



MAY 19, 2023

## 🌐 Prospective Hospital-based patient survey

📁 In 1 collection

Kajiru Gad Stefanie J. Clive  
Kilonzo<sup>1</sup>, Krauth<sup>2</sup>, Jo Halliday<sup>2</sup>, Kelly<sup>3</sup>,  
Stefan Siebert<sup>2</sup>, Gloria Temu<sup>1</sup>, Christopher Bunn<sup>2</sup>,  
Nateiya M Sally  
Yongolo<sup>4</sup>, Wyke<sup>2</sup>, Emma McIntosh<sup>2</sup>,  
Blandina Mmbaga<sup>1</sup>

<sup>1</sup>Kilimanjaro Christian Medical Centre; <sup>2</sup>University of Glasgow;  
<sup>3</sup>Newcastle University; <sup>4</sup>Kilimanjaro Clinical Research Institute

OPEN  ACCESS

**DOI:**  
[dx.doi.org/10.17504/protocols.io.261ge3m5yl47/v1](https://dx.doi.org/10.17504/protocols.io.261ge3m5yl47/v1)



Yujin Du

### ABSTRACT

This protocol details prospective hospital-based patient survey.

### ATTACHMENTS

[706-1522.pdf](#)

**Protocol Citation:** Kajiru Gad Kilonzo, Stefanie J. Krauth, Jo Halliday, Clive Kelly, Stefan Siebert, Gloria Temu, Christopher Bunn, Nateiya M Yongolo, Sally Wyke, Emma McIntosh, Blandina Mmbaga 2023. Prospective Hospital-based patient survey. **protocols.io** <https://dx.doi.org/10.17504/protocols.io.261ge3m5yl47/v1>

**License:** This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**Protocol status:** Working

**Created:** Apr 20, 2023

**Last Modified:** May 19, 2023

**PROTOCOL integer ID:**  
80830

## Prospective Hospital-based patient survey

- 1 The aim of the prospective patient survey is to estimate the burden of musculoskeletal disorders including arthritis and other associated conditions at KCMC. In addition, the prospective study will help identify patients for selection for the qualitative component of the study on the impact of arthritis.
- 2 A pilot study of patients presenting with joint pain at KCMC revealed a joint pain prevalence among hospital patients between 7% and 13% and demonstrated that trained personnel could screen around 12-13 patients per weekday. Using a prevalence rate of 7-13% and an expected number of 60-65 patients that can be screened each week, a sample size of 260 patients is expected to be screened per month among which 18-36 patients are expected to have joint pain.
- 3 Data will be gathered on both outpatients and patients admitted to the medical, and paediatric wards at KCMC. Immediately following initial clinical triage in the outpatients' department, a trained research assistant will use a checklist to screen consenting patients to confirm presence of joint pain and history of trauma (to exclude joint pain with a traumatic history).
- 4 Eligible patients will then be directed to a study nurse/doctor (at an 'arthritis desk' which will be set up) for formal consent and data collection according to the tiered approach outlined in Table 2 (Summary of the Hospital research).

**Table 2: Summary of the Hospital research**

A	B
<b>Medical records audit</b>	
Setting:	KCMC hospital
Participants:	Patients (adult) at KCMC (records only)
Research methods:	Retrospective patient records audit
Instrument:	Retrospective hospital survey tool (Appendix 3)
<b>Prospective study:</b>	
Setting:	KCMC hospital
Participants:	Patients admitted to the medical and paediatric ward at KCM hospital
	Patients attending outpatient and orthopaedic clinics at KCMC
Research methods:	Questionnaire survey
	Physical examinations
<b>Instruments:</b>	<b>Tier 1: General (all participants):</b>

A	B
(tiered according to GALS)	GALS (Swahili version)
*denotes instruments applied to participants below 18 years of age	pGALS (Swahili version)*
	WHO DAS (Swahili version)
	EQ5D (Swahili version)
	Long Health Economics*
	CHU 9D (Swahili version)*
	(A copy of these tools compiled into a single survey document can be requested from the authors.)
	<b>Tier 2: pGALS/GALS+ participants:</b>
	HAQ (Swahili version)*
	REMS
	pREMS*
	66/68 swollen/tender joint count*
	<b>Tier 3: REMS+pREMS+ participants:</b>
	Blood testing
	Ultrasound
<b>Hospital-based qualitative research:</b>	
Setting:	
Participants:	KCMC hospital
	Outpatients and patients admitted to the medical and paediatric wards at KCMC hospital
	Health care providers at KCMC hospital
	Health care providers at Mawenzi regional hospital
Research methods:	Health care providers at Hai district hospital
	Focus group discussions and interviews (patients)
	Focus group discussions and interviews (health care providers)

\*A copy of all tools compiled into a single survey document can be requested from the authors.

- For inpatients, all admissions during the study period will be screened and exclusion criteria applied (e.g. excluding patients who are unable to participate due to severity of illness), prospective study participants would then be approached for consent and data collection would

proceed likewise according to the tiered approach.

- 6** Researchers will firstly provide eligible patients with a Participant Information Sheet (PIS), explain the study orally and invite the patient to participate in the study. Written informed consent will be asked of all those willing to participate in the study as described in the 'consent' section below.
- 7** In addition to the standard clinical questions, participants will also be asked locally relevant questions. For example, for the standard GALS questions, further questions such as 'can you squat' and 'can you put a basket on your head' will be asked to assess lower and upper limb function, respectively.
- 8** The relevance of these questions will be explored by Tanzanian clinicians. A picture of a manikin has been added for indicating the site(s) of any pain and an additional question on previous fractures to the standard GALS screening questions (see below) in the tiered approach. Similar questions will be used in the community survey to screen and identify patients as shown in level 1 screening approach.
- 9** Both the prospective hospital survey and the community survey will also collect data on other NCDs commonly found in association with inflammatory rheumatic musculoskeletal disorders (RMDs), as these comorbidities often contribute negatively to the outcomes and impact of RMDs.
- 10** Specifically, data on the presence of cardiovascular disease (CVD), hypertension, diabetes mellitus and chronic kidney disease (CKD) will be collected for all patients included in the surveys. These data will be linked to the presence of MSK disorder as gout and RA are associated with increased risks of CVD, hypertension and CKD.
- 11** In addition, the treatment histories received specifically with regards to steroids and Non-Steroidal Anti-inflammatory Drugs (NSAIDS) will be recorded where relevant as these agents can be related to the later development of diabetes, hypertension and CKD.
- 12** These data will be obtained by extraction from the clinical records and augmented by patient reporting. Study data will be recorded using a unique participant identification number (PIN) provided for each participant, making the information pseudonymous.
- 13** The signs and symptoms of each participant will be recorded using a computer tablet-based questionnaire and employing a manikin to facilitate identification of pain location utilising Open Data Kit (ODK) software.(32)

- 14** The results from the hospital-based survey will be compared to existing data using identical techniques/instruments to a UK-based inpatient population.(33) Available data from the paediatric sample (participants aged 5-17) will also be compared with data that already exist from Malawi.(28)