GLASS early implementation protocol for inclusion of *Candida* spp.

Feedback from countries

3rd High Level Technical Consultation and Meeting on Surveillance of Antimicrobial Resistance and Use for Concerted Actions

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GLASS early implementation protocol for inclusion of *Candida* spp.

- Developed to support countries to strengthen or build their national fungal AMR surveillance, and enable incorporation of AMR surveillance for invasive *Candida* into GLASS.
- Describes objectives and methodology and provides details of the proposed approach and defined targets for the surveillance of resistance in *Candida* BSIs.
### Global Antimicrobial Resistance and Use Surveillance System (GLASS)

63 countries responded

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>5</td>
<td>7.9%</td>
</tr>
<tr>
<td>Americas</td>
<td>19</td>
<td>30.2%</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>21</td>
<td>33.3%</td>
</tr>
<tr>
<td>Europe</td>
<td>9</td>
<td>14.3%</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>4</td>
<td>6.3%</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>5</td>
<td>7.9%</td>
</tr>
<tr>
<td>Low &amp; lower-middle income</td>
<td>20</td>
<td>31.7%</td>
</tr>
<tr>
<td>Upper-middle income</td>
<td>21</td>
<td>33.3%</td>
</tr>
<tr>
<td>High income</td>
<td>22</td>
<td>34.9%</td>
</tr>
<tr>
<td>GLASS countries</td>
<td>47</td>
<td>74.6%</td>
</tr>
<tr>
<td>Non-GLASS countries</td>
<td>16</td>
<td>25.4%</td>
</tr>
</tbody>
</table>
Q1: is the Protocol presented in a clear manner?

Yes 97%

Q2: Does the Protocol provide a clear guidance to support the implementation of the AMR surveillance in Candida spp in countries?

Yes 94%
Q3: does the Protocol present clearly a) requirements and b) definitions for implementing AMR surveillance in *Candida* spp?

Q4: do you find the Protocol useful for assisting with enhancing AMR surveillance system in your country?
Q5: ... are bloodstream infections due to *Candida* spp. systematically monitored in your country?

Results by income level:

- **Low/Lower-middle income (N=20):**
  - Yes: 24%
  - No: 63%
  - Don't know: 13%

- **Upper-middle income (N=21):**
  - Yes: 24%
  - No: 63%
  - Don't know: 13%

- **High income (N=22):**
  - Yes: 24%
  - No: 63%
  - Don't know: 13%
Q6: do you consider that the clinical laboratories participating in the national AMR surveillance system have the capacity and infrastructure required for identification and performing antifungal susceptibility testing (AFST) of *Candida* spp?

- **Yes** (40%)
- **No** (46%)
- **Don’t know** (14%)

**No**

- A number of countries described in detail the gaps in the laboratory infrastructure and specific needs
- Several countries noted that, while having the capacities for identification (in many cases not to the species level), they lack the capacities for AFST
- Some more advanced countries noted that even with the existing laboratory capacities standardization across the surveillance system is lacking
Q7: ... would you consider the implementation of the Protocol as part of your AMR national surveillance system?

- Yes: 76%
- No: 6%
- Don’t know: 18%

Most responding countries provided their comments on what would be required to implement the Protocol:
- Need for advocacy
- Inclusion of the *Candida* surveillance in the national plans
- Commitment of national authorities
- Incorporation of the protocol in the national surveillance system
- Allocation of funds and human resources

Many countries requested support for establishing coordination mechanisms and laboratory networks, procurement of laboratory equipment and supplies, training, development and implementation of SOPs, establishing referral pathways.
Q8: Please share any additional comments you have on the Protocol

- 25 countries used this open question to provide detailed comments, questions, suggestions for improvement of the protocol, and specific requests for support.
- Several countries described their current situation with the AMR surveillance in fungi and shared plans.
- As some countries are still sending their feedback, a more detailed overview of the feedback will be included in the final report that will be distributed after the consultation meeting in April 2021.