SQUEEZE eCRF completion manual is a set of instructions for the study site staff to be used during the process of filling in the electronic Case Report Form for SQUEEZE UK Study in OpenClinica. This document is based on the Completion Manual for SQUEEZE.

The aim of this manual is to offer clear, concise, definite, consistent instructions in order to reduce significantly data entry errors, query rate, and to ensure the accuracy and integrity of the clinical data. In addition, the manual explains the different types of data entry and documentation that the site staff should be aware of before starting the study.

For any remark on this eCRF completion manual, please contact “ESAIC Data Manager” at openclinicasupport@esaic.org

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## *0 INSTRUCTIONS FOR PAPER WORKSHEETS*

The worksheets can support the site in collecting source data. In case the requested data are already available in the hospital's patient chart, it is not needed to use the worksheets .

Please consider the following instructions regarding the use of work sheets:

- Always use permanent ink.
- Always write clearly ensuring that the entries are legible to others.
- Avoid abbreviations and acronyms.
- Ensure that the subject ID is completed on each page consistently.
- To amend incorrect data on worksheet page it is required according to GCP: Score through the error with a single line
- Do not obscure the original entry (do not use correction fluid)
- Write the correct data nearby
- Initial and date each change
- Record dates in the requested format as specified in the respective form.
- Ensure you use the correct units for weight, height etc.

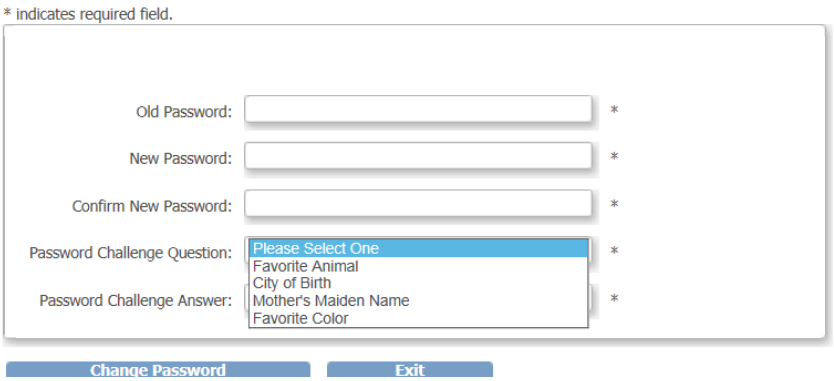
# 1 *STUDY DESIGN/ACRONYM*

Postoperative vasopressor usage: a prospective international observational study ”SQUEEZE”, and the study that is run in the UK called “SQUEEZE UK”

# *2 LOG IN*

In order to log in to the eCRF, proceed the following steps:

- Connect to link https://www.esactn.org
- Fill in the username and password sent per email by ESAIC (please copy and paste from the email with no blank before or after) and press login.
- After successful login you have to change your password immediately. The following screen will be displayed:




- Answer all asked questions and proceed with ‘Change Password’
- Now you will be directed to the OpenClinica eCRF homepage.

**Confidentiality:**

Username and password are personal and must not be transferred to other persons.

**Support:**

If you have questions, please contact your ESAIC OpenClinica Data Management for help at openclinicasupport@esaic.org mentioning username and Centre number. Please note that the Data Manager will attend your request on working days from 8AM to 5PM (CET). The support/answer will be provided in English language.

# 3 GENERAL DATA ENTRY CONVENTIONS

- Ensure data entries are consistent with the source data.
- All items marked with a red star are MANDATORY.
- Use ENGLISH text only.
- Use no special characters, like / '( )' !
- Decimal separator has to be '.', (e.g. 5.3).
- Do not use characters like 'ä', 'ü', 'ö'.
- Enter dates by filling: DD-Mmm-YYYY [Note: Day and Year are numbers; Month is in Letters (and capital sensitive), it is also possible to click the calendar and scroll to the correct date], e.g. 01-Jan-2017. In case of partial date e.g. day is missing then the fictive complete date will be reported as 01-Month-Year, if day and month are missing then the fictive date will be reported as 01-Jan-Year.
- Times should be recorded according to the 24-hour clock (e.g. 15:24).

  Midnight has to be entered as 00:00 and with the date of the next day.

- Subject ID

  3 digit code for country, 3 digit code for the hospital and 3 digit for individual patient number xxx-xxx-xxx

  e.g.

  If the country is Belgium start with 0 before the code of your country: **032**

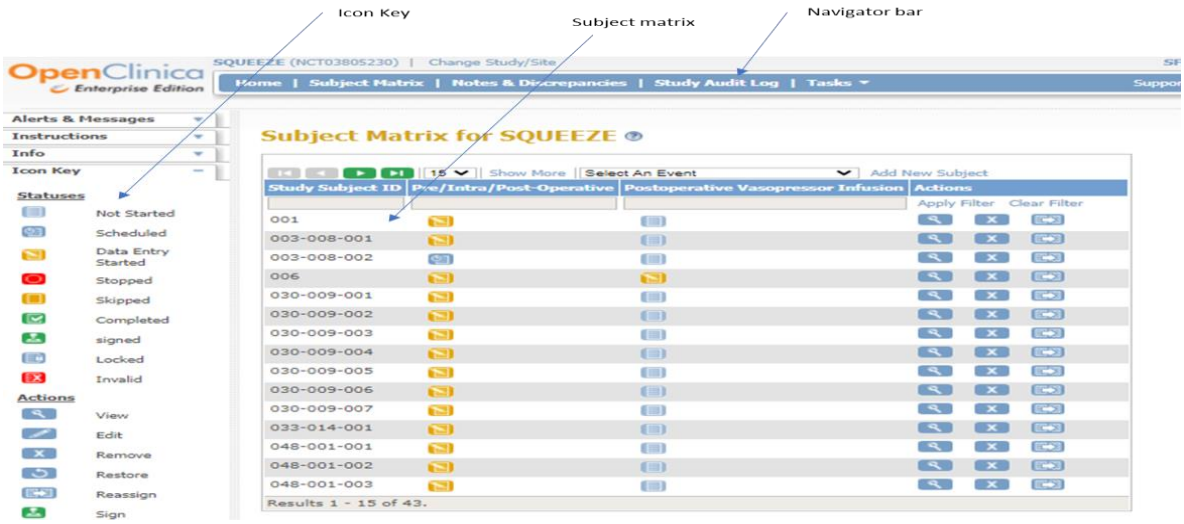
  If your site is the first in Belgium then the site is **001**

  If you have the first subject in your site then the subject is **001**

  The subject ID to record in OpenClinica should be then **032-001-001** with dash "-" between the 3 digit codes.

# 4 STUDY HOME PAGE

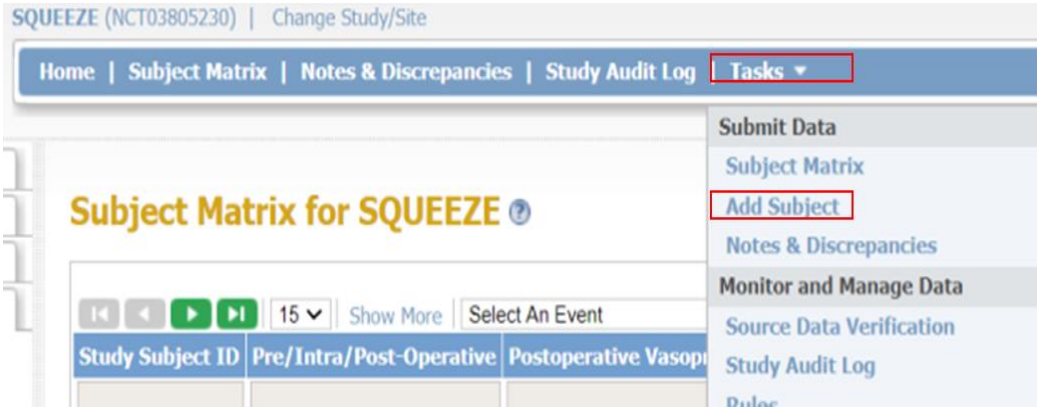
After login and selecting the study, you will be directed to the respective eCRF. Here you find the 'Navigation Bar' and an overview about the status of the study: 'Subject Matrix', the 'Icon Key'…



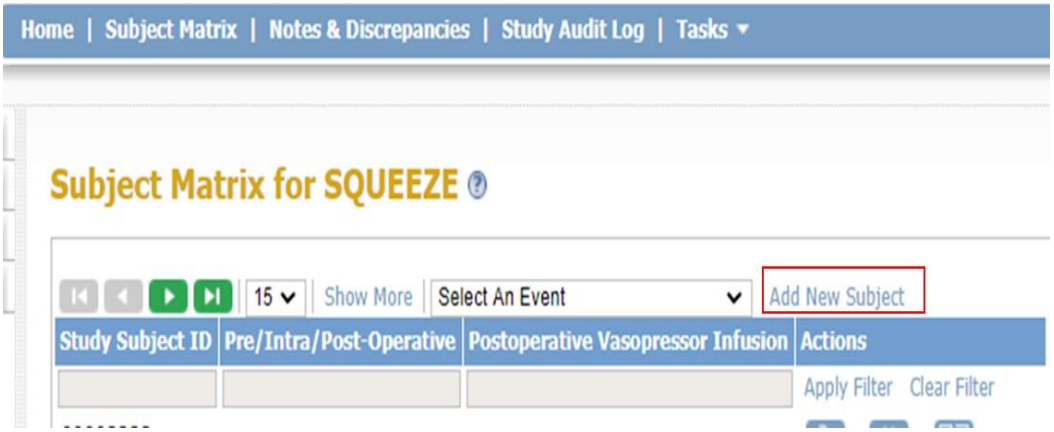
## 4.1 CREATE A NEW SUBJECT

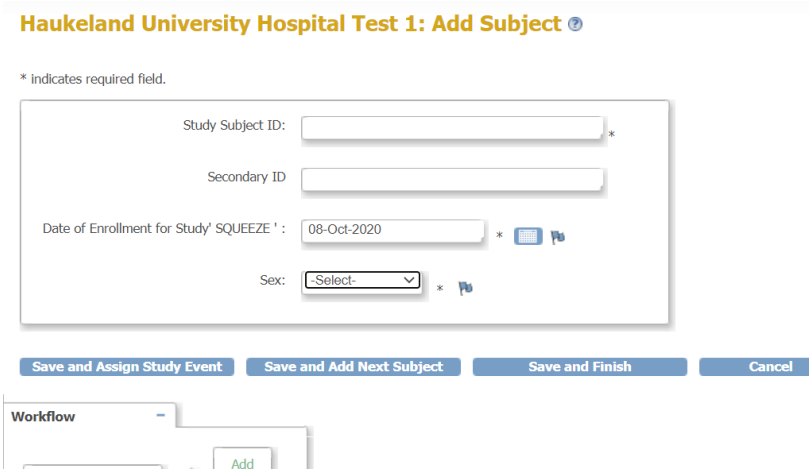
**There are two options to create subjects:**

**Option 1**: click on "**Tasks**" > "**Add Subject**"




**Option 2**: "**Subject Matrix**" > "**Add New Subject**"





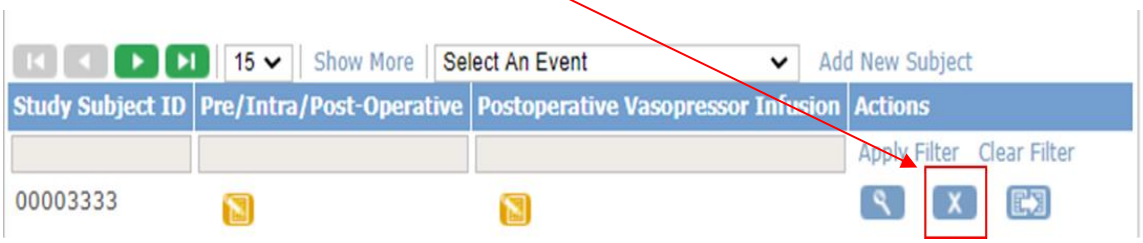

Please complete the study subject ID as explained in section 3.

The secondary ID is non mandatory field please do not complete and do not provide the patient detail to avoid GDPR issue.

Enter the start date which is the date of the CRF completion and the gender.

## *4.2 REMOVE/RESTORE SUBJECT (INVESTIGATORS & DATA MANAGER)*

If you want to REMOVE a subject from the study, open the Subject Matrix and remove the subject by selecting the ( X ) icon in the Actions column.




You will be redirected to the page "**Remove Subject from Study**" → Click **'Remove Study Subject'** to confirm you want to delete the subject from the eCRF. This action can be undone by clicking on the Restore icon ( ).

NOTE: The ESAIC Data Manager will clear removed subject from the subject matrix on a regular basis. In case you cannot retrieve a removed subject, please email openclinicasupport@esaic.org

### *4.3 ICON KEY*

Explanation of the status of an Event:

| Status/Action | Icon | Description |
|---|---|---|
| Not Scheduled |  | Before you schedule an Event (see definition below), the Event status is set to "not scheduled." |
| Scheduled |  | When you schedule a Subject for an Event, the Event status is automatically set to "scheduled." |
| Data Entry Started |  | After you schedule a Subject for an Event and you open any CRF for that Event, the Event status is automatically set to "data entry started." This status appears even if you did not enter data. If the Event is in '*data entry started*', you can't go back to previous Status. |
| Completed |  | After the status for the CRF is marked complete, the OpenClinica system automatically sets the Event status to "completed." |
| Signed |  | When a CRF for an Event have a status of "completed" or "not scheduled," the Investigator can set the Event status for this event to "signed." When the Investigator signs the casebook for a Subject, the OpenClinica system automatically sets the status for all Study Events for that Subject to "signed." After an Event status is "signed," any changes to the CRF automatically change the Event status back to "completed." |
| Stopped |  | When a Subject has temporarily stopped participating in a Study, Event status has to be set to "stopped" manually. |
| Locked |  | This is the role of the Data Manager: When you no longer want users to be able to enter or change data for an Event, manually set the Event status to "locked". Note that you can set the status for a Study to "frozen" or "locked," and while that does not change the status of any Events in the Study, it does prevent users from changing data. |
| Skipped |  | When a Subject does not complete an Event, manually set the Event status to "skipped." |
| Invalid |  | When a Study Event for a Subject is removed, the status for all CRFs in the Study Event is "invalid". |

## 4.4 SUBJECT MATRIX

The 'Subject Matrix' is a table displaying all Patients (Subject) and their data entry status in the Study (per site). There is one Subject per row, with the Study Subject ID in the first column. The other columns are for CRF1 and CRF2 as defined in the Study. You can view, enter, and change data for Subjects.

Each cell in the matrix shows an icon that identifies the status of the CRF for the Patient. Move the cursor over an icon in the matrix to view and access Patient's (Subject`s) data and to access actions you can perform for that CRF.

Refer to the Icon Key in the sidebar for icon descriptions, and see about the Event Status for more details.

## 4.5 EVENTS

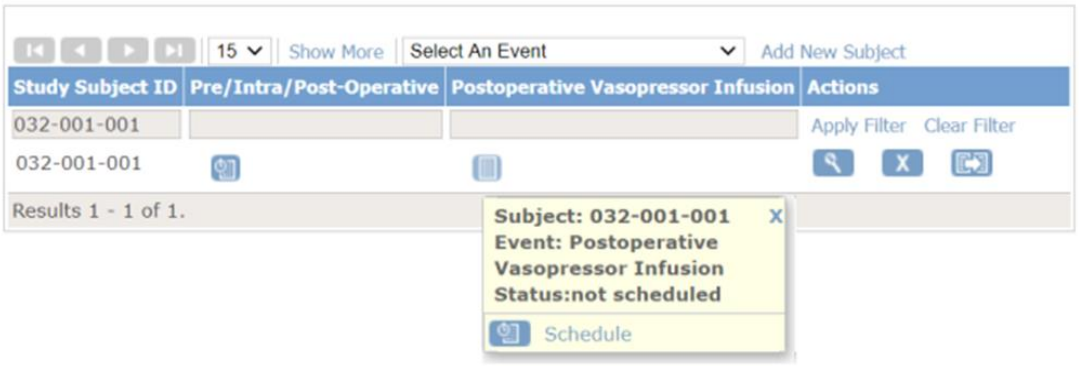
A (Study) Event is the CRF in the Study where data has to be entered.

The following events are defined for SQUEEZE UK study:

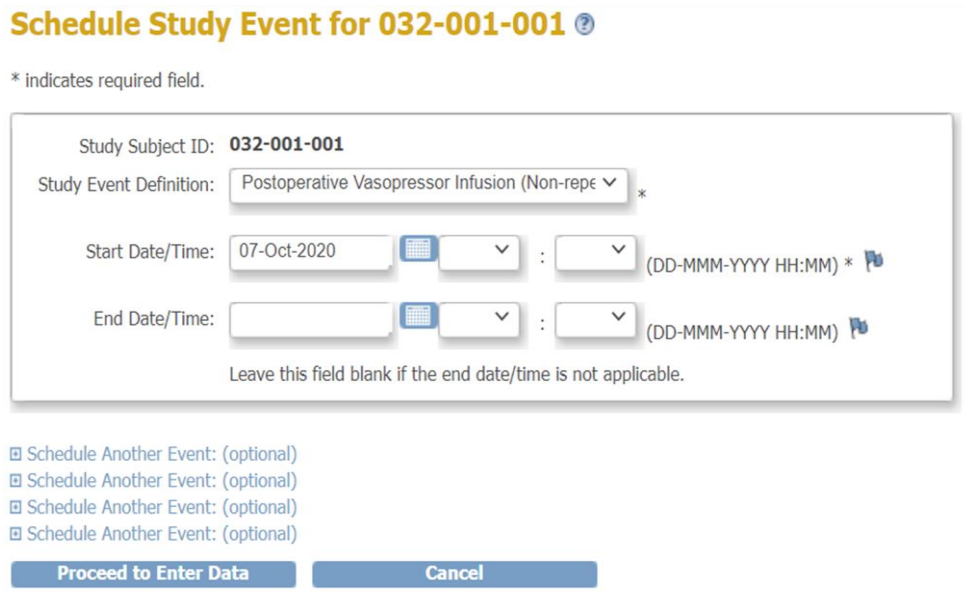
- Pre/Intra/Post-Operative (CRF1)
- Postoperative Vasopressor Infusion (CRF2)
- Atrial Fibrillation (CRF3)

### 4.5.1 Schedule a Study Event

If you want to enter data, you have to schedule the respective Event/CRF, starting at the 'Subject Matrix'. Please click on the Event you want to schedule (e.g. Subject 032-001-001). Then the following window pops up:




Then click on 'Schedule.




Now the 'Schedule Study Event Window' opens.

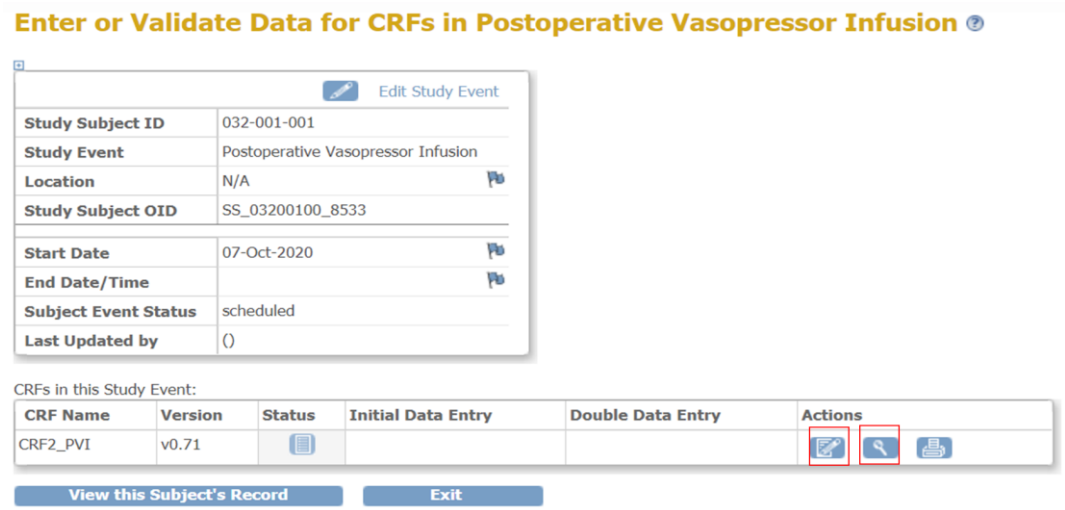
**Study Event/Definition**: Select the respective event from the pull-down-menu.

**Start Date**: **This field can be ignored.** Default date is the current date when Event is scheduled in the eCRF.

Then click 'Proceed to Enter Data'

**Now the respective event has been scheduled and you may start the data entry.**

## *5 ENTER DATA*



A. Click on the pen icon to **enter** or edit data in the CRF
B. Click on the magnifier to **view** data in the CRF

When you select the 'Pen Icon', the eCRF opens and you can start to enter data. Fill in the entire form. When all data has been entered, select 'Save'.

If you have forgotten to enter data in at least one mandatory field, when you click "save", you will receive an error message.




In case the data for one mandatory field is not available, you have to comment the missing data by creating a discrepancy note (see section 8) otherwise you are not able to save the already entered data.

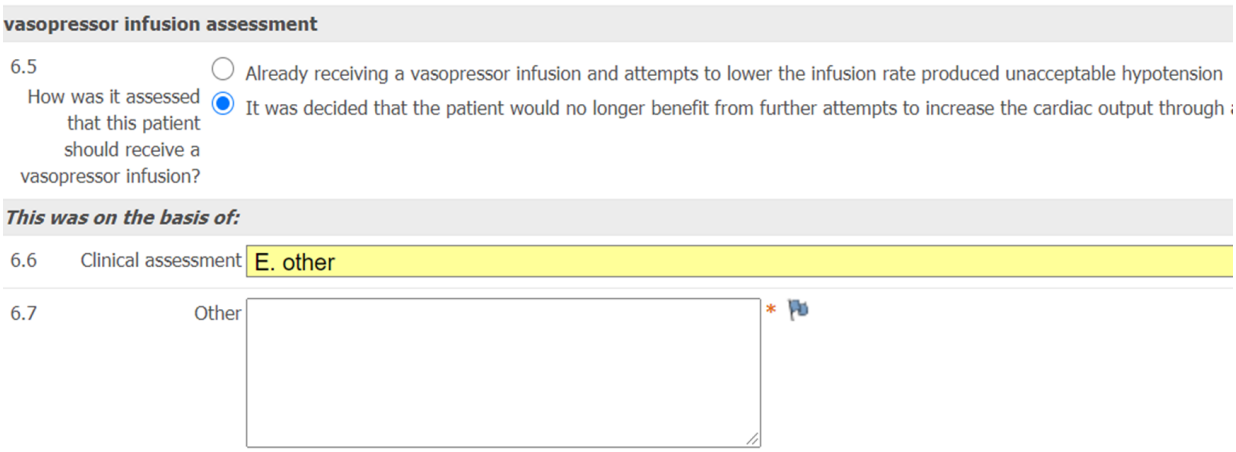
## *5.1 SPECIAL DATA ENTRY TYPES*

### *5.1.1 Data Entry in Hide and Show*

The answer options of some data fields are related to answers you provided to a previous data field. Depending on the answers given to the previous field, further sub-question(s) may be hidden or shown (hide and show).

**Example: vasopressor infusion assessment**

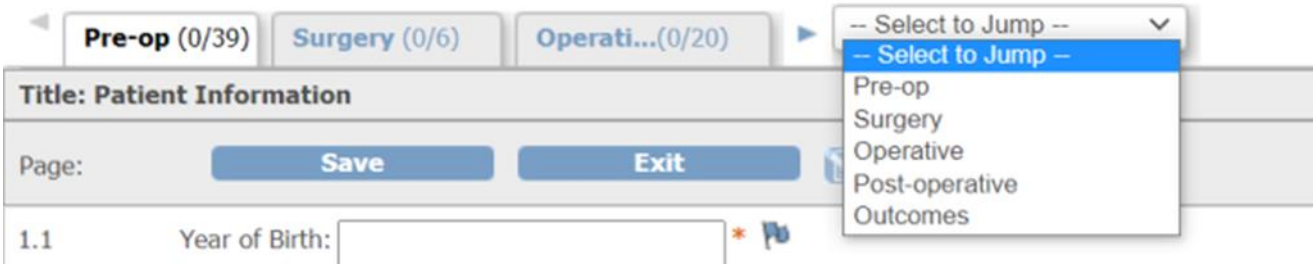
Items 6.6 and 6.7 remain hidden until you select the related items.




### *5.1.2 Jump from one Section to Another*

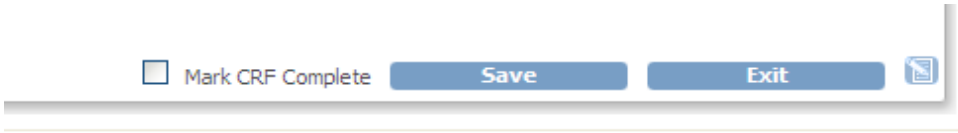
Upon selecting “save” in one tab (or event), you are automatically directed to the next section.

You can also jump directly to another event by clicking on the corresponding tab or the event name in the drop-down list.




## *6 HOW TO MARK THE CRF ‘COMPLETE’*

The CRF must be marked complete, after finishing data entry for the complete CRF. When all sections (of an event) are complete, select ‘Mark CRF complete’.

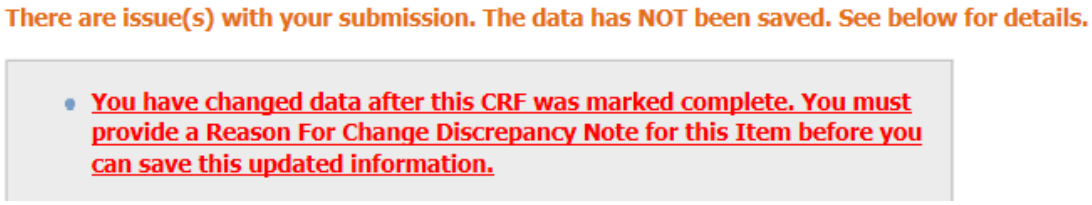



This will change the status of the CRF from ‘Data Entry Started’ to ‘Complete’. The Status of the CRF will remain complete, even if the data will be changed afterwards.

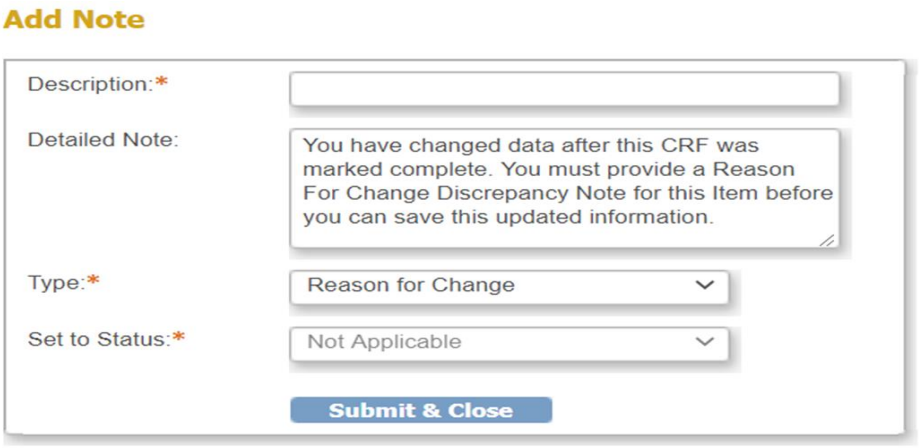
## 6.1 IF A CRF HAS BEEN MARKED COMPLETE

After completion of the CRF an investigator with the respective rights have to sign the data.

If you make any changes to the data after it has been marked complete, an alert occurs and you will be required to enter a discrepancy note indicating the reason for change.




You have to click the flag next to the item to create the discrepancy note. Otherwise you are not able to save the changed data.




Please give reason in the 'Description' field (e.g. '*New data available'* and select 'Reason for Change' for 'Type'.

'**Set to Status**' of this Discrepancy Note is by default set to 'Not Applicable'.

Refer to section 8 for detailed information on 'Discrepancy Notes'.

# 7 INVESTIGATOR SIGNATURE/ APPROVAL PROCESS

## 7.1 SIGN A SINGLE CRF

After data entry for an CRF is completed, reviewed and all discrepancies are resolved, an investigator (person of the site having the 'Investigator' rights in OpenClinica) must sign the CRF. When the Investigator signs an Event, he/she provides his/her approval of all CRF data for the CRF for the Subject.

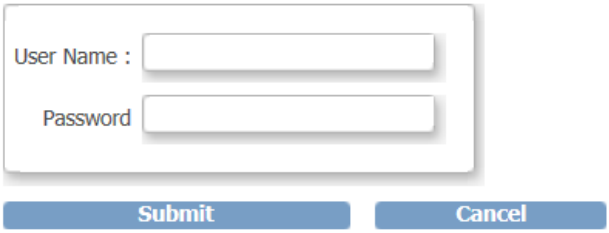
How to sign a single Event:

- Navigate to 'Subject Matrix'
- Click on the event you want to sign (event has to be marked complete)
- Click on 'View/Enter Data'

- The 'Enter and Validate Data' windows opens

Please click 'Edit Study Event' and Change Status from '*Completed*' to '*Signed*' and click on '*Submit Changes'*.

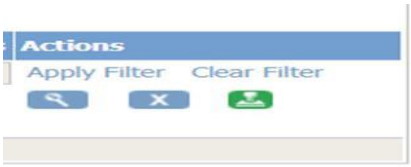
You will be asked to enter "Username" and "Password" and click 'Submit'.




After submitting Username and Password, the event is signed.

## *7.2 SIGN A COMPLETE SUBJECT*

When however, all CRFs of one subject are marked complete in the Subject Matrix, the sign icon is automatically shown in the Actions column.




The Investigator needs to click on the to sign the complete subject.

The signing process is the same as for a single event.

'**Sign Action' depends on role of user, only Investigators can view the sign icon!**

If any data has been changed after signature, the event has to be resigned. Please proceed in the same way.

# 8 DISCREPANCY NOTES

Discrepancy Notes':

- Failed Validation Check:

  'Failed Validation Check' is for data that does not comply with the expected values (i.e. with e.g. programmed rules, edit checks automatically checked in the system after data entry).

  OpenClinica can automatically generate this Note Type when validating a field or using Rules or when running an Edit Check. OpenClinica first displays a warning message. If the user does not change the value to one that conforms to the expected values for the Item, it creates a 'Failed Validation Check Discrepancy Note'. When initially created, the Status is '*New*'. The Note then requires further review to determine if the data is acceptable. A user entering data can manually create this Note Type (e.g. if the user wants to save a section when the data in a mandatory field is missing).

- Query:

  A 'Query' is used by the Data Manager or the Monitor (chief investigators or ESAIC data manager) to ask a question about data provided for a data field. For example, a Data Manager might create a Query to ask an Investigator about an entry that seems incomplete or incorrect, even though the item has met all automated edit checks.
  This is a typical workflow:
  - The originator (Data Manager or Monitor) creates the Query Note. The Status is '*New'*. The originator assigns the query to the user who can answer the question.
  - The user, who this is assigned to, updates the Query by adding a new child Discrepancy Note to the parent thread. The user might or might not modify the data value in conjunction with the update. If the user believes the issue is resolved, the user sets the Status to 'Resolution Proposed' and assigns it to the originator, or, if the user believes further consideration is required, the user sets the Status to '*Updated*'.
  - The originator reviews the response and if satisfied, marks it as '*Closed*', or adds further comments, assigns it back to the user, and sets the Status to '*Updated*'.

- Reason for Change:

  'Reason for change' is used to give reason for any change of data after the data entry is marked complete.

- Annotation:

  An 'Annotation' is used to comment or provide information about the data that cannot be adequately entered in the eCRF. Annotation Notes always have a Status of "Not Applicable".

## 8.1 EXAMPLES FOR MANUALLY CREATED 'DISCREPANCY NOTES' (BY DATA ENTRY PERSON/INVESTIGATOR)

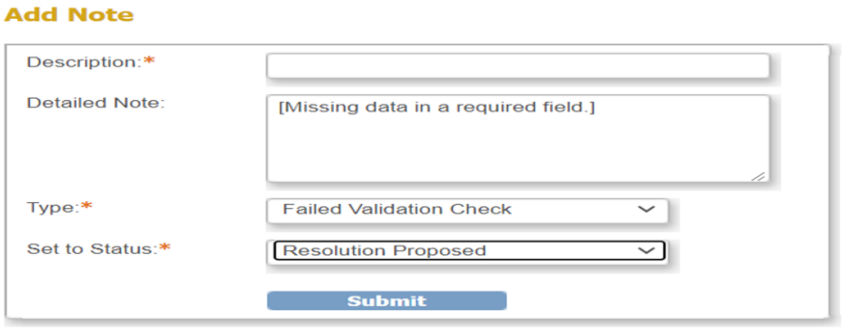
### 8.1.1 Failed Validation Check due to Missing Data

**Example**:

If "Time of anaesthesia induction" (mandatory field) is missing, a Discrepancy Note needs to be created to be able to save the entered data.
Click the flag next to the item to create a '[Missing data in a required field]' Discrepancy Note.




The following Discrepancy Note '[Missing data in a required field.]' pops up:



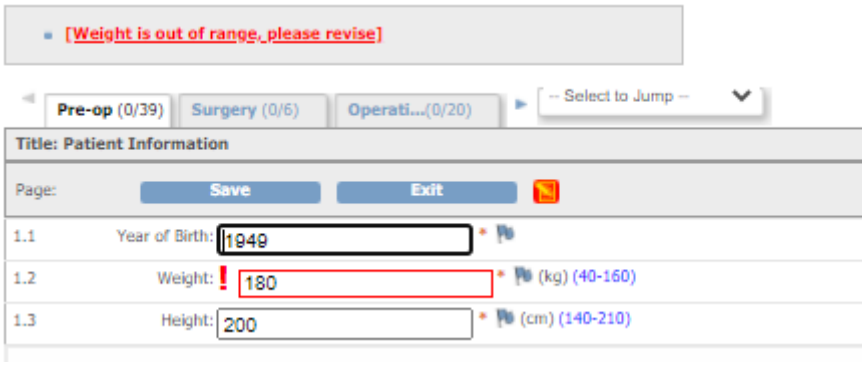

Please select 'Failed Validation Check' for Type.
Please enter the reason for missing data in 'Description Field', give detailed information in field 'Detailed Note', set the Status to 'Resolution Proposed' and then 'Submit'.
Now it is possible to save the entered data.

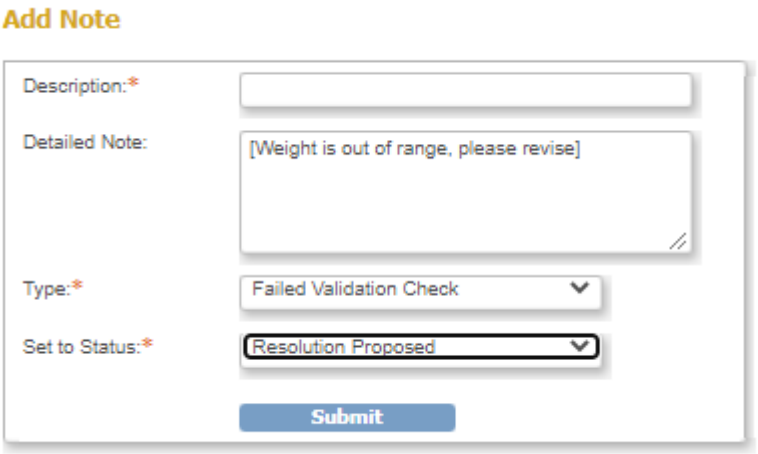
### *8.1.2 Failed Validation Check due to Automated Edit/Plausibility Checks*

**Example**:

The data entry for 'Weight' is out of the expected range. If the value is truly out of the expected range, a 'Discrepancy Note' must be created in order to be able to save the entered data.

You have to click on the flag next to the item to create a 'Discrepancy Note'. Then the 'Discrepancy Note' pops up:




Please confirm the out of range value and give a short explanation, if available.

The 'Type' has to be set to 'Failed Validation Check' and the status has to be 'New'.

### *8.1.3 Query (Discrepancy Note Type [Query])*

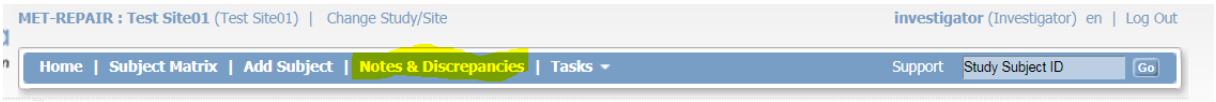
The monitor might submit a query to the investigator/data entry person at the site. The query might be about an item that seems to be incomplete or incorrect, even though the item has met all automated edit checks.

The solving of queries and discrepancies has to be done by staff members at the site in a timely manner.

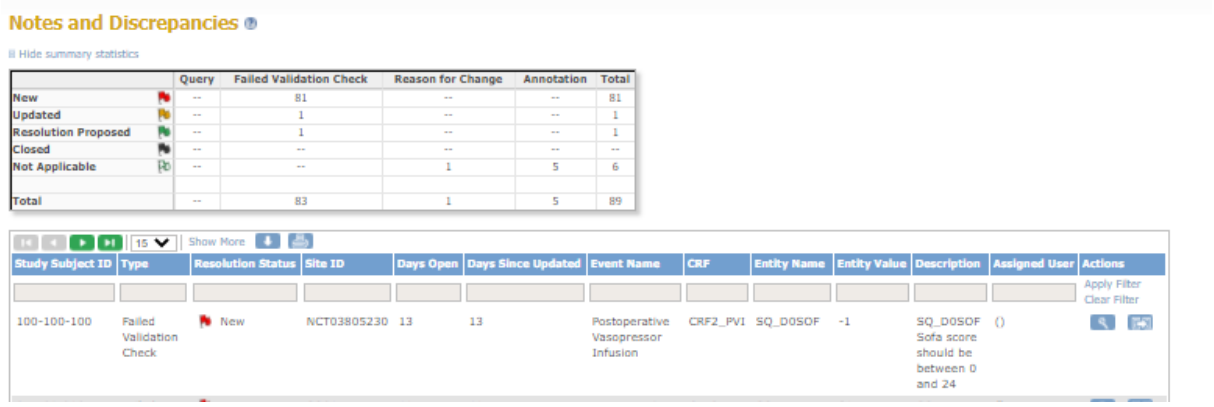
After the queries had been answered by the staff, the queries have to be closed by the monitor or by the data manager in a timely manner.

#### *8.1.3.1 Query Selection*

To check all queries for your site, please navigate to Notes & Discrepancies via the Navigation Bar at your study home page.




After clicking all types, Notes & Discrepancies at your site are displayed in a table:




## *8.2 FILTER NOTES & DISCREPANCIES FOR QUERIES*

You can filter the information shown in the ‘Notes and Discrepancies Table’ to show only ‘Notes and Discrepancies’ whose data match criteria you specify:

For the column whose data you want to filter, click the gray field below the column header. What you enter in a field depends on the type of field:

- For drop-down lists you have to select the respective value and your selection appears in the gray field afterwards.

- For other fields you have to type the string of characters you want to include, and press Enter or click Apply Filter (which is to the right of the gray fields) afterwards.
- Repeat the above steps to filter by additional columns.
- To remove filtering for a column, either clear the text you typed, or from a drop-down list, select the empty (top) item. Then press Enter or click Apply Filter. When filtering is applied, only those Notes and Discrepancies that contain the data you specified are shown.
- To clear the filter and show all data, click Clear Filter (which is to the right of the gray fields).

### *8.2.1 Example of Sort and Filter in Notes and Discrepancies*

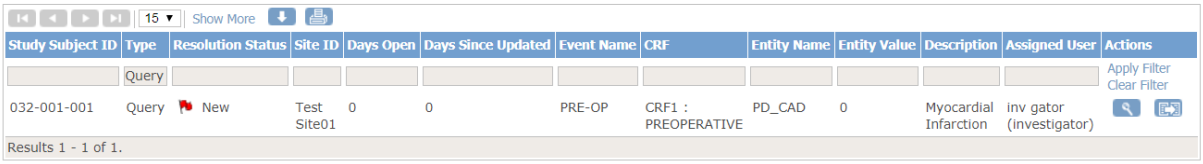
If you want to select all new queries, you have to proceed the following way:

- For Type, select the 'Query' option. (The field displays all options available.)
- Press "Enter" or click "Apply Filter" in the Actions column.




- Now the table only shows 'Notes' of the 'Query' Type.

To filter also for Resolution Status "New", select the respective Status from the Drop down menu and click on "Apply Filter".




The table shows only 'Notes' whose Status is 'New' and whose Type is 'Query'.

To navigate directly to the respective query, click on the 'View' button.

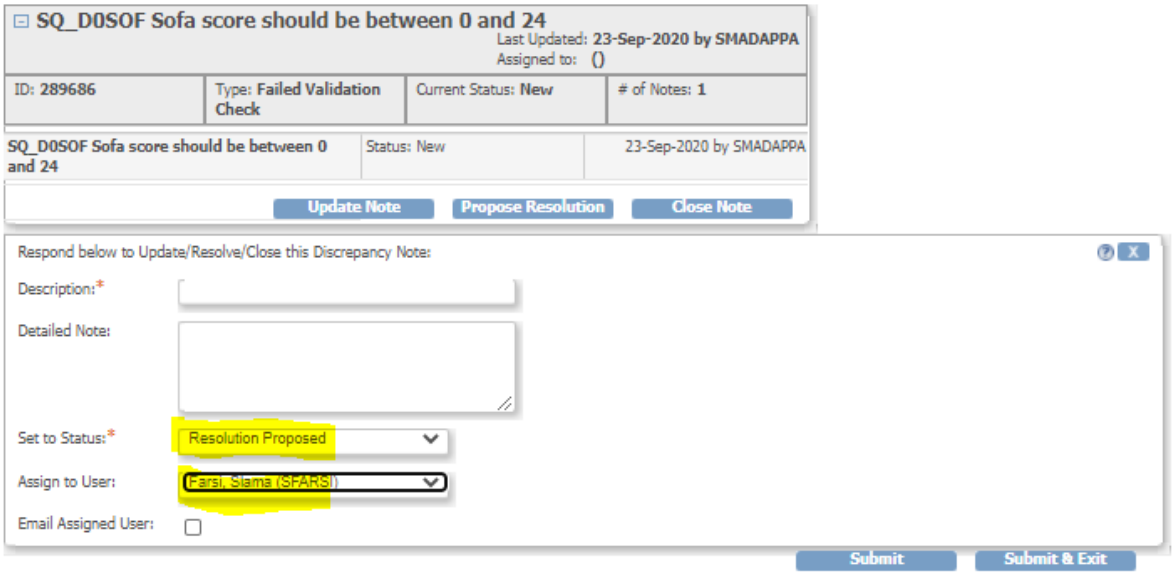
To navigate directly to the respective item, click on the  'View' within record" button.

## *8.3 QUERY RESOLUTION*

As explained in 8.2.1 you may sort for all new queries, which have to be resolved by authorized members of the site staff. To resolve the queries, proceed in the following way:

Please check the data you have entered (click on the  '*View within record'* button) and the provided query text (click on the  '*View*' button).

If necessary, please correct the entered data.




To answer the query, please open the query and select 'Update Note' or 'Propose Resolution':

Update the Query:

> If the site user believes further consideration is required, the site user sets the 'Status' to '*Updated*'.

Resolution Proposed:

> This has to be used when the site staff user believes the issue is resolved.

Please assign the update or the proposed resolution to the person you received the query from.

The data manager is authorized to close the query.

## 8.4 RESOLUTION STATUS OF NOTES & DISCREPANCIES

**New** **:** The initial status for a Query or Failed Validation Check Note Type.

**Updated** **:** Used when responding to a Note, but the response requires further follow up or additional information.

**Resolution Proposed** **:** When a user addresses a Note by fixing a data problem or by explaining why the existing data is correct, the user provides an explanation in a child Note, and sets the status to Resolution Proposed. A Monitor, Data Manager or Study Director then reviews the proposed resolution and updates the status.

**Closed** **:** The final action for the Note Types 'Failed Validation Check' or 'Query' . When a Note has a status of Closed, it cannot be changed in any way. Child Notes cannot be added and the status must remain Closed. Only users with certain Roles can mark a Discrepancy Note as Closed.

**Not Applicable** **:** This status is for 'Reason for Change' and 'Annotation' because no further action is required. The 'Not Applicable' status cannot be used for 'Failed Validation Check' and 'Query' .

# 9 USER ROLES AT THE SITE LEVEL AND PERMISSIONS

| User Role | Modules and Main Features |
|---|---|
| **Investigator**<br>**(at least 1 per site)** | Submit Data<br>Manage Subjects<br>View, Schedule, and Enter Data into eCRFs for Events<br>View, answer Notes and Discrepancies<br>Sign Subject Data<br>Extract Data |
| **Clinical Research Coordinator**<br>**Data Entry Person** | Submit Data<br>View, Schedule, and Enter Data into eCRFs for Events<br>Import Data<br>View, answer Notes and Discrepancies |

## *10 ABBREVIATIONS AND DEFINITIONS*

**CET**: Central European Time

**CRF:** Case Report Form, A form that collects and contains Study Event information for a Study Subject.

**Delete**: A delete action completely removes the information from the OpenClinica system. Deleted information cannot be restored, although the audit log tracks the deletion action. Nearly all information in OpenClinica can be removed rather than deleted because removed information can be restored.

**Discrepancy Notes:** Means of communicating about CRF Items whose value, condition, level of detail, etc. are not as expected.

**eCRF**: Electronic Case Report Form

**ESAIC**: European Society of Anaesthesiology and Intensive Care

Event: The study case report form (CRF).

**Remove**: A remove action makes the information unavailable in the OpenClinica system. You can restore information that has been removed to make it available again. Most information in OpenClinica can be removed so that it can be restored.

**Roles**: Categories for users in OpenClinica that determine the tasks available to them in the system.

**Study Event:** A visit or encounter in the Study where data is captured or created. A Study Event packages one or more case report forms (CRFs). Also referred to as an Event.

**Study Event Definition:** Information that describes a type of Study Event and includes specifying the CRFs to be used for it.

**Study Subject:** A person added to a Study in OpenClinica. Also referred to as a Subject.

**Study Subject ID:** A unique identifier generated automatically.

**Subject**: In OpenClinica, a person who participates in the Study.

**User**: Person using the OpenClinica software. A user can have one or more Roles in one or more Studies or Sites.