

## Takeaways from Integrating Studies Conducted by Bristol-Myers Squibb (BMS) and ONO

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### ABSTRACT

In addition to merging and acquisition happening in the pharmaceutical industry, more international companies have been connected by working together to seek NDA or sNDA approvals. Currently, both BMS and Japan ONO have been independently working collaboratively on an oncology drug for cancer treatments, and the two companies have formed a strategic partnership that includes co-development, co-commercialization and co-promotion of multiple immunotherapies for patients with cancer. As a programmer, I have been heavily involved preparing the submissions of the integrated study results to FDA and Europe agencies. Throughout this data integration submission process, I have developed a deep understanding of the differences on presenting SDTM/AdAM datasets between the two organizations, and I am very pleased to share our approach on harmonizing the differences, and our lessons learned and suggestions on preparing data integration from different sponsors.

### INTRODUCTION

BMS initial proposed was to combine its internal conducted studies with ONO (Japanese company) a similar study to generate integrated study reports for the FDA and European submissions. Prior to making the integration decision by the BMS Management Teams, we are asked to evaluate the possibilities of the integration, because we didn't know anything about how ONO conducted its studies. At the beginning, the targeted ONO study was not available, so we started by exploring and studying all available ONO protocols in order to get familiar with and understand the overall information from a different organization on trial designs, study collections, data structures, and naming conventions, etc. All of this start-up preparations helped us in speed to assess the integration when the target data once it became available.

### STRATEGIES

A road map has been developed to guide the process. First, to create a big picture on how much of the ONO data can be mapped to the BMS data. To this end, the critical datasets and the key variables of each data domain were essential to the integration which we identified. Then, I produced an overview mapping spreadsheet to display the number of variables, and the percentage count of the variables from each domain which were mapped.

The more detailed work was to find out if the variables that could not be straight forward mapped, but could be possibly be derived via an algorithm. If there was absolutely no way to derive the variable, then we discussed and estimated how much of the risk we would take if this piece of information was missing.

Please note, even if the variables seemed to be collecting the same information, but the data structure could be different from sponsor to sponsor. For example, BMS collected the end date of adverse event when the AE severity changes, but ONO only collected the date at the end of each AE. It is very important to pay attention to data structures and to high light differences.

### LESSONS LEARNED

#### DOCUMENTS

It is a normal process to keep updating the draft data specifications for the on-going studies. If the owner and the end user of the specifications is the same person, it would be fine to update the draft specifications without recording the revision history. But if we plan to share the different draft versions of the document, I would strongly suggest the owner or the developer of the data specifications to document the revision history, and highlight the changes in the data specifications itself. Especially the data specifications are provided in Excel spreadsheet, and there is no tracker to trace the updates like in the Word document. As the end users, we like to avoid to spend a lot of time comparing the different versions of the document in details in order to identify what the updates are, then to modify the programs per the updates.

Also, I would strongly recommend to create and provide the annotated CRF to the partner company as soon as possible. So, we don't need to guess around then to confirm the variables are ensured corresponding to the questions from the CRF. It would definitely save a lot of time during the process if we have the annotated CRF handy. Starting from the first data delivery for the study, we have requested a couple of times to obtain the annotated

CRF, but it seems to create the annotated CRF is not the priority from the other party, or it is used to create the document after the final database lock. Please consider to move up the annotated CRF process if working with partners.

### **CONSENT FORMS**

If the consent form states “we don’t share your information with third parties”, and your organization has decided later on to work with another organization as a partner to share the data, remember to update the consent form immediately, and collect the signed updated consent form which allows your organization to share the subject’s information with your partner. Otherwise, it may cause a significant delay of the database lock due to collecting the updated consent forms.

### **CONCLUSION**

Integrating data from different sponsors is an extremely complicated, detail oriented and time consuming process. It involves back and forth daily discussions and constant decision making efforts. It requires more than enough expected resources on handling the labor intensive process. Here are the essential facts to help work effectively. First, we should try our best to obtain the adequate and current documents from the partner company, such as annotated CRF and data specifications, so we could avoid guessing around and repeatedly going back checking on the updates. Second, we need to be aware of the culture difference. If we are used to deliver or receive AdAM data created based on SDTM data in the same delivery package, we shouldn’t assume our partner would do the same, or expect our partner would inform us if AdAM is not generated from the SDTM in the same delivery package. Just ask, sometimes, it might surprise you! Finally and most importantly, please ensure we have the subjects’ consent forms agreed to share their information with a third party. This is especially important for subjects who are still alive. We don’t want to run into any legal issues by sharing and analyzing the data.

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### **CONTACT INFORMATION**

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