



# EFSA-EMA Joint Scientific Opinion

on the **Reduction Of the Need**  
to use **Antimicrobials in Food-**  
producing **Animals (RONAFA)**

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Conference Combating Antimicrobial Resistance  
15 May 2017, Reykjavík, Iceland

# SCIENTIFIC OPINION

- **EC Mandate to EFSA and EMA** for a joint *Scientific Opinion on "measures to reduce the need to use antimicrobial agents in animal husbandry in the European Union, and the resulting impact on food safety"*
- Adopted by EFSA BIOHAZ Panel and EMA CVMP in December 2016
- Published on 24 January 2017

## SCIENTIFIC OPINION



ADOPTED: 1 December 2016 (EFSA BIOHAZ Panel), 8 December 2016 (EMA CVMP)

doi: 10.2903/j.efsa.2017.4666

### **EMA and EFSA Joint Scientific Opinion on measures to reduce the need to use antimicrobial agents in animal husbandry in the European Union, and the resulting impacts on food safety (RONAFA)**

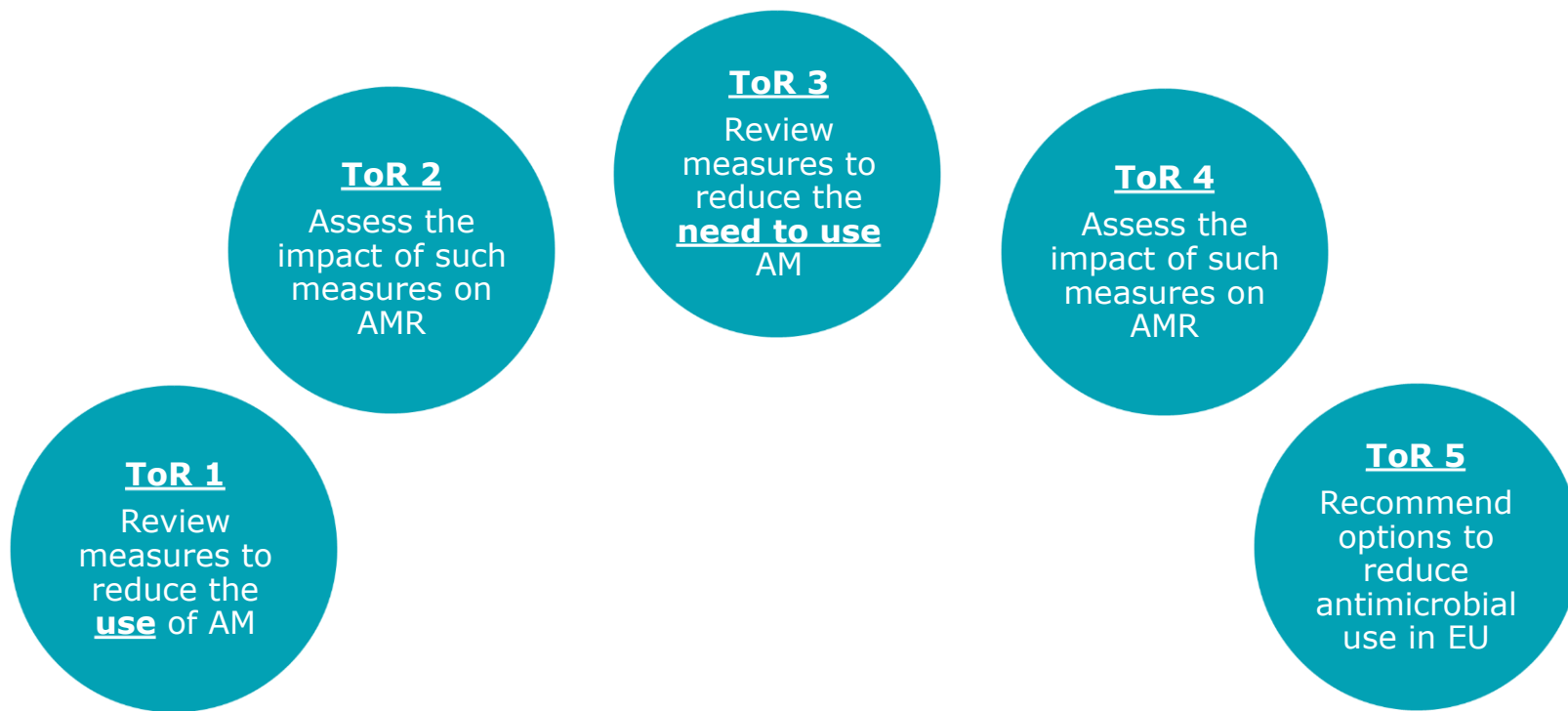
EMA Committee for Medicinal Products for Veterinary Use (CVMP) and EFSA Panel on Biological Hazards (BIOHAZ),  
David Murphy, Antonia Ricci, Zanda Auce, J. Gabriel Beechinor, Hanne Bergendahl, Rony Breathnach, Jiri Bures, João Pedro Duarte Da Silva, Judita Hederová, Peter Hekman, Comelia Ibrahim, Emil Kozuharov, Gábor Kulcsár, Eva Lander Persson, Johann M. Lenhardsson, Petras Mačiulskis, Ioannis Malemis, Ljiljana Markus-Cizelj, Alia Michaelidou-Patsia, Martti Nevalainen, Paolo Pasquali, Jean-Claude Rouby, Johan Schefferlie, Wilhelm Schlumbohm, Marc Schmit, Stephen Spiteri, Stanko Srčić, Lollita Taban, Toomas Tiirats, Bruno Urbain, Ellen-Margrethe Vestergaard, Anna Wachnik-Swięcicka, Jason Weeks, Barbara Zemann, Ana Allende, Dedan Bolton, Marianne Chemaly, Pablo Salvador Fernandez Escamez, Rosina Girones, Lieve Herman, Kostas Koutsoumanis, Roland Lindqvist, Birgit Nørrung, Lucy Robertson, Giuseppe Ru, Moez Sanaa, Marion Simmons, Panagiotis Skandamis, Emma Snary, Niko Speybroeck, Benno Ter Kuile, Helene Wahlström, Keith Baptiste, Boudewijn Catry, Pier Sandro Cocconcelli, Robert Davies, Christian Ducrot, Christian Friis, Gregers Jungersen, Simon More, Cristina Muñoz Madero, Pascal Sanders, Marian Bos, Zoltan Kunsagi, Jordi Torren Edo, Rosella Brozzi, Denise Candiani, Beatriz Guerra, Ernesto Liebana, Pietro Stella, John Threlfall and Helen Jukes

#### **Abstract**

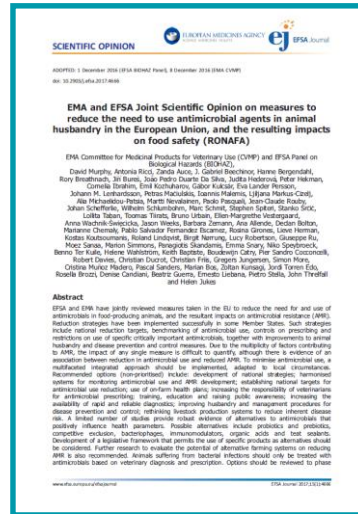
EFSA and EMA have jointly reviewed measures taken in the EU to reduce the need for and use of antimicrobials in food-producing animals, and the resultant impacts on antimicrobial resistance (AMR). Reduction strategies have been implemented successfully in some Member States. Such strategies include national reduction targets, benchmarking of antimicrobial use, controls on prescribing and restrictions on use of specific critically important antimicrobials, together with improvements to animal husbandry and disease prevention and control measures. Due to the multiplicity of factors contributing to AMR, the impact of any single measure is difficult to quantify, although there is evidence of an association between reduction in antimicrobial use and reduced AMR. To minimise antimicrobial use, a multifaceted integrated approach should be implemented, adapted to local circumstances. Recommended options (non-prioritised) include: development of national strategies; harmonised systems for monitoring antimicrobial use and AMR development; establishing national targets for antimicrobial use reduction; use of on-farm health plans; increasing the responsibility of veterinarians for antimicrobial prescribing; training, education and raising public awareness; increasing the availability of rapid and reliable diagnostics; improving husbandry and management procedures for disease prevention and control; rethinking livestock production systems to reduce inherent disease risk. A limited number of studies provide robust evidence of alternatives to antimicrobials that positively influence health parameters. Possible alternatives include probiotics and prebiotics, competitive exclusion, bacteriophages, immunomodulators, organic acids and teat sealants. Development of a legislative framework that permits the use of specific products as alternatives should be considered. Further research to evaluate the potential of alternative farming systems on reducing AMR is also recommended. Animals suffering from bacterial infections should only be treated with antimicrobials based on veterinary diagnosis and prescription. Options should be reviewed to phase

# THE MANDATE

## Terms of Reference, as clarified with the EC



# PARTIES INVOLVED



AHAW Panel

FEEDAP Panel

BIOHAZ Panel

CVMP

Antimicrobials WP

Immunologicals WP

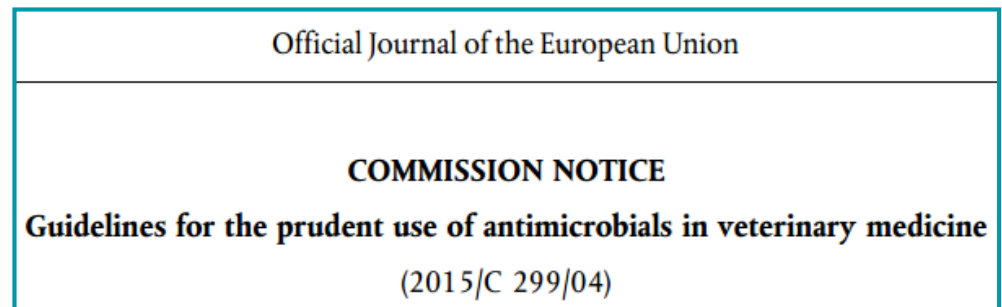
**Joint WG RONAFA**

EU stakeholders providing information  
(FVE, a.v.e.c., COPA-COGECA, EUROCOMMERCE, FOODDRINKEUROPE, UECBV, Member States)

# APPROACH

## What was done

1. **Critical review of measures** to reduce use/need of AM
  - Starting point: EC prudent use guidelines



- Based on scientific literature, official reports, information from MSs, information from experts (hearing experts) and stakeholders (several questionnaires), etc.


# APPROACH

## What was done

2. Assessment of the **impact of measures** on AMR in bacteria from food-producing animals and food

A difficult task:



- Delay between implementation and impact
  - Need to have proper monitoring for several years
  - Different measures together: impact due to what?
  - etc.
- **Not possible to quantify impact**, only qualitative assessment was done 

# RECOMMENDATIONS

## List of recommended options

- 11 '*options*' are recommended for consideration:
  - what can be done
  - advantages and disadvantages
  
- No measure alone sufficient to have an impact on AMR!
  
- Options to be implemented in an **integrated approach**, and according to the local circumstances
  - Option 1: Development of **national strategies** implemented through action plans:
    - One health* – education – monitoring – prudent use –
    - limiting use CIA – animal disease prevention – research –
    - alternatives...





# RECOMMENDATIONS

## What can we do?

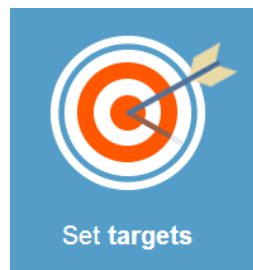
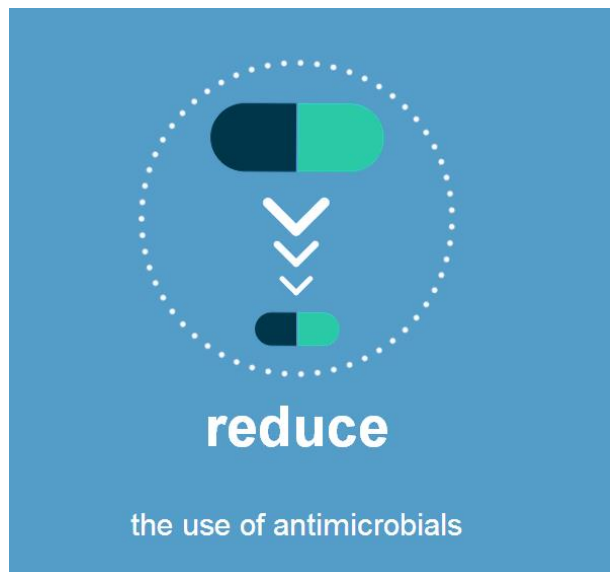




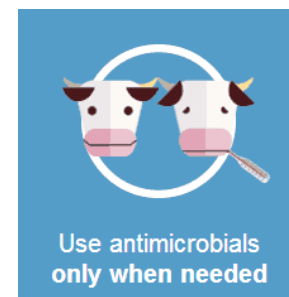
# RECOMMENDATIONS

## What can we do?

- Targets to reduce overall use
- Targets at national level (ideally at species/farm level if consumption data allow)



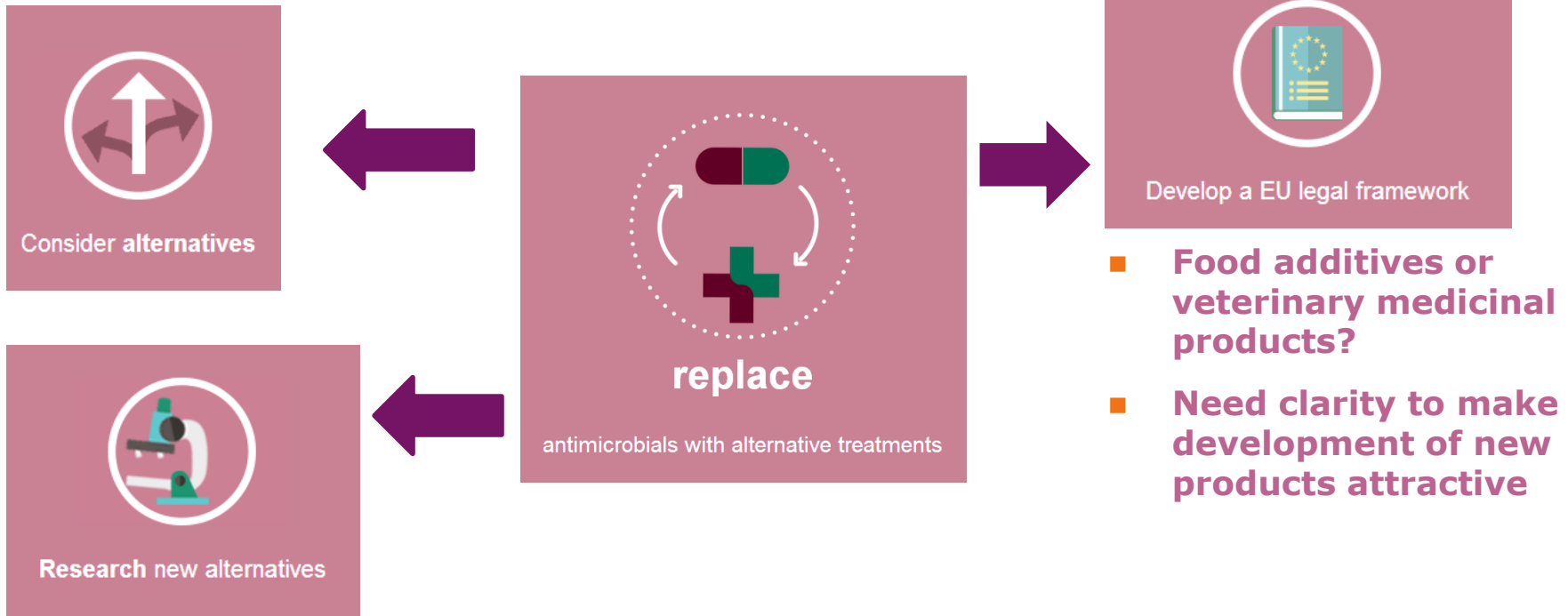
- Phase out preventive use
- Reduce metaphylactic use



# RECOMMENDATIONS

## What can we do?

- *E.g.* organic acids, probiotics, bacteriophages, teat sealants ...

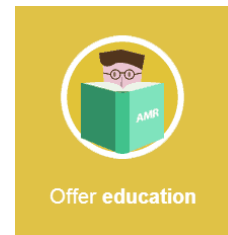
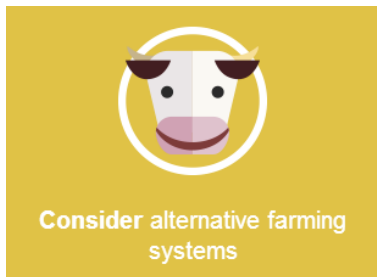


- Not enough knowledge on current alternatives
- Need to develop new ones

# RECOMMENDATIONS

## What can we do?

- Improve biosecurity, housing, nutrition, stress control etc.

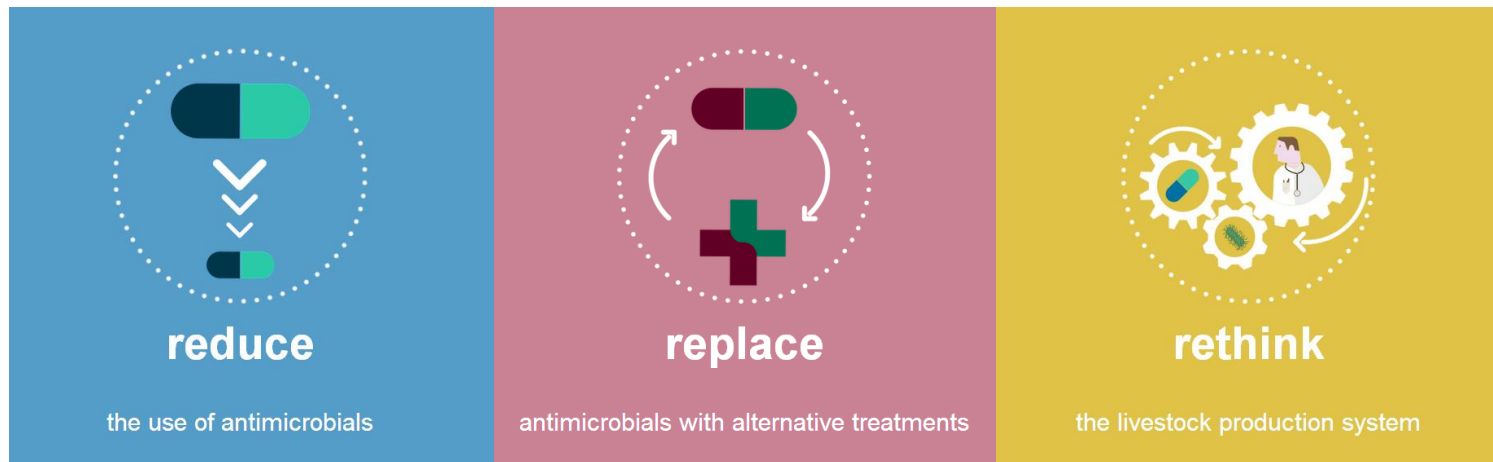


- Investigate farming systems with high use of antimicrobials
- Sustainable with reduced use?
- Alternatives?

- Improve education and awareness on use and AMR

# RECOMMENDATIONS

## What can we do?



# RECOMMENDATIONS

## Monitoring

- To develop harmonised systems for monitoring **antimicrobial use and AMR** in humans, food-producing animals and food
- Ideally at **farm/species/production stage levels**



- To follow the situation
- To observe the impact of measures applied
- To identify the need for action
- To benchmark/compare use in farms and animal species

# FOLLOW-UP

## Outcome indicators

- **New EC joint mandate** to **ECDC, EFSA and EMA** for an opinion on “a list of outcome indicators as regards surveillance of AMR and antimicrobial consumption in humans and food-producing animals”

**Deadline**

30 September 2017

# THANK YOU FOR YOUR ATTENTION

Scientific opinion:

<http://www.efsa.europa.eu/en/efsajournal/pub/4666>

Infographic:

[http://www.efsa.europa.eu/en/interactive\\_pages/Antimicrobial\\_Resistance](http://www.efsa.europa.eu/en/interactive_pages/Antimicrobial_Resistance)

