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2 EMA/CHMP/327812/2014  
3 Committee for Medicinal Products for Human Use (CHMP)

4 **Concept paper on the revision of the guideline on the**  
5 **development of new medicinal products for the treatment**  
6 **of ulcerative colitis (CHMP/EWP/18463/2006)**

Agreed by Gastroenterology Drafting Group	September 2014
Adopted by CHMP for release for consultation	25 September 2014
Start of public consultation	1 October 2014
End of consultation (deadline for comments)	31 December 2014

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8 The proposed guideline will replace the guideline on the development of medicinal products for the  
9 treatment of ulcerative colitis (CHMP/EWP/18463/2006).

10 Comments should be provided using this [template](#). The completed comments form should be sent to [gastroenterologydg@ema.europa.eu](mailto:gastroenterologydg@ema.europa.eu).

Keywords	Inflammatory bowel disease, Crohn's disease, medical treatment, clinical trials, study design, study endpoints, children, adults
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## 11 **1. Introduction**

12 Ulcerative colitis (UC) is a chronic, relapsing inflammatory bowel disease affecting the colon. The  
13 prevalence is estimated as 70-150 cases per 100.000 with peak age of onset between 15 and 25  
14 years. Ulcerative colitis in 15% affects children, and may be present before school age. The disease  
15 usually involves the rectum but may extend proximally to involve a portion of or the entire colon.  
16 About 40 to 50% of patients have disease that is limited to the rectum and the recto-sigmoid colon, 30  
17 to 40% have disease extending beyond the sigmoid flexure but not involving the whole colon, and  
18 20% have pancolitis.

## 19 **2. Problem statement**

20 The "Guideline on the development of medicinal products for the treatment of ulcerative colitis  
21 (CHMP/EWP/18463/2006) currently requests clinical indices as the primary measure of efficacy.  
22 However, there is growing evidence that mucosal healing as judged endoscopically or histologically  
23 reflects long term clinical outcome better than remission/response based on classical clinical indices.

24 The current guideline only includes more general comments for the conduct of clinical studies in  
25 children. In 2010, an expert meeting of European experts in paediatric gastroenterology and  
26 rheumatology published a statement, which in some areas is more demanding as regards the needs of  
27 and the mode of conduct of paediatric studies in ulcerative colitis than the guideline document, leading  
28 to obvious discrepancies, with a subsequent need of reconciliation.

29 Furthermore, during the last decade there has been increasing discrepancy between the adult part of  
30 the current guideline and development plans presented for new drugs. In particular, the current  
31 guideline's request for separate studies aiming at demonstrating efficacy in the induction and the  
32 maintenance of remission settings has been questioned..

## 33 **3. Discussion (on the problem statement)**

### 34 Endpoints in clinical trials in adults and children:

35 Increasing evidence from studies in both adults and children indicates that morphological endpoints  
36 (i.e. mucosal healing) reflect long term outcome better than clinical indices. This growing awareness is  
37 also reflected in the previously mentioned Expert Statement, which recommends the use of endoscopy.  
38 A thorough evaluation of the available data on validity and feasibility of mucosal healing (alone or in  
39 combination with clinical remission and/or biomarkers) as a primary measure of efficacy has therefore  
40 to be made.

### 41 Extrapolation of data from studies in adults to the paediatric situation:

42 Currently, the Guideline only generally states, "studies in children are encouraged". The main problem,  
43 namely the question whether and to what extent extrapolation from adults is possible, remains largely  
44 unexplored. Contrary to this, the above-mentioned Expert Statement clearly states that "extrapolation  
45 from adult studies is limited" and that in most cases separate studies in children are needed.  
46 Therefore, it is intended to evaluate whether more clear statements should be included into the  
47 guideline, as to what extent extrapolation of adult data is possible, and whether criteria for  
48 extrapolation can be defined. Emerging scientific data on similarities and discrepancies between adult

49 and paediatric disease have to be evaluated including differential drug effects as regards efficacy and  
50 safety.

51 Design of the studies in children:

52 Currently, the ulcerative colitis guideline does not include a separate statement on the need or  
53 preference for placebo- or actively controlled studies in children. Contrary to this, the a.m. Expert  
54 Statement clearly prefers the conduct of actively controlled studies whenever feasible. Therefore, it has  
55 to be evaluated whether this question needs to be dealt with in a different way in children, as  
56 compared to adults. In the same context alternative study designs, such as withdrawal-, mono  
57 therapy-, comparator design and "add-on-studies" need to be evaluated for their suitability in  
58 paediatric drug development. Evaluation of previous dossiers demonstrated a need for re-assessment  
59 of PK/PD models due to unexplained discrepancies in outcome between children and adults. The  
60 number of patients included was insufficient to support any firm conclusions regarding doses and  
61 dosing intervals in children, although available data did suggest a need for higher doses and shorter  
62 dosing intervals. A separate paragraph on the need to explore PK and PK-PD relationship according to  
63 age and different pathophysiology might be necessary.

64 Design of studies (in both adults and children):

65 Traditionally, adult studies have been presented, and are requested by the current guideline, as  
66 separate induction and maintenance studies. This reflects the current recommendations from learned  
67 societies that the aim of treatment is inducing remission in the first place, and keeping the patient in  
68 remission in the second place. However, the reality of applications for new compounds during the last  
69 10 years has brought about the presentation of data integrating the investigation of induction and  
70 maintenance of remission in only one long-term study. Historically, the distinction between induction  
71 and maintenance of remission has also to be attributed to the mode of and onset of action of the  
72 traditional compounds used in the treatment of ulcerative colitis, namely corticosteroids and  
73 immunosuppressants (e.g. azathioprine). A thorough evaluation has to be undertaken whether the  
74 guideline should still include the request to clearly divide the two parts of ulcerative colitis treatment,  
75 or whether a more simple evaluation could also serve the needs. A reflection of the possible claims for  
76 new substances goes along with the reflection and potential changes of the trial designs.

77 **4. Recommendation**

78 The Gastroenterology Drafting group recommends the revision of the Guideline for conduct of studies  
79 for ulcerative colitis, Points to Consider on the evaluation of medicinal products for the treatment of  
80 ulcerative colitis.

81 Points to be addressed and evaluated concern the following fields:

82 1.) The examination and potential revision of the recommendations for the primary and secondary  
83 endpoints and for the principal design of the trials (including the comparator to be used).

84 2.) The need for more clear guidance as regards the possibility for extrapolation from adults, or the  
85 need to generate separate data in children. In the latter case, the scope of the studies needed,  
86 including design and comparator needs to be described.

87 3.) The need for inclusion of recommendations regarding exploration of PK/PD relationship in paediatric  
88 drug development, including the need for adaptation of the PK/PD model concerning dose finding.

89 4.) As regards both children and adults, the need for changes of the potential claims for new  
90 compounds (induction of remission/maintenance versus treatment indication) and consequences for  
91 trial design.

## 92 **5. Proposed timetable**

93 It is anticipated that a new draft CHMP Guideline may be available 12 months after adoption of the  
94 concept paper. The draft CHMP guideline will then be released for 6 months for external consultation  
95 and following receipt of comments it will be finalised in approximately 6 months. Finalisation will  
96 therefore be awaited for the second half of 2016.

## 97 **6. Resource requirements for preparation**

98 The preparation of the revision of the guideline will primarily involve the Gastroenterology Drafting  
99 Group

## 100 **7. Impact assessment (anticipated)**

101 The revised guideline will provide updated guidance to both industry and Regulatory Authorities  
102 regarding the clinical development and assessment of medicinal products for the treatment of  
103 ulcerative colitis in the adult and paediatric population. This is expected to contribute to higher  
104 consistency in the development of new products in the field.

## 105 **8. Interested parties**

106 European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN)

107 European Crohn and Colitis Organisation (ECCO)

108 United European Gastroenterology Federation (UEG)

## 109 **9. References to literature, guidelines, etc.**

110 EMA paediatric gastroenterology and rheumatology expert meeting London, 28-06 2010 (Ref.  
111 EMA/416878/2010)

112 Guideline on the development of new medicinal products for the treatment of ulcerative colitis (Ref.  
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120 Peyrin-Biroulet L et al: Histologic Remission: The ultimate therapeutic goal in ulcerative colitis. *Clin*  
121 *Gastroenterol Hepatol* 2014; 12: 929-934