Enhanced Passive screening and diagnosis for g-HAT in NW Uganda-Moving towards elimination

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HAT in Uganda

- Endemic for both gambiense HAT (NW) and rhodesiense HAT (South Eastern and Mid North)
- 10 million people in 40 districts at risk
- Out of 35m inhabitants
- Recent reports indicate r-HAT transmission in Murchison Falls National Park

Number of HAT cases (2012-2016) in North-Western Uganda

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A Steady Decline; Set for Elimination. g-HAT reported cases in Uganda: (Jan 2005 - Aug 2018)
Case detection

• Passive
  OR
• Active

Traditionally, detection of *gambiense* HAT cases relies mainly on active screening of the population living in high risk areas using specialized mobile teams

❖ Therefore, HAT diagnosis inevitably became a parallel structure in the health system

❖ This surveillance is done using CATT (Antigen based test) which requires cold chain

❖ With reduction in g-HAT prevalence, **active screening became too expensive and considered cost ineffective**

➤ thus limited access to screening in absence of mobile teams

• Before 2013, **passive surveillance was only in 4 health facilities** across the *gambiense* HAT belt in NW Uganda covering a population of 2.22m

• The recent development of rapid diagnostic tests (RDTs) has improved screening for HAT at peripheral level health facilities
Previous HAT Diagnostic Centres
Health facilities in *gambiense* belt since 2013 performing HAT screening
Current Strategy and Rationale for Enhanced Screening

- Based on passive screening integrated into existing health care facilities
  - Deploy RDTs to screen clinical suspects
  - Increased coverage of passive screening from 4 health facilities to 174 health facilities
  - Reactive screening around villages with a new case
  - Active screening in refugee camps
  - LAMP to increase suspicion
Current Strategy and Rationale for Enhanced Screening

- Increased microscopy coverage
  - From 4 to 12 centres
  - Introduce iLED microscopy
  - Re-introduce mAECT to compliment CTC
  - Mobile microscopy teams to improve access to confirmatory parasitology tests
  - Take pictures of positive microscopy results and share among team members

- Use of mobile phones to transfer data from health facilities on to a common platform
  - to improve management and decision making

- Identification of possible source of infection
Operationalizing the Current Strategy

- Upgrading of health facilities
- Training of health workers on the diagnostic algorithm (clinical suspicion, RDTs) and data transfer by sms and online application
- Provision of RDTs and screening algorithms to health facilities
- Put in place transport system for filter paper sample collection, RDT distribution and for mobile microscopy outreach
- Regular External Quality Assurance and monitoring
- IEC material development and role out (Technical support from Malteser International and PAL)
District Launch and Trainings

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Communication strategy

• Sensitization of key administrative & local leaders (28) in W.Nile Region

• Sensitization of health staff (269) in refugee settlements

• Sensitization of village health teams (264)

• Airing of Radio content (SS jingles, stories, drama – Lugbara, Madi, Kakwa, Arabic, English languages, Jan-0ct 2018)

• Distribution of IEC materials
Current Microscopy and LAMP Centres
- RDTs brought to the nearest Health centre (from 23 km to 2.5 km)
- Microscopy at a median distance 12.49 km
Summary of screening results- August 2018

<table>
<thead>
<tr>
<th>RDTs performed: Passively</th>
<th>Positive RDTs</th>
<th>Suspects (RDT positive) tested by parasitology</th>
<th>Parasitology positives (Passive &amp; Active HAT cases)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36,119</td>
<td>861 (2.4%)</td>
<td>706 (82.0%)</td>
<td>21</td>
</tr>
</tbody>
</table>

Other relevant data:
- Most recent HAT case was reported in June 2018 (of south Sudanese origin)
- It is two years since last native case was reported
- Actively screened 60,432 people in refugees camps: One case identified (Kijaki village, Kajokeji)
- Actively screened 19,134 local population: No cases identified
HAT screening at refugee camp
A New challenge: refugee influx from South Sudan

- Some refugees coming from HAT endemic areas in South Sudan
- Settling down in HAT endemic areas in Uganda

Response

- Increased passive screening capacities in health facilities attending refugees, including centers managed by NGOs
- Active screening in districts where refugees have integrated with the local community
- Active screening in refugee camps:
The 2 HAT cases in 2017 were South Sudanese.
Other challenges

- How to maintain high motivation among health workers in absence of new cases
  - Some have never diagnosed a case
  - Never seen a trypanosome by the time they join the team

- High turn over of clinical and technical staff
  - Identify gaps, new staff and offer appropriate training
  - EQA useful to maintain competencies

- How to interest suspects to continue reporting for microscopy

- How to deal with unregistered refugees who diffuse into the general population

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Conclusion

- We have demonstrated that it is possible to integrate passive screening into the existing health care delivery.
- The strategy is appropriate to accelerate elimination of the gambiense HAT in an area of low-prevalence.
- Elimination of sleeping sickness in Uganda could be jeopardised by the conflict in South Sudan.
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