Standard Operating Procedures for the LAKANA trial
SOP Subvisit-04.: Conducting Rainy Season Mechanistic Sub-study Visit 04
Version 1.0 (2023-07-05)

1. Purpose and overview:

This SOP[1] gives step-by-step instructions on how to conduct the rainy season sub-study visit 04 (MDA#4S[2]) for the mechanistic sub-study outcome measures of LAKANA in selected sub-study villages in Kati area.

This SOP refers to SOPs Visit 01, Visit 02, Prep-02, Pharm-01, Proc-03, Proc-07, Proc-08, Proc-09, Safety-01, and Data Collection Form (DCF) DCF01 (e, f), DCF02, DCF02a, DCF02b, DCF03, DCF06, DCF08, DCF09, and DCF13.

2. Applicability to and responsibilities of various staff members

Staff member	Responsibility
District Supervisor	- Plans the date of entry to the village together with the study coordinator. - Prepares study drugs and data collector's material and sends them from Bamako to Kita.
Lab technician in Bamako	- Prepares the QuickRead go instrument and required material (CRP and Hb measurement material and dry blood spot collection material) to be dispatched from Bamako to Kita. - Handles and stores samples in Kita/Bamako lab.
Field Supervisor	- Communicates with the village chief and agrees on date of entry and equipment rental. - Works together with the nurse to transport material from Kita to the villages and Bamako. - Packs the data collectors' rucksacks. - Makes sure all required material for visits MDA4 (v1 and v2) are in Kita one week before the entry into the village. - Manages disposal of study waste with study nurse.
Study nurse	- Packs sample collection equipment and material in Kita and arranges transport to the village. - Coordinates the setting up of the pop-up study facility in the village. - Completes biological sample collection form DCF13, and DCF02b in tablet computer or in paper form DCF13b (Appendix 1) and DCF02b (Appendix 3). - Completes sample logbook (Appendix 2).

[1] Abbreviations: SOP = standard operating procedure, DCF = data collection form, AMR = antimicrobial resistance, CSCom = Centre de Santé Communautaire, LAKANA = Large-scale assessment of the key health-promoting activities of two new mass drug administration regimens with azithromycin, MDA = mass drug administration.
[2] MDA #4S indicates MDA round 4 for villages included in the Sub-study.

Staff member	Responsibility
	- Collects biological samples from 4-11 mo. infants. - Provides study drug to 4-11 mo. infants after sample collection. - Ensures samples are correctly labelled, transported to and deposited in Kita lab. - Disposes of study waste.
Data collector	- Finds the compound and households and requests permission to proceed and perform the activities. - Operates tablet computer - completes DCF01 (e, f), DCF02, DCF02a, DCF03, DCF06, DCF08, DCF09 - Gives the drug doses to 1-3 mo. infants in the household. - Measures 4-11 mo. infants, calculates dosage and writes it on the color card. - Provides the color cards for infants according to age. - Completes adverse events form DCF09 (for 4-11 mo. infants) at second visit in the village.
Relais	- Helps in finding the compounds and households. - Assists the data collector in study drug administration. - Finds, guides, and accompanies 4-10 mo. infants and caregivers to the pop-up facility if they are absent at the time of sample collection.
Driver/messenger	- Transports the nurse and sample collection material between Kita and the village. - Assists the nurse in setting up the pop-up facility. - Safely transports the samples from the village to the Kita/Bamako lab.

3. Required materials

Item	Number	Specification
Identification Sticker for **1-11** mo. old infants	2 identical stickers per child	2 identical stickers (with QR code/ID): • One sticker to be affixed on **child health card.** • Second sticker to be affixed on the data collector's paper register.
LAKANA card - **YELLOW**	*As required*	Card for **4-5** mo. old infants.
LAKANA card – **BLUE**	*As required*	Card for **6-8** mo. old infants.
LAKANA card - **GREEN**	*As required*	Card for **9-11** mo. old infants.

Item	Number	Specification
Tent	1	A pop-up medical tent to be set up in the village.
Table	1	Rent from village.
Chairs	3	Rent from village.
Clinical waste bin	1	To be kept at the pop-up facility.
Nurse's Tablet computer	2	The following questionnaire will be loaded if in village: DCF02b, DCF13, DCF09.
DCF13b, hard copy Appendix 1	*As required*	The paper version DCF13b needs to be filled by study nurse for sample collection if Tablet computer or electronical DCF13 are not functional.
Sample logbook, hard copy Appendix 2a	*As required*	The study nurse ALWAYS fill the sample logbook for each sample collected.
DCF02b, hard copy Appendix 3	*As required*	The paper version DCF02b needs to be filled by study nurse after sample collection if Tablet computer or electronical DCF02b are not functional.
DCF09, hard copy Appendix 4	*As required*	The paper version DCF09 needs to be filled by study nurse after sample collection if Tablet computer or electronical DCF09 are not functional.
Disposable gloves	2 pairs/participant *Number required to meet the daily target*	For cleaning the skin before and after the blood prick tests (CRP+Hb and dry blood spot on filter paper)
Alcohol wipes	2 wipe/participant *Number required to meet the daily target*	For cleaning the skin before and after the blood prick tests (CRP+Hb and dry blood spot on filter paper)
Adhesive bandage/plaster	*1/participant*	Adhesive bandage 19x72 mm
QuikRead go® instrument	1	For measuring CRP+Hb
Extra battery	1	For QuikRead go® instrument
QuikRead go® wrCRP+Hb reagent kit box	*Number required to meet the daily target*	For measuring CRP and Hb. 1 kit includes 50 tests with capillaries (10 µl) and plungers. Storage of unopened kit at 2-25°C until the expiry date of the kit. Unopened cuvettes after opening the foil

Item	Number	Specification
		pouch: storage at 2-8°C for 6 months, storage at 18-25°C for 3 months.
QuikRead go® wrCRP control	1	Unopened vials at 2-8°C until the expiry date. Opened vial at 2-8°C up to two months.
QuikRead go® Hb control	1	Unopened vials at 2-8°C until the expiry date. Opened vial at 2-8°C up to one months.
Dry blood spot card	*Number required to meet the daily target*	For collecting dry blood spot and later malaria PCR analyses. PerkinElmer PKI RUO Spot Saver Card
Dry Rak	*Number required to meet the daily target*	Whatman 903 DRY RAK with Velcro, safely and properly air-drying multiple collected DBS specimen cards in a suspended horizontal position.
Indicating desiccant packet	2 desiccant/zip lock bag *Number required to meet the daily target*	QIAGEN WB100003, 1 g, to keep the DBS card dry in the bag during transport/storage. Desiccant change from blue to pink to indicate absorption of moisture.
Plastic zip lock bag	1/DBS card	To pack DBS card for transport.
Extra bag of DBS cards	1 bag/village	Extra bag of DBS cards – one bag of DBS cards (20pcs) for DBS specimen collection
Extra bag of desiccant	1 bag/village	Extra bag of desiccants – one bag of desiccants (20pcs) for DBS specimen collection
Min/max-temperature monitors	1/cooler box	For determining whether temperature excursion occurred and for how long (e.g. as MyM Instruments Tecnico Product Number HTC-2 or Fisher Scientific™ Traceable Thermometer 14-648-26)
Paper towel	1 towel/participant *Number required to meet the daily target*	For cleaning surfaces
Biohazard waste bag	2/village/day	For sample collection and cleaning waste
70% ethanol	2 bottles	500 ml
Surgical mask/ N-95 mask	*Number required to meet the daily target*	

Item	Number	Specification
Goggles or face shield	1/nurse	For nurse in close contact with patients
Refrigerator	1	To store and maintain transport media at appropriate temperature (2-8°C) and prepare/store ice packs to be used for maintaining cooler boxes.
Lancets for heel prick blood collection	1/participant	For making the skin incision for blood collection (DBS and CRP + Hb).
Weighing paper	*Number required to meet the daily target*	To have between DBS.
Refrigerator	*1*	To store and maintain transport media at appropriate temperature (2-8°C) and prepare/store ice packs to be used for maintaining cooler boxes.
Cooler box	*2*	Electric cooler box (12V)

4. Definitions and general instructions

4.1 Definitions

4.1.1. District supervisor: a LAKANA staff member coordinating trial activities at the district level. The district supervisor reports primarily to the study coordinator and is stationed in the district office.

4.1.2. Field supervisor: a LAKANA staff member responsible for coordinating data collection teams' activities. She/he is under the supervision of the District supervisor.

4.1.3. Lab technician: a LAKANA staff member based in Bamako or Kita (Bamako or Kita lab), and responsible for preparing sample collection material for study nurse and handling specimens brought from villages.

4.1.4. Study nurse: a LAKANA staff member responsible for AMR and mechanistic sub-study sample collection. The study nurse has to be the same person in all activities.

4.1.5. Data collector: a LAKANA staff member collecting data at the compound, household, and individual level. The data collector has to be the same person in all activities.

4.1.6. Relais Communautaire: a volunteer chosen by the community who serves as a bridge between professional health staff and the villagers.

4.1.7. Eligible infant: an infant aged between 1 and 11 months (age 29-364 days) and weighing at least 3.0 kilograms at the time of study drug provision, and for whom there is no record of allergy to macrolides.

4.1.8. Eligible child for the mechanistic sub-study: a child aged 4-11 mo. living in a household that consented to participate in the LAKANA trial. Consent for participation in the Sub-study will be requested from the head of each household.

4.1.9. Caregiver: a person responsible for looking after a child. The caregiver is responsible for providing permission for study drug administration to eligible infants.

4.1.10. Driver: a hired person that drives the sample collection materials, samples, and nurse between Kita and the village, and assists the nurse in setting up the pop-up facility.

4.1.11. Pop-up facility: refers to a temporary clinical facility (a village central place or a tent equipped with appropriate sample collection material) that the LAKANA team will set up in a village for sample collection purposes.

4.2. General instructions

4.2.1. This sub-study visits 4 include two visits:

4.2.1.1. Visit s4-v1 (sub-study visit 4 – village visit 1):

All mechanistic study eligible infants will be identified and accompanied to the pop-up facility and biological samples will be collected.

All main study eligible infants will be treated with study drug. Mechanistic study eligible infants will be treated in the pop-up facility and heel prick blood (for CRP+Hb measurements and DBS) will be collected from the 4-11 mo. infants before giving the study drug.

4.2.1.2. Visit s4-v2 (sub-study visit 4 – village visit 2):

Happens 2 weeks after visit s4-v1 in the village.

The **SAME** infants who were aged 4-11 mo. 2 weeks prior, will be identified and accompanied to the pop-up facility and samples (the same as collected 2 weeks prior) will be collected again.

The locations, timing, and samples collected are described in a figure in Appendix 5.

4.2.2. For visits s4-v1 and s4-v2 there will be four main processes: 1) Preparatory activities, 2) Data collectors visit to a household, 3) Biological samples collection in a central site in the village, and 4) Post-village activities. The activities for each process are illustrated in Figure 1. and Figure 2. below. The step-by-step actions are elaborated in section 5.

Figure 1. Flow chart of visit s4-v1

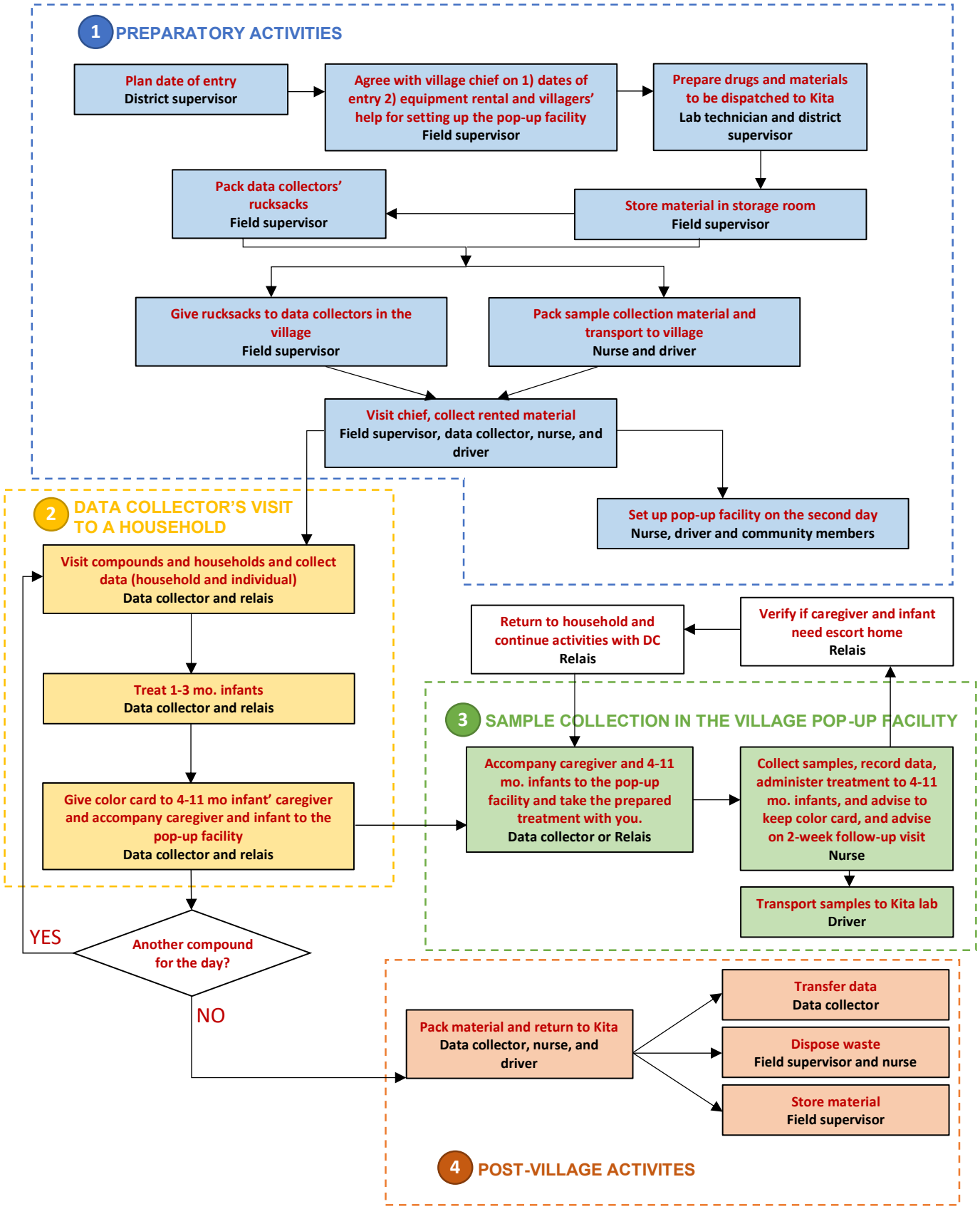
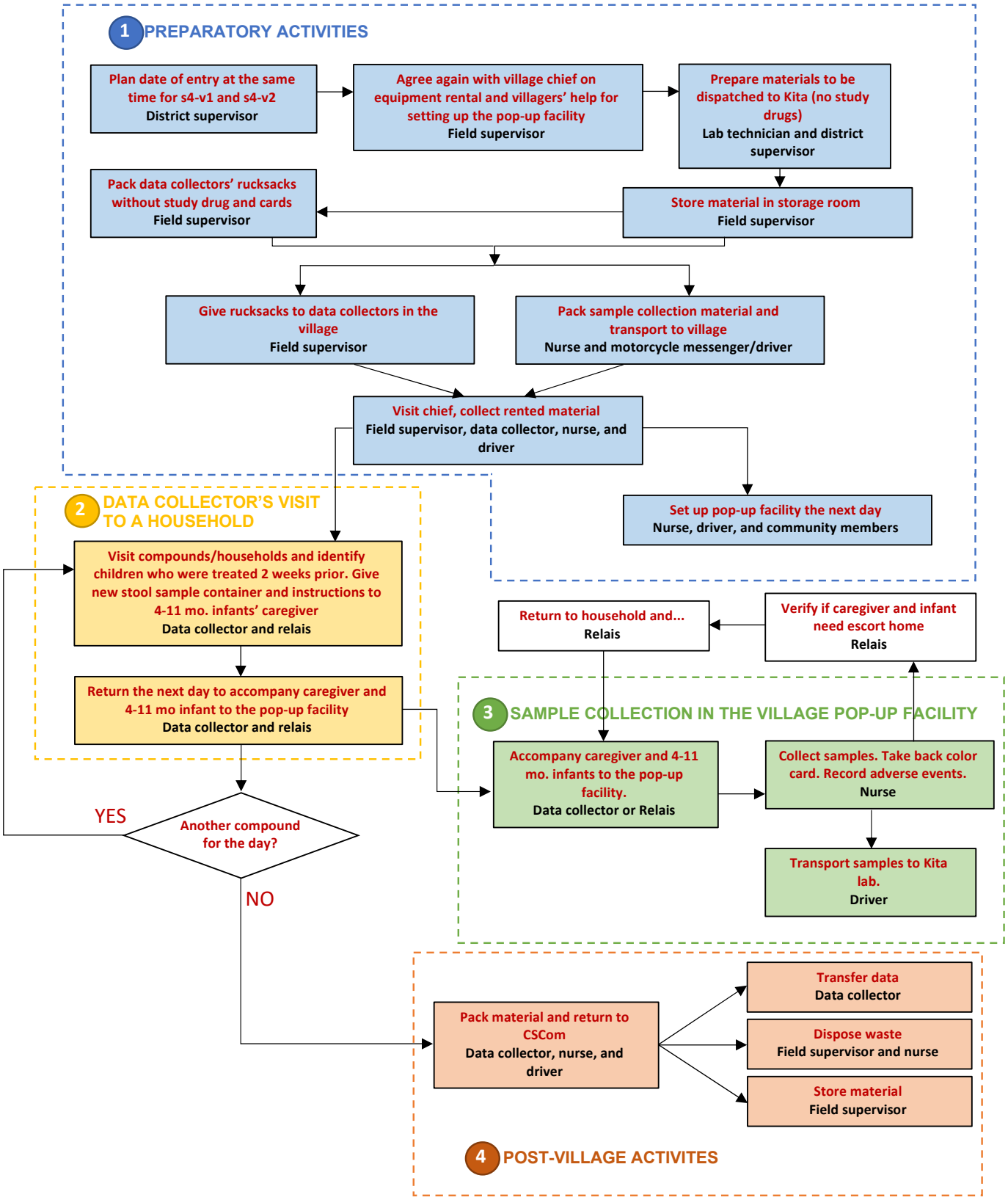


Figure 2. Flow chart of visit s4-v2



5. Step-by-step procedures

5.1. Visit s4-v1 (sub-study visit MDA4 – village visit 1) (see also Appendix 5)

5.1.1. Plan date of entry (District supervisor):

5.1.1.2. The district supervisor will review and edit the individual village dates of entry if needed (*Refer to SOP Prep-02)*. He will confirm the dates to the field supervisor. The date of the follow-up visit (in 2 weeks) will be agreed upon as well.

5.1.2. Agree with village chief (Field supervisor):

5.1.2.1. Prior to entry in a village (~1 week), the field supervisor will agree with the chief of the village on the dates of entry. At this occasion, the field supervisor will discuss (for both visits) the rental of some material (1 table + 3 chairs) and help from the community to set-up a pop-up facility for sample collection in the village.

5.1.2.2. The field supervisor will explain the purpose of the mechanistic sub-study 4 visits and that the visit will be repeated for sample collection 2 weeks after the initial visit. The samples collected will be explained to prevent rumors.

5.1.3. Prepare material for Kita (Lab technician and district supervisor):

5.1.3.1 At the Bamako lab (~1 week prior to date of entry in village), the lab team will prepare the QuikRead Go® instrument including one battery, extra battery, wrCRP+Hb reagent kit box, CRP and Hb controls and other the sample collection material for measuring CRP+Hb and DBS to be dispatched to the Kita district office. Packing of material is described in *SOP Proc-07*.

5.1.3.2. Trial drugs are stored in Kita. The district supervisor, in consultation with the drug manager, will pack the drugs (making sure the right study drug for each village is selected) to be transported to the village. *Refer to SOP Pharm-01 for details on drug management.*

5.1.4. Transport material from Kita to village (Nurse and field supervisor):

5.1.4.1. The day before entry in a village, the nurse and field supervisor will pack the material prepared and arrange the transportation to the village. The quantity of study drugs to be picked up will estimated by the field supervisor. During transportation, the QuikRead Go® reagent kit box and CRP and Hb controls will be kept at 2-8°C.

5.1.4.2. The nurse and field supervisor will store the material in the LAKANA storage room in Kita. The storage room is equipped with a refrigerator where the nurse will store the QuikRead Go® reagent kit box and CRP and Hb controls at 2-8°C.

i. The drugs will be kept in the storage room for a week or less therefore there will be no need for cold chain. The storage room will be however equipped with a thermometer to signal very important rise of temperature (refer to SOP Pharm 01).

ii. When going to the village, the nurse will keep the QuikRead Go® reagent kit box and CRP and Hb controls at 2-8°C in the electric cooler box.

5.1.4.3. The field supervisor will contact the data collectors assigned to the village and set an appointment in the village on the morning of the date of entry in the village.

5.1.5. Entry in a village:

5.1.5.1.On the morning of the date of entry in a village, the field supervisor will prepare the data collector rucksacks *(Refer to SOP Visit-01 for details)*. The study nurse will pack the sample collection material needed for the day.

5.1.5.2. The whole team will move together to the village. The data collector has his/her own vehicle and a LAKANA driver will transport the nurse, the field supervisor, and the sample collection material.

5.1.5.3. The field supervisor will visit the data and sample collection team to provide technical support and to distribute the data collector rucksacks.

5.1.5.4. Upon arrival in a village and only on the first day, the LAKANA team will visit and greet the chief of the village. With the instructions from the chief, they will find the village central place for setting up the pop-up facility **on the first day of the visit.** The rented materials (1 table and 3 chairs) will be provided. The LAKANA team will request assistance in setting up the pop-up facility.

5.1.5.5. The data collector accompanied by two Relais will start visiting compounds/households.

5.1.5.6. The nurse, the driver and the community members will set-up the pop-up facility on the first day and the subsequent days.

5.1.6. Data collection in household, identification of sub-study eligible infants, and treatment of 1-3 mo. old infants (Data collector):

5.1.6.1. The data collector will follow the procedure described in *SOP-Visit 02* section 5.2. for conducting subsequent household visit with some exceptions:

i. An additional form DCF08 will be filled for 4-14 mo. children.

ii. For 4-11 mo. old infants in the treatment form the data collector will select the answer “Study Nurse” to the question “Who is planned to give medication”.

5.1.6.2. Consent for participation in Sub-study: The data collector will seek consent to participate in the sub-study from the head of the household.

5.1.6.3. LAKANA cards: The data collector will issue colored LAKANA cards to children eligible for the Sub-study. **These cards will not be returned after visit s4-v1. They will be returned only after s4-v2.** In the household, the data collector will give:

Yellow card to **4-5** mo. old infants for whom there is a consent to participate in Sub-study.

Blue card to **6-8** mo. old infants for whom there is a consent to participate in Sub-study.

Green card to **9-11** mo. old infants for whom there is a consent to participate in Sub-study.

5.1.6.4. ID stickers: For **1-11 mo**. old infants, the procedure for issuing ID stickers is the same as in the main study i.e., for each 1-11 mo. old infant the data collector will affix an ID sticker on the **child health card** *(See SOP Visit 01, Appendix 5)* or the vaccination card. The data collector will instruct the caregiver with **4-11 mo.** old infants to bring **BOTH** the child health card (that has the sticker) and the LAKANA colored card when visiting the pop-up health facility for sample collection. The color card will be given to the head of the household for safekeeping.

5.1.6.5. Treatment:

i. The data collector will prepare and administer the study drug **ONLY** to eligible **1-3 mo. old infants** for whom there is a caregiver consent for treatment. *Refer to SOP-Proc 1 for procedure on study drug Administration*.

ii. For **4-11 mo. old infants**, if consent for treatment is given, the data collector will weigh and complete information on form DCF02. Completing the form will allow to determine study drug dose to be prepared for the infants by the nurse later that day. The data collector will **NOT prepare the study drug** for this age group. The data collector will write the dose on the color card.

iii. The data collector will record all the 4-11 mo. infants who are eligible for the mechanistic sub-study on the registry book, keep the list and make sure to find the same infant when they come back for the second visit after 14 days.

5.1.6.6. The data collector or relais will accompany the 4-11 mo. infants and their caregiver to the pop-up facility.

5.1.6.7. The data collector will continue with his activities in the households/compound (repeat step 5.1.6).

5.1.7. Data and sample collection at pop-up health facility and treatment of 4-11 mo. old infant (Nurse):

5.1.7.1. Every time a data collector will arrive at the pop-up facility with an eligible child for sample collection:

The nurse will open a new record (DCF13) on his/her tablet and start entering ID data. If the child age is between 4-11 mo., the ID will be found on the health card and scanned into tablet or manually entered if scanning is not working.

5.1.7.2. Based on the LAKANA colored card the child has, the nurse will select the corresponding age group on the tablet. By doing so, the data collection system will indicate the required samples to collect. The nurse will explain the sample collection procedures and give instructions to the caregiver.

5.1.7.3. The nurse will collect the CRP+Hb and DBS blood samples *(refer to Proc-8 on how to measure CRP+Hb and collect DBS and stool sample)* and record information on the tablet or DCF13b manually if tablet is not working.

i. The nurse will ensure the specimen storage in the appropriate temperature and condition in the cooler box. S/he will ensure that samples are correctly recorded and connected to the child ID – scan the barcodes to the tablet. Collect DBS sample, scan the barcode on the card/or manually enter to the tablet. Measure blood CRP+Hb and record the results into the tablet.

5.1.7.4. After samples are collected and information entered in DCF13b, the **nurse will give back the color card to the caregiver** and advise the caregiver to not lose it, give it to the head of the household for safekeeping, and have it ready in two weeks.

5.1.7.5. The nurse will treat the eligible **4-11** mo. old infant with the dose written on the color card by the data collector and record information on the treatment form (DCF02b, Appendix 3).

The nurse will find ID information on the child health card and based on the date of birth on the health card, s/he can double check if the child is eligible (age criteria) for receiving study drug.

5.1.7.6. The nurse will advise the caregiver that in case the infant vomits within approximately 15 minutes, s/he should alert the LAKANA team so that the infant can be re-treated by the data collector. The nurse will also instruct the caregiver to seek the help of a health professional/visit a health facility if the child gets any major symptoms in the next 14 days.

i. The nurse will specify to the caregiver that if the vomiting happens later than 15 minutes after drug administration, there is no need to alert the team.

ii. If vomiting happens at the pop-up facility, the nurse will be the one notifying the data collector.

5.1.7.6. If the data collector becomes aware that an infant has vomited soon after the study drug ingestion (within approximately 15 minutes), he will give a new, similar-size dose to the infant in question and complete form DCF02a.

5.1.8. Sample transportation to Kita lab (Driver):

5.1.8.1. The nurse will coordinate with the driver the safe sample transportation to the Kita laboratory in appropriate time. The DBS samples have to stay dry.

5.1.9. Closing of the day:

5.1.9.1. After having reached the number of households/infants planned for the day, the LAKANA team will pack all the study material and return to Kita.

5.1.9.2. The data collector will transmit the data to the server.

5.1.9.3. The field supervisor and nurse will manage clinical waste and remaining drugs (*see SOP Pharm-01*). The nurse will put the remaining unused sample material at 2-8°C in the refrigerator.

5.1.9.4. The field supervisor will charge the tablet computers and ask nurses and data collectors to sync the tablet computers. The nurse will charge the QuikRead go® instrument.

5.1.9.5. The field supervisor will report to the district supervisor on the study progress and on any issues that need to be addressed.

5.2. Visit s4-v2 (sub-study visit 4 – village visit 2)

5.2.1. Date of entry and study personnel (District supervisor):

5.2.1.1. The date of entry was planned in beforehand and was informed to the staff.

5.2.1.2. If possible, the nurse and data collector(s) will be the same persons as in visit s4-v1.

5.2.2. Agree with village chief (Field supervisor): the follow-up visit date was agreed with the village chief earlier, but the field supervisor will be in contact with the chief (~1 week) prior to the follow-up visit and assure that the material can still be rented, and that the community can help with setting up the pop-up facility.

5.2.3. Preparing material (Lab technician and district supervisor):

5.2.3.1. For the follow-up visit s4-v2, prior to entry in a village (~1 week), the field supervisor will check that all required materials are in Kita (the same material as in section 5.1.3, but without study drugs).

5.2.3.2. If some material is missing in Kita, the field supervisor will inform Bamako lab. Bamako lab will then prepare the sample collection material and send to Kita district office (similar to visit s4-v1).

5.2.4. Transport material from Kita to the village and store (Nurse and field supervisor):

5.2.4.1. The day before entry in a village, the nurse and field supervisor will pack the material prepared and arrange the transportation to the village.

5.2.4.2. No study drug will be picked up for this visit. During transportation, the QuikRead Go® reagent kit box and CRP and Hb controls will be kept at 2-8°C.

5.2.4.3. The nurse and field supervisor will store the material in the designated storage room in Kita. The storage room is equipped with a refrigerator where the nurse will store the QuikRead Go® reagent kit box and CRP and Hb controls at 2-8°C.

When going to the village, the nurse will keep the QuikRead Go® reagent kit box and CRP and Hb controls at 2-8°C in the electric cooler box.

5.2.4.4. The field supervisor will contact the data collectors assigned to the village and set an appointment at the village on the morning of the date of entry in the village.

5.2.5. Entry in a village actions are identical to the first visit (see section 5.1.5)

5.2.6. Household entry and identification of sub-study enrolled children (Data collector):

5.2.6.1. The data collectors will check the list of households with 4-11 mo. infants and enter the households as is described in *SOP-Visit 02* but will **NOT initiate data collection** as per usual. They will only identify the infants aged 4-11 months.

5.2.6.2. The data collectors will open the adverse events form (DCF 09, Appendix 4) to collect the incidence of adverse events (AE) within 14 days of study drug administration from the caregivers with the infants who has received the drug in the first visit.

5.2.6.3. Whether or not the infant was treated 2 weeks prior (a LAKANA color card was given to the caregiver) determines whether or not samples will be taken, not the age of the child during the follow-up visit (s4-v2). ID stickers from the initial visit (s4-v1) will be used (ID sticker either in the LAKANA card or in the child health card).

5.2.6.4. Identical to section 5.1.6.6 and 5.1.6.7.

5.2.7. Data and sample collection at pop-up facility (Nurse):

5.2.7.1. This step will be identical to previous visit s4-v1 sections 5.1.7.1 to 5.1.7.3.

5.2.7.2. After samples are collected and information entered in DCF13b, the nurse will collect back the LAKANA color cards.

5.2.7.3. The nurse will enter required information in the adverse events form DCF09.

5.2.8. Sample transportation to Kita lab and closing the day will be identical to the first visit (sections 5.1.8 and 5.1.9).

6. Occupational Safety Issues

6.1. The study nurse will wear disposable gloves when handling a child. S/he will wash or sanitize hands before putting on and after removing gloves. S/he will start by collecting the CRP+Hb+DBS and change gloves if the gloves are very bloody before taking the stool sample. If stool sample is taken first for some reason, then hands will be sanitized, and gloves changed before taking blood sample. S/he will change gloves after each study participant.

6.2. All concerned study team members will handle all specimen with care and treat them as potentially infectious material. Appropriate specimen collection devices, containers, and transport media will be used to ensure optimal storage.

6.3. The study nurse will dispose of all contaminated waste (gloves, papers, tubes etc.) into biohazard waste bags for incineration or disposal.

6.4. During the COVID-19 pandemic, procedures for safe and proper work will be used to reduce the risk of exposure to a hazard and prevent transmission between the study team and the study participants. Special considerations due to COVID-19 are presented in *SOP-Safety 01*.

7. Quality Assurance / Quality Control

The study nurse who will collect specimen will undergo practical training for stool and blood sample collection. Study nurse will not be approved to collect the specimen until a supervising clinician has assessed their competency and signed off in the training log.

8. Appendices and other related documents

Document number (Version)	Document content
Appendix 1	Data Collection Form (DCF) 13b-mechanistic sub-study
Appendix 2	Sample logbook
Appendix 3	Data collection form 02b: Child Treatment at the health facility (Sub-study)
Appendix 4	Data collection form 09: Adverse events
Appendix 5	LAKANA sub-study visit flow chart for visit 4

9. Version history, authors and approvals

Version (date)	Edits to the SOP text (author)
1.0 (2023-07-05)	Rikhard Ihamuotila based on SOP_Subvisit-04-Conducting Mechanistic Sub-study Visit 04_v1.0_2022-03-15. The PSG approved the SOP.

Appendix 1: Data Collection Form (DCF) 13b-mechanistic sub-study

Version 0.1, April 11, 2021

Section Header	Question Text	Question Responses	Required
Form 13b — Biological Sample Collection-mechanistic sub-study	Instructions: Complete this form for targeted age group children.		
	Interviewer ID (study nurse ID)		Yes
	Child ID (child ID sticker)		Yes
A. VISIT INFORMATION	1. Date		Yes
	2. MDA round (Visit number)	4S-00 / 4S-14	Yes
	3. Sample collection place	Village central place/pop-up facility	
	4. Child age group	4-11 mo	Yes
B. SAMPLE COLLECTION	5. What samples collected?	Heel prick blood CRP | Heel prick blood Hb | Heel prick blood, blood spot | Stool	Yes
	6. Was a heel prick blood sample collected?	Yes | No	Yes
	6a. Record the result of CRP	CRP =	Yes
	6b. Record the result of Hb	Hb =	Yes
	7. How many blood spots were stored on filter paper card?	0 | 1 | 2	Yes
	7a. Identifier (barcode) of the filter paper card?		Yes
	8. Was a stool sample collected?	Yes | No	Yes
	8a. What time the whole stool sample was collected?		Yes
	8b. What date and time did the child pass the stool?		Yes
	8c. Identifier (barcode) of the stool sample		Yes

Appendix 2: Sample logbook

Study name: LAKANA-mechanistic sub-study MDA S4

Village name: _____

Study nurse (sample collector): _____

Date: _____

Date Month Year

Count Number	Participant ID	MDA number	Sample type	Sample ID (barcode No.)	Collection time	Temp. of cooler box	Name of Driver/Messenger	Name of lab recipient

Appendix 3: Data collection form 02b: Child Treatment at the health facility (Sub-study).

Version 1.0, 08 October 2020

Section Header	Num.	Question Text	Question Responses	Required
	[0]	Instructions: This form is to be completed by the study nurse at the pop-up health facility.		
Visit information	[1]	Date		Yes
Child information	[2]	Child ID		Yes
Study drug administration	[3]	Was the child given study medication?	1, Yes | 2, No, the child was sick |3, No, the child refused |4, No, the caregiver changed his / her mind | 5, No, there was no drug available | 6, No, other reason	Yes
	[4]	If other reason, explain		Yes (if [3], 6)
	[5]	Actual dose administered:	decimal	Yes (if [3], 1)
	[6]	Time dose administered (24-hour format):		Yes (if [3], 1)
General comments	[7]	Please record any general comments below:	text	

Appendix 4: Data collection form 09: Adverse Events

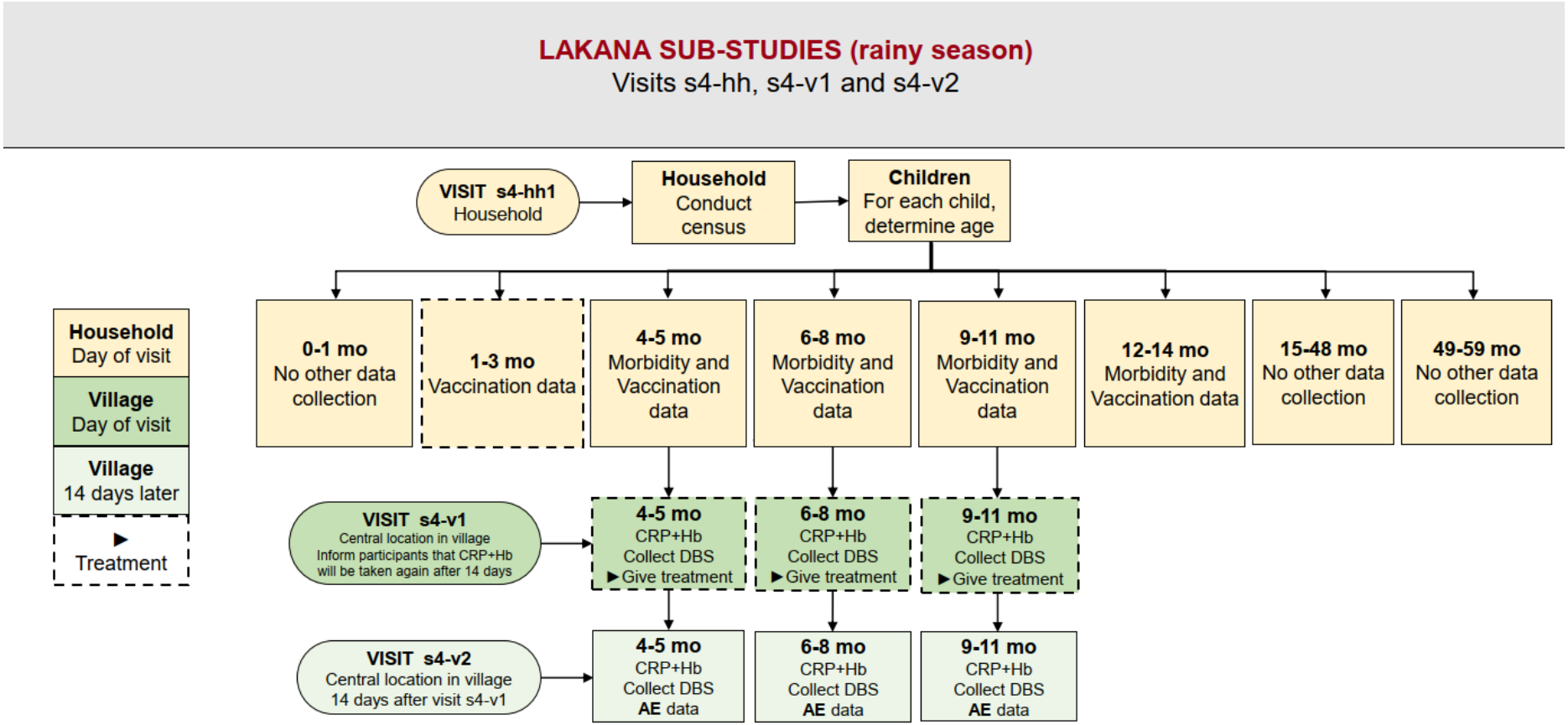
Version 1.0, 08 October 2020

Purpose: Active surveillance for the incidence of adverse events (AE) within 14 days of study drug administration, in the 60 villages selected for more detailed data collection on outcomes other than mortality.

Section Header	Num.	Question Text	Question Responses	Required
	[0]	Instructions: Complete this form for targeted age group children.		
	[1]	Interviewer ID		
	[2]	Child ID		
Visit information	[3]	Date:		
Symptoms	[4]	Check the symptoms experienced in the last 14 days:		
	[5]	Diarrhea	0, None|1, Mild |2, Moderate |3, Severe/Life threatening	Yes
	[6]	On how many days did <name> experience diarrhea?	*integer*	Yes (if [5] != 0) *max=14*
	[7]	Loose stools	0, None|1, Mild |2, Moderate |3, Severe/Life threatening	Yes
	[8]	On how many days did <name> experience loose stools?	*integer*	Yes (if [7] != 0) *max=14*
	[9]	Vomiting	0, None|1, Mild |2, Moderate |3, Severe/Life threatening	Yes
	[10]	On how many days did <name> experience vomiting?	*integer*	Yes (if [9] != 0) *max=14*
	[11]	Rash-itching	0, None|1, Mild |2, Moderate |3, Severe/Life threatening	Yes

	[12]	On how many days did <name> experience Rash-itching?	*integer*	Yes (if [11] != 0) *max=14*
	[13]	Swelling of the lips	0, None|1, Mild |2, Moderate |3, Severe/Life threatening	Yes
	[14]	On how many days did <name> experience Swelling of the lips?	*integer*	Yes (if [13] != 0) *max=14*
	[15]	Difficulty breathing- wheeze	0, None|1, Mild |2, Moderate |3, Severe/Life threatening	Yes
	[16]	On how many days did <name> experience difficulty breathing- wheeze?	*integer*	Yes (if [15] != 0) *max=14*
	[17]	Crying more than usual	1, Yes | 0, No	Yes
	[18]	Did the child experience other symptoms?	1, Yes | 0, No	Yes
	[19]	If yes, describe symptoms		Yes (if [18] = 1)
	[20]	What was the outcome of the event (s) reported?	1, Child was hospitalized (Fill out Suspected SAE Form) | 2, Child was seen as an outpatient and returned home | 3, Other	
	[21]	Specify Other		

Appendix 5.


LAKANA SUB-STUDIES (rainy season)
Visits s4-hh, s4-v1 and s4-v2
VISIT s4-hh1
Household
Household
Conduct census
Children
For each child, determine age
Household
Day of visit
Village
Day of visit
Village
14 days later
Treatment
0-1 mo
No other data collection
1-3 mo
Vaccination data
4-5 mo
Morbidity and Vaccination data
6-8 mo
Morbidity and Vaccination data
9-11 mo
Morbidity and Vaccination data
12-14 mo
Morbidity and Vaccination data
15-48 mo
No other data collection
49-59 mo
No other data collection
VISIT s4-v1
Central location in village
Inform participants that CRP+Hb will be taken again after 14 days
4-5 mo
CRP+Hb
Collect DBS
Give treatment
6-8 mo
CRP+Hb
Collect DBS
Give treatment
9-11 mo
CRP+Hb
Collect DBS
Give treatment
VISIT s4-v2
Central location in village
14 days after visit s4-v1
4-5 mo
CRP+Hb
Collect DBS
AE data
6-8 mo
CRP+Hb
Collect DBS
AE data
9-11 mo
CRP+Hb
Collect DBS
AE data