HCV DRAG

Notes

HCV DRAG: Liver Biopsies

- Endpoint are virological
 - Biopsies not critical for approval of DAAs
- Role of biopsies
 - Rule out cirrhosis
 - Analyze results with respect to fibrotic stage
 - Biopsies more important in later stages development (Ph 2b/3)
- Difference between EU and US availability and use for non-invasive tests
 - Need to work on increasing access in US, investigate whether tests are under FDA review
 - Invite FDA colleagues from devices to Dec meeting

HCV DRAG: Viral Load Thresholds

Issues:

- Official limit of quantitation, no official limit of detection
- Roche LOQ: 25, Abbott LOQ:12

Suggestion:

- Collect both LOQ and detectable/undetectable data
- Report as either LLOQ detectable or LLOQ undetectable (rather than LLOD)
- Always use log values (difference of log, not log of difference)
- Need to keep RGT as simple as possible
 - But RGT rules may need to be different for different drug combinations
- Two topics for continued discussion
 - Assay sensitivity
 - Prediction of clinical outcomes (relevant endpoint for stopping rules and response-guided therapy)
 - Risk of using less stringent criteria for RGT more relapsers
 - Risk of using more stringent criteria for stopping rules lose benefit of treatment

HCV DRAG: Clinical Trial Definitions

- Terms confused
 - Treatment experienced (IFN, DAA, relapsers etc)
 - Response (RVR, eRVR, EVR etc)
 - Fibrosis stages/cirrhosis
 - High/low BVL
 - Race
 - Drug class (PI, NNI, etc)
- Don't want the terms to define the development programs
- Need a subgroup to work on consensus definitions?
 - Confer with Adrian Debuschle, Heiner, Don

HCV DRAG: Special Populations

- Begin to study special populations during Phase 3
- Decompensated cirrhosis
 - Dose reduction of pegIFN/RBV an issue
- HIV-coinfected
 - Drug-drug interactions
- Transplants
 - Timing challenge for pretreatment prior to transplant
 - Possible pilot studies in living donor transplants
 - Patient allocation programs? Difficult in US
 - Drug-drug interactions: may need real time drug level monitoring, including for DAAs
- Bleeding disorders
 - Guidance wording: "recommended" pathway in combo with SOC
- Opiate substitution therapy
 - Drug-drug interactions

HCV DRAG: DAA Combo Studies

- Preference to begin in least vulnerable populations (eg, CCs)
 - In more vulnerable populations, use extensive monitoring/adding on SOC
 - EMA:
 - Also open to advanced populations with contraindication to SOC
 - Not recommend nonresponders without immediate need based on fibrosis
- With potent combinations, rebounds more likely after ~4-6 weeks or more, so longer duration than 2 weeks needed to interrogate rebound potential
- Preference for experience with at least one compound with SOC for 12 weeks
- Consider using RBV
- Preclinical
 - FDA: recommend 3 months of single tox work at high doses
 - EMA: likely moving closer to FDA recommendation
- Premature to make decisions on basis of drug classes/genetic barrier, although concern about combo of two relatively weak drugs
- Requirements for triple combos similar to those for double
- Pathways for approval of "weaker" drugs
 - Study in SOC-contraindicated populations
 - Add on to triple
 - Non-inferiority
 - Even could be inferior but still better than placebo, particularly if safety advantage or different resistance profile

HCV DRAG: DAA Dose Reduction

- Not a good option with either TPV or BCV
- Potential examples for dose reductions:
 - If high on Emax curve, eg TMC435 (75 and 150 mg very close)
 - Nucleosides
 - If TDM suggests too high level
 - If VL is undetectable
- Nonlinear PK should be taken into account

HCV DRAG: Stopping Rules

- In general, more aggressive stopping rules will help to prevent increasing fitness of mutants during ongoing replication
- Clinical trial stopping rules can be instructive for clinical practice

HCV DRAG: Intercompany Collaborations

- ACTG mandate from NIAID to expand to other areas of infectious diseases
 - Commitment to funding in mono-HCV infected pts
- Questions about how labeling might evolve out of ACTG studies
 - INDs held by NIAID, analyses by ACTG