

EFSA-EURL Reference Testing – 2018 data

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Reference testing

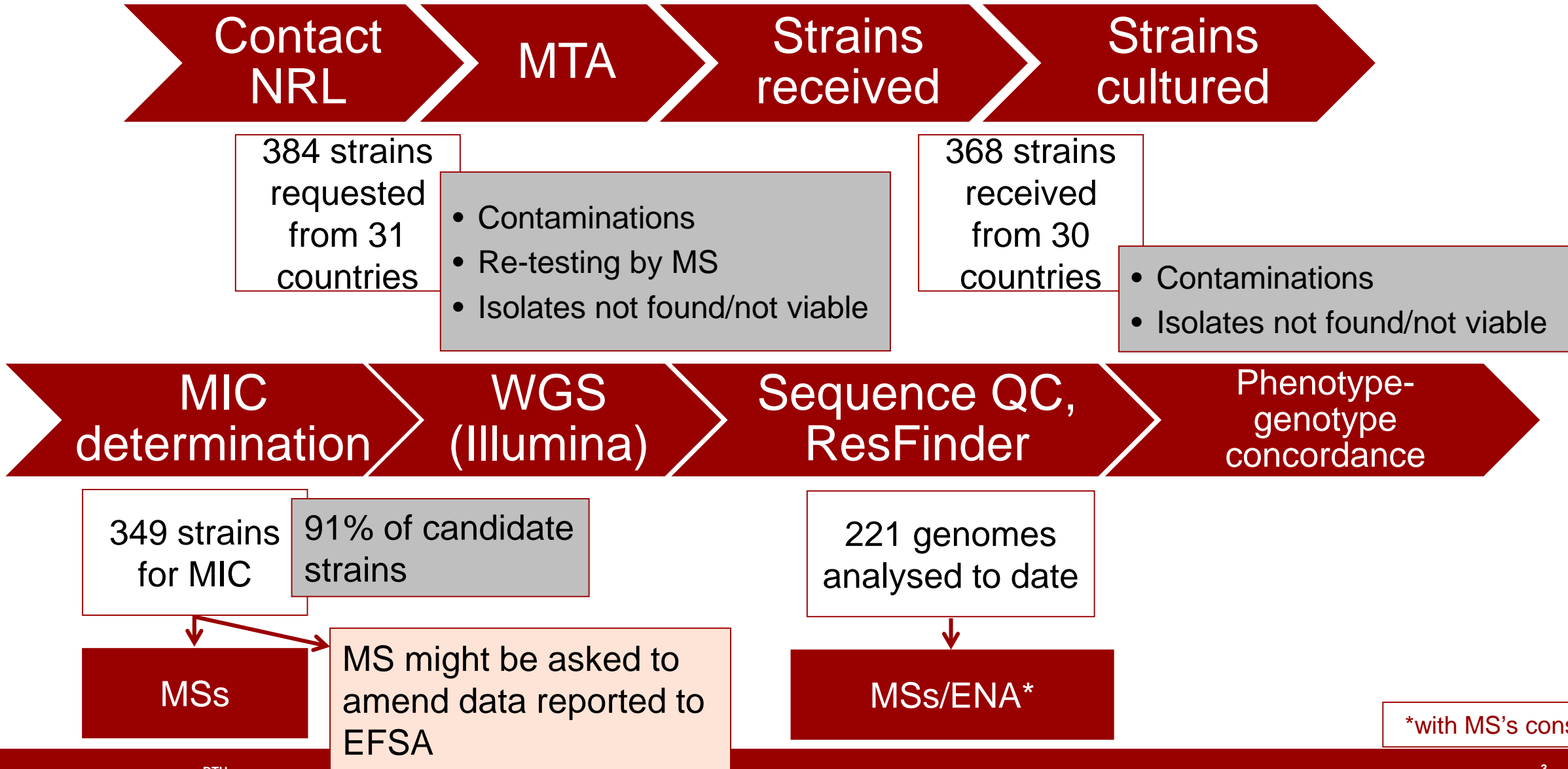
Term of Reference, EURL-AR

The EURL-AR will provide confirmatory testing on bacterial isolates of particular relevance upon request by the NRLs, the European Commission and EFSA:

- To support the activities related to the implementation of Decision 2013/652/EU
- To confirm the AMR phenotypes observed by MSs
- To determine the AMR genotypes and to evaluate phenotype-genotype concordance

Relevant Material Transfer Agreements (MTAs) between the EURL and MSs ensure the legal aspects of strain ownership

Workflow



Comparison of phenotypes at MS and EURL-AR

- **291 isolates from 30 countries (83% of isolates examined):**

MIC either identical or in the acceptable range (± 1 two-fold dilution)

ACTION REQUIRED: congratulate yourself for being so good!

- **20 isolates from 18 countries (5% of isolates examined):**

MIC in the acceptable range but leading to different nWT/WT (or R/S according to our currently used terminology) categorization for relevant antimicrobials such as azitromycin, colistin, tigecycline, etc. -

ACTION REQUIRED: have a careful look and decide. No critical issues identified

- **43 isolates from 15 countries (12% of isolates examined):**

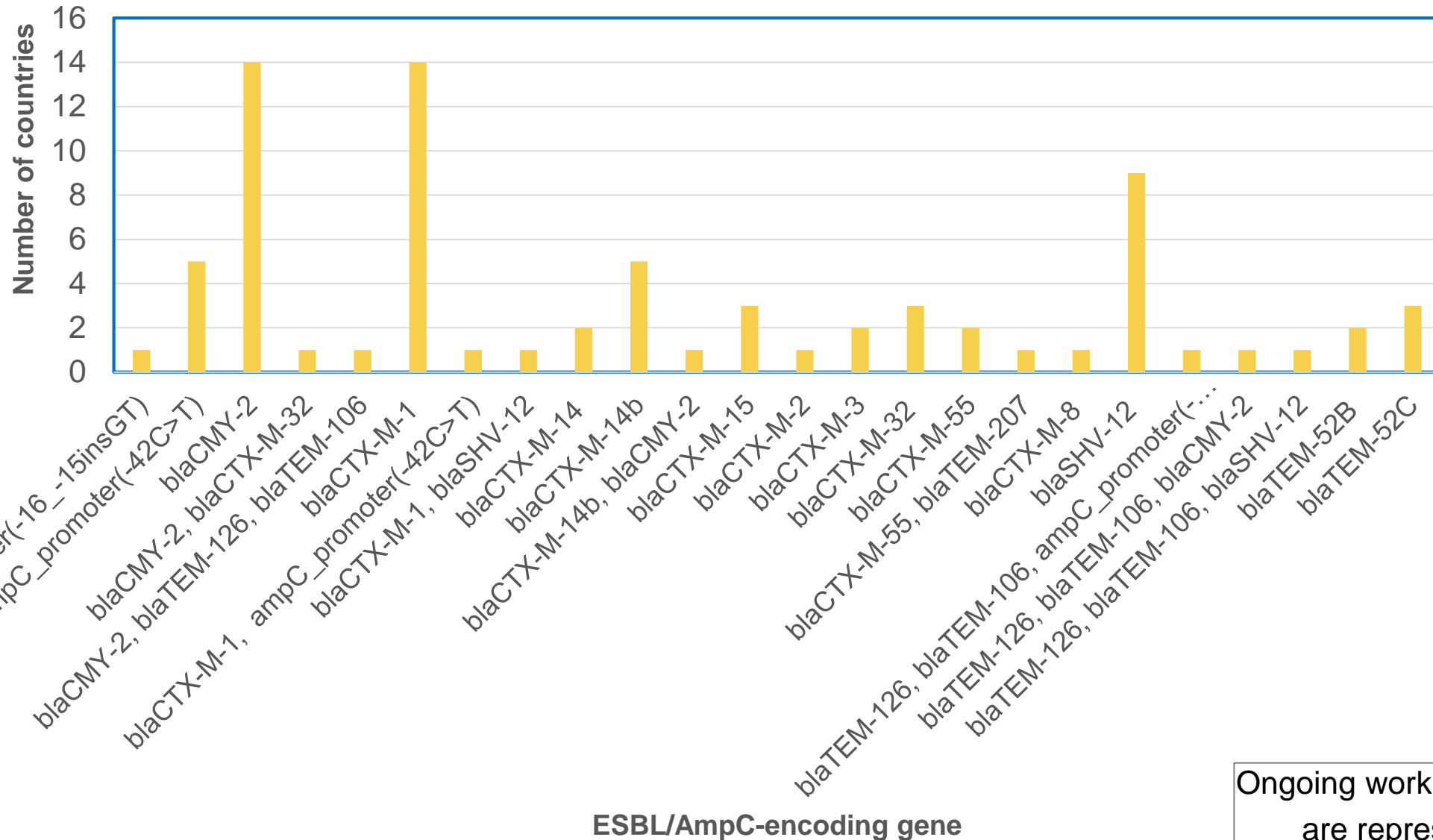
MIC outside the acceptable range for relevant antimicrobials and/or for several antimicrobials in the same isolate

ACTION REQUIRED: mmh, something to revise here. It will be better next time

Action requested: what does it mean

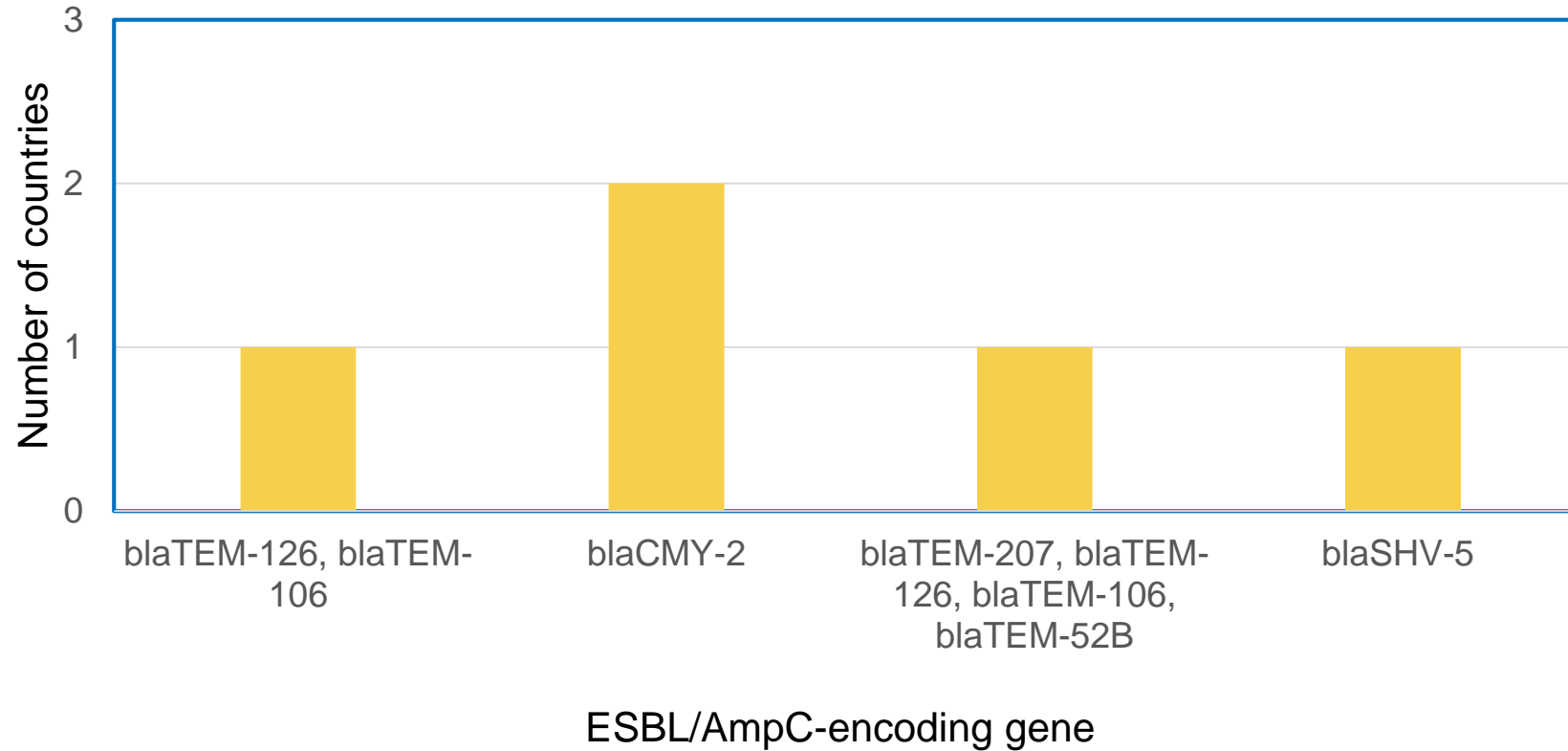
- Re-test and/or modify the data submitted to EFSA
- Communication gap?
Of the 15 countries with “action requested”, only half reported back to the EURL-AR regarding the outcome of the re-testing and the decision to change data or not

The ESBL/AmpC pool (*E. coli*)



Ongoing work: not all countries are represented here!

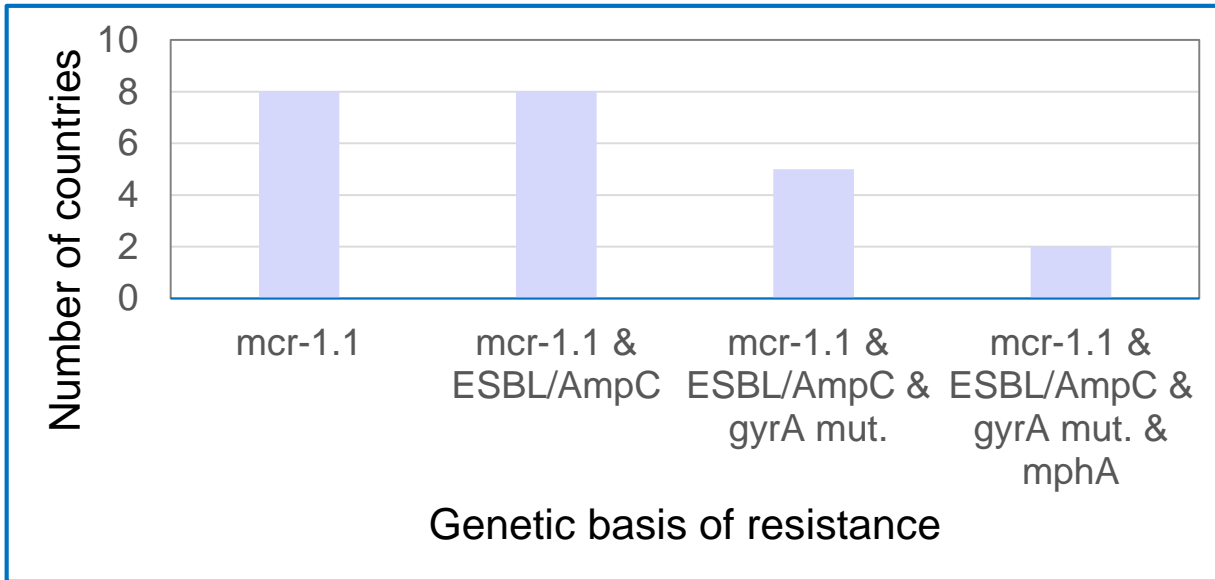
The ESBL/AmpC pool (*Salmonella* sp.)



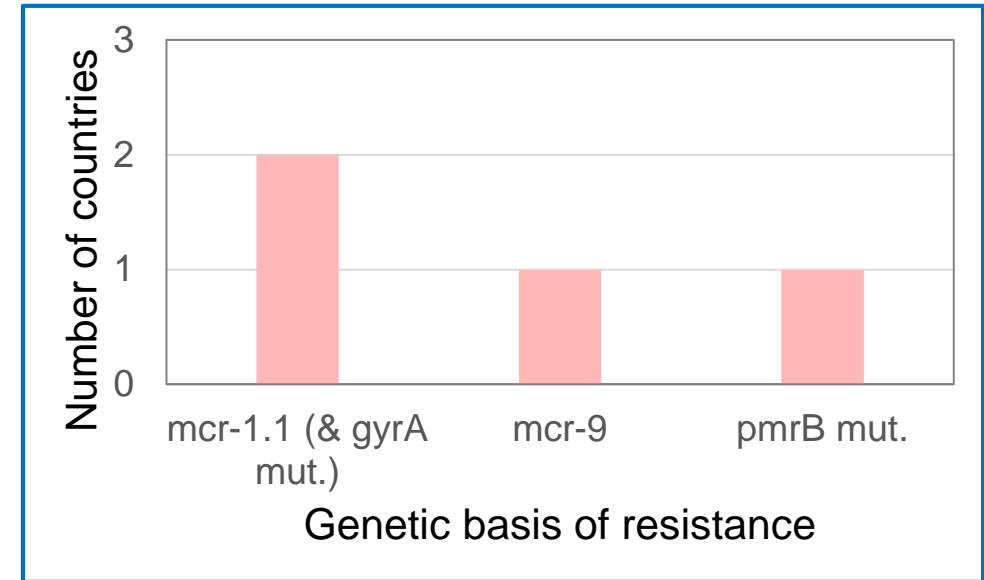
Ongoing work: not all countries are represented here!

Colistin (& friends)

Escherichia coli



Salmonella sp.



Not all countries are represented here!

Conclusions and next steps...

- The reference testing is a powerful tool to ensure excellent quality of AMR surveillance data – indeed, some 9% of selected isolates were not available due to contaminations and/or were re-tested from the NRLs leading to correction in data reported to EFSA, and data for 12% of isolates analyzed required action
Follow-up system could be improved here to ensure that actions are finalized
- Relevant information of gene variants circulating (no prevalence considerations possible with this dataset though) – for now we scratched only the surface but information highly relevant for public health can be found in these data
- Some MSs started using the WGS data of their strains to perform further studies – it represents a good use of resources

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- all the NRLs
- EC



DISCLAIMER: final numbers might be slightly different from those presented as this was preliminary analysis of data considered all together

Thank you for your attention