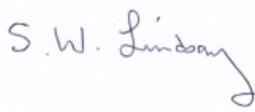




**STANDARD OPERATING PROCEDURE FOR:**

**Storage of LLIN with temperature monitoring (AvecNet specific)**

**SOP Details:**

<b>Version: 2.0 Eng</b> <b>The French Version is definitive</b>	<b>Date operational:</b>	<b>05/08/2013</b>
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		08/10/13
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		<u>25/11/13</u>
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		08/10/13
<b>Date to be reviewed:</b>	August 2014	
<b>Current review changes:</b> Change of daily delegate		
<b>Location:</b>	Original hard copy with: Sagnon Nfale / Study File Hard copies with: Ouattara Daouda / Bertrand Hien Electronic version: Sagnon Nfale / Study File	
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**Review History:**

<b>First Operational:</b>	August 2013			
<b>Reviewed:</b>	25/11/2013			
<b>Updated yes/no:</b>	Yes			

## 1. DEFINITIONS AND ABBREVIATIONS

AvecNet	AvecNet is a consortium of African and European researchers committed to ensuring the sustainability of malaria vector control in Africa and is an EU funded project lead by Prof Hilary Ranson, Liverpool School Tropical Medicine
AvecNet	AvecNet is also used as the short name for the trial "To assess whether addition of pyriproxyfen, an insect juvenile hormone mimic, to long-lasting insecticidal mosquito nets provides additional protection against clinical malaria over current best practice. Protocol for a two-armed cluster randomized wedge-shaped trial in Burkina Faso", which is funded by AvecNet as part of WP6
CNRFP	Centre Nationale de Recherches et Formation sur le Paludisme, Burkina Faso
LLIN	Long-lasting Insecticidal bed Net
PPF-LLIN	Long-lasting Insecticidal bed Net with pyriproxfen in addition to permethrin
SOP	Standard Operating Procedure

## 2. BACKGROUND

The bed nets provided by Sumitomo Chemical Ltd for the AvecNet Burkina Faso trial were delivered in April and May 2013, in time for the expected start of the trial in June 2013. Due to the time taken for ethical and regulatory review the LLIN the timetable of the trial was revised and the distribution is delayed. In the meantime the provided LLIN and especially the experimental PPF-LLIN are being stored until distribution under rigorous conditions. It is important during these extra months of storage in Burkina to measure and document the maximum and minimum temperatures, and duration of these, for inclusion in reports and publications arising from the trial.

## 3. SCOPE

These procedures involve Principle Entomologist, the clinician in-charge of the CNRFP Field Site in Banfora, the data manager of the CNRFP Field Site in Banfora for the collection of data.

## 4. RESPONSIBILITIES

Dr Sagnon Nfale is responsible for the safe storage of the nets and recording of their removal from storage for distribution. The delegate for daily monitoring is Dr Ouattara Daouda, the clinician in-charge of the AvecNet Field Site in Banfora. The delegate for the hourly temperature monitoring and monthly data download is Bertrand Hien, data manager, CNRFP Banfora. The data should be checked by the Epidemiologist and sent to the Principle Entomologist, and the PI's.

## 5. HEALTH & SAFETY

- 5.1 It is important to ensure that the bales of nets are stacked securely when removing and replacing the temperature monitors.
- 5.2 Care is needed when opening and closing the containers. This requires two people to avoid accidents.

## **6. PROCEDURES**

- 6.1 The bales of nets should be stored un-opened in a secure, dry environment without extremes of temperature (WHO, 2007).
- 6.2 The storage room and metal containers must be locked at all times, except during inspections and distributions.
- 6.3 A log is kept of the total of bales of each kind of net in the storage places and this is updated each day nets are removed including: date, time, number of bales removed, number of bales left, and net destination.
- 6.4 The electronic temperature monitors (Tinytag Ultra2 Internal Temp., model TGU-4017, Gemini Data Loggers UK Ltd, Chichester, UK) are activated and set to record at hourly intervals using the manufacturer's programme (model: SWPK-7-USB-Eng). This should be installed on the data manager's computer in Banfora.
- 6.5 The data manager should install the programme on a second computer and keep the programme CD in a locked drawer or filing cabinet.
- 6.6 Two temperature monitors are positioned between the bales in each of the containers and the room (six in total). In each container and the room, one is placed between the top two bales and one between the bottom two.
- 6.7 The containers are labeled 1 and 2, the monitors for these are labeled 1-H and 1-B (1-haut and 1-bas) and 2-H and 2-B. Those for the room are labeled R-GH, room gauche haute, and R-DB, room-droite bas.
- 6.8 Every month, on the second Tuesday of each month (or the next working day if this is a holiday), the temperature monitors are removed from their positions in the storage room and metal container and taken, without delay, to the data room in the CNRFP Field Site, Banfora.
- 6.9 The time and date of removal and replacement of the temperature monitors should be noted in the log book provided. [This allows us to censor temperature measurements taken while the monitors are not in position in the room or containers].
- 6.10 The data is downloaded from the monitors using the computer programme and each one saved separately using their codes (1-H, 1-B, etc) and the day's date.
- 6.11 The six downloaded files are stored in a folder, which is then labelled, dated and "zipped / reduced" and a copy is sent to OD, SNF, AT, MP, SL. The copies sent to the collaborators need to be in pdf format for the graphs. The original remains on the data manager's computer and is updated each month.
- 6.12 The data needs to be transferred into dbf or xls format and sent to NS, MP and the trial data manager.
- 6.13 The temperature monitors should not have data deleted until the LLIN, PPF-LLIN from a given storage place have all been distributed.
- 6.14 The temperature monitors are replaced without delay in THEIR CORRECT POSITIONS.
- 6.15 The data will be examined for range of temperatures each month and, together with the data files.

## **Reference**

1. Long-lasting insecticidal nets for malaria prevention. A manual for programme managers. Trial Edition. WHO, 2012
2. <http://www.gemindataloggers.com/>