QUALITY OF VETERINARY MEDICINAL PRODUCTS IN CIRCULATION IN SYRIA

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The first attempts at the manufacture of veterinary medicinal products were started by the private sector in the early 1990s. As there was no regulation or control of the industry, apart from some veterinary vaccines that the Ministry of Agriculture began producing within the required technical specifications, at the time there were only ten factories (producing mostly powders).
The veterinary medicinal products policy in Syria had to be determined, and in a valuable phase, this industry has been regulated, to ease the burden of imports.

Citizens’ awareness has also increased in Syria and this has led to an increase in the number of licensed factories.
At the present time 45 factories exist making all the different pharmaceutical forms of medicines: injections, powders, liquids, ointments, udder and uterus injector suspensions, ectoparasites, veterinary disinfectants, sprays, vaginal sponges, serums, salt stones, vaccines).
The following table shows the number of factories that manufacture veterinary medicines in all pharmaceutical forms:

<table>
<thead>
<tr>
<th>No. of factories</th>
<th>Powders</th>
<th>Liquids</th>
<th>Salt stones</th>
<th>Injections</th>
<th>Ointments</th>
<th>Tablets</th>
<th>Vaccines</th>
<th>Ectoparasite</th>
<th>Disinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>40</td>
<td>28</td>
<td>15</td>
<td>10</td>
<td>15</td>
<td>13</td>
<td>1</td>
<td>4</td>
<td>12</td>
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</tbody>
</table>
Owing to the increasing interest in veterinary manufacturing, laws and decisions that govern this industry, and that include imports and exports, have been issued, taking into account international standards for good manufacturing practice (GMP) and good laboratory practice (GLP).

Currently, all medicinal forms are produced by local factories and the number of veterinary products at present is 2465 products.
The table shows the registration of local products in Syria

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</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
<td>19</td>
<td>2</td>
<td>73</td>
<td>108</td>
<td>349</td>
<td>284</td>
<td>172</td>
<td>104</td>
<td>98</td>
<td>199</td>
<td>266</td>
<td>246</td>
<td>245</td>
<td>250</td>
</tr>
</tbody>
</table>
## Total license local veterinary products in Syria

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Tablet</th>
<th>Ointment</th>
<th>Injection</th>
<th>Liquid</th>
<th>Powder</th>
<th>Disinfection Feed additive</th>
<th>Total products</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>47</td>
<td>97</td>
<td>272</td>
<td>925</td>
<td>1114</td>
<td>75</td>
<td>2465</td>
</tr>
</tbody>
</table>
The high quality of the local industry in Syria has strengthened the confidence of different countries in these products, which led to an increase in demand for medicines manufactured in Syria, and this in turn has led to an increase in the export of products to various countries.

- The number of veterinary products exported in 2008 was 500 products
- 2009 was 450 products (until September).
Quality Control for veterinary medicinal products

- Concerning the quality of the local industry, a control laboratory was necessary and was founded in 1995.
- This laboratory analyses:
  - all the raw materials that are used in local industry
  - veterinary products locally manufactured, imported and submitted for registration and licensing.
- The number of products analysed
  - in 2008 was 3233 products
  - in 2009 was 2724 products (until Sep. 2009)
Circle for pharmaceutical products analysis
Circle for biologingical products analysis
Circle to study the residual effect of veterinary drugs in animal products, on processing
Section to study the stability of veterinary medicinal Products.
Monitoring the veterinary medicinal Products

- Monitoring Section in the directorate of veterinary drugs responsible for monitoring the veterinary medicine factories and stores, and offices of the Veterinary Services.
- It periodically takes random samples from the market for manufactured and imported products.
The proper conservation of veterinary medicines maintains their quality in the treatment of animal diseases.

Local factories were requested to transport drugs in a refrigerant forms to ensure the safety and quality of the medicine.

Drugs veterinary (Stores and service office) must be keep the veterinary products with appropriate temperature.
Future strategies of veterinary drugs Directorate in Syria

- Syrian GMP (updating version) will issue ASAP
- Updating the legislation regarding the new legislation in the world (EU, USA)
- New decrees for R&D
- Quality control and stabilities of medicinal veterinary products will be the first our lab. Priority
- All the distributors cars should have logo belong to the factories
Thank you for your attention