1 25 June 2015
2 EMA/CHMP/PKWP/253507/2015
3 Committee for Medicinal Products for Human Use (CHMP)

4 Zonisamide hard capsules 25, 50 and 100 mg, 5 orodispersible tablets 25, 50, 100 and 300 mg product-6 specific bioequivalence guidance

7 Draft

Draft Agreed by Pharmacokinetics Working Party	April 2015
Adoption by CHMP for release for consultation	25 June 2015
Start of public consultation	15 July 2015
End of consultation (deadline for comments)	1 November 2015

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Comments should be provided using this template. The completed comments form should be sent to PKWPsecretariat@ema.europa.eu.

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Keywords	***Bioequivalence, generics, zonisamide***

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Zonisamide hard capsules 25, 50 and 100 m, orodispersible tablets 25, 50, 100 and 300 mg product-specific bioequivalence guidance

Disclaimer:

This guidance should not be understood as being legally enforceable and is without prejudice to the need to ensure that the data submitted in support of a marketing authorisation application complies with the appropriate scientific, regulatory and legal requirements.

Requirements for bioequivalence demonstration (PKWP)*

BCS Classification**	**BCS Class:** ☐ **I** ☐ **III** ☐ **Neither of the two** **Background:** zonisamide is a compound with complete absorption, but the available data on solubility does not allow its BCS classification. If the applicant generates the solubility data and classifies the drug according to the BCS criteria as highly soluble, zonisamide could be classified as BCS class I drug and a BCS biowaiver could be applicable.
BE Study design *in case a BCS biowaiver is not feasible or applied*	**single dose** **cross-over**
	healthy volunteers
	☒ **fasting** ☐ **fed** ☐ **both** ☐ **either fasting or fed**
	Strength: 100 mg for the hard capsules,

	300 mg for the orodispersible tablets **Background:** highest strength to be used for a drug with linear pharmacokinetics with no information on solubility available.
	Number of studies: one single dose study for each dosage form
	Other critical design aspects: intake without water for the orodispersible tablets.
Analyte	☒ **parent** ☐ **metabolite** ☐ **both**
	☒ **plasma/serum** ☐ **blood** ☐ **urine**
	Enantioselective analytical method: ☐ **yes** ☒ **no**
Bioequivalence assessment	**Main pharmacokinetic variables:** AUC_{0-72h}, C_{max}
	90% confidence interval: 80.00 – 125.00%

* As intra-subject variability of the reference product has not been reviewed to elaborate this product-specific bioequivalence guideline, it is not possible to recommend at this stage the use of a replicate design to demonstrate high intra-subject variability and widen the acceptance range of C_{max}. If high intra-individual variability (CVintra > 30 %) is expected, the applicants might follow respective guideline recommendations.

** This tentative BCS classification of the drug substance serves to define whether *in vivo* studies seems to be mandatory (BCS class II and IV) or, on the contrary, (BCS Class I and III) the Applicant may choose between two options: *in vivo* approach or *in vitro* approach based on a BCS biowaiver. In this latter case, the BCS classification of the drug substance should be confirmed by the Applicant at the time of submission based on available data (solubility experiments, literature, etc.). However, a BCS-based biowaiver might not be feasible due to product specific characteristics despite the drug substance being BCS class I or III (e.g. in vitro dissolution being less than 85 % within 15 min (BCS class III) or 30 min (BCS class I) either for test or reference, or unacceptable differences in the excipient composition).