Review of Approaches to Managing Device Changes within OINDPs

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BACKGROUND

The survey was open for completion from May 2010 through January 2011. The preliminary results displayed here are based on responses obtained in September 2010; at that point, 125 responses had been obtained.

RESULTS

It was generally observed that:

- Clinical testing was almost as common as in-vitro testing for device changes, while for material & process changes, in-vitro testing was much more common.
- Several respondents would use long-term stability testing (≥6 months) at 40°C / 75% RH to support changes.
- Mechanical testing, device robustness, and dimensions were seen as key elements for most changes.

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two graphs presented for each of the 15 scenarios,

- One graph summarizes responses to non-clinical tests, and one summarizes clinical tests.
- Each bar represents the response to a particular test.
- The abbreviated test name is given below the bar.
- The height of the bar gives the number respondents that would conduct the test, in percent of those answering the question.

- The blue portion of the bar shows the proportion of respondents that would conduct the test for technical reasons only.
- The orange portion shows the proportion of respondents that would conduct the test for regulatory reasons only.
- The red portion shows the proportion of respondents that would conduct the test for both technical and regulatory reasons.

INTRODUCTION

Regulatory review of oral, inhaled, and nasal drug products is complexified by the drug/device nature of these products; while Medical Devices are often more varied and technically complicated than Medicinal Products, they may be less prescriptively regulated, and the process and timeframe for approval of the changed device can vary significantly based on whether OINDP or device guidelines are applied. The objective of the Device Survey was to assess current attitudes toward device changes to:

- Establish a view on the ‘as is’ situation in relation to device changes,
- Facilitate a move towards consensus on appropriateness of in-vivo and in-vitro testing, risk management, Quality by Design, and self-regulation for device changes; and
- Highlight areas where regulatory requirements may differ from what is perceived to be technically required.

METHODS

The survey comprised of fifteen scenarios about the three primary types of device changes: design changes, material changes, and manufacturing process changes. Scenarios were based on real experience derived from cross industry contributors, distributed across different development phases, and included assessment of changes to Innovator versus Generic products. For each scenario, respondents were provided with a description of a change (design, material, or manufacturing) and asked for the following information about how they would address the change:

- Context (NDA/ANDA)
- Filing route (CBE, Annual Report, etc.)
- Stability testing (condition and duration)
- User handling study

For each of the 13 non-clinical tests and 8 clinical tests respondents were asked:

- Would you do this test?
- For what reason(s) (technical/regulatory/both)?

Respondents were also provided with the opportunity to comment.

CONCLUSIONS

The survey revealed considerable variance regarding: (1) whether to test in the context of a device change; and (2) if so, what types of tests should be conducted; as well as whether the rationale for performing the tests should be for regulatory or technical reasons only, raising questions of what those tests would be and the rationale for performing them; some respondents also indicated that they would perform ‘non-standard’ long-term testing to meet regulatory expectations, which generates questions about why this was felt to be expected and what a recommended long-term model would be.

A minority of participants would perform clinical testing; patient interface, PD/BE, and other clinical testing would be performed for technical or technical and regulatory reasons.

NEXT STEPS

- Analyze complete set of responses submitted between May 2010 and January 2011.
- Draft a publication about current attitudes based on the output of the survey to inform dialogue about management of OINDP devices.

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