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5 **Concept paper on a Guideline on data requirements for**
6 **post-authorisation studies for antimicrobial veterinary**
7 **medicinal products under Article 36(2) of Regulation (EU)**
8 **2019/6**
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Agreed by AWP	14 July 2022
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Comments should be provided using this [template](#). The completed comments form should be sent to vet-guidelines@ema.europa.eu

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Keywords	<i>Antimicrobials, antibiotics, antiprotozoals, antivirals, antifungals, antimicrobial resistance, monitoring, surveillance, post-authorisation, benefit-risk, MIC, susceptibility testing, resistance mechanisms</i>
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16 post-authorisation studies for antimicrobial veterinary
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33 **1. Introduction**

34 The CVMP's work plan for 2022 [1] includes several activities intended to implement the measures
35 introduced in Regulation (EU) 2019/6 [2] directed at the problem of antimicrobial resistance (AMR).
36 Amongst these activities there is a proposal to develop a concept paper on requirements for post-
37 authorisation studies (PAS) for antimicrobial veterinary medicinal products (VMPs) in order to ensure
38 the benefit-risk balance remains positive in case of development of antimicrobial resistance, as laid out
39 in Article 36(2) of the Regulation. This action is likewise included in the CVMP's Strategy on
40 Antimicrobials 2021–2025 [3] under Aim 3, relating to measures to ensure the on-going availability
41 and effectiveness of authorised veterinary antimicrobials.

42 **2. Problem statement (motivation to develop the concept** 43 **paper)**

44 In relation to decisions granting marketing authorisations, Regulation (EU) 2019/6 of the European
45 Parliament and of the Council lays down in Article 36(2) [2]: "*Where the application concerns an*
46 *antimicrobial veterinary medicinal product, the competent authority or the Commission, as applicable,*
47 *may require the marketing authorisation holder to conduct post-authorisation studies in order to*
48 *ensure that the benefit-risk balance remains positive given the potential development of antimicrobial*
49 *resistance.*"

50 Annex II of Regulation (EU) 2019/6 does not provide guidance on the specific circumstances when
51 post-authorisation studies are required or on the type of data to be submitted to fulfil the obligation in
52 Article 36(2). Thus, a scientific guideline should be developed to provide an EU harmonised approach
53 to this regulatory provision.

54 A CVMP reflection paper on antimicrobial resistance surveillance as post-marketing authorisation
55 commitment was published by EMA in 2008 [4]. This document considered the circumstances when
56 such data should be requested as well as the methodologies and data sources that could be used and
57 will be useful background for the elaboration of new guidance.

58 As some time has elapsed since development of the reflection paper, and there is now a legal basis for
59 the competent authority or the Commission to require PAS studies on AMR, it is proposed that a new
60 guideline should be provided. In the guideline, all types of antimicrobials (i.e. antibiotics, antifungals,
61 antivirals and antiprotozoals) should be considered.

62 **3. Discussion (on the problem statement)**

63 Article 36(2) states that, when the application concerns an antimicrobial VMP, the marketing
64 authorisation holder may be required to conduct PAS in order to ensure that the benefit-risk balance
65 remains positive. By taking into account that AMR development is a dynamic process, it should be
66 outlined in the objectives of the guideline under which circumstances these additional data might be
67 required (at the time of authorisation) and what kind of data need to be collected (post-authorisation).
68 The guideline should take also into account the new definitions and provisions of Regulation (EU)
69 2019/6, such as the definition of antimicrobial (includes antibiotics, antifungals, antivirals and
70 antiprotozoals Article 4(11)), and of benefit-risk balance Article 4(19). The benefit-risk balance concept
71 has been revised and includes that an evaluation of the positive effects of a VMP should be considered
72 in relation to the risk of development of resistance in addition to other risks relating to the use of the
73 product.

74 Since the requirement for post-authorisation studies under Article 36(2) is at the discretion of the
75 national competent authority or the Commission, specific guidance should be provided on the
76 circumstances for this requirement, e.g. for:

- 77 • new classes of drugs or existing classes of antimicrobials with extended or altered spectrum of
78 activity where the documentation provided prior to marketing authorisation could not cover all
79 aspects of importance when assessing the risk for development of resistance;
- 80 • new molecules within an existing class where the mode of action and spectrum of activity are
81 similar to existing molecules;
- 82 • existing molecules where there is a new target pathogen/indication;
- 83 • considerations relevant to specific legal types of applications e.g. generics, hybrids, combinations,
84 informed consent, etc;

85 The CVMP has published specific guidance for antimicrobials, which might need to be taken into
86 consideration for the establishment of the guideline [4-10].

87 The methodologies (e.g. monitoring/surveillance MIC studies) and data sources (sponsored/public
88 activities) outlined in the CVMP reflection paper [4] should be reviewed to determine if they are still up
89 to date and are sufficiently addressing the provisions of Article 36(2) in order to implement them into
90 the guideline. Therefore, it has to be considered which specific studies would be relevant for
91 determining the impact of AMR on the benefit-risk balance e.g. passive monitoring, pro-active
92 surveillance, epidemiologic surveys (e.g. outbreak reports such as from EpiPulse). Potential sources of
93 information should consider, but are not limited to, surveillance data with standardised investigation
94 strategies and comparable interpretation criteria (EUCAST/VetCAST, CLSI). Outbreak and early
95 warning reports from both human, animal, zoonotic and environmental sources, could be referred to
96 wherever possible, also outside Europe.

97 AMR risks may relate to animal health and/or public health and/or to the environment as outlaid in
98 Article 8(2). Thus, the guideline should provide clarification on which organisms should be covered by
99 PAS e.g. target animal pathogens, food borne pathogens and/or indicator commensal organisms,
100 pathogens relevant for the environment, according to the hazards identified for the concerned
101 antimicrobial VMP. Accordingly, different studies could be meaningful, such as genetic data on
102 resistance mechanism(s), findings on new resistance genes/mechanisms, information on transferability
103 of resistance genes, cross/co-resistance, effects on the microbiota, sudden changes or trends of
104 change in antimicrobial sales/use data. Also new methodologies should be taken into account e.g.
105 Whole Genome/Next Generation Sequencing WGS/NGS data, collection of Real World Data (RWD),
106 Real World Evidence (RWE) [11].

107 When considering the data requirements, potential sources (e.g. bibliographic/proprietary/sponsored
108 data) and the quality of data (coverage, accuracy of reporting, peer reviewed, expert reports etc.)
109 should also be taken into account.

110 Further clarification should be provided as regards the appropriate and achievable timeline(s) for the
111 submission of PAS in order to monitor for potential changes in the risk due to development of AMR.

112 **4. Recommendation**

113 The CVMP recommends to develop a "Guideline on data requirements for post-authorisation studies for
114 antimicrobial veterinary medicinal products under Article 36(2) of Regulation (EU) 2019/6", taking into
115 account the issues identified above.

116 As the guideline should consider possible requirements for antibiotics, antifungal, antiviral and
117 antiprotozoal products, the CVMP's AWP, EWP-V and if necessary, ERAWP should collaborate.

118 The guideline should contain information on:

- 119 • Objectives, scope, legal basis, definitions (Article 4)
- 120 • Circumstances when PAS are required
- 121 • Studies relevant to determining impact of AMR on the benefit-risk balance and their data
122 requirements
- 123 • Data sources and quality
- 124 • Timelines for conducting and reporting the studies

125 **5. Proposed timetable**

126	16 September 2022	Concept paper released for consultation
127	31 January 2023	Deadline for comments from interested parties
128	Q2 2024	Guideline released for consultation

129 **6. Resource requirements for preparation**

130 The development of the guideline will involve AWP and EWP-V rapporteurs and ERAWP, as needed.

131 Drafting group (physical and virtual) meetings will be organised.

132 **7. Impact assessment (anticipated)**

133 The guideline will provide information on the specific circumstances when post-authorisation studies
134 are required and up-to-date guidance on the type of data to be submitted to fulfil the obligation in
135 Article 36(2). This will contribute to the effective application of Article 36(2), taking into account the
136 aims of the Regulation in respect of mitigation of the risks of AMR development. It will facilitate the
137 practical and harmonised application of Article 36(2) by regulatory authorities and industry.

138 **8. Interested parties**

139 Veterinary pharmaceutical industry, consultants, EU national competent authorities, veterinarians,
140 antimicrobial users.

141 **9. References to literature, guidelines, etc.**

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