



HBV Forum 1 November 15th 2016 Hyatt Regency Hotel Boston





WG Update: Surrogate Endpoints

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Members

policy Facilitating collaborative research in drug health and evelopment

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- Michael Ninburg, MPA -Hep Education Project
- Sandra Palleja, MD -PPD, Inc.
- Jean-Michel Pawlotsky, MD, PhD- Paris
- Marion Peters, MD- UCSF
- Leland Ross Pierce, MD- FDA
- Andrew Vaillant, PhD Replicor



Aims and Objectives

- 1. Assess the relationship of specific surrogate endpoints with long-term clinical outcomes, identify gaps, and recommend research to fill these gaps to advance the regulatory process for HBV therapeutic interventions.
- 2. Review, discuss and formulate evolving consensus on HBV cure definition and appropriate surrogate endpoints for HBV Ph2b and Ph3 clinical studies.





Objective 1: Activity 1

- Perform a systematic literature review/meta-analysis of references/data describing link between **surrogate endpoints** and **long term clinical outcome**.
 - Include references from all type of treatments and natural disease progression.
 - Focus on endpoints identified/prioritized (crf objective 2).
 - Starting with:
 - A) HBsAg "loss" with or without anti-HBs "gain."
 - B) Low level HBsAg (quantified).



Objective 1: Activity 1 cont.

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- Define criteria for selection and "ranking" of reference (e.g. by level of evidence, obtaining expert input in relevance of papers,...)
- Perform sub analyses (age, race, GT, liver disease status,...)
 and include all type of treatment and natural disease
 progression.
- Data on HCV/HBV, HIV/HBV and HBV/HDV co-infected may be assessed later.
- Comparator: long term clinical outcome with current SOC.





Objective 1: Activity 2

- Determine the regulatory perspective/requirements in terms of level of evidence needed to accept surrogate endpoints for long term clinical benefit.
 - what is required before registration and what could be provided postapproval.
 - Potentially include evidence required by payer and HTA bodies.





Objective 1: Activities 3-4

- 3. Gap analyses assessing the available evidence vs. required evidence and determine which additional evidence would facilitate HBV cure development.
- 4. Identify, promote and facilitate opportunities to create additional evidence (e.g. in collaboration with HBV cohorts, cross pharma initiatives, EASL, AASLD, APASL,...)



Objective 2: Activity 1

- Define cure definitions (including surrogate endpoints) to be endorsed by the HBV Forum and develop/prioritize list of (surrogate) endpoints for Ph2b/3 studies:
 - Review of literature, conference proceedings, etc. from different stakeholders (e.g. AASLD-EASL workshop, regulatory documents, clinical evidence,...)
 - Achieve consensus within the HBV Forum.
 - Assess the available level of evidence of these surrogate markers with respect to long term clinical outcome (link to Objective 1).



Outcomes and Products

Deliverable:

- Peer-reviewed manuscript(s).
- Reference set collection of data (format to be determined).



Timelines

Objective 1:

- Activity 1: Literature review of clinical outcome data for HbsAg ("loss" and low level) and collection of data - Q1 2017.
 - Created a shared Box folder containing the references received from working group members; 48 and counting
 - Currently refining and populating a master spreadsheet with data from these publications
- Activity 2-4: 2017.

Objective 2:

Activity 1: present first consensus proposal at next HBV forum meeting.



Questions

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