Questions:

1. What factors should the agency consider in determining the safety and effectiveness for the use of placental/umbilical cord blood (UCB) transplantation for hematopoietic reconstitution:
    a. The ages of the patients to be transplanted –infants vs children vs. adult patients
    b. Specific disease indication(s) (including specific types of cancers) and severity of disease(s) for which there are data on the use of UCB
    c. Time to engraftment
    d. Maximum number of HLA mismatches that should be permitted
    e. Incidence of graft versus host disease

2. Please discuss whether the data presented by Drs. Rubenstein, Wagner, and Chao, along with the analyses performed by CBER on the primary dataset provided by the NY Blood Center provide substantial evidence of safety and effectiveness to support the use of placental/umbilical cord blood (UCB) transplantation for hematopoietic reconstitution in the following groups of patients:
    a. Pediatric patients younger than 13 years
    b. Pediatric patients 13 years or older
    c. Adult patients
    d. A subset or subsets of pediatric patients not defined above

3. For future clinical trials, what additional clinical outcome data would be important to collect prospectively?

4. Please discuss the importance of ensuring adequate numbers of CD34+ cells in the selection of a UCB product for transplantation, i.e., is it essential to measure this parameter in order to predict engraftment? If so, is there a minimum number of CD34+ cells below which a product should not be considered adequate for transplantation? Are there other parameters or measures of quality that should also be considered?