HBRN Adult Cohort Data Archive ReadMe

Manuscript Title: Low Incidence of Adverse Outcomes in Adults with Chronic Hepatitis B Virus Infection in the Era of Antiviral Therapy

Manuscript: https://pubmed.ncbi.nlm.nih.gov/32936969/

Supplemental Materials:
https://aasldpubs.onlinelibrary.wiley.com/action/downloadSupplement?doi=10.1002%2Fhep.31554&file=hep31554-sup-0001-Supinfo.pdf

Data freeze date used for the manuscript: September 17, 2019

Key variables
ORIG_ID: ID at first enrollment in HBRN – if participant moved to a new site during the Cohort Study, a new ID was assigned at that current site. Use ORIG_ID to link participants' data across HBRN datasets.

Case_ID: Mask ID was created specifically for this analysis and presented in Table 4.

SAS datasets for manuscript analysis

1. all_labs.sas7bdat (n=2032)
    - Data for key labs by date of lab (specdt) for all 2032 participants in the cohort (includes participants ineligible for analysis)
    - In addition to lab values, each date has an indicator variable for treatment status, pregnancy status, and HBRN trial entry status

2. analytic_labs.sas7bdat (n=2032)
    - One record per study week for all 2032 participants in the cohort
    - For each week, the closest key labs (pulled from all available data, including special visit weeks) to the anchor date (based on the date of platelets, when available) or the date with the most labs (prioritizing AST, ALT on the same date) were selected.
    - For each week, APRI, FIB-4, and phenotype were calculate based on the above selected labs.

3. baselinechar.sas7bdat (n=1771)
    - Dataset excludes participants for the following: Acute HBV, pediatric transfers, entered Immune Active or Immune Tolerant Trial at same time as cohort, HBV, HCV, HDV, participant with all labs while on treatment or within 24 weeks of stopping treatment, participant with all labs while pregnant or within 24 weeks of end of pregnancy
    - Dataset contains one record of baseline characteristics and lab values for 1771 participants
    - Indicators: use tx_fl24=. and gt24fup=1 to further exclude those (n=119) who started HBV treatment within 24 weeks and those (n=234) who did not have at least 24 weeks of follow-up visits
    - Figure 1 shows the participant sample flow chart that breaks down the exclusions used to get from n=2032 participants in cohort to n=1418 participants included in outcome analyses
    - Table 1 created using n=1418 participants

4. tx_interval.sas7bdat (n=421)
    - Dataset of all treatment intervals that lasted at least 24 weeks in duration, or had unknown duration

- Records by orig_id: include start and stop dates, duration, weeks to treatment

5. tx_interval _alldur.sas7bdat (n=488)
    - Dataset of all treatment intervals, regardless of duration of treatment
    - Records by orig_id: include start and stop dates, duration, weeks to treatment

6. elig_outcomes.sas7bdat (n=83)
    - Of the 1771 participants potentially eligible for analysis, one record per participant with at least one clinical outcome
        - hepatic decompensation
        - HCC
        - liver transplant
        - HBV-related or non HBV-related death
        - incident cirrhosis
        - incident ALT flare
        - becomes HBeAg negative
        - becomes HBsAg negative
        - initiates HBV treatment initiation
    - Outcomes were excluded if they occurred at/after entry into HBRN trial or if participant became HIV or HCV positive
    - Cirrhosis indicator: prevalent cirrhosis at baseline indicated by -1 (at/prior to enrollment) or -2 ($\leq$24 weeks after enrollment)
    - Derives the composite clinical outcomes
        - Clinical outcome 1= first occurrence of any of the following:
            - decompensation
            - HCC
            - liver transplant
            - HBV-related death
        - Clinical outcome 2= same as clinical outcome 1 + incident cirrhosis
    - Used to create Figure 2

7. sag_eag_negative.sas7bdat (n=204)
    - One record per participant with at least one HBeAg negative result (if positive at baseline) or at least one HBsAg negative result among the eligible 1418 participants in the final analysis sample
    - Excludes results that occurred at/after entry into HBRN trial or if participant became HIV or HCV positive
    - Includes date of first negative result for HBeAg and/or HBsAg
    - Classifies patterns of antigen results based on Dr. Anna Lok's categorization scheme.

8. flares.sas7bdat (n=142)
    - One record per participant with at least one adjudicated ALT flare among the eligible 1418 participants in the final analysis sample
    - Includes flares that occurred prior to cohort enrollment date
    - Excludes flares that occurred at/after entry into HBRN trial, or if participant became HIV or HCV positive
    - Includes a count of flares prior to enrollment, a count of total flares, the date of first flare after enrollment, and a determination of HBV-relatedness of flare based on etiology

9. timeto_outcomes.sas7bdat (n=1418)
    - One record per the eligible 1418 participants in the final analysis sample
    - Calculates the time to event or censoring time for each outcome

- Several outcomes were truncated by 24 weeks, since by study design, no event could occur within 24 weeks of enrollment. This applies to cirrhosis, liver transplant, and death
- Used to create Figures 3A, 3B, 3C, 4, Sup 1A, Sup 1B,

Datasets and variables used for selection, subgroups, and outcomes for tables and figures:

Table/Figure	Dataset	Selection	Subgroup	Notes
Table 1	baselinechar	tx_fl24=. and gt24fup=1	n=1418	
Table 2	baselinechar timeto_outcomes	tx_fl24=. and gt24fup=1	n=1418	
Table 3	baselinechar timeto_outcomes	tx_fl24=. and gt24fup=1 and cirr_erl=0	n=1397	excludes participants with baseline cirrhosis
Table 4	baselinechar timeto_outcomes elig_outcomes analysis_labs all_labs tx_interval tx_interval_alldur			
Figure 1	baselinechar		n=2032	Start with all participants in cohort-exclusions to reach analysis sample of n=1418
Figure 2	timeto_outcomes		n=1418	
Figure 3 (A/B/C)	timeto_outcomes		n=1418	
Figure 4	timeto_outcomes		n=1418	
Supplementary Table 2	baselinechar timeto_outcomes	tx_fl24=. and gt24fup=1	n=1418	
Supplementary Table 3	baselinechar timeto_outcomes	tx_fl24=. and gt24fup=1	n=1418	
Supplementary Figure 1 (A/B)	timeto_outcomes		n=1418	