Endectocides: current state
RBM VCWG
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The Ivermectin roadmap

4th New Tools, New Challenges in Vector Control Work
Stream meeting
31 January 2019

Carlos Chaccour
Regina Rabinovich
Product class

The proposed indication is for the prevention of malaria infection at community level by reducing the mosquito vector pool when used in mass drug administration (with or without simultaneous treatment of livestock)
Products under evaluation

- Ivermectin
  - 400 mcg/kg
  - 300 mcg/kg x 3
  - + SMC
  - + MDA
  - + Livestock
- Long-lasting formulations
- Nitisinone
- Fipronil? (2017)
Gaps addressed by new products

Figure by Killeen
## Ongoing evaluations

<table>
<thead>
<tr>
<th>Lead</th>
<th>Country</th>
<th>Dose</th>
<th>Combination</th>
<th>First results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRC Gambia LSHTM</td>
<td>The Gambia</td>
<td>300 x 3</td>
<td>DHA-P MDA</td>
<td>2020</td>
</tr>
<tr>
<td>CSU</td>
<td>Burkina Faso</td>
<td>300 x 3</td>
<td>SMC</td>
<td>2021</td>
</tr>
<tr>
<td>ISGlobal</td>
<td>Mozambique, Tanzania</td>
<td>400 x 1</td>
<td>Ivermectin alone + livestock</td>
<td>2023</td>
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<td>Guinea-Bissau</td>
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</table>
Ongoing evaluations
High level results

Incidence clinical malaria by study arm and month (2019)

Cases/100 person-months

July August September October November December

MDA MDA MDA

MRC Unit The Gambia at the London School of Hygiene & Tropical Medicine

Figure by D’Alessandro
Pending research questions

• Robust efficacy
• Dosage + regimen
• Coverage
• Companion antimalarial regimen
• Hosts other than humans
• Long lasting formulations
• Molecules other than ivermectin
VCAG status
Estimated timeline to market

- Ivermectin is already marketed for other indications
- Estimated time for new indication 2023
- Scale-up 2023-28
‘Roadmappers’

Peter Billingsley          Emily Kobayashi          Frank Richards
Fred Binka                  Kevin Kobylinski         Cassidy Rist
Ashley Birket              Ana Last                  Jessica Rockwood
Tom Burkot                 James Lavery              Francisco Saute
Carlos Chaccour            David Mabey               David Shoultz
Luis Ferrero                Leonard Mboera            Hannah Slater
Scott Filler               Charles Mbogo             Andrew Steer
Brian Foy                   Tom McLean                Rick Steketee
Lee Hall                    Scott Miller              Kang Xia
Julie Jacobson              David Olsen               Hetty Waskin
George Jagoe                Jetsumon Prachumsri        Edward Wenger
Caroline Jones              Regina Rabinovich          Rose Zulliger