proposes the use of innovative mobile technology as tools (in the form of an Android-based SINEMA application for VDs and cellphone voice messages for patients).
- Fifty villages from five townships with about 25 patients per village are randomized in a 1:1 ratio to either the intervention group or control group (usual care). The enrollment of participants began on June 20, 2016. This intervention will continue for one year.

## Main Collaborators

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



## 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.

