API GMP inspection Overview for PQ medicines

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WHO API GMP inspection

Type of inspection
- Initial inspection: new site
- Routine
- Follow up
- Desk review
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Inspection outcome

- Compliant
- Decision made after CAPAs submitted and reviewed
- Non-compliant
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After the inspection

- Inspection closing letter
- WHO public inspection report WHO
- Notice of concern, if not compliant
- Re-inspection: risk based, max. 3 years
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CAPAs
- 30 days after report is received.
- Supportive documents to major/critical deficiencies
- Inspectors review the CAPAs
- 2nd CAPAs may be required.
- Closing of inspection
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WHO Public inspection report (WHO PIR)

https://extranet.who.int/prequal/key-resources/prequalification-reports/whopirs
## WHO API GMP inspection

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2013</td>
<td>22</td>
</tr>
<tr>
<td>Year 2014</td>
<td>32</td>
</tr>
<tr>
<td>Year 2015</td>
<td>36</td>
</tr>
<tr>
<td>Year 2016</td>
<td>29</td>
</tr>
<tr>
<td>Year 2017</td>
<td>18 till now</td>
</tr>
</tbody>
</table>
## WHO API GMP inspection-2016

<table>
<thead>
<tr>
<th>Routine</th>
<th>19</th>
<th>66%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New site</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td>Follow up</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Desk review</td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>
WHO API GMP inspection-2016

Year 2016 API inspections

- Routine: 19
- New sites: 3
- Desk review: 6
- Follow-up: 3
### WHO API GMP Inspection 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>14</td>
<td>48%</td>
</tr>
<tr>
<td>India</td>
<td>14</td>
<td>48%</td>
</tr>
<tr>
<td>Korea</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>
WHO API GMP inspection-2016

Top deficiencies ___ in 2016

- Product quality review
- Production and packaging operations
- Quality risk management
- Investigation of OOS
- Equipment qualification – production
- Cleaning validation
API Deficiencies analysis

Comparison top deficiencies 2013 - 2016

- 21 sites 2013
- 32 sites 2014
- 36 sites 2015
- 29 sites 2016
Examples

Consideration of contamination control

- Know the hazard
- Identify the risks
- Develop controls
- Implement, validate
- Monitor and review
Examples

Sources of contamination- risk management

- The parts not easily seen, hard to clean areas, e.g. Service ports/lines to vessels, connections, ball/butterfly valves
- Reconfigured pipework, etc.
Examples

- Generation of a set of number and a risk score vs. the level of detail of the risk assessment to ensure the PDE/HBEL etc. met with an acceptable level of confidence.
- For higher hazard substances, is “cleaning validation” sufficient?
Preparation for inspection

1. Site Master File (SMF) -- Information for whole site including products produced and tested on the site and their production blocks

2. Relevant information made in the inspection opening meeting
   - Quality system
   - Penicillin and other beta lactam antibiotics, high potency substances/products on the site
   - Contract manufacturing or testing
Preparation for inspection

3. Controlled documents and records

4. Different process/quality grades of APIs

5. P & ID of utility system
Thank you
WHO API GMP inspection

Questions?
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