Agenda

• Serious Adverse Event Integration
• Data Quality Portal
• Central Monitoring
SERIOUS ADVERSE EVENT (SAE) INTEGRATION
SAE Integration

• The Serious Adverse Event (SAE) integration links the system for reporting routine Adverse Events (AEs) with the system for the expedited reporting of SAEs.
  – Rave is the Clinical Data Management System used for reporting routine AEs
  – Cancer Therapy Evaluation Program Adverse Event Reporting System (CTEP-AERS) is the system used for the expedited reporting of SAEs.

• The integration between the two systems allows for a single sign-on approach to reporting and managing SAEs, and reduces the double data entry that results from two separate systems.

• All routine AEs entered in Rave will be evaluated for possible expedited reporting, and if an expedited report is recommended, the system can launch CTEP-AERS directly from Rave in order to complete the report.
**Workflow of Integration**

1. **Rave**
   - Patient experiences an Adverse Event

2. CRA enters Adverse Event in Rave

3. CRA completes Expedited Reporting Evaluation form in Rave

4. Evaluate if AE is reportable based on programmed rules

5. CTEP_AERS Recommendation displayed in Rave
   - Yes, Reportable
   - No, Not Reportable

6. CRA accesses CTEP-AERS to complete the expedited report

7. CRA submits expedited report to NCI

Done
Rave to CTEP-AERS Data Flow (1)

• Sites enter AE data in Rave and submit to CTEP-AERS rules engine for expedited reporting evaluation.

• All AE data in Rave that is required for expedited reporting will be pushed to CTEP-AERS.

• A direct link will be used to automatically log into CTEP-AERS.
Rave to CTEP-AERS Data Flow (2)

• In CTEP-AERS, the AE data that is pushed from Rave will be viewable but not modifiable.
  ▪ Modifications to AE data will be made in Rave since it is the data source.
  ▪ Any data modified in Rave will require the rules evaluation to be run again.
    ▪ This will cause the updated data to be pushed into CTEP-AERS.
  ▪ Verbatim Term and AE Start Date fields can be set as optional in Rave.
    ▪ These values may be entered in CTEP-AERS even if they are not present in RAVE.
    ▪ If entered in Rave, they cannot be updated in CTEP-AERS.
Rave Reminders

For studies using the SAE Integration:

- AE data should be entered in Rave and sent for rules evaluation at the time the AE is experienced.
- AE data should not be entered in CTEP-AERS before entering it in Rave.
  - A warning will appear if a report is initiated in CTEP-AERS rather than from following the direct link in Rave.
- AE data should be updated in Rave, not in CTEP-AERS
  - If the verbatim term is entered in Rave, this value will be passed to CTEP-AERS and will only be editable in Rave.
  - If the verbatim term is first entered in CTEP-AERS and then later entered in Rave, this could result in reconciliation issues as the value in CTEP-AERS will not synchronize with the Rave verbatim term once the expedited report has been submitted to NCI.
Expedited Reporting Recommendations

For studies using the SAE Integration:

• Reporting recommendations are determined based on rules set up in CTEP-AERS using protocol requirements.
  – Exceptions are programmed into the rules (for CTEP-IND studies).

• Reporting recommendations may be overridden.
  – Example (CREATE \(\rightarrow\) NONE): Laboratory abnormality is recommended as an SAE but is not considered clinically significant by the Investigator.
  – Example (NONE \(\rightarrow\) CREATE): AE is not related to study treatment, but results in hospitalization.
AE Entry in Rave

<table>
<thead>
<tr>
<th>Verbatim term</th>
<th>Vomiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solicited (derived)</td>
<td></td>
</tr>
<tr>
<td>* Adverse event term (CTCAE v4.0)</td>
<td>Vomiting</td>
</tr>
<tr>
<td>MedDRA adverse event code (CTCAE v4.0) (derived)</td>
<td>10047700: Gastrointestinal disorders</td>
</tr>
<tr>
<td>* Adverse event evaluated this cycle?</td>
<td>Yes</td>
</tr>
<tr>
<td>Adverse event (grade) grade description (first 120 characters)</td>
<td>(5) Death</td>
</tr>
<tr>
<td>Adverse event (grade) grade description (full description)</td>
<td>(5) Death</td>
</tr>
<tr>
<td>AE start date</td>
<td></td>
</tr>
<tr>
<td>End date</td>
<td></td>
</tr>
<tr>
<td>AE ongoing</td>
<td></td>
</tr>
<tr>
<td>Attribution to study intervention</td>
<td>Unrelated</td>
</tr>
</tbody>
</table>

- AE is entered in Rave at the time it is experienced.
• Query “Send all AEs for evaluation” appears on the Expedited Reporting Evaluation form when:
  – An AE is added to the AE form
  OR
  – An existing AE is modified.
A recommended action = “CREATE” indicates that an expedited report is expected based on the programmed rules setup in CTEP-AERS for the study.

If the Investigator chooses not to report, the recommended action should be edited to “NONE”.

Note: editing the recommendation on the Expedited Reporting Evaluation /Late AE reporting form will not affect the value of the field “SAE report recommended (derived)” on the AE / Late AE form.
A recommended action = “NONE” indicates no expedited report is expected based on the programmed rules setup in CTEP-AERS for the study.

If the Investigator wishes to report, the hyperlink on the Expedited Reporting Evaluation /Late AE reporting form should be used to launch CTEP-AERS.
?? Questions ??
DATA QUALITY PORTAL (DQP)
DQP Access

The DQP is located on the CTSU website.

- Four “Rave/DQP” tab dropdown options. *(Example 1.a)*
- Three DQP subtabs + ‘Rave Home’ subtab. *(Example 1.b)*
Viewing Mode Options
Grid & Chart Mode (1)

- Query and Delinquent Form details can be viewed in “Grid Mode” or “Chart Mode.”
  - Click on the “Chart Mode” icon to access “Chart Mode.”
  - Click on the “Grid Mode” icon to access “Grid Mode.”
Grid & Chart Mode (2)

- **Grid Mode** is the default view for all screens for the DQP Delinquent Forms and DQP Queries modules.
Grid & Chart Mode (3)

- **Chart Mode** provides similar information as “Grid Mode” organized in a visual display.
  - Hover cursor over bar graph to view details.
  - Click on bar graph to review details.
Chart Mode Views

• ‘Rave Delinquencies by Form’
  – Available for both forms and queries.
  – Hover cursor over bar graph to view details.
  – Click on bar graph to review details.
REPORTS
DQP Aging Report Summary Table

• Provides a summary of delinquent forms and queries for each Rave protocol a site is participating in.
• Access via “Rave Home” tab.
DQP Aging Report Summary

• Provides an aging report of delinquent forms or queries for each Rave protocol a site is participating in.

• Access via the “Rave Delinquent Forms” tab or the “DQP Queries” tab.
Rave Delinquencies Report (1)

- Provides a complete listing of all delinquent forms or queries for each Rave protocol a site is participating in.
- Access via the “DQP Delinquent Forms” tab or the “DQP Queries” tab.
  - Excel icon on the last row of the report.
# Rave Delinquencies Report (2)

## Excel Export

<table>
<thead>
<tr>
<th>#</th>
<th>PROTOCOL</th>
<th>SITE</th>
<th>PATIENT</th>
<th>FOLDER</th>
<th>DATAPAGE ID</th>
<th>FORM DISPLAY NAME</th>
<th>FORM DISPLAY NAME</th>
<th>EXPECTED DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Step 1 Treatment Cycle (1)</td>
<td>3772586</td>
<td>Disease Follow-Up Status Form</td>
<td>4/22/2017</td>
<td>3772586</td>
<td>Disease Follow-Up Status Form</td>
<td>Disease Follow-Up Status Form</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>2</td>
<td>Step 1 Treatment Cycle (1)</td>
<td>3797768</td>
<td>Treatment Agent: Pill Drug</td>
<td>4/22/2017</td>
<td>3797768</td>
<td>Treatment Agent: Pill Drug</td>
<td>Treatment Agent: Pill Drug</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>3</td>
<td>Step 1 Baseline (1)</td>
<td>3818227</td>
<td>Baseline Adverse Event Form</td>
<td>4/22/2017</td>
<td>3818227</td>
<td>Baseline Adverse Event Form</td>
<td>Baseline Adverse Event Form</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>4</td>
<td>Step 1 Baseline (1)</td>
<td>3818220</td>
<td>Baseline Disease Description</td>
<td>4/22/2017</td>
<td>3818220</td>
<td>Baseline Disease Description</td>
<td>Baseline Disease Description</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>5</td>
<td>Step 1 Baseline (1)</td>
<td>3818221</td>
<td>Comorbidity Form</td>
<td>4/22/2017</td>
<td>3818221</td>
<td>Comorbidity Form</td>
<td>Comorbidity Form</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>6</td>
<td>Step 1 Baseline (1)</td>
<td>3818222</td>
<td>Hematology/Chemistry</td>
<td>4/22/2017</td>
<td>3818222</td>
<td>Hematology/Chemistry</td>
<td>Hematology/Chemistry</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>7</td>
<td>Step 1 Baseline (1)</td>
<td>3818223</td>
<td>Hormone Receptor Status</td>
<td>4/22/2017</td>
<td>3818223</td>
<td>Hormone Receptor Status</td>
<td>Hormone Receptor Status</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>8</td>
<td>Step 1 Baseline (1)</td>
<td>3818226</td>
<td>Patient Characteristics</td>
<td>4/22/2017</td>
<td>3818226</td>
<td>Patient Characteristics</td>
<td>Patient Characteristics</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>9</td>
<td>Step 1 Baseline (1)</td>
<td>3818224</td>
<td>Prior Therapies - CDUS</td>
<td>4/22/2017</td>
<td>3818224</td>
<td>Prior Therapies - CDUS</td>
<td>Prior Therapies - CDUS</td>
<td>4/22/2017</td>
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<tr>
<td>10</td>
<td>Step 1 Baseline (1)</td>
<td>3818225</td>
<td>Prior Therapies - Primary Cancer</td>
<td>4/22/2017</td>
<td>3818225</td>
<td>Prior Therapies - Primary Cancer</td>
<td>Prior Therapies - Primary Cancer</td>
<td>4/22/2017</td>
</tr>
<tr>
<td>11</td>
<td>Follow-Up 4YR</td>
<td>234766</td>
<td>Blood Chemicals</td>
<td>4/14/2017</td>
<td>234766</td>
<td>Blood Chemicals</td>
<td>Blood Chemicals</td>
<td>4/14/2017</td>
</tr>
<tr>
<td>12</td>
<td>Follow-Up 4YR</td>
<td>234767</td>
<td>Hematology</td>
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<td>234767</td>
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<td>4/14/2017</td>
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<tr>
<td>13</td>
<td>Follow-Up 4YR</td>
<td>234768</td>
<td>Physical Exam</td>
<td>4/14/2017</td>
<td>234768</td>
<td>Physical Exam</td>
<td>Physical Exam</td>
<td>4/14/2017</td>
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<tr>
<td>14</td>
<td>Follow-Up 4YR</td>
<td>234769</td>
<td>Vitals Follow Up</td>
<td>4/14/2017</td>
<td>234769</td>
<td>Vitals Follow Up</td>
<td>Vitals Follow Up</td>
<td>4/14/2017</td>
</tr>
<tr>
<td>15</td>
<td>Arm A Continuing Treatment Cycles 13-15</td>
<td>3556723</td>
<td>Adverse Event Form - Arm A</td>
<td>4/14/2017</td>
<td>3556723</td>
<td>Adverse Event Form - Arm A</td>
<td>Adverse Event Form - Arm A</td>
<td>4/14/2017</td>
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<tr>
<td>16</td>
<td>Arm A Continuing Treatment Cycles 13-15</td>
<td>3556723</td>
<td>Adverse Event Form - Arm A</td>
<td>4/14/2017</td>
<td>3556723</td>
<td>Adverse Event Form - Arm A</td>
<td>Adverse Event Form - Arm A</td>
<td>4/14/2017</td>
</tr>
</tbody>
</table>
Form Timeliness Report

- Quarterly report that provides timeliness metrics for forms expected, received on time, received late and not received for each Rave protocol a site is participating in.
- Access via the “DQP Reports” tab.
Query Timeliness Report

- Quarterly report that provides timeliness metrics for queries issued, answered on time, answered late and not answered for each Rave protocol a site is participating in.
- Access via the “DQP Reports” tab.

<table>
<thead>
<tr>
<th>Site</th>
<th>Protocol</th>
<th>Total Number of Queries Issued</th>
<th>Total Number of Queries Answered On Time</th>
<th>Total Number of Queries Answered Late</th>
<th>Total Number of Queries Not Answered</th>
<th>Cumulatively Total Number of Queries Not Answered</th>
<th>Query Submission Metric (%)</th>
<th>[B]/([A]+[C])</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>[A]</td>
<td>[B]</td>
<td>[C]</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>64</td>
<td>64</td>
<td>0</td>
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<td></td>
<td>100%</td>
</tr>
<tr>
<td>75</td>
<td>69</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td>90%</td>
</tr>
<tr>
<td>186</td>
<td>169</td>
<td>14</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td>89%</td>
</tr>
<tr>
<td>231</td>
<td>200</td>
<td>26</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td>85%</td>
</tr>
<tr>
<td>73</td>
<td>68</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td>91%</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>43%</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
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<td>[Totals]</td>
<td></td>
<td>[Totals]</td>
<td>[Totals]</td>
<td>[Totals]</td>
<td></td>
<td>[Totals]</td>
</tr>
</tbody>
</table>

There are no Query Metrics to Display
Deep Linking
Deep-Linking Abilities (1)

• ‘Deep-Linking’ allows access to Rave for a site, patient, or form directly from the DQP.
  – No separate Rave login is required.
  – Rave study access is required.

A Medidata Rave icon denotes when deep-linking is available:
Deep-Linking Abilities (2)

- Deep-linking is available at the following levels:
  - ‘Site’, ‘Patient’, or ‘Form’.

![Deep-Linking Abilities Example 1](image1)

![Deep-Linking Abilities Example 2](image2)
Deep-Linking & Rave Access (1)

• If you **DO NOT** have Rave study access, a Medidata error message will be displayed:

![Error Message]

Your request could not be completed. Technical support is available by phone at 866-MEDIDATA or by e-mail at helpdesk@mdsol.com. Medidata Solutions Website is www.mdsol.com. Please refer to event ID #2031.

• Contact your site administrator regarding questions about Rave study access or invitations.
Deep-Linking & Rave Access (2)

- If you **DO** have Rave study access, a new browser tab will open with a Rave session.
- Select the “Clinical Research Associate” EDC Role if prompted:

- If you *deep-link* at the “Site” level, Subjects and Task Summary details will be visible:
Deep-Linking & Overdue Data

• **“Patient” level** If you *deep-link* at the “Patient” level, the patient will open in Rave, the Task Summary will be displayed and the overdue data will be specified:

![Patient level screenshot](image1)

• **“Form” level** If you *deep-link* at the “Form” level, the form will open in Rave for data entry to be completed:

![Form level screenshot](image2)
Deep-Linking & Open Queries

• **“Patient” level** If you *deep-link* at the “Patient” level, the patient will open in Rave, the Task Summary will be displayed and the open queries will be specified:

![Patient level example](image1)

• **“Form” level** If you *deep-link* at the “Form” level, the form will open in Rave for the query to be answered:

![Form level example](image2)
?? Questions ??
CENTRAL MONITORING
## Central Monitoring vs. On-Site Auditing

<table>
<thead>
<tr>
<th>Central Monitoring</th>
<th>On-Site Auditing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients will be monitored for critical data points based on specifics of the monitoring plan for the protocol.</td>
<td>Minimally 10% of patients selected for audit are reviewed.</td>
</tr>
<tr>
<td>Central Monitoring augments other reviews (such as site auditing and on-site monitoring).</td>
<td>On-Site Auditing will continue as per the current process.</td>
</tr>
<tr>
<td>Central Monitoring is near real time data review.</td>
<td>On-site auditing is performed every 18 months - 3 years.</td>
</tr>
<tr>
<td>Central Monitoring is performed to address safety concerns immediately.</td>
<td>On-site audit is performed to verify data.</td>
</tr>
<tr>
<td>Applicable to registration trials in Rave.</td>
<td>Applicable to all trials in Rave.</td>
</tr>
</tbody>
</table>
Central Monitoring Goals

• Streamlined process for performing data monitoring remotely.
  – Data review to be recorded in Rave.
  – Source documents will be uploaded in a central location accessible to monitors to review against the data in Rave.

• Provide an efficient way for sites to track document submission for Central Monitoring.
Central Monitoring Screen

• Ability to redact Personal Identifiable Information electronically while uploading source documents.
• Reminders and Alerts for missing documents.
• Direct links to the source document.
• One place to keep tabs on all the central monitoring activities for all protocols even when led by different Lead Protocol Organizations.
Central Monitoring Screen Demonstration

• Show from different perspectives
  – Site
  – LPO Triage
  – LPO Monitor
?? Questions ??