Completion of the SurveyCTO MDA2 Treatment Log

1. PURPOSE
To capture information on households and individuals receiving albendazole as part of the DeWorm3 trial

2. INTENDED USERS
Field officer trainers, field officers, data managers

3. RESPONSIBILITIES
All DeWorm3 field officer trainers and data managers should agree on, understand and follow this SOP during MDA delivery activities. It is the responsibility of the Site PI and Trial Coordinator to ensure that all field officers comply with this SOP.

4. DEFINITIONS
4.1. MDA: Mass drug administration (of albendazole)
4.2. CDD: community drug distributor
4.3. App: An application (app) or software program installed on a mobile device
4.4. Android: Mobile device operating system
4.5. Device: A mobile smartphone or tablet used for data collection
4.6. SurveyCTO: Application used to collect information on treatment

5. MATERIALS REQUIRED
5.1. Device equipped with sim card / Wi-Fi and preloaded with SurveyCTO and Barcode Scanner apps. This guide was developed using the Samsung Galaxy J2PRO –SM 210F. See SOP 901 (Setting up mobile data collection devices)

6. PROCEDURE

6.1. Device initialisation

   a.   Turn on the device using the power button which is located on the right-hand side of the phone.

   b.   Select the "SurveyCTO Collect" app from the list of apps in the main menu.

6.2. Downloading the correct form

(NB: You will need internet access to complete this procedure (6.2))

   a.   Always check for form updates in "Install Form Updates" and update

   b.   From the home page of the SurveyCTO app, select "Get Blank Form".

   c.   You will then see a country specific folder (for example "Benin – Main DW3 Activities"). Select the form "MDA2 Treatment Log" by clicking the box beside it.

   d.   Press "Get Selected" in the bottom right corner and the forms will begin to download. The form should download in less than one minute (depending on the internet connection).

   e.   You will then be returned to the SurveyCTO homepage.

6.3. Using the correct form

   a.   From the SurveyCTO homepage select "Fill Blank Form".

   b.   Here you should see the "MDA2 Treatment Log" form. **If you do not see this form, return to step 6.2 "Downloading the correct form" and repeat the steps.**

   c.   Select the form "MDA2 Treatment Log" and SurveyCTO will begin to load the form. The first time the form loads it will take approximately 90 seconds to load the data from the various lists attached to the treatment form.

    d.   Once the lists have been downloaded, the form will open and you can begin to enter in data by swiping right.

6.4. Initial steps in the MDA2 Treatment Log

    a.   First select which subsite you are in (India only), swipe right and select your name from the list. You will then need to select the **Primary Health Centre and intervention cluster** where you are treating households. You will then be asked to select the name of the CDD that you are accompanying.

    b.   On the next screen, select if you are "Treating by household" or "Treating by individual". It is envisioned that most treatment will occur at households, but the form is designed to also allow you to treat individuals in the intervention clusters and villages where an individual is found elsewhere (e.g. in the field or at their workplace). See Section 6.11 for description of the steps to treat by individual.

6.5. Treating by household

    a.   You will be provided with a paper listing of the households in the village and cluster to be treated. This listing will match the households available on the SurveyCTO form. They will be ordered by household ID.

    b.   Households identified during a previous MDA but not in the census will also be included in the treatment lists and will appear on the phone. The form will function in the same way for these households, and the same procedures can be followed. Households identified during MDA will not have a household ID and their members will not have a unique ID as they have not been officially enrolled in DeWorm3 until they are recorded during a census.

    c.   Select the village where you are working. You will then be given two options – "select from list" and "search by HOH name".

    d.   There are different approaches to targeting households for treatment that might work better in different contexts:

        1.   **Approach 1 -** Target specific households from your paper household list
        2.   **Approach 2 -** Treat households as you find them on the ground by walking systematically down a road. This second approach will likely work best in urban settings, particularly where we may have divided the community between clusters using roads or other divisions.

    e.   **Select from list:** The household can then be searched for in the list (which will be in ID order) and selected. The households in the list that were included in an earlier census will be flagged with 'ce1' or higher, and households identified during a previous or the current MDA will be flagged with 'cw1' or 'cw2'. 'cw' stands for community-wide and is used to flag when the household was initially identified in contrast to those identified during one of the census activities.

    f.   **Search by HOH name:** An alternative to use when the household cannot find their ID card or if it was added during a previous MDA and do not have a household ID card. The household can be searched by the name of the household head by entering a minimum of three letters of the HOH name. All names with that combination of letters in that cluster will appear and you can select the correct household. It is recommended not to enter the name in full as it will only bring up exact matches and this will increase the chance of spelling errors/mismatches.

g. Remember that the household ID and/or household head name should be available on the paper list to use either method.

h. Once you have selected the household, the address and/or phone number entered during census will be displayed to help you confirm that you have selected the correct household on the phone.

i. If you are targeting households to treat from the list, rather than proceeding house by house (Approach 1 above), you can use the next screen that displays a note with the household head and information to locate the household in Google maps. This functionality will work if you have a SIM card installed with data available.

   1. If you have data available, click on the displayed link at the bottom of the note, and the phone will switch to Google Maps and display directions to the household's coordinates. Once you have arrived at the household, you can switch back to SurveyCTO and swipe to the next screen. The form will ask you if you have internet access to allow the link to the map to work. Select [yes] in this case, as you were able to use the link directly.

   2. If you do not have data available, it's possible to copy the coordinates into Google Maps manually and obtain directions. Swipe past the note with the link, and the form will ask you if you have internet access to allow the link to the map to work. If you select [no] then the form will present the option of searching for the household using the GPRS functionality of the phone (which does not require internet access).

j. If you do not need to use the Google Maps navigation to locate the household, then you can swipe to the next question.

6.6. Household location question

a. You will then be asked if you were able to locate the household. This question is referring to whether you were able to locate it in-person. There are two possible responses.

b. **Yes** – you were able to locate the household and are standing in front of it. This will be, by far, the most common scenario.

c. **No** – You have not been able to locate the household. You will see a message informing you that the form "will now proceed through this household's listed members to update their status". You will then need to swipe through each of the household members and SurveyCTO will record each individual as "Not located". You can then finalise the form.

d. If this is a follow up visit to the household, and you or another field officer has already visited the selected household then this question will not appear.

6.7. Members present

a. Record whether there is an adult member of the household present (this also covers locked households where nobody is home).

b. If there is not an adult member of the household present, then you cannot obtain consent on this visit. If there is not an adult member of the household present or no one is present, then select 'no'. Then save and finalise the form. **You will need**

      to revisit at a later date. The form will log the number of times you revisit and when.

    c.   If there are no adult members present, you will be asked to record where the adult members are:

        1.   Not at home (e.g. at shop)
        2.   Moved away permanently
        3.   Temporarily migrated

    d.   If the household members are temporarily or permanently migrated, you will be asked how you confirmed this information (If the household has temporarily migrated, you will also be asked if the cluster and/or village information is correct, see Section 6.8). You will then be prompted to proceed through this household's listed members to update their status. After this, save and finalise the form.

    e.   If there is an adult member present, then select 'yes' and proceed.

    f.   You will then be asked if the household's DeWorm3 card is available to confirm that you are at the correct household as you selected. If the household's DeWorm3 study card is available, scan it into the phone. If the card is not available, record the reason why it is not available. You can scan the consent form, if the card is not available, or manually enter the ID from the paper household list.

6.8. Cluster and/or village information

    a.   Some households may be recorded as being in the wrong cluster. This is most likely to happen in urban areas where cluster boundaries are defined by a landmark e.g. a major road. There are three possible responses:

    b.   **Yes** – the household is recorded in the correct cluster. This will be, by far, the most common response, particularly after MDA1.

    c.   **No, cluster is not correct** – the household you are surveying is not in the correct cluster. If you select this option, you can either reassign a household which is recorded as being in a treatment cluster to a different treatment cluster or you can assign the household from a treatment cluster to a control cluster. For both of these options you will need a PIN code which will be supplied by a supervisor. More information on potential scenarios requiring this correction can be found in Section 6.14 of this document.

    d.   **No, village is not correct** – the household is in the correct cluster but the village is incorrect. If you select this option, you can reassign the new village without a PIN code. However, the new village must be in the same cluster. If the new village is in a different cluster, then you will need to go back to the previous question and select "No, cluster is not correct".

    e.   If you update the cluster and/or village information, the next time the field officer targets this household, they will find their information under the updated cluster and/or village.

6.9. Recording consent

    a.   Once you have scanned or entered the households ID, received confirmation this is correct, and you have confirmed that the household's cluster and village

information is correct, then the next question will ask if the household agrees to participate in the treatment.

b. If no one is available during the visit who can agree to participate for the household then select 'unable to answer at this time' and save and finalise the form. You will need to revisit this household at another time when the person who can agree to participate in treatment is available.

c. If the household refuses to participate in treatment, select 'refused' and then record why the household refused to participate. You will be prompted to proceed through the household's listed members to update their status. After this, save and finalise the form. The household will be removed from the list, so be absolutely sure they have refused before finalising the form.

6.10. Confirming household member and visitor information

a. After you have obtained the household's consent to participate, the form will begin to display information for each of the household members recorded during the census.

b. The phone will display each of the names, sex, and age in years of listed household members and ask you to confirm that these are all correct. If you indicate that they are not correct you will be asked to update or change the information. If possible ask to see a form of identification to confirm the validity of the new information and indicate on the form what type of identification this is.

c. At this step, you should confirm with the respondent that all of the members have been listed. You will then be asked 'Are there any household members who were not listed or visitors to the household from outside the cluster present at visit?' **Record any unlisted household members whether they are present or not at the visit. Only record visitors who are present.**

d. If everyone in the household was listed on the phone, select "No" and proceed to recording treatment status.

e. If there are any unlisted household members or visitors, select "Yes". There are two types of people you can add in this section:

1. New household members or household members who were missed in the previous census
2. Visitors from outside the study site or a control cluster e.g. a house-help, gardener, builder who spends a lot of time in the household.

f. Then enter how many unlisted people you need to add to the household. The form will then cycle through the people one by one.

g. For the first person, you will be asked is this an unlisted household member or a visitor from outside the cluster. The same definition of household member stands as was used in the census – "A household consists of a person, or a group of persons who live together, acknowledge one adult male or female as the head of household, and eat together."

h. If they are an unlisted household member, they will be assigned a unique ID within the household and you will select the identity document being used to extract the individual's information, including name, nickname, relationship to household head, gender, DOB, school attendance.

    i.   If the next unlisted individual is a visitor from outside the cluster, they will NOT be assigned a unique ID number but you will select the identity document being used to extract the individual's information, including name, nickname, and relationship to household head.

        For relationship to household head, select "other", and write for example, relative visiting from xxxx village, house help, builder, gardener etc.

        Also fill in the gender, DOB, education status and marital status of the individual.

    j.   After completing this information for all unlisted individuals you will proceed to recording the treatment status of all previously listed and newly added individuals.

    k.   Once an unlisted individual has been added to a household (whether they are a member or a visitor) they will appear, along with their treatment status, in every subsequent visit to that household during the current round of MDA.

6.11.   Adding new households / households not enrolled during the census

    a.   If you come across a household within an intervention village that is not on the paper list and the household members say they have not been enrolled in the census or visited during the surveys, this house needs to be added and treated.

    b.   Be very careful to ensure that they have not been included in the census otherwise a duplicate household will be added.

    c.   To add a new household in the village, follow the initial steps as usual, selecting field officer name, admin levels, cluster and CDD. Select "Treating by Household" and then select the village you are in. The household will not be in the list, so scroll down to the bottom and select "household not listed".

    d.   After establishing an adult is present, select "no" when asked if the household has been enrolled in DeWorm3.

    e.   This will take you to a set of questions similar to the census including address, name of head of household and consent. Fill in the information on the household, phone number and household members.

    f.   Following this there will be a question asking ' Are there 1) any household members who were not listed at all, or 2) visitors to the household from outside the cluster present at visit?' This is the same question asked above for adding unlisted household members or visitors, but in this case you will use the option to record the members of this newly identified household.

    g.   To add members and visitors select [yes] and proceed to add information for each new member of the household. After you have finished adding new individuals the form will proceed to the treatment question (see Section 6.12) where you will be able to update treatment status of all individuals, just like in a previously listed household. The same as with listed households, new households and the treatment status of their respective members and temporary visitors will be tracked between visits.

    h.   Once all members of the household have had their treatment status updated, you will be asked to take the GPS coordinates of the household. Then the form can be finalized and saved.

    i.   Record the information for this household on the paper household list and report it to your supervisor.

6.12. Recording albendazole treatment of household members

a. Once all the listed members of the household have been reviewed and any unlisted members or visitors recorded (including in new households), the form will proceed to the treatment questions where you will be able to update treatment status of all individuals listed in that household. This can be any of the following:

1. NOT COMPLETE – not yet visited for deworming
2. TREATED – swallowed albendazole for deworming
3. NOT ELIGIBLE – not eligible for deworming:
   o <12 months old
   o Pregnant in first trimester
   o Dewormed in past 2 weeks (e.g. in school deworming)
4. REFUSED – refused deworming during previous visit
5. ILL – seriously ill during previous visit
6. INTOX - was intoxicated so could not be treated
7. DECEASED – individual died since last census
8. HH PERM MIG – household permanently migrated during previous visit
9. PERM MIG – individual permanently migrated during previous visit
10. HH TEMP MIG – household temporarily migrated during previous visit
11. TEMP MIG – individual temporarily migrated during previous visit
12. HH REFUSED – household refused during previous visit

b. The form will update and monitor the status for all the individuals from each visit. Only individuals with status NOT COMPLETE, ILL or INTOXICATED can be modified at subsequent visits, so treatment will not be recorded more than once.

c. It is possible to modify the status and record treatment between visits if a person REFUSED treatment or was recorded as temporarily migrated during an earlier visit. You will need to use the treated by individual function to do this for that individual. This will be described in 6.13.

d. The statuses TREATED, INELIGIBLE or DIED will not change between visits. However, if the surveys on the phone have not been uploaded to SurveyCTO between visits, then the most up to date status will not be displayed. For example, if someone is treated and then the field officer returns to the house to treat someone else in the household without syncing their phone, the status of the first person will still be displayed as "NOT COMPLETE" rather than "TREATED".

Please see Section 6.18 for instructions on how to ensure that the information on the phone is up to date.

e. For each individual, you will first need to record whether they are present at the visit.

f. NOT PRESENT - If they are not present, you will need to record where they are. If they are at school, at work, or 'not at home', they will remain in the form for treatment as 'NOT COMPLETE'. If they are absent because they have moved away permanently, temporarily migrated or died, this status will be recorded, and they will count towards the household having been completed.

g. Be careful about using these options. If they have temporarily migrated for the duration of the MDA period, then they will be considered untreated, but we will not remove them from the census. Thus if a person is working elsewhere and might be back before the end of the deworming period, select "not present" and

then "work" rather than "temporarily migrated" so that the individual can be treated later.

h. PRESENT – If they are present, then you will need to record whether or not they were dewormed. There are several options here:

   1. Tablet left at third visit - *This option will only be visible at the third visit*
   2. Tablet given (observed swallowing)
   3. Tablet given (refused to swallow in presence of CDD)
   4. No tablet given – ineligible
   5. No tablet given - seriously ill
   6. No tablet given - intoxicated
   7. No tablet given - refused

k. If you have **treated** the individual with albendazole, then select the appropriate "Tablet given" option and the form will move on to the next member of the household. During the third visit, you will be able to record leaving tablets for the individual.

l. If you have not treated the individual with albendazole, then there are 4 options for "No tablet given".

m. **Ineligible** - A person is ineligible if, at the time of treatment, they were:

   1. Under 1 year of age (<12 months)
   2. Pregnant in first trimester
   3. Dewormed in past 2 weeks

n. If you select that they were **dewormed in past 2 weeks**, you will need to select where the person received deworming treatment and whether you can verify this.

o. If the person **refuses** they will be considered complete. However, you can treat them at a later date if the patient changes their mind or the patient is healthy enough to receive treatment. For example, if someone approaches you and says that they refused treatment yesterday during the household visit but would like to receive treatment today, then you can update their treatment status by using the "Treat by individual" option outlined in section 6.11 of this SOP.

6.13.   Treat by individual

a. Ideally all members will be treated at the household but there are certain situations where you will need to use the treat by individual option:

   1. To treat a member of the household when you find them at work, or on the way from their house to another house etc.

   2. To treat a visitor / house-help who you find working in another house in the village cluster while treating

   3. To treat anyone who originally refused, as these cannot be treated by re-entering the original 'treating by household form.'

b. You will only be able to use the treat by individual option once an initial visit has been recorded to the household. This confirms the location of the household and the household's study card is correct. New identified households will also be added to the dataset following the first visit, so you will be able to select and treat individuals in these households.

c. Follow the initial steps as usual, selecting field officer name, admin levels, cluster and CDD. Select "Treating by individual" and then select the village you are in.

d. The individual to be treated out of their household will not have access to their DeWorm3 household ID card, so you can search for the household of the person you are treating by entering the name of the head of household or the household's phone number (recorded during the census).

e. If searching by HOH name, enter a minimum of three letters of the HOH name. All names with that combination of letters in that cluster will appear and you can select the correct household. It is recommended not to enter the name in full as it will only bring up exact matches and this will increase the chance of spelling errors/mismatches.

f. If searching by phone number, this must be the household head's which was recorded in the census (or during the first visit in the case of new households), not the phone of the individual who is being treated now.

g. You will then see a list of household IDs and head of household names so you can select the household of the person you are treating.

h. The household address and phone number (where available) will then be displayed to help you confirm that you have selected the correct household for the person you are treating.

i. The form will then display all the members in the household. You can then select the household members you are treating. You cannot use this option to select ALL the household members. You should use 'treat by household' in these situations.

j. The form will display the name and information for each member of the household. Only the people you selected will be modifiable, however, so you will need to scroll through until you find the people that you wish to treat.

k. Once you have found them, indicate that they are 'present' for treatment and record their treatment status as described above. Save and finalise the form once this is complete.

6.14. Correction steps

a. Ideally all households will be listed in the correct village and cluster based on administrative boundaries. However, there may be some households on the borders of clusters which have been mis-assigned or households that have been assigned to the wrong village within a cluster during the census. The sections below document procedures to correct these during treatment, but they should only be used very infrequently, and a pin code will be required from the supervisor to make any changes between clusters

6.15. Correcting the household cluster

a. This scenario is most likely on the border of clusters that have been divided along a road, where one side is intervention and the other side is control.

b. If the household on the paper household list is listed in an intervention cluster you are treating in but based on geographic boundaries, it is actually in a different intervention or a control cluster, select "No, cluster is not correct" at the question "Is the cluster and/or village information correct for this household?". You will then be asked whether you want to assign the household to a different treatment cluster or to a control cluster.

c. You will need to know which cluster the household needs to be assigned to. Select the cluster. You will also need to enter a PIN to make this change.

d.   If you have reassigned a household in a control cluster to an intervention cluster, you can continue through the form to the treatment section.

e.   If you have reassigned a household in an intervention cluster to a control cluster, the form will close and the household will be removed from the list. See figure below for a diagrammatic example of this scenario. Survey CTO will then display each member of the household and you will need to swipe through to mark these people as moved to control. This household will then be marked as complete.

A household is erroneously included on the list to be treated but it is actually located in a non-treatment cluster

Legend

- - - -   Cluster boundary

🟩   Household not to be treated

🟦   Household to be treated

⬜   Household not in census

⬛   e.g road, natural border

⭐   Field officer + CDD

⬆   Direction of treatment

6.16.   Correcting from intervention to another intervention cluster

a.   Again, this scenario is most likely on the border of clusters that have been divided along a road, where one side is intervention and the other side is control.

b.   If the household on the paper household list is listed in the intervention cluster you are treating in but based on geographic boundaries, it is actually in a different intervention cluster, select select 'No, cluster incorrect and then 'Assign to a different treatment cluster' on next screen where it asks 'Is the cluster and/or village information correct for this household?'

c.   Select the correct cluster and correct village from within the selected cluster. Proceed to treat this household.

d.   The cluster and village will be updated in the database, so you will find this household listed in the updated cluster and village on the next visit.

6.17.   Identifying the current assigned cluster for an enrolled household that is not listed in the correct geographical cluster

a.   If a household does not appear anywhere in the intervention cluster household lists, but is situated within an intervention cluster, ask if the household was censused and whether they have a DeWorm3 ID card.

b.   If the household is in DeWorm3 scan the household's DeWorm3 card, and this pulls the information of the household, whether it was listed in a control or intervention cluster in the census.

c. If they are listed in a different intervention cluster, then the form locks and displays where you have to go to find the household's listing. You can then go to the indicated cluster and village at start of the form and select the household and use the correction feature to correct the cluster/village information. You will have to enter a pin code before recording treatment in this household. **Contact your supervisor for the pin code.**

d. If they are listed in a control cluster, the form confirms that you want to correct the cluster and village information to the current intervention cluster and village. Then you can proceed to treat this household's members.

A household in a treatment cluster that is not included on the list of households to be because it is incorrectly listed as being part of another cluster. The household was included in the census.

6.18. Correcting from one village to another within a cluster

a. This scenario could happen in any cluster. There are two options:

1. If you are working down the paper household list looking for this household in a specific village you are standing in, but you cannot find it and other members of the village say this household is actually in a different village.

2. If you are working systematically through the households in a village and the household reports they have been censused and have a DeWorm3 ID card, but they cannot be found in the household list for that village.

b. Look through all the villages in the cluster for the household. Once you have found it select 'located' on located screen, then select 'No, village incorrect' on next screen when it asks 'Is the cluster and/or village information correct for this household?' Then select the correct village and then proceed with treatment.

6.19. Saving and uploading the form

a. Once the treatment log has been completed for a household (i.e. all individuals have been treated, or the house has been visited three times), you will be taken to the final page of the form.

b. If you have successfully filled out each of the sections, you should then mark the form as finalized by selecting the box to the left of the text "Mark form as finalized".

c. You can then save the form and exit this instance of the survey

    d.   The forms may not be automatically uploaded to the SurveyCTO server. If there is no internet connection available, the forms will appear on the SurveyCTO homepage in the "Send Finalized Form" section. To send these forms when you have an internet connection

    e.   Click "Send Finalized Form". Select the form(s) by pressing the box beside each available form. Press "Send Selected" in the bottom right hand corner

6.20.   Monitoring SurveyCTO responses

a. Once the forms from a day of surveying have been uploaded, households will move from being incomplete to complete. This information is captured by the monitoring table in Google (or downloadable from SurveyCTO) which displays the households visited and the number of people surveyed by the Field Officers.

b. The monitoring table also records information on the number of people per household who were treated, ineligible (with individual markers for <1 year old,pregnant (1st trimester) and previously dewormed), refused, unavailable, dead, absent (with individual markers for at school, at college, at work, not at home, other absence, permanently migrated and temporarily migrated), unlisted or ill. A household is marked as complete if it was not located (at all or moved to a control cluster), refused treatment, or if all residents have been recorded as either treated, ineligible, refused, ill, unavailable, or dead.

c. Once the household has been marked as complete, it is removed from the list of houses which the field officer needs to visit on the phone.

d. It is advisable to update the lists in each phone's SurveyCTO as often as possible.

e. If connected to the internet (wifi or cellular 4G) the SurveyCTO app will check for form updates each hour automatically. If the app detects that the attached datasets have changed, it will display that there are form updates available.

f. You should install these form updates regularly to ensure that the tracking dataset is up-to-date.

g. **You should allow at least 20 minutes after submitting a form for the information to be updated in the tracking dataset on the server before you download the updated dataset to your phones.**

You can actively check for form updates by clicking on the check for updates button in the app's main menu:
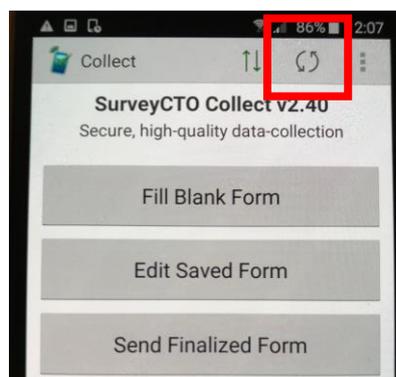
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Reviewed by:		**Date:**	
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Approvals

I have reviewed and approve this SOP for implementation.

Principal Investigator   **Signature**   **Date**

Site Principal Investigator   **Signature**   **Date**

Document History		
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1.0	05 October 2018	Hugo Legge, David Kenned, William Oswald, Katherine Halliday

NATURAL
HISTORY
MUSEUM

de**worm**³

Read and Review Log
List of individuals who read and reviewed the SOP

Date	Name	Title	Signature*

*By signing this log, study staff confirm that they have read and understood the content of the SOP