

Minutes

BIOPHARMACEUTICS TECHNICAL COMMITTEE

Teleconference
Wednesday, February 12, 2003
10:00 a.m. – 12:00 p.m. (Eastern)

AAPS/Industry Representatives

Leon Shargel (Chair)	GPhA
Andrew Dahlem	PhRMA
Ron Manning	USP
Joel Sequeira	PhRMA

FDA Representatives

Wallace Adams
Dale Conner

PQRI

Sylvia Gantt

Guests

William Brown	USP
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Introductory Remarks

L. Shargel reviewed the last meeting's discussion and then introduced William Brown, USP Staff for the Biopharmaceutics Expert Committee and Project Teams #5 and #6

USP Project Teams

Will Brown discussed the activities of the USP project teams. The USP project teams were organized to provide greater participation by USP stakeholders. Currently there are 18 USP project teams.

Project team #5 – Focuses on the use of dissolution calibrator tablets. Some of the issues include (1) what does the calibrator tablet measure (e.g., centering of vessel, vibration, shaft wobble, vessel symmetry, etc), (2) properties of an ideal calibrator, (3) failure of the dissolution apparatus to meet the calibrator acceptance criteria on the first try (e.g., statistical failure or failure of the instrument?), (4) evaluation of hydrodynamic properties of the apparatus, etc.

Project team #6 – Focuses on several different issues relating to dissolution. Some of the issues include (1) New technologies including the use of peak vessels and fiber optics, (2) The acceptance criteria for dissolution. The present 3 tier USP dissolution testing approach does not evaluate the properties of the batch. Project Team #6 has discussed statistical approaches to consider the appropriate acceptance criteria. A stimuli article will be written on this. (3) Pharmacopeia harmonization of dissolution/drug release.

Taxonomy – USP is considering a three tier approach at taxonomy of dosage forms. The top tier considers the route of drug administration (e.g., oral, injection, skin, inhalation mucosal routes). The second tier considers the names of the products and the bottom tier considers drug release criteria for dosage forms. This last tier would consider product performance based on biopharmaceutic criteria.

Topics for BTC

BTC members were asked to submit a list of any topics that they or their colleagues think are key biopharmaceutic issues that should be addressed by our committee and/or FDA or USP.

- Should dissolution specifications be based on QC or in vivo bioavailability?
BTC agreed that this topic should be developed further. The topic will be assigned to the Immediate Release Drug Products WG.
- Can sequential design be used more efficiently to demonstrate BE?
BTC agreed that this topic should be developed further. The chair will ask the PQRI Steering Committee for permission to form a WG to work on this issue. The WG will need the participation of statisticians as well as pharmacokinetics.

Other topics put forward for possible discussion were

- Can upstream testing predict downstream dissolution testing?
- Multiple strength drug products and the scalability and bridgeability of bioavailability and bioequivalence data
- Introduction of line extensions and the requirements for biopharmaceutical data on new formulations
- Evaluation of food effects on drug absorption and bioavailability --- impact during drug development and commercialization
- Biopharmaceutical drug product monographs --- would such monographs be useful --- what information, drug characteristics, and data compose a meaningful monograph
- Bioavailability considerations across special populations - elderly, pediatrics, and disease-specific considerations
- Novel drug formulations and bioavailability or bioequivalence requirements
- "in silico BE"

These and other topics will be discussed at our next meeting and the PQRI Workshop..

Next BTC Meeting:

The next BTC meetings will be held on March 5, 2003 as a teleconference.