Implementing targeted Source Data Verification (SDV) Strategy in iDataFax

Sadia Yousuf
Research Coordinator, Population Health Research Institute
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Source Data Verification (SDV)

Source data verification (SDV) is a check that the data collected on a research study (e.g. on a case report form or in a database) can be verified by looking at a primary source (e.g. medical record).

In essence:
• Checking for consistency, and
• Accuracy in transcribing data from one place to another.
SDV and Risk Based Monitoring

Figure 1: Illustration of a risk based quality management system for clinical trials from EMEA guidance document

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Study Specific Risk Management Strategies

Implementation of project specific targeted SDV strategies involved multidisciplinary team:

- Project leaders
- Monitors
- Data managers
- Statistician
Source Data Verification (SDV) plan

- The targeted process is risk-based
- Targeting **key elements of data for SDV** for 100% of study subjects where safety or efficacy data is considered most critical, and
- Sampling of subjects’ data for other non-critical elements
- Ensure **overall integrity of study data**
Source Data Verification (SDV) plan

The plan defines:

1. Subjects
2. List of the Forms and Fields

This plan is part of an overall risk based monitoring approach for the study
SDV Plan- Pre-specified/fixed sampling

1. The first 2 subjects randomized have 100% SDV of all eCRF data for specified visits forms

2. 25% of the subsequent subjects randomized have SDV performed for specific fields. The subsequent subjects will always be the 6th, 10th, 14th, 18th etc. subject randomized
2.1 Source Document Verification for Screened Patients

The following source document verification should be performed for all patients that enter screening, even if they subsequently fail screening:

- 100% review of Informed Consent for each patient and compliance with the Informed Consent Process. The Monitor must ensure that the patient has been appropriately consented to the correct version(s) and has signed an ICF and Data Privacy Statement (where separate from ICF). This applies for all versions of the ICF as available for the study.
- Confirm source documentation exists.
- As all patients will require source data verification of the ICF, CRF page 1/201 is expected to have the SDV flag completed for ALL patients and will be listed on the pending SDV flag report for ALL patients (see below). The SDV flag on CRF page 1/201 thus only refers to SDV of ICF being done; it does not imply that the remainder of the data on that page underwent SDV.
2.2 Source Document Verification for Screen Failure Patients

- In addition to the review of the Informed Consent for each Screen Failure Patient, there will be a few patients that will require SDV of the ineligibility reason.
- The anticipated screening failure rate overall is about 10%. The reason for ineligibility for screen failure patients will be reviewed as follows:
  - Sites with <10 patients randomized: No review of screen failure patients required
  - Sites with 10 – 20 patients randomized: Review 1 screen failure patients (if screen failures occur at site)
    - See example on next page: The site has 15 patients randomized, therefore 1 screen failure patient needs to be SDV’ed; in this case patient 5.
  - Sites with > 20 patient randomized: Review 2 screen failure patients (if screen failures occur at site)
2.3.1 Source Document Verification for the First Randomized Patients

The first 2 patients randomized (based on first patient with date of first dose (at V2) entered in eCRF) at each site will have 100% SDV of all eCRF data from Visit 1 to Visit 6 and the End of Treatment (EOT).

If one or both of the first 2 randomized patient discontinues from the study (withdrawal of consent), or dies, prior to completing the 12 month visit (V6), the next randomized patient will be required to have 100% SDV performed for Visits 1-6. In case one or both of the first patients were randomized but never started treatment, the next randomized patient will be required to have 100% SDV performed for Visits 1-6.

This process will repeated until two patients have had 100% SDV performed for Visit 1-6 and the EOT.
2.3.2 Source Document Verification for Subsequent Randomized Patients

25% of the subsequent patients randomized will have SDV performed according to the parameters shown below. The subsequent patients will always be the 6th, 10th, 14th, 18th etc. patient randomized (see
# SDV Plan - Field requirements

## Appendix 1 – Summary of Fields requiring SDV

<table>
<thead>
<tr>
<th>Patient/Group</th>
<th>Visit</th>
<th>Page or Section Name</th>
<th>Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Patients in Japan</td>
<td>All Visits</td>
<td>All Pages</td>
<td>All Fields</td>
</tr>
<tr>
<td>First 2 Patients Randomized at each Site</td>
<td>Visits 1-6 and EOT</td>
<td>All Pages with the exception of the Patient Reported Outcomes at the EOT visit</td>
<td>All Fields</td>
</tr>
<tr>
<td>All Patients Screened</td>
<td>Visit 1</td>
<td>Confirmation of Consent and Eligibility Status</td>
<td>Date patient signed informed consent</td>
</tr>
<tr>
<td>Screen Failure Patients (only for sites with ≥ 10 patients randomized)</td>
<td>Visit 1</td>
<td>Status of Eligibility Assessment</td>
<td>All fields</td>
</tr>
<tr>
<td>All Patients Signing Informed Consent</td>
<td>NA</td>
<td>First SAE at each site</td>
<td>All Fields and all follow up until no further follow up required</td>
</tr>
<tr>
<td>All Patients Signing Informed Consent</td>
<td>NA</td>
<td>All SAEs considered related to study drug or study procedures including any SAE related to a product complaint</td>
<td>All Fields and all follow up until no further follow up required</td>
</tr>
<tr>
<td>All Patients Signing Informed Consent</td>
<td>NA</td>
<td>All non-serious AEs leading to permanent study drug discontinuation.</td>
<td>All Fields and all follow up until no further follow up required</td>
</tr>
<tr>
<td>All Patients Signing Informed Consent</td>
<td>NA</td>
<td>All Pregnancy Reports, if applicable</td>
<td>All Fields and all follow up until no further follow up required</td>
</tr>
<tr>
<td>25% of Subsequent Randomized Patients</td>
<td>Visit 1</td>
<td>Confirmation of Consent and Eligibility Status</td>
<td>Date of onset of recent ischemic stroke Basis for diagnosis of recent ischemic stroke</td>
</tr>
</tbody>
</table>
Algorithm for subjects to be SDV’d
Definitions of CRFs and fields to be SDV’d

CRFs with SDV check
Recording of SDV verification and reverification

CRFs with SDV Flag expected to be completed as per SDV Plan
CRFs with SDV Flag Expected & Complete

Information on the centralized data review put in place by PHRI
How did we implement SDV Check in iDataFax?
Step 1: A date field for SDV created on predefined CRF pages

- CRF backgrounds with SDV date field
- CRF backgrounds without SDV date field

Step 2: SDV flag Edit Checks programmed

- Edit check for loading backgrounds
- Edit checks for: monitor read - write in date field, resetting SDV date

Step 3: SDV check status reports

- SDV check status reports for completion and pending
- SDV check status reports for re-verification
SDV flag in CRFs - Backgrounds

SDV flag date not visible to sites
Standard Style used - SDVyyyyO
SDV flag Edit Checks

Source Data Verification flag can be reset using the edit check from verified to unverified, automatically under certain conditions.

1. When the CRF specified field data change is made, i.e., ignore coding fields, esignatures, etc.

or

2. Data is changed due to a Query response in the specified field in the CRF

Once marked as unverified, the CRF can be verified again at any time.

The CRF Audit trail tracks any change in Source Data Verification status for a CRF.
Edit Checks used for SDV Flag

SDV_MDV_Setbackground - Update the background for SDV/MDV

SDVInitialize - Switch Bkgd and set field hidden for sites or R/W for Monitor

SDVcheck - Check to see if any fields have changed value and clear SDV date if they have
View source data verification status

In the CRF list view, SDV flag date column indicates those CRFs that have had Source Data Verification completed with the date of SDV and those that have not with no date listed.
SAS Supporting Reports and Tables

Source Data Verification Report tables are produced from iDataFax to determine the CRFs that have been verified and those that have not.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total CRFs received with SDV Flag field on page</th>
<th>CRFs with SDV Flag expected to be completed as per SDV Plan</th>
<th>CRFs with SDV Flag Expected &amp; Complete</th>
<th>% SDV</th>
<th>% Clean</th>
<th>CRFs with pending SDV</th>
<th>CRFs with Re-Verification</th>
<th>CRFs with SDV completed but not required as per SDV Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>10326</td>
<td>2091</td>
<td>79</td>
<td>100</td>
<td>1137</td>
<td>93</td>
<td>1581</td>
<td>100 % SDV required for this country</td>
</tr>
<tr>
<td>Japan</td>
<td>21876</td>
<td>20739</td>
<td>95</td>
<td>100</td>
<td>1137</td>
<td>201</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>7418</td>
<td>1569</td>
<td>84</td>
<td>100</td>
<td>305</td>
<td>161</td>
<td>2153</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>2911</td>
<td>700</td>
<td>79</td>
<td>100</td>
<td>181</td>
<td>33</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>8680</td>
<td>1742</td>
<td>80</td>
<td>99</td>
<td>438</td>
<td>137</td>
<td>1670</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>4785</td>
<td>993</td>
<td>90</td>
<td>100</td>
<td>110</td>
<td>34</td>
<td>445</td>
<td></td>
</tr>
<tr>
<td>Russian Federation</td>
<td>8735</td>
<td>1758</td>
<td>74</td>
<td>100</td>
<td>614</td>
<td>96</td>
<td>725</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>1666</td>
<td>408</td>
<td>93</td>
<td>100</td>
<td>30</td>
<td>27</td>
<td>466</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>19713</td>
<td>3676</td>
<td>85</td>
<td>100</td>
<td>669</td>
<td>168</td>
<td>2601</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>2319</td>
<td>611</td>
<td>93</td>
<td>100</td>
<td>47</td>
<td>5</td>
<td>371</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>3970</td>
<td>893</td>
<td>88</td>
<td>99</td>
<td>127</td>
<td>23</td>
<td>316</td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>1188</td>
<td>448</td>
<td>89</td>
<td>99</td>
<td>58</td>
<td>19</td>
<td>381</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>13573</td>
<td>3306</td>
<td>86</td>
<td>100</td>
<td>551</td>
<td>248</td>
<td>2522</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>11355</td>
<td>3171</td>
<td>89</td>
<td>99</td>
<td>396</td>
<td>197</td>
<td>2855</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>224351</td>
<td>64789</td>
<td>87</td>
<td>100</td>
<td>10108</td>
<td>2847</td>
<td>32747</td>
<td></td>
</tr>
</tbody>
</table>

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SAS Supporting Reports and Tables

Source Data Verification Report tables are produced from iDataFax to determine the CRFs that have been verified and those that have not.

<table>
<thead>
<tr>
<th>Patient ID</th>
<th>CRF #</th>
<th>CRF Narration</th>
<th>Visit</th>
<th>CRF Creation Date</th>
<th>SDV Flag Date</th>
<th>Re-Verification Required?</th>
<th>Patient Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>458</td>
<td>Hospitalization Report</td>
<td>1403</td>
<td>2017-07-10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1006</td>
<td>300</td>
<td>Study Med Discontinuation/ Restart Report</td>
<td>5000</td>
<td>2017-05-04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13052</td>
<td>1/201</td>
<td>Eligibility Confirmation</td>
<td>1</td>
<td>2017-07-25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1037</td>
<td>1/201</td>
<td>Eligibility Confirmation</td>
<td>1</td>
<td>2017-08-31</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SDV according to 2.3.1 (100% SDV for 1st two randomized)
## Report for CRFs requiring Re-Verification

Data requiring Re-Verification is produced from iDataFax to determine the CRFs have to be Re-verified

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Center</th>
<th>IMPACT</th>
<th>Patient ID</th>
<th>Visit</th>
<th>SDV Plat</th>
<th>SDV Desc</th>
<th>Status</th>
<th>SDV By</th>
<th>SDV Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>Unknown</td>
<td>2146</td>
<td>49011</td>
<td>2146003</td>
<td>3</td>
<td>17</td>
<td>1 Month Visit P1</td>
<td>RE-VERIFICATION REQD</td>
<td>amanda</td>
<td>2016/05/06 15:30:49</td>
</tr>
<tr>
<td>Unknown</td>
<td>Unknown</td>
<td>2146</td>
<td>49011</td>
<td>2146010</td>
<td>1</td>
<td>1</td>
<td>Eligibility Confirmation P1</td>
<td>RE-VERIFICATION REQD</td>
<td>yousuf</td>
<td>2016/11/04 14:22:23</td>
</tr>
<tr>
<td>Unknown</td>
<td>Unknown</td>
<td>2146</td>
<td>49011</td>
<td>2146057</td>
<td>2</td>
<td>5</td>
<td>Randomization P1</td>
<td>RE-VERIFICATION REQD</td>
<td>yousuf</td>
<td>2015/07/08 12:15:01</td>
</tr>
<tr>
<td>Unknown</td>
<td>Unknown</td>
<td>2146</td>
<td>49011</td>
<td>2146057</td>
<td>2</td>
<td>6</td>
<td>Randomization P2</td>
<td>RE-VERIFICATION REQD</td>
<td>yousuf</td>
<td>2015/07/08 12:17:15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plate</th>
<th>Field</th>
<th>Description</th>
<th>SDV Value</th>
<th>Current Value</th>
<th>Last Changer</th>
<th>Last Changed</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>10</td>
<td>A1. Was this visit conducted?</td>
<td>1=No</td>
<td>2=Yes</td>
<td>amanda</td>
<td>2016/05/06 15:31:00</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>A1. Date of screening visit</td>
<td>2016/06/30</td>
<td>2016/06/29</td>
<td>yousuf</td>
<td>2016/11/04 14:22:40</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>A2b. Pack #2</td>
<td>000002</td>
<td></td>
<td>yousuf</td>
<td>2015/07/08 12:15:08</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>A3. Record the date of 1st dose</td>
<td>2015/09/18</td>
<td></td>
<td>r scratches</td>
<td>2015/09/21 11:20:24</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>D1. Stroke / TIA</td>
<td>0=0</td>
<td>1=No</td>
<td>yousuf</td>
<td>2015/07/08 12:17:34</td>
<td></td>
</tr>
</tbody>
</table>
Email Merge with QC2Excel

Step 1: Prepare your data in excel format i.e., QC2Excel and Centers database files

Step 2: Create an email template (.oft file)

Step 3: Connect email template to your data

Step 4: Preview and send
Email Merge with QC2Excel

A report in iDataFax is used to create:
1. Centers database file with site’s contact details, in excel format
Email Merge with QC2Excel

2. QC2Excel files for each site with outstanding queries
Email Merge with QC2Excel

3. Macros are used to send Emails with Excel files for each site.
Email Merge with QC2Excel

3. Macros are used to send Emails with Excel files for each site
Automated Emails with Excel QC files

4. Augmenting traditional QC Reports

Thank you for your continued efforts, and dedication to the [Redacted] Study. The study project office team has noticed that the outstanding queries are continuously being addressed in the clinical database, and we appreciate your support in preparation for the upcoming second study interim analysis to be reviewed by the Independent Data Monitoring Committee (IDMC). We would like to request that the sites focus on the outstanding priority queries and aim to resolve as many as possible before any summer holidays or vacations commence.
Thanks!

Questions and comments?