



**Evaluating use of digoxin in patients with rheumatic heart disease** – August 2022



The George Institute  
for Global Health India

**Facts:**

- There are over 33 million patients living with RHD globally, contributing to 319,000 deaths each year.
- With approximately 13 million patients, India has the largest number of people living with RHD in the world.
- Currently only one-third of RHD patients (with and without AF) are receiving digoxin treatment in India.

**Project Cycle:**  
2021– 2025

**Partners:**  
All India Institute of Medical Sciences at New Delhi, India

**Supporters:**  
Indian Council of Medical Research

**Principal Investigators**  
Prof G Karthikeyan, All India Institute of Medical Science, New Delhi

Study investigators Dr Niveditha Devasenapathy, Dr Arpita Ghosh, Prof Vivekanand Jha

**Background:**

- Digoxin is widely used in the medical management of patients with rheumatic heart disease (RHD) for rate control in those with Atrial Fibrillation (AF), and for treatment of heart failure (HF).
- Observational data from older patients with non-valvular AF suggest higher risk of mortality among those who received digoxin. However, patients with RHD are younger, without associated comorbidity, and it is unclear if digoxin will have similar adverse effects in these patients.

**Aims:**

- To determine whether the use of digoxin in symptomatic patients with RHD affects mortality, incidence of new-onset or worsening heart failure, and Quality of Life (QoL).

**Methods:**

- This is a 1:1 randomised, multi-centre, placebo-controlled, parallel-group, superiority trial.
- 1,800 adult RHD patients with HF/AF will be enrolled in the study over a period of 18 months from at least 10 public referral hospitals and followed up for an average of 24 months. Vital status, new onset, or worsening HF and QoL will be recorded.

**Impact:**

- Quantifying the relative benefits (in terms of reduction in worsening HF) and harm (potential increase in mortality) is important as there is a lack of studies documenting digoxin's utility in this population.
- The results of this trial can be easily implemented among the population of patients who receive digoxin in clinical practice to improve health outcomes.

**Contact:**

To find out more about this project and its principal investigators or The George Institute please contact contact Abhishek Shandilya +91 11 4158 8091-93 or AShandilya@georgeinstitute.org.in

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