## Training of General Radiologists to Detect Silent Cerebral Infarcts in Low-Middle Income Settings

Michael DeBaun<sup>1</sup>, Mustapha S. Hikima<sup>2</sup>, Mohammed K. Saleh<sup>3</sup>, Mohammad A. Suwaid<sup>3</sup>, Djamila L. Ghafuri<sup>4</sup>, Ibrahim M. Idris<sup>2</sup>, Mark Rodeghier<sup>5</sup>, Lori Jordan<sup>1</sup>, and Robert McKinstry<sup>6</sup>

July 21, 2023

## Abstract

The probability of silent cerebral infarcts (SCIs) is high among individuals with sickle cell anemia (SCA). The American Society of Hematology's (ASH) guidelines recommend at least one non-sedated magnetic resonance image (MRI) in the SCA population. Implementing ASH guidelines in low-middle-income settings requires training non-neuroradiologists. We hypothesize that three general radiologists located in Nigeria will achieve a high level of agreement when assessed against a reference set of brain MRIs previously adjudicated for the presence of SCIs. Consensus evaluation utilizing MRIs from the axial and coronal planes by the radiologists revealed an excellent or substantial agreement with reference MRI scans. Thus, radiologists can detect SCIs comparable with board-certified radiologists.

## Hosted file

SCI MRI Training Manuscript.docx available at https://authorea.com/users/303698/articles/655946-training-of-general-radiologists-to-detect-silent-cerebral-infarcts-in-low-middle-income-settings

<sup>&</sup>lt;sup>1</sup>Vanderbilt Department of Pediatrics

<sup>&</sup>lt;sup>2</sup>Aminu Kano Teaching Hospital

<sup>&</sup>lt;sup>3</sup>Bayero University

<sup>&</sup>lt;sup>4</sup>Vanderbilt University Medical Center

<sup>&</sup>lt;sup>5</sup>Rodeghier Consultants

<sup>&</sup>lt;sup>6</sup>Washington University in St Louis School of Medicine Mallinckrodt Institute of Radiology