

**Dr Morgan Jeannin**

**Chargé de mission**

**Antimicrobial Resistance and Veterinary Products Department**

# **Introduction to the AMU Data Collection Template**

**Webinar for the Middle East**

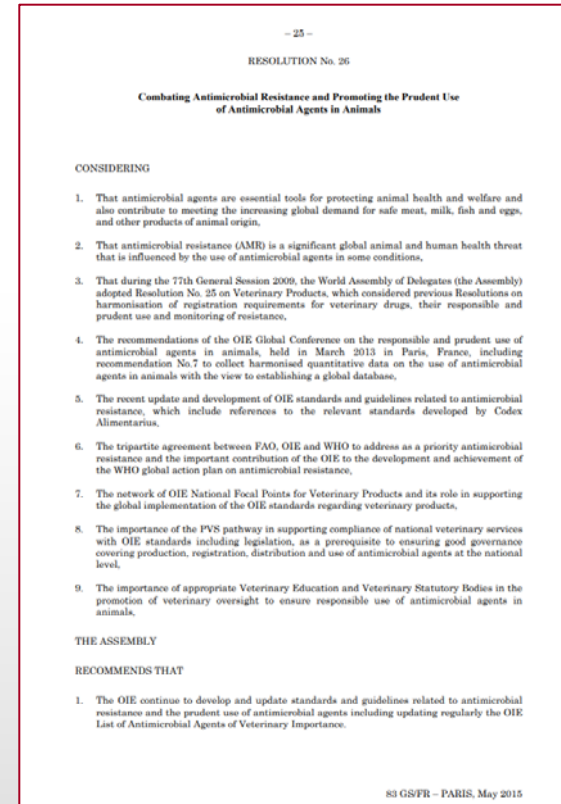
**7 December 2020**



# OIE 83<sup>rd</sup> General Session – May 2015

## Resolution 26 “*Combating AMR and Promoting the Prudent Use of Antimicrobial Agents in Animals*”

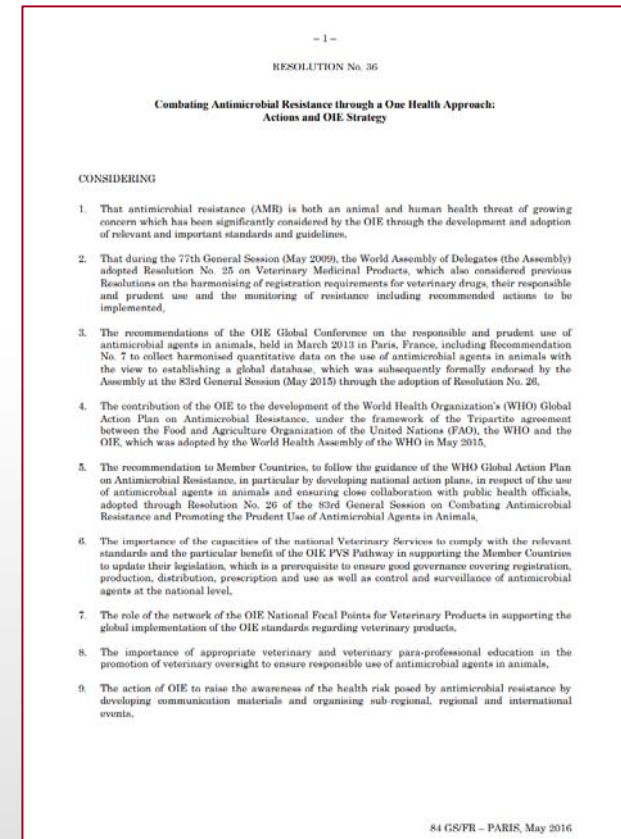
- The OIE develops a procedure and standards for data quality for *collecting data annually* from OIE Member Countries *on the use of antimicrobial agents* in food-producing animals with the aim of *creating an OIE global database...*



# OIE 84<sup>th</sup> General Session – May 2016

## Resolution 36 “*Combating AMR through a One Health Approach: Actions and OIE Strategy*”

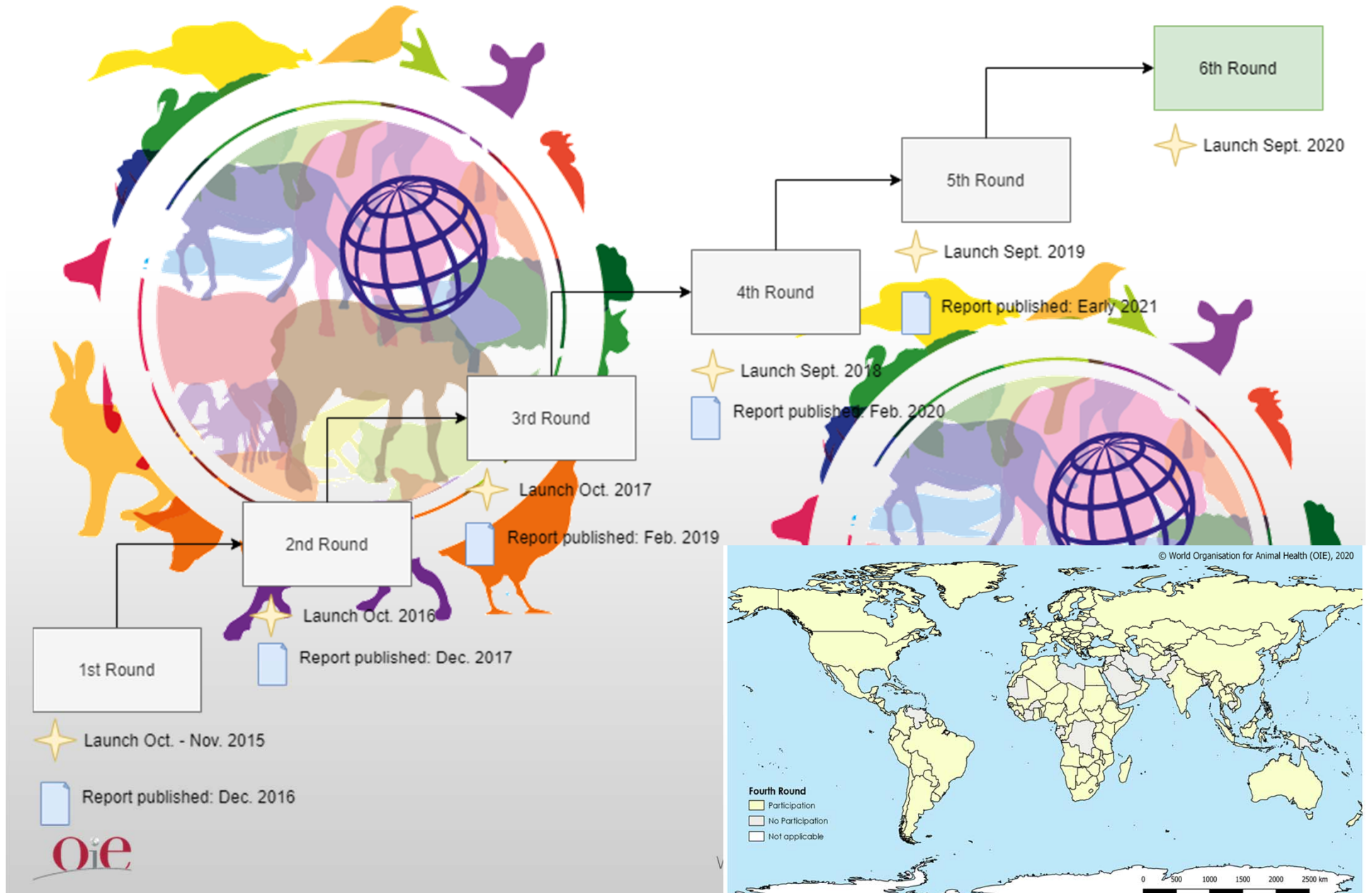
- The OIE actions to be compiled and consolidated within the OIE Strategy on antimicrobial resistance include:
  - *The establishment and the management of a database for the collection of data on the use of antimicrobial agents in animals as well as the development of interpretation indicators*



**84  
SG**  
2016  
Paris 22-27 mai 2016



# Rounds of the OIE AMU Data Collection



# Then...TrACSS?



TrACSS

is

- an annual Tripartite AMR country self-assessment survey (TrACSS)
- Multisectoral (so you should be involved!)
- an open data (available at: <https://amrcountryprogress.org/>)

for

- Tracking countries progress on AMR objectives
- Demonstrating incremental progress

Related  
to

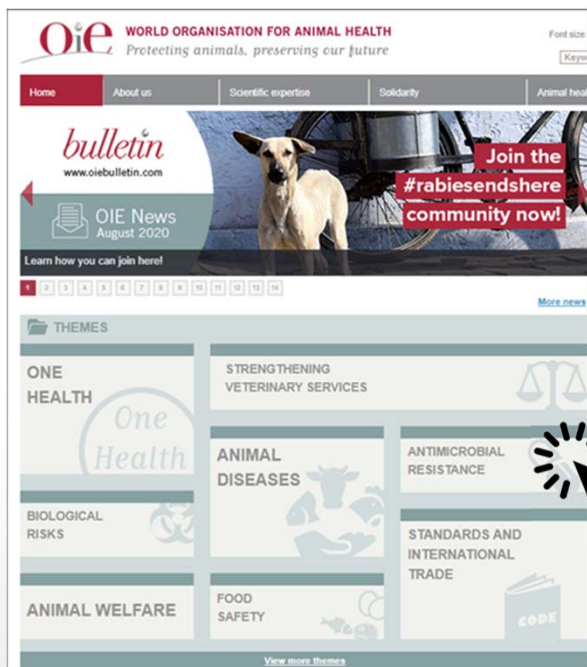
- Secretary General report to the United Nations General Assembly
- GAP AMR M&E framework
- OIE AMU Data Collection (40% inconsistency)

# OIE AMU Template






# Documents on the OIE Website




**OIE Template, Guidance and Calculations**


The OIE considered the experience and feedback from Member Countries and annually update the template and guidance document based on requests for clarification from responding Members. The current version of these documents, are available below.



OIE template



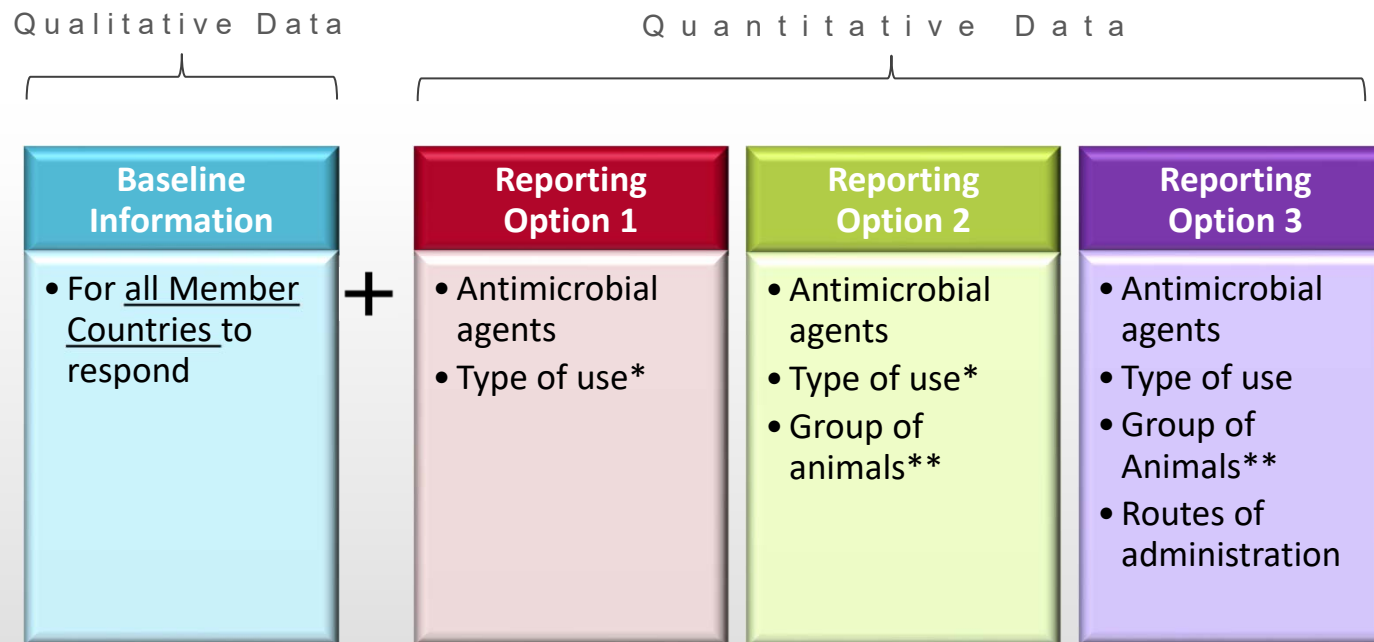
Guidance for completing the OIE template



Annex to assist in calculations

# Reporting Options

The sections of the OIE Template named 'Reporting Options' 1, 2 and 3, collect the quantities of antimicrobial agents intended for use in animals.



\* Type of use: veterinary medical use or growth promotion

\*\*For the purposes of the OIE database, animal groups means: 'terrestrial food-producing animals', 'aquatic food-producing animals' or 'Companion animals'



# Baseline Information

*All OIE Members can provide information to **Parts A and B**– Questions 1-14*

Q		*** This sheet of the OIE template should be completed by all countries *** Please refer to the Guidance document for further instructions.	Questions in <b>bold</b> are mandatory. Please provide this information as requested. Questions in <i>grey italics</i> are optional.
<b>A. Contact Person for Antimicrobial Agents Use Data Collection</b>			
1	<b>Title</b>	<free text field>	Please provide the contact information of the person completing this template. He/she will be contacted by the OIE in case any clarifications on the data are needed. Please select the appropriate 'Role with respect to the OIE' from the list.
2	<b>Name (First name, SURNAME)</b>	<free text field>	
3	<b>Role with respect to the OIE</b>	<input type="checkbox"/> OIE Delegate <input type="checkbox"/> OIE Focal Point for Veterinary Products <input type="checkbox"/> Other	
4	<b>Organisation</b>	<free text field>	
5	<b>Organisation's Address</b>	<free text field>	
6	<b>Country</b>	<free text field>	
7	<b>Phone Number</b>	<free text field>	
8	<b>Email Address</b>	<free text field>	
<b>B. General Information</b>			
<i>Questions 9 to 14 are related to the current situation in your country. Responses should not be linked to the year of antimicrobial quantities reported.</i>			
9	<b>Are data on the amount of antimicrobial agents intended for use in animals available?</b>	<input type="checkbox"/> Amounts available - Yes <input type="checkbox"/> Amounts available - No	<b>Growth Promotion</b> means the administration of antimicrobial agents to animals only to increase the rate of weight gain or the efficiency of feed utilisation.
10	<i>Please indicate why the data are not available at this time in your country, if the answer to Question 9 is 'No'</i>	<free text field>	
11	<b>Are antimicrobial agents used for growth promotion purposes in animals in your country?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
12	<b>Does your country have legislation/regulations on antimicrobial agents as growth promoters in animals?</b>	<input type="checkbox"/> Legislation/regulation exists - Yes <input type="checkbox"/> Legislation/regulation does not exist - No	
13	<b>If your country has legislation/regulation on antimicrobial agents as growth promoters in animals, could you please indicate the appropriate case that applies in your country?</b>	<input type="checkbox"/> All antimicrobial agents banned for use as growth promoters <input type="checkbox"/> Some antimicrobial agents banned for use as growth promoters <input type="checkbox"/> One or more antimicrobial growth promoters are authorised for use	
14	<i>Please provide a list of antimicrobial agents used or authorised as growth promoters, if any</i>	<free text field>	
<i>If your response to Question 9 is 'No', please kindly send this template, once validated by the OIE Delegate and with your OIE Delegate in copy, to the OIE Antimicrobial Use Team at: <a href="mailto:antimicrobialuse@oie.int">antimicrobialuse@oie.int</a>.            If your response to Question 9 is 'Yes', please kindly complete Section C "Data Collection".</i>			
<b>C. Data collection of Antimicrobial Agents Intended for Use in Animals</b>			
*** Please provide data for 2018 If you have data for another year, please select the year from the list below ***			
15	<b>Year for which data apply</b> (Please select only one year per template)	<input type="checkbox"/> 2018 (target year) <input type="checkbox"/> 2019 (optional) <input type="checkbox"/> 2020 (optional)	Please provide data for <b>2018</b> . If you have data for another year, please select the year from the list. We will accept data for other years (2020 or 2019), but not from before 2018. If you would like to provide data for additional years, please fill out one template per year of data. <b>If you have found calculation errors in data</b>



# Baseline Information

## Part C— Questions 14-31 that are related to the antimicrobial quantities

\*\*\* Please provide data for 2018 if you have data for another year, please select the year from the list below \*\*\*

15	Year for which data apply (Please select only one year per template)	<input type="checkbox"/> 2018 (target year) <input type="checkbox"/> 2019 (optional) <input type="checkbox"/> 2020 (optional)
16	Time period for which data are provided (e.g., 1 January to 31 December 2018)	<free text field>
17	Data source	<b>Sales data</b> <input type="checkbox"/> Sales data - Wholesalers <input type="checkbox"/> Sales data - Retailers <input type="checkbox"/> Sales data - Marketing Authorisation Holders <input type="checkbox"/> Sales data - Registration Authorities <input type="checkbox"/> Sales data - Feed Mills <input type="checkbox"/> Sales data - Pharmacies <input type="checkbox"/> Sales data - Farms/Sheep/Agricultural Suppliers <input type="checkbox"/> Sales data - Industry Trade Associations <b>Purchase data</b> <input type="checkbox"/> Purchase data - Wholesalers <input type="checkbox"/> Purchase data - Retailers <input type="checkbox"/> Purchase data - Feed Mills <input type="checkbox"/> Purchase data - Pharmacies <input type="checkbox"/> Purchase data - Agricultural Cooperatives <input type="checkbox"/> Purchase data - Producer Organisations <b>Import data</b> <input type="checkbox"/> Import data - Customs declarations - Veterinary Medicinal Product <input type="checkbox"/> Import data - Customs declarations - Active Ingredient <b>Veterinary data</b> <input type="checkbox"/> Veterinary data - Sales <input type="checkbox"/> Veterinary data - Prescriptions <b>Antimicrobial use data</b> <input type="checkbox"/> Antimicrobial use data - Farm Records <input type="checkbox"/> Other data source(s) <input type="checkbox"/> Other
18	Clarification of the data source, if your response to Question 17 is 'Other'	<free text field>
19	Estimated coverage of accessible data out of total amount (in %)	0%
20	Explanation of estimated coverage	<free text field>

20	Explanation of estimated coverage	<free text field>
21	Is the information extrapolated from representative samples?	<input type="checkbox"/> Data extrapolated from representative samples - Yes <input type="checkbox"/> Data extrapolated from representative samples - No
22	Explanation of extrapolations carried out, if your response to Question 21 is 'Yes'	<free text field>
23	Can data be differentiated by animal group?	<input type="checkbox"/> Data differentiated by animal group - Yes <input type="checkbox"/> Data differentiated by animal group - No
24	Animal groups covered by the data	<input type="checkbox"/> Data with no differentiation (all animals combined) <input type="checkbox"/> Data for terrestrial and aquatic food animals (all food-producing animals combined) <input type="checkbox"/> Data for terrestrial food-producing animals and companion animals combined <input type="checkbox"/> Data for terrestrial food-producing animals <input type="checkbox"/> Data for aquatic food-producing animals <input type="checkbox"/> Data for companion animals
25	Food-producing animal species covered by the information on antimicrobial quantities	<input type="checkbox"/> Terrestrial food-producing animals <input type="checkbox"/> Cattle <input type="checkbox"/> Pigs - commercial <input type="checkbox"/> Pigs - backyard <input type="checkbox"/> Sheep <input type="checkbox"/> Goats <input type="checkbox"/> Poultry and game (meat fowls) <input type="checkbox"/> Layers - commercial production for eggs <input type="checkbox"/> Broilers - commercial production for meat <input type="checkbox"/> Other commercial poultry <input type="checkbox"/> Honey - backyard <input type="checkbox"/> Bees/hives (including Synaldis coffee) <input type="checkbox"/> Deer (venison) <input type="checkbox"/> Cervidae <input type="checkbox"/> Equine <input type="checkbox"/> Horses <input type="checkbox"/> Bees - honey <input type="checkbox"/> Reptiles (e.g., crocodiles) <input type="checkbox"/> Aquatic food-producing animals <input type="checkbox"/> Fish - aquaculture <input type="checkbox"/> Customers - aquaculture <input type="checkbox"/> Molluscs - aquaculture <input type="checkbox"/> Amphibians <input type="checkbox"/> Other food-producing animals <input type="checkbox"/> Other All food-producing animals

26	Clarification of other species considered to be food-producing, if your response to Question 25 is 'Other commercial poultry' or 'Other'	<free text field>
27	Companion animal species covered by antimicrobial quantities, if any	<input type="checkbox"/> Canines <input type="checkbox"/> Felines <input type="checkbox"/> Other
28	Clarification of other species considered to be companion animals, if your response to Question 27 is 'Other'	<free text field>
29	Can data be differentiated by route of administration?	<input type="checkbox"/> Data differentiated by route of administration - Yes <input type="checkbox"/> Data differentiated by route of administration - No
30	National report(s) on sales/use of antimicrobial agents in animals available on the web?	<input type="checkbox"/> Report available on the web - Yes <input type="checkbox"/> Report available on the web - No
31	Please provide the link to the report, if the answer to Question 30 is 'Yes'	<free text field>

According to your responses to the questions above, you are invited to fill in the following Reporting Option:

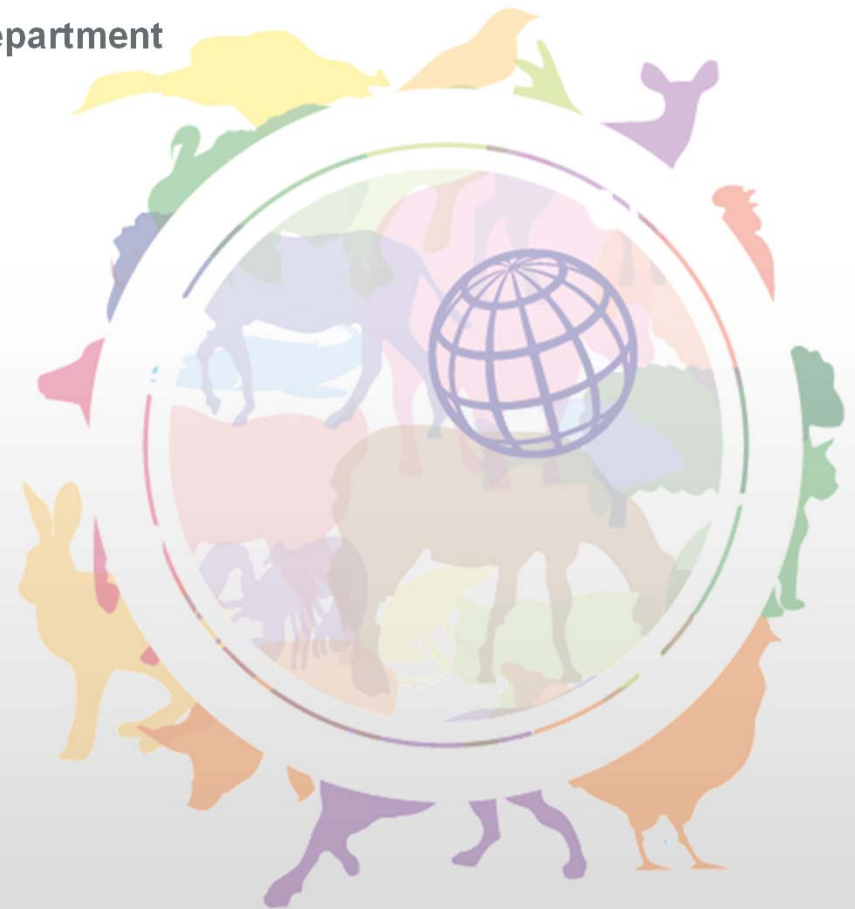
REPORTING OPTION	Appropriate for your Country
<a href="#">Option 1</a>	NO
<a href="#">Option 2</a>	NO
<a href="#">Option 3</a>	NO

This part is linked to your responses to previous questions

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## **OIE AMU Data Collection Calculations**

**Webinar for the Middle East**  
**7 December 2020**



WORLD ORGANISATION FOR ANIMAL HEALTH *Protecting animals, preserving our future*

# Calculating Kilograms of Active Ingredients



# Kilograms of Active Ingredients

Antimicrobial Class
Aminoglycosides
Amphenicols
Arsenicals
Cephalosporins (all generations)
1-2 gen. cephalosporins
3-4 gen cephalosporins
Fluoroquinolones
Glycopeptides
Glycophospholipids
Lincosamides
Macrolides
Nitrofurans
Orthosomycins
Other quinolones
Penicillins
Pleuromutilins
Polypeptides
Quinoxalines
Streptogramins
Sulfonamides (including trimethoprim)
Tetracyclines
Others
<b>Aggregated class data</b>
<b>Total kg</b>

## OTHER

All other antibiotics not covered by the antimicrobial classes already listed. This could include novobiocin, fusidic acid, kirromycins, fosfomycin, rifamycins, etc.

## AGGREGATED CLASS DATA

This is for **confidential** data only, not for products having more than one antibiotic. If in your country the data for one antimicrobial class needs to remain confidential, then the data can be reported under this category by using the AGG letters and report the names of the classes to the OIE.

# Which data do you need to have for obtaining kilograms of active ingredients?

## Mandatory data by product

- Active ingredients – **Molecule name** (e.g. enrofloxacin)
- Active ingredients – **Concentration and units** (e.g. 100 mg each 1ml)
- **Package size** (e.g. 1 L)
- **Number of units** imported, sold, prescribed or used for the period of time declared to the OIE (e.g. 1500 units)

## Optional data by product

- **Target species** (e.g. poultry)
- **Route of administration** (e.g. Oral)



# General Calculation

$$\frac{\text{Active substance concentration} * \text{Package size}}{\text{Concentration content}} \times \text{Number of units sold, imported, prescribed or used}$$

## Example 1

- Product Name: Product premix
- Package size: 500 g
- Sales during a year: 1 500 units
- Molecules and concentrations:
  - Tetracycline 40 mg / 1 g
  - Neomycin 20 mg / 1 g

### Active Ingredient 1

Tetracycline

$$= \frac{0.04 \text{ g} * 500 \text{ g}}{1 \text{ g}} \times 1\,500$$

$$= 30\,000 \text{ g} / 1\,000$$

$$= 30 \text{ kg reported for tetracyclines class}$$

### Active Ingredient 2

Neomycin

$$= \frac{0.02 \text{ g} * 500 \text{ g}}{1 \text{ g}} \times 1\,500$$

$$= 15\,000 \text{ g} / 1\,000$$

$$= 15 \text{ kg reported for aminoglycosides class}$$

## Example 2

- Product Name: Doggy tabs
- Package size: 1 box with 3 blisters (each blister has 10 tabs)
- Imports during a year: 950 boxes
- Molecules and concentrations:
  - Metronidazole 125 mg / 1 tablet
  - Spiramycin 700 000 IU / 1 tablet

### Active Ingredient 1

Metronidazole

$$= \frac{125 \text{ mg} * 30 \text{ piece}}{1 \text{ piece}} \times 950$$

$$= 3\,562\,500 \text{ mg} / 1\,000\,000$$

$$= 3.6 \text{ kg reported for the Other class}$$

### Active Ingredient 2

Spiramycin

$$= \frac{700\,000 \text{ IU} * 30 \text{ piece}}{1 \text{ piece}} \times 950$$

$$= 19\,950\,000\,000 \text{ IU} \times \mathbf{0.000313}$$

$$= 6\,244\,350 \text{ mg} / 1\,000\,000$$

$$= 6.2 \text{ kg reported for macrolides class}$$

# Conversion Factors

## For International Units (IU)

Antimicrobial agent in the veterinary medicine	Antimicrobial active entity for reporting to OIE	International Units per mg	Conversion factor to mg for multiplication
Apramycin *	Apramycin	556	0.0018
Bacitracin	Bacitracin	74	0.013514
Benzylpenicillin (penicillin G)	Benzylpenicillin	1666.67	0.0006
Chlortetracycline	Chlortetracycline	900	0.001111
Colistin methane sulfonate sodium (colistimethate sodium INN)	Colistin	12700	0.000079
Colistin sulfate	Colistin	20500	0.000049
Dihydrostreptomycin	Dihydrostreptomycin	820	0.00122
Erythromycin	Erythromycin	920	0.001087
Gentamicin	Gentamicin	620	0.001613
Kanamycin	Kanamycin	796	0.001256
Neomycin	Neomycin	755	0.001325
Neomycin B (Framycetin)	Neomycin B (Framycetin)	670	0.001492
Oxytetracycline	Oxytetracycline	870	0.001149
Paromomycin	Paromomycin	675	0.001481
Polymyxin B	Polymyxin B	8403	0.000119
Rifamycin	Rifamycin	887	0.001127
Spiramycin	Spiramycin	3200	0.000313
Streptomycin *	Streptomycin	785	0.001274
Tetracycline	Tetracycline	982	0.00102
Tobramycin	Tobramycin	875	0.001143
Tylosin	Tylosin	1000	0.001

## For Derivates or Compounds

Derivate or compound	Active entity	Conversion factor for multiplication
Benethamine benzylpenicillin *	Benzylpenicillin	0.61
Benzathine benzylpenicillin	Benzylpenicillin	0.74
Cefapirin benzathine *	Cefapirin	0.78
Cefalexin benzathine *	Cefalexin	0.74
Cloxacillin benzathine *	Cloxacillin	0.78
Oxacillin benzathine *	Oxacillin	0.77
Penethamate hydriodide *	Benzylpenicillin	0.60
Procaine benzylpenicillin *	Benzylpenicillin	0.57

\* Updated in the sixth round





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