Cross-industry organizations

IPAC-RS: An update on recent activities

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The International Pharmaceutical Aerosol Consortium on Regulation and Science (IPAC-RS) and its working groups continued to advance a number of activities throughout 2018.

In North America

One of the Consortium's major activities in mid-year was the review and submission of comments on the United States Food and Drug Administration's (FDA) 2018 Draft Guidance for Metered Dose Inhaler (MDI) and Dry Powder Inhaler (DPI) Products – Quality Considerations. This work was organized and driven by the consortium's Global Regulatory Review and Outreach North America Group (GRRO North America). The group collected and compiled comments from the various IPAC-RS technical working groups as well as the consortium's member companies. Specific working groups then liaised with the GRRO North America to review and refine the comments and submit them to the FDA Draft Guidance docket. Due to the number and extent of comments, the GRRO North America Group developed a second submission to the docket, requesting a public meeting or workshop to discuss the Draft Guidance with the FDA and other stakeholders. The GRRO North America Group is also monitoring and discussing output and research on complex generic drugs within the FDA Office of Generic Drugs (OGD) and is monitoring Health Canada activities.

In Brazil, China and Europe

The GRRO Brazil Group led the IPAC-RS collection and submission of comments to the Brazilian regulatory agency's (ANVISA) Draft Resolution and Normative Instruction addressing equivalence considerations for inhalation and nasal drug products. The group then worked with ANVISA to organize a joint workshop at ANVISA in Brasilia in June to discuss questions related to the Resolution and Normative Instruction. Topics included assessment and application of the population bioequivalence (PBE) statistical approach, the ANVISA regulatory framework for post-approval changes, and PK considerations. The group coordinated with the IPAC-RS PBE Working Group to follow up with ANVISA and will be sharing other scientific information and case studies.

The GRRO China Group collaborated with the AAPS China Discussion Group (AAPS CDG) and the China National Institutes for Food and Drug Control (NIFDC) to develop a workshop addressing drug delivery generally, as well as specific topics related to orally inhaled and nasal drug products (OINDPs). The workshop was held in September in Beijing and included industry, regulators and other stakeholders as speakers and attendees. IPAC-RS representatives from various consortium working groups and the board of directors gave presentations on a variety of timely topics, including the consortium's comments on the FDA MDI DPI Draft Guidance, bioequivalence considerations for inhalation and nasal drug products, extractables and leachables, biocompatibility and spray pattern. IPAC-RS also met with NIFDC representatives and the China National Pharmaceutical Packaging Association (CNPPA).

The GRRO Europe Group has collaborated with the IPAC-RS Devices Working Group to monitor developments and contribute to cross-industry discussions related to the European Medical Device Regulation (MDR). For example, the IPAC-RS MDR Analysis Subgroup helped coordinate with the European Federation of Pharmaceutical Industries and Associations (EFPIA) European Biopharmaceutical Enterprises (EBE) on a letter to the European Commission (EC) outlining challenges and areas needing further clarification in regards to the implementation of MDR Article 117. IPAC-RS joined EBE and a number of other stakeholder organizations to co-sign the letter. IPAC-RS and other interested groups continue monitoring developments by EC and will provide support to EFPIA where needed. Members of the GRRO Europe Group also published a paper in AAPS PharmSciTech [October 2018, Volume 19, Issue 7, pp. 3134-3140] on the European regulatory landscape for OINDPs. Finally, this Group continues to monitor the Brexit process with respect to EMA activities, and the status of impending guidelines (e.g., revisions to the quality and OIP bioequivalence and clinical

documentation guidelines, and development of the drug/device combination products guideline).

Materials and Plume Characterization Working Groups

The Materials Working Group coordinated with the GRRO China Group for a presentation on chemical and materials risk management at the China National Pharmaceutical Packaging Association (CNPPA) Suzhou Dialogue Conference in August. They also gave a presentation on biocompatibility at the AAPS CDG/NIFDC/IPAC-RS workshop. In addition, the group held a workshop for pharmaceutical and device manufacturers and suppliers, addressing quality of materials. The workshop themes were based on the group's baseline requirements document for materials quality. Speakers and participants included industry, standards organizations and the FDA Center for Devices and Radiological Health (CDRH). The program and slides for the workshop are available on the IPAC-RS website.

After presenting results from its benchmarking survey on plume geometry at RDD 2018, the Plume Characterization Working Group conducted a second survey on spray pattern. The group plans to submit a poster abstract on their work to Respiratory Drug Delivery (RDD) Europe 2019.

Population Bioequivalence; Product Quality and Cascade Impaction Working Groups

The Population Bioequivalence (PBE) Working Group has completed its technical report regarding the performance of the PBE *in vitro* test (from the FDA individual-product BE guidelines) when applied to impactor-sized mass (ISM), using industry's database of real-products' cascade impactor data.

The Product Quality Demonstration Strategy (PQDS) Working Group conducted a webinar on PQDS and spearheaded the drafting of the IPAC-RS comments on the in-process revision of USP chapter <601>, "Inhalation and Nasal Drug Products—Aerosols, Sprays, and Powders—Performance Quality Tests" [PharmForum 44(5)]. The IPAC-RS Cascade Impaction Working Group (CI WG) also made important contributions to those comments. The CI WG has also continued the preparation of a multi-part manuscript on best cascade impactor practices for dry powder inhaler testing.

Future events

Further details on these and other developments will be presented in future IPAC-RS workshops and public webinars. For more information on IPAC-RS, please visit www.ipacrs.org.