PRE REFERRAL RECTAL ARTESUNATE (RAS)
Pre testing of Communication Material – Senegal

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WellSense
Background

WellSense worked with MMV and its Country Partners in Senegal, on the critical task of pre-testing the first set of Pre-referral Rectal Artesunate communication materials.

In order to enhance treatment outcomes for those administering and using pre-referral RAS - time and resources were invested in developing the materials and pre-testing them as a first validation step, before embarking on further development of the materials and testing in Malawi.

The purpose of pre testing is to “determine systematically which of several alternative versions of a communication will be most effective or to identify elements of a single communication that could be changed to make it more effective” (Bertrand 1978). Pretesting takes places with a representative sample of those who will ultimately use the tools – we refer to as the end user. Pretesting is considered a cost-effective means to ensure that the communication material developed, meets the needs of all the end users. The end users in this case included national trainers at the NMCP/PNLP level, district medical directors who are also trainers, nurses in charge of health posts/centres; community health workers and village health workers of various kinds and mothers/caregivers (Table 2).

Senegal is a medium burden country representing Francophone Africa. Senegal has both the policy framework and CHW availability and capacity to scale up delivery of RAS to CHW networks. Currently RAS has been rolled out in health facilities nation-wide. Pre-referral RAS treatment is already in the treatment guidelines and in the essential medicine list, with nurses and ASR authorised to use it in health posts and health centres/hospitals. A community level pilot is currently underway in 50 pilot sites and will determine when and how CHWs will administer pre-referral RAS in the future. There are 1942 health huts staffed by CHWs and 1992 home based care providers already trained in RDT/ACT. PNLP is committed to RAS scale up in 2015/2016.
Study Design and Methodology

Permission was granted to conduct the pre testing exercise in Senegal (Appendix 1). Dr Lamine Diouf Senior Pharmacist at PNLP contacted the sampled site and requested their cooperation.

The pre-testing schedule took place as described in Table 1.

Table 1: Schedule for Pre-referral RAS for CHW in Senegal

<table>
<thead>
<tr>
<th>Sunday June 7th</th>
<th>Monday June 8th</th>
<th>Tuesday June 9th</th>
<th>Wednesday June 10th</th>
<th>Thursday June 11th</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:40 Consultant arrives Dakar.</td>
<td>8:00 Travel to Field Testing Site.</td>
<td>09:00 – 12:00 Field Test with 2 groups of health workers.</td>
<td>09:00 Field Test with Planners</td>
<td>09:00 PNLP Interviews.</td>
</tr>
<tr>
<td>17:00 Planning meeting Dakar.</td>
<td>12:00 – 18:00 Field test with 2 groups of community health workers.</td>
<td>12:00 – 14:00 Field Test with 1 group of CHWs</td>
<td>12:00 Travel to Dakar.</td>
<td>13:00 Consultant departs for airport.</td>
</tr>
<tr>
<td>8:00 – 12:00 Field Test with 2 groups of community health workers.</td>
<td>09:00 – 12:00 Field Test with 2 groups of health workers.</td>
<td>09:00 – 12:00 Field Test with 2 groups of health workers.</td>
<td>12:00 – 14:00 Field Test with 1 group of CHWs</td>
<td></td>
</tr>
<tr>
<td>12:00 – 18:00 Field Test with 2 groups of community health workers.</td>
<td>12:00 – 14:00 Field Test with 1 group of CHWs</td>
<td>15:00 Field Test with 1 group of nurses</td>
<td>12:00 – 14:00 Field Test with 1 group of CHWs</td>
<td></td>
</tr>
</tbody>
</table>

The pre-testing was scheduled to take place in Thies Region (Figure 1) which had no experience implementing RAS among CHWs. CHW pre-testers were therefore completely naive to RAS – allowing us to assess understanding among those with no prior knowledge of the intervention.

Figure 1: Map of RAS Pre testing Site- Senegal
The PNLP project coordinator, Mamadou Lamine Diouf, advised Dr Mustafa Baao, Chef du District of the rural health District of Khombole, to sample the required respondents. Considering the time limitations for the exercise and the travel time, it was requested that he have the respondents ready for discussion at the hour and on the days allocated to the exercise. Health workers were sampled purposively (who they are and what they know) with specific emphasis on the ‘chef de poste’ representing all the localities with health posts in the district – all of them very rural. These individuals represent the supervisors and trainers, who are anticipated to oversee the community health workers who would administer pre-referral rectal Artesunate in the remote communities of the district. Mothers with children 0 to 5 years of age, were randomly sampled from the community. The mothers and caregivers originate from around the surrounding community of Touba Toul (see red circle on bottom right image above). The community health workers and nurses travelled from throughout the district to meet at the health centre at Touba Toul – some travelling a few hours on horse and cart to attend the pre testing discussions.

Due to the positive response to the exercise and the effective work of the district in recruiting the respondents, the numbers were sufficient to use primarily focus group discussions for data collection. There were 6 focus group discussions, each lasting up to two hours. Discussion checklists were developed in advance of the testing and ensured that all key factors were addressed.

Since pre-testing adopts an Action Research methodology with a particularly qualitative lens which experience shows, generates the richest feedback, the guides were not used as questionnaires.

A key feature of pretesting is the ‘repeat testing.’ The ‘repeat factor’ is necessary to verify initial results and to tap into the views of the different groups of respondents who will expand the range of perspectives and in turn improve the overall validity of the results and ensure a representative and balanced review of the materials. Key principles of the approach include the premise that during pretesting it is the materials that that are being tested and not the people and there are therefore no "right" or "wrong" responses. For example, a community health worker is not "wrong" or ‘incompetent’ if she is unable to effectively follow the RAS steps outlined in the tool. Instead, it is the designers and field testing researchers who will receive the feedback and decide whether they will revisit the images and text to correspond with the capacity of the sampled respondents (end users) to comprehend the materials. The second key principle is that questioning and discussion and the collection of data should continue until a point of data saturation is reached. Data saturation occurs when the consultant is no longer hearing or seeing new information.
Table 2: Categories and Numbers of Respondents

<table>
<thead>
<tr>
<th>CATEGORIES OF PARTICIPANTS</th>
<th>District Sanitaire de KHOMBOLE # participants in the discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNLP</td>
<td>2</td>
</tr>
<tr>
<td>NGO – Save the Children</td>
<td>1</td>
</tr>
<tr>
<td>District Management Team/Trainers</td>
<td>1</td>
</tr>
<tr>
<td>Nurses in Charge of Health Posts</td>
<td>7</td>
</tr>
<tr>
<td>CHW – ASC &amp; DISDOMS*</td>
<td>22</td>
</tr>
<tr>
<td>Mothers / Caregivers</td>
<td>19</td>
</tr>
<tr>
<td><strong>TOTAL consulted</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>

* Dispenseur de Soins à Domicile

The focus group discussions (FGD) started with a brief process of explanation and consent and lasted between 60 and 90 minutes. The field testing approach varied significantly with the level of literacy of the respondents. With groups where there was low level literacy, respondents were asked to focus entirely on the images and to describe their interpretation of the images or to recount the process being described using only the visual aids. With a slightly higher level of literacy, each participant was assigned a section to read out loud, to the other participants, and to explain the content in their own words. With the highest levels of literacy, participants were given the opportunity to read through a section and then the discussion was open to feedback and comments and questioning.

Among those where ‘comprehension’ was being assessed, it was very helpful when respondents were asked to take the rest of the group step-by-step through parts of the tool and to share their understanding of that step. When it was evident that certain sections were effectively understood and levels of comprehension were high throughout the group, the facilitators focused attention on ‘trouble spots’ and explored how these could be improved. The direction of the discussion was regularly reshaped to focus on any ‘trouble spots’ that were revealed or other areas that prompted discussion. Within a short amount of time the field testing highlighted the key areas requiring focus, as respondents repeatedly honed in on these areas. These areas prompted questions and clarification and the respondents often proposed creative solutions and alternatives. Discussion also assessed the other aspects of the assessment – attractiveness, acceptability, persuasion and self-involvement.

The nature of the field research involves ongoing real time ‘analysis.’ The consultant processes all the responses in real time as they are received and asks the participants within the focus group to reflect or reconsider on the feedback or recommendations emerging from the discussion. In addition, the feedback evolving from one discussion is presented to participants in a subsequent discussion - and in this way the the developing conclusions are re-tested.
The respondents included in this round of pre-testing are listed in Table 3.

Table 3: Components of the RAS tools tested with sampled respondents

<table>
<thead>
<tr>
<th>COMPONENTS OF KIT TESTED</th>
<th>National PNLP feedback</th>
<th>District/Trainer</th>
<th>Nurses Chef de Poste</th>
<th>CHW</th>
<th>Caregivers/Mothers</th>
<th>NGO*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flyer – Brochure-Booklet</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sensitisation Poster</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Save the Children - Senegal

The purpose and key questions for this pretesting phase included:

- Is the RAS content comprehensive enough?
- Is the RAS content relevant to country end users?
- Are the tools usable/appropriate/practical for end-users?
- Is the level of information within the SMC toolkit sufficient to meet the predefined goals?
- Is the information comprehensible to its target audience – trainers, community health workers, mothers/care-givers?

The following criteria were assessed among the end users:

- **Comprehension**: Are the messages (words and/or images) clearly understood by the range (skill/rank) of users – with particular attention to the least literate/educated cadre using that tool? Was the information effectively communicated to another user?
- **Persuasion**: Is the message communicated in a meaningful way to the user and convincing enough to ensure they will follow the instructions?
- **Acceptability**: Are the images and wording – socially, culturally, religiously and economically appropriate? Is this how things are done in this community? Is what is being proposed acceptable to the majority of end users?
- **Self-involvement, Familiarity and Relevance**: Is the message perceived to be directed at the user or are the messages/images pitched at another type of end user? Is the message perceived as useful and relevant?
- **Attraction**: Are the messages able to attract and sustain the attention of the user?
Findings - Flyer

The findings from the pretesting were presented tool by tool and element by element. Certain feedback and recommendations overlapped between the two tools that were tested – the findings are presented in the relevant section. When appropriate, sample quotations or excerpts are interspersed to provide insight into how the respondents communicated about the tools. These quotations only represent examples of the comments made – the discussions were not recorded in full and therefore full transcripts are not available.

Title

The community health workers simply read the title and did not comment further. Higher level practitioners, nurses and ministry level respondents questioned the reference to the 8 steps and said it did not apply to the first page of the flyer.

The reference to the age category in the title was questioned, as it was later in the text. “What do we do if the child is 61/2 years old? We simply refer him without the referral suppository?” (Female CHW)

The picture of the mother and child received neutral response – in most groups it was not even noticed. It was neither liked nor disliked, but when specifically raised, most respondents said it was not necessary.

“It does not serve any purpose!” (Male CHW)

“Where is there water like that here?” (Male CHW)-

“That woman is not from these parts.” (Female CHW)

It was proposed that if you were trying to communicate an idea through the picture, then a picture of the eligible age groups would make more sense than a mother with one child.
Background

**QU’EST-CE QUE LE PALUDISME GRAVE ?**
**WHAT IS SEVERE MALARIA?**

It was generally preferred to have the explanation of ‘what is severe malaria’ at the beginning of the flyer, to set the scene for what was to follow and not at the end of the page. The French language that was used was perceived to be quite complex, in addition to needing simplifying for those for whom French is not their first language, other respondents thought it would be essential for this tool to be translated into the local languages used by CHWs.

It was noted that in Senegal all CHWs/ASC/Disdoms are trained in and supplied with Rapid Diagnostic Tests (RDTs) to use prior to treating with ACTs. Although CHWs have been trained to refer without delay when they observe *Danger Signs* in a child, if they now have pre-referral RAS as an option, they may think that they need to test before administering the RAS. They noted that this should be addressed in the flyer – whether testing, if available, should or should not be conducted to confirm the presence of malaria, prior to RAS and /or referral.

**WHAT IS RECTAL ARTESUNATE?**
**QU’EST-CE QUE L’ARTÉSUNATE PAR VOIE RECTALE ?**

It was suggested throughout the discussions that this section should lead off of the previous section on Severe Malaria, by starting with the statement ‘Rectal Artesunate is a pre-referral treatment for severe malaria.’ Up until this point this statement is lacking. The text can then continue to describe the product. In addition it was noted that this section should also emphasise that RAS is always followed by a full course of IV or IM Artesunate or IM Artemether or Quinine in a hospital setting.

**QU’EST-CE QU’UN SUPPOSITOIRE ET COMMENT CELA FONCTIONNE ?**
**WHAT IS A SUPPOSITORY AND HOW DOES IT WORK?**

This section did not raise any significant concerns from respondents. Consistent with feedback from one of the reviewers prior to field testing, two respondents highlighted the need to refer to the malaria parasite and to rephrase as follows: *...it melts completely and enters the child’s blood stream and begins to attack the malaria parasite that is making the child very sick.* It is also noted that under this section or in the note section at the end of the flyer, clear instructions need to be given on how to store the suppositories, as in the experience of nurses who had used RAS in the hospital setting, the suppository is very quick to melt. Concerns were raised about storage of the product and that the guide should tackle this issue, with realistic suggestions on how to store the product.
This section raised concerns among PNLP reviewers in relation to the Senegal policy that RAS can be used in children 0 to 5 years at a dose of 10mg/kg and not 0 to 6 years. It also raised concerns among CHWs about how to proceed with children who have danger signs but do not fit into this age category. There was a request to address this in the ‘trouble shooting’ section of the flyer.

It was noted that the terms ‘signes d’alerte’ is not the terminology used in the field and should be replaced with ‘signes de gravités’.

Regarding the note (see below) regarding the child who can eat or drink, respondents requested clarification, since they are trained to test when they suspect uncomplicated malaria and treat with ACT accordingly. They wanted this to be clarified in the flyer – whether they should indeed test using the RDT prior to treating.

Remarque: si l’enfant est conscient et qu’il peut boire ou manger, administrer un traitement antipaludique par voie orale. Il ne sera pas nécessaire de lui administrer l’artésurale par voie rectale.
Memory Aid

The memory aid of AGIR was discussed at great length in all the focus groups.

The age interval with the arrows was not well understood whatsoever among the CHW respondents. The arrows on the ends of the dotted lines confused the community health workers. The arrows were perceived to mean beyond 6 years and under 6 years.

“I recognise that there are two ages here, a little one, who can sit and an older one. So I can give the suppository to these two kinds of children.” (CHW, young woman).

One of the suggestions is to put all the age intervals on a timeline, with a range of images for each age group or a ladder of eligible ages with an image beside. Some respondents thought this could be done vertically alongside a measuring stick with the age beside it. This was also discussed in relation to Age in the feedback relating to the Poster.

The image of a building far away with an arrow was not understood by all CHW respondents. The ‘arrow’ or ‘fleche’ in Senegal is apparently not associated with direction and the arrow is not perceived as meaning ‘to travel in the direction of the building in the distance.’

Various suggestions were made, but the most dominant included using the finger that points in the direction of the health facility. The health facility in Senegal is identified by a red cross and would be white and a more substantial building than what is illustrated. The road however was well understood as a long way away and captured the idea of ‘grande distance.’

Incapacité was not understood and was confused with the next disc of Signes d’Alertes. This was perceived as redundant and not useful. Suggestions were made to replace it with ‘Impossibilité’ to swallow oral medication – and the confirmation that rectal route Artesunate was required.
The text associated with this disc was initially not understood, since *Reactions Graves* was not a term recognised – instead they were familiar with the term ‘Signes de Gravités’. The image of fever was understood by 82% (18/22) of the CHWs questioned. Various suggestions noted below were made with regards to communicating about fever. However, of key importance here was that fever is not a ‘Signes de Gravités’ in its own right and that this disc, if it is illustrating the presence or absence of danger signs, should show a compilation of the various danger signs or simply a very sick child – but not a fever.

The respondents were familiar with the concept of an acronym as a reminder and the word AGIR was well received and considered appropriate for this pre-referral RAS intervention. Due to the confusion that the discs caused, some alternatives were developed during the field testing and represented to the respondents – within all the groups accessed.

**ASC – agent de sante communautaire**

<table>
<thead>
<tr>
<th>Age</th>
<th>Signes de Gravites</th>
<th>Centre de Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGIR</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Signes de Gravites</th>
<th>Impossibilite de prendre medicaments orale</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGIR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Danger Signs - Signes D’Alerte

As noted above, Danger Signs are called Signes de Gravités in Senegal. The assessment instructions of Observe/Observez, Ask/Demandez et Palpate/Palper or Touch/Touchez were consistent with the training of CHWs in Senegal, in particular in relation to IMCI/Prise en charge intégrée des maladies de l’enfant. There was consensus in the feedback that all three ‘skills’ should feature in the process of assessing for Danger Signs/Signes de Gravités. In addition it was stated “community health workers are already trained to detect Danger Signs, in Senegal it is not necessary to be so expansive, you could simply provide the image and the condition, they will know how to assess.” (Nurse Trainer)

Fever

As noted above, the image in this disc captured the idea of fever. However, it was generally proposed that the hand needs to be on the forehead not on the top of the head.

It was also suggested that the CHW should be making the assessment of fever, not the mother. In this case it would be appropriate to use the skills – Touch or Toucher under the disc to assess for fever.

The image of the thermometer was requested and the image provided was tested and understood. This should be included above the image describing fever.

Practice guidelines stated that a fever lower than 39°5 C without danger signs would not require RAS. It was suggested that this be noted in the flyer: TOUCH the forehead to assess for the presence of a fever. If in addition to a fever of 39°5 C you detect one or more of these danger signs, administer rectal Artesunate and refer without delay.
Unusually Sleepy, Unconscious or in a Coma

The condition of lethargy was not captured effectively by this image. When asked to interpret the image in the absence of words, no respondents were able to identify ‘lethargy’.

With further discussion, it was proposed that the image currently being used to describe loss of consciousness illustrated the state of lethargy. It was also suggested that an un-used ball or toy nearby would reinforce that the child is not active. The text was well understood but it was suggested that this could be an opportunity to ask the mother if the child is lethargic as opposed to observe – in this case the mother would be alone in the image.

The image for Loss of Consciousness was well interpreted, as unresponsive. In Senegal they also assess loss of consciousness by ‘pinching the ear’. A minority suggested that this also be illustrated - in general the image was understood and no changes were suggested. The wording under Convulsions (see right) – was confusing and almost all respondents requested that the reference to losing consciousness be removed, as it confused their understanding of the distinct danger signs.

Not Able to Drink or Eat

“In French this should say – Refus de s’alimenter” (PNLP Rep). The rejection of the breast was well understood and the level of exposure of the breast deemed perfectly acceptable. It was suggested that it could be less subtle and still acceptable.
Rejection of food was also understood – but it was frequently suggested that the refusal should be more obvious: “I suggest you show the child pushing away with his hand, not just turning the head, to emphasize rejecting food. Already his head is turned away from the breast; this will make it different and distinct.” (Experienced CHW) It was also suggested that a plate or a glass nearby or in hand would indicate the source of the food or water. Note, that throughout the flyer, the pot/casserole on the mat, in the background of the images disturbed a lot of respondents. We should consider removing the pot/casserole throughout!

Vomits Everything

This image was well understood and the concern in the mothers’ face noted and appreciated. The ‘casserole’ in the back was disliked.

Recommendations to strengthen the text were made:
“In French it should say- Vomissement répété.” (PNLP Rep)

Seizing or Convulsing

This is the only image that was acceptable for this danger sign. It was noted by the nurse trainers that the arms need to be extended out and eyes rolling back. This was also remarked upon among the parents.
The 8 Steps to insert Rectal Artesunate

The number of steps was not consciously noticed by respondents. It was suggested that the idea of 8 steps be emphasised more heavily – either with the word ‘step’ or bigger numbers.

The CHW respondents informed us that with the guide they first looked at the images. So they were asked to interpret the images without reading the text. They were in large part able to do so, however, it was observed that the images were secondary to the text in the guide and it was suggested that if/when a simplified job aid is created for CHWs, that the 8 steps should be more emphasised and more attention given to the images.

It was also suggested that the images be enlarged and shifted to the left – so that images lead the way.

On many occasions CHWs and Nurse Trainers questioned who the guide was targeting – it was suggested that each step begin with the reassertion that the steps are being conducted by the CHW. Replacing the word caregiver with mother would help clarify some of this confusion in the text.

1 Prepare for the procedure

Hand washing

The hand-washing image was understood; however the source of the water was questioned. It was suggested that this be replaced with an image of the CHW washing her hands with soap.

“Where is the source of the water?” (CHW – older woman)

Prepare the suppository

‘Preparing the suppository’ was not thought to be a premature instruction at this early stage. Some respondents suggested that it would be better to say ‘Determine the correct dose’ and include a dosage table at this point. Others suggested that ‘Prepare supplies’ would be appropriate at this stage and others said a horizontal tab of ‘Prepare for the procedure’ and to have a few of the necessary preparation stages illustrated – an example of these possible steps are listed below.
“I do not understand the dosage for this drug – you have written 10 mg/kg but on the other hand you are asking that we give the same suppository to all children from 6 months to 6 years. This makes no sense to me.” (CHW male)

“We need a dosage table, with each age, possible weight and the dose in milligrams and how many suppositories we should insert or what strength.” (CHW male)

“Without a table of dosage, we will struggle. Already, we may have problems weighing the children, when they are so sick and unconscious.” (CHW female)

“Be cautious showing age in a dosing table – often CHW do not know the exact age, they will work off the weight, if they can weigh the child.” (Nurse Trainer)

“You need to be sure to communicate that they cannot give a second dose of RAS – there may be a temptation to do so! Explaining this is important.” (NGO Rep)

The issue of dosage was raised throughout; despite the consultant making it clear from the start that the issue of dosage had not been resolved and would be clarified. The CHWs questioned why the drug and tools were available but the dose was not yet clear.

**Positions**

All respondents said they would only use the Lateral/Side Position illustrated below and that illustrating the other positions was confusing and unnecessary. The ‘casserole’ would need to be removed.

2. **Put on a pair of disposable gloves**

   This image was well understood, without any concerns.

3. **Remove the suppository from the wrapper**

   The removal of the suppository was understood, although it was suggested that the suppository could be more clearly visible with the silver packaging more obvious and the image less squeezed.

4. **Insert the suppository**

   The act of inserting the suppository was clear and no questions were raised. About 50% of the CHW respondents had inserted suppositories before, either glycerine or paracetomol suppositories and were familiar with the process.
5  Cover the buttocks

The act of holding the buttocks together was well captured. Doing so for 5 to 10 minutes was raised as unrealistic and three to five minutes was more consistent with the notion that the child is sick and should be transported soonest.

6  Complete the referral form

The act of documenting and completing the referral was perfectly well understood. It was requested that the image be a bit bigger. The details on what to include should be included here and not on a separate page. The necessary points were: Name of Child, Village, Name of CHW, Danger Signs observed in the child, Action taken and date and time of treatment.

7  Urgent transportation

This image raised a number of challenges. As illustrated above, the arrow with the words hospital is not so well understood. A finger with an arrow pointing to a building was considered important.

The motor bike did communicate the urgency of transport since getting a motorbike in remote Senegalese villages is very unusual. It was however suggested that a horse and cart would make more sense in Senegal. It was suggested that the image shows the child being/arriving or being received into the hospital. Some CHW mentioned that a clock in the corner of the image would also emphasise the importance of time. Questions were raised about how long a mother had before the child was due the next dose. “Can you indicate what the CHW can tell the mother about how many hours she has before the child must reach care for another dose?” Another Nurse interrupted and answered “If they tell the mother, then she will take her time to find money or make arrangements, instead perhaps she must be told that she has very little time – so they rush!” (Nurse Trainer)
Suivi

This image was interpreted by over half respondents to mean that the child had recovered. However, those who did not notice the smile, were not certain of its meaning. Many suggested that the ‘recovery’ image, show the child sitting upright and playing with a mosquito net in the background.

In addition it was noted that “… the task of follow up at the home is not typically expected of the CHW. The distances to people’s homes are big and a CHW will not travel to a home for a follow up, unless contacted. The CHW can advise the mother to call her if the child is not well upon returning home from the hospital.” (Nurse trainer)

Meanwhile, others disagreed and felt that this still should be expected of the CHW, even though it was unlikely to happen in practice, due to resource limitations.

Notes

The symbol was understood to mean ‘water’ by some and the word hygiene prompted this interpretation. For others they interpreted the image to be “… the suppository in the hands of the CHW.” In discussions about hygiene it was raised that: “CHWs are trained to consider hygiene, therefore you can leave this out of when you make something for Senegal!” (Nurse Trainer)

The symbol for ‘Formulaire de transfert’ was interpreted to be a paper and pen. As noted above, the list of what to include should feature under the referral step and should include those items circled in red above, in addition to the time and date of treatment and the age of the child/weight.

It was considered inappropriate to give instructions to the CHW, about raising funds to ensure the child reaches the hospital. Only a few items were suggested to be retained – as indicated below with green arrows. The red crosses show the items to be removed.
An image illustrating reaching the health facility – with an ambulance or a horse and cart and running into the facility is frequently used in PNLP materials – see below.

**Trouble Shooting**

- Melted Suppository
- If the child does not get to the hospital – can a second dose be given?
- Broken Suppository
- Suppository Expelled
- Diarrhoea – intermittent
- Diarrhoea – persistent

This section was valued. Respondents anticipated that community health workers would need to know how to handle chronic/persistent diarrhoea.

It was also proposed that all the problems that featured under **trouble shooting** – should be illustrated.
Findings – Poster

The mothers consulted all had children between the ages of 6 months and 6 years. Their experience of the poster was considered representative of mothers views in the region sampled. Although the poster was generally well interpreted, there was a general sense among the CHW and nurse trainers, but not among the mothers, that the poster was too dense. This may be because the CHW and trainers and PNLP representatives were reading the poster, whereas the majority of the mothers consulted, tended only to look at the images and to come to a conclusion without reading.

Title – Poster

Artesunate par voie rectale

The title was not understood at all and may be too academic. It was suggested that the title or introduction speak of simple concepts such as: ‘Severe Malaria’ or ‘Danger Signs’ and feature the word ‘suppository’ for ‘severe malaria’ and the fact that this product ‘is now available at your CHW’ and can ‘save the life of your very sick child while they travel to hospital for care.’

Première étape de soin contre le paludisme grave chez l’enfant âgé de plus de 6 mois et de moins de 6 ans

Although this sub-title addresses the age category to which this poster applies – illiterate mothers did not understand this information. An image of the different ages, possibly in the form of a scale of children side by side, see an example to the right, may illustrate the eligible children. “The child in the pictures looks younger than 6 months. He is very, very small…(other mothers agree).” (Mother)

“If this is for all my children who are younger than six, then it is better not to only show one, or mothers will think this is only for their littlest ones.” (Mother)

Symbol

The symbol of the mosquito was immediately understood by mothers and helped them to realise that this poster related to malaria.

Fever

The image of fever was recognised; even though it was not labelled as fever on the poster. As was the case with health workers, they suggested that the mothers’ hand be on the forehead, instead of on the top of the head. Some mothers thought that the sweat drops were either a rash or an injury of some kind – the sweat was not deemed necessary. “There is no need for sweat, it is not always there.” (Mother) In general the mothers thought the child had a very bloated stomach.
Danger Signs

This image was understood to represent a very sick child, who was disinterested in his mother and unresponsive. The image indirectly captured the idea of ‘unconsciousness.’

The majority of the mothers understood this image to mean ‘convulsions’ or ‘seizures.’ Some mothers said they thought the eyes should be rolling backwards. Others said the arms should not be bent on the chest.

The pot/‘casserole’ also bothered the mothers, as it had the health workers – as it was seen to serve no purpose.

The image represented vomiting was fully understood and there were no misunderstandings among the mothers consulted, though the pot still bothered them. Certain mothers thought that the mother should have a cloth or towel nearby.

The lack of appetite was understood, although, some mothers thought that a breast feeding child should also be illustrated, to demonstrate lack of interest in both food and even breast milk. Similarly to the health workers, they thought a glass or a dish should be illustrated, to show the source of the food or liquid in the spoon. The pot did not play this role.
Outcome

The preference between these two styles of posters among the mothers and all the health workers was the one below, showing an illustration of the CHW. It was suggested that this image of the CHW assessing the child should be labelled as the ‘first step’ – since the idea of ‘first step’ or ‘premier pas’ was not well grasped in the title of the poster.
For the subsequent steps, the preference was the sequence in the image below. Illustrating the buttocks and suppository was deemed acceptable and essential, but it was thought that the CHW should be seen doing the insertion, otherwise it was not clear who was doing this.

As with the health workers, the motor bike needed to be replaced with a horse and cart. It was thought that an additional image showing their arrival at the health centre was very important to make sure that it was clear that they needed to reach the hospital. The last image of the child with an IV was not clearly understood as taking place in a hospital and may need to be enhanced by providing a reference to the context.

This statement above only made sense if the ‘first step’ was emphasized as being the step of calling the CHW who has access to the suppository. Consider a phrase such as: “When your child shows the signs of having severe malaria – take the first step and call your CHW who will administer the suppository and refer your child to hospital for care.”

“It should say – rendez-vous le plus rapidement que possible ou en urgence.” (PNLP Rep)

PNLP Senegal and their Toolkit Buy-In
The PNLP of Senegal was very cooperative and engaged throughout the pre testing process. In addition to making suggestions, incorporated into the findings above, they requested editable tools that they could use as they roll out pre-referral RAS. It appears they have a budget in hand for flyer, poster, flipchart and summary flyer/jobaid.

French Corrections
The following corrections were requested:

- Accents on capitals
- Soignant implies health worker and not mother – should be mère or gardienne.
- Premier soin (masculine)
Conclusion

In reviewing the criteria set out at the start of the pretesting, the following conclusions can be drawn:

- **Comprehension:** With a few exceptions, the tools were generally very well pitched for the community health worker cadre. With the exception of the first page, the words tended to accompany the images – meaning the CHW could decipher the process without reading. Some adjustments are needed to reinforce this further and close the knowledge gap. The tool naïve responses were most valuable in determining how a new untrained CHW would experience the tools. Comprehension should improve with slight adjustments to the images and text, based on the recommendations made. The mothers used the images effectively to comprehend the intention of the poster – this will be further enhanced by improving certain images – specifically fever and lethargy.

- **Persuasion:** The flyer was very persuasive and engaging and held the attention of all respondents with the exception of page 1, where the text is too dense and needs to be presented in a different way for the job aid. The poster highlighted the sick children and resonated with the wish of a mother to ensure her child accesses care. The balance of the images needs to be revisited – so that the final stages are seen in an equal light to the danger signs. The straight forward images that are not abstract were very useful in reflecting the mothers’ commitment to protecting their children.

- **Acceptability:** The suppository and the way in which it is presented in the materials were acceptable to the respondents at all levels, including the caregivers. In most case the images were consistent with cultural nuances, with only a few suggested changes that apply to the West African / Senegalese culture. The tool itself was considered useful, but modifications to develop a simplified version of the ‘assessment’ and ‘steps to administer’ for those already trained was proposed, as was a flipchart training tool.

- **Self-involvement, Familiarity and Relevance:** The flyer was relatively well pitched at the level of the community health worker, but the images need to be arranged so that they are in fact leading and accompanied by the words. The average community health worker consulted had little or no formal education and although some of them could read, the preference is to have the images indicate the steps and allow the explanations to be the backup.

- **Attraction:** The tools all demonstrated the potential to attract and sustain the attention of the users.

The first pre testing exercise was a success. The changes proposed are simple. Additional tools are requested so that CHW benefit fully from the materials – a simplified job aid with key learning/action points and a flipchart tool for training.
Appendix
Letter of Permission from PNLP Senegal

Ministère de la Santé
Et de l’Action Sociale

Direction Générale de la Santé
Direction de la Lutte contre la Maladie
Programme national de Lutte contre le Paludisme

Objet : Réponse courriel
Référence : V/L SN, du 13 avril 2015, relative à une demande d’autorisation pour une enquête

Monsieur le Directeur,

J’accuse réception de votre correspondance, ci-dessus référencée, relative à une demande d’autorisation pour une enquête terrain pour pré tester le matériel de formation et de sensibilisation pour le traitement pré-transfert avec de l’artesunate rectal.

Le Programme national de Lutte contre le Paludisme (PNLP) marque son accord pour la conduite de cette enquête au Sénégal et se tient prêt à vous accompagner.

Veuillez croire, Monsieur le Directeur, à l’expression de ma considération distinguée.

/ /

Monsieur Pierre HUGO
Directeur, Access aux médicaments, Afrique

Le Coordonnateur du PNLP
Dr Mady BA