

Castor

Castor EDC Data Entry User Guide

Version 2022.1

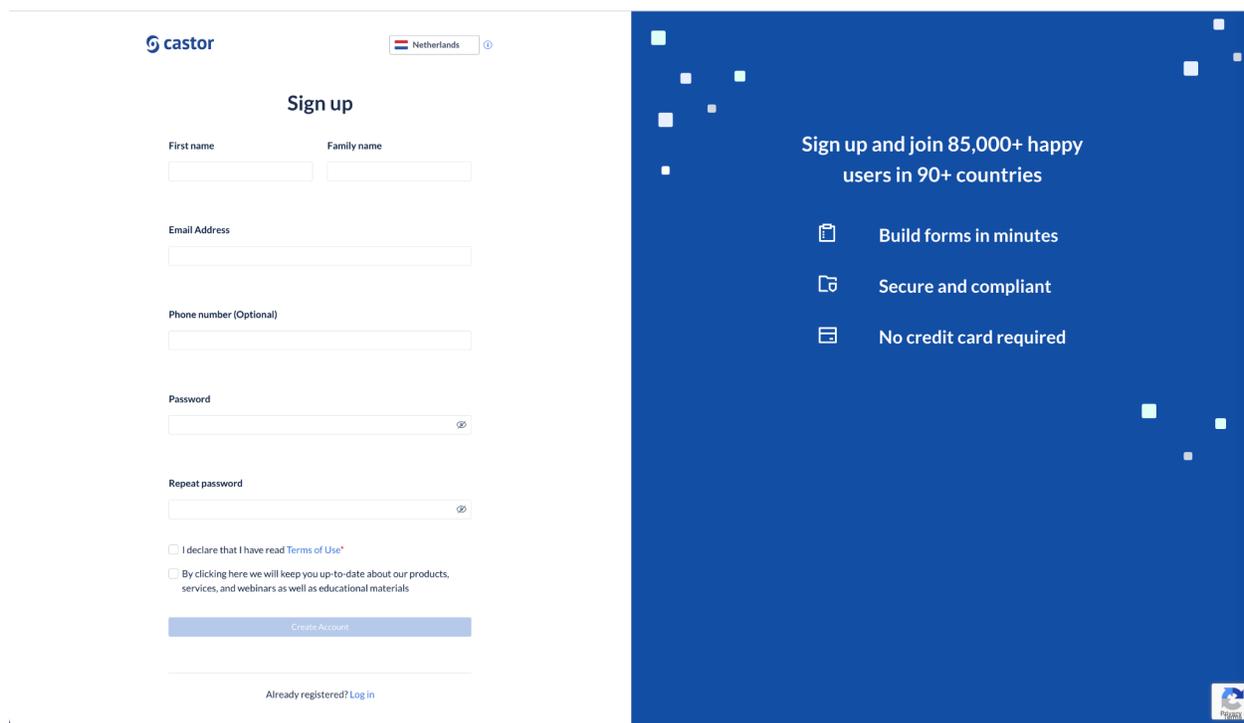
1. Register an account	4
1.1. Registration page	4
1.2. User is added to a study	5
2. Log In	6
3. Open a study	7
4. Add/Open a record for data entry	8
5. Doing data entry	10
5.1. Elements in each question	11
5.1.1 Status icons	11
5.1.2 Additional options	13
5.1.3 Send a survey	15
5.1.4 Randomize a record	17
5.1.4 Signing and locking a step	21
6. Record progress	24
7. Record status	25
7.1. Search for data	26
7.2. Phase/Step view	27
8. Creating Reports	28
8.1. Adding a report	28
8.2. Viewing the report	31
9. Repeated Measures	32
10. The global Reports tab	33
11. Responding to queries	34
12. The global Monitoring tab	38
12.1. Queries	38
12.2. Validations	40
12.3. Verifications	41
13. Exporting data	42
13.1. How to export data	42

1. Register an account

There are two ways to register an account: a) via the registration page b) by being added to a study by a study administrator.

1.1. Registration page

You can go directly to our website to create an account before being invited to a study. You will choose the site to create your account based on the location of your study data. Navigate to one of the URLs below to access the registration page:



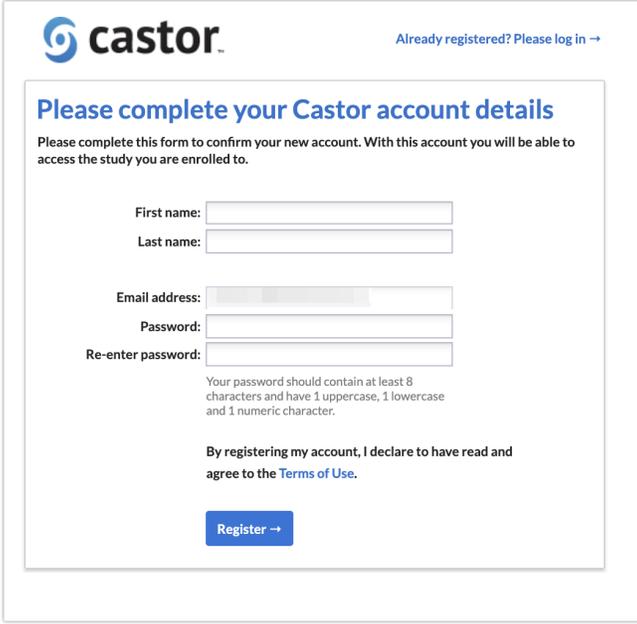
- EU Account: <https://data.castoredc.com/register>
- UK Account: <https://uk.castoredc.com/register>
- US Account: <https://us.castoredc.com/register>
- AU Account: <https://au.castoredc.com/register>

To register your Castor account:

1. Fill in your first and last name(s).
2. Enter your email address and choose a strong password, consisting of at least 8 characters, one uppercase letter, one lowercase letter and a number.
3. Enter your phone number

1.2. User is added to a study

If a study administrator has added you to a study, you will receive an invitation by email for the study for which you need to do data entry. Click on the activation link in the email and it will redirect you to the registration page. To register Castor account:



The screenshot shows the Castor registration page. At the top left is the Castor logo. At the top right is a link: "Already registered? Please log in →". The main heading is "Please complete your Castor account details". Below this is a sub-heading: "Please complete this form to confirm your new account. With this account you will be able to access the study you are enrolled to." The form contains the following fields: "First name:" with an input box, "Last name:" with an input box, "Email address:" with a pre-filled input box, "Password:" with an input box, and "Re-enter password:" with an input box. Below the password fields is a note: "Your password should contain at least 8 characters and have 1 uppercase, 1 lowercase and 1 numeric character." Below this note is a declaration: "By registering my account, I declare to have read and agree to the [Terms of Use](#)." At the bottom of the form is a blue button labeled "Register →".

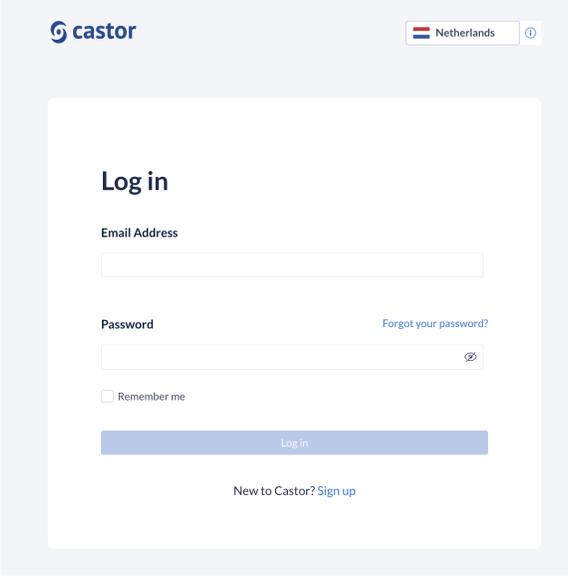
1. Fill in first and last name(s).
2. The email address will be pre-filled, choose a strong password, consisting of at least 8 characters, one uppercase letter, one lowercase letter and a number.
3. Click on 'Register'. Shortly after registering a user details, an email with an activation link will be sent to the email address a user has provided. Click on this

link to confirm that the supplied email address belongs to a user and verify a user account.

2. Log In

To access the study, log into Castor EDC via <https://data.castoredc.com>. If your study is on the US, AU or UK server, you can also directly go to <https://au.castoredc.com/register>, <http://us.castoredc.com> or <http://uk.castoredc.com>, respectively.

1. Choose the server that is used for your study in order to be able to access the study.
2. Enter your email address and password.
3. Click on 'Login'.



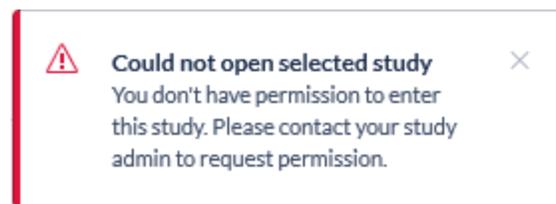
The screenshot shows the Castor EDC login interface. At the top left is the Castor logo, and at the top right is a language selector set to 'Netherlands'. The main content area is titled 'Log in' and contains the following elements: an 'Email Address' input field, a 'Password' input field with a 'Forgot your password?' link and a toggle icon, a 'Remember me' checkbox, a blue 'Log in' button, and a link for 'New to Castor? Sign up'.

3. Open a study

Once you have logged into Castor EDC, you will see the 'My Studies' overview where all of the user studies (databases) are shown. If a study is live (indicated by a green button and 'Live' to the left of the study name), a user can click on the study name to enter the study and start data entry.



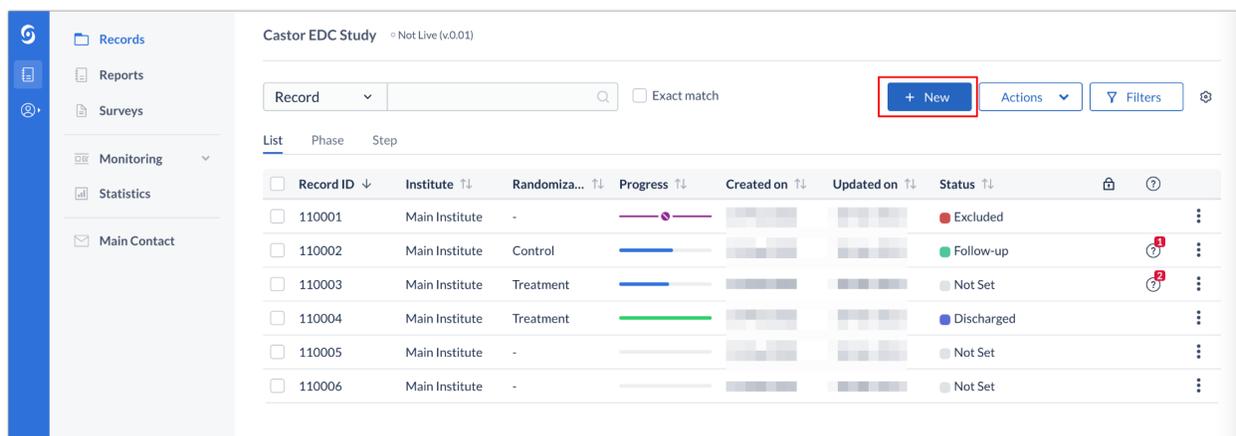
Trying to open a study that is not live will show the following warning:



If the study is still in maintenance mode (the button is blank, and the status says 'Not Live') a user will only be able to open the study if a user has management rights.

4. Add/Open a record for data entry

Once a user enters the study, a user will see a list of all records available based on their access level. To add a new patient to the database, a user will need to create a new record. Creating new records must be done from the Records tab, by clicking on the “+ New” button.



Then, select a user institute and click 'Next'. The record will be created and opened so a user can begin data entry.

Create New Record ✕

Institute

Test ▼

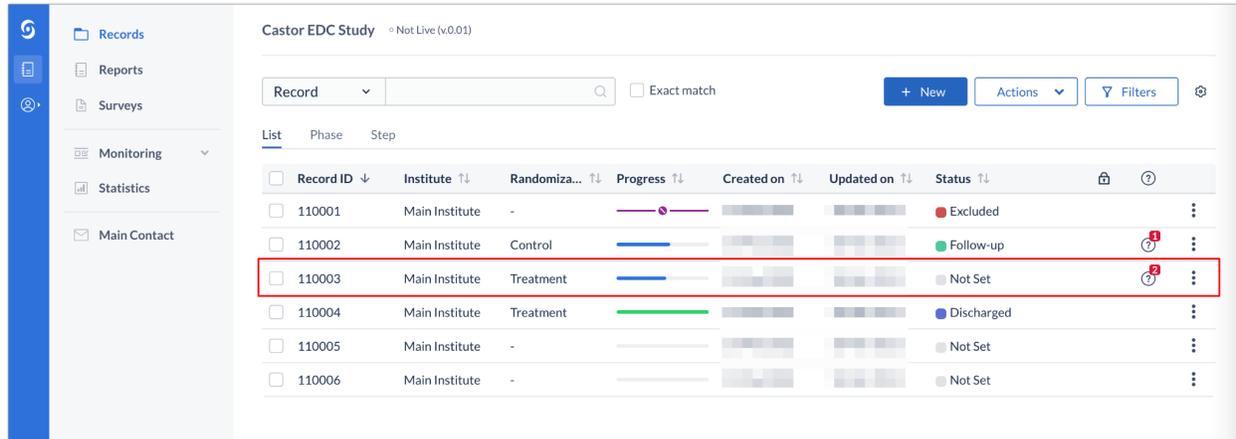
Record ID

110002

Email address

Create Cancel

To open a previously created record, double click the row the record is on.

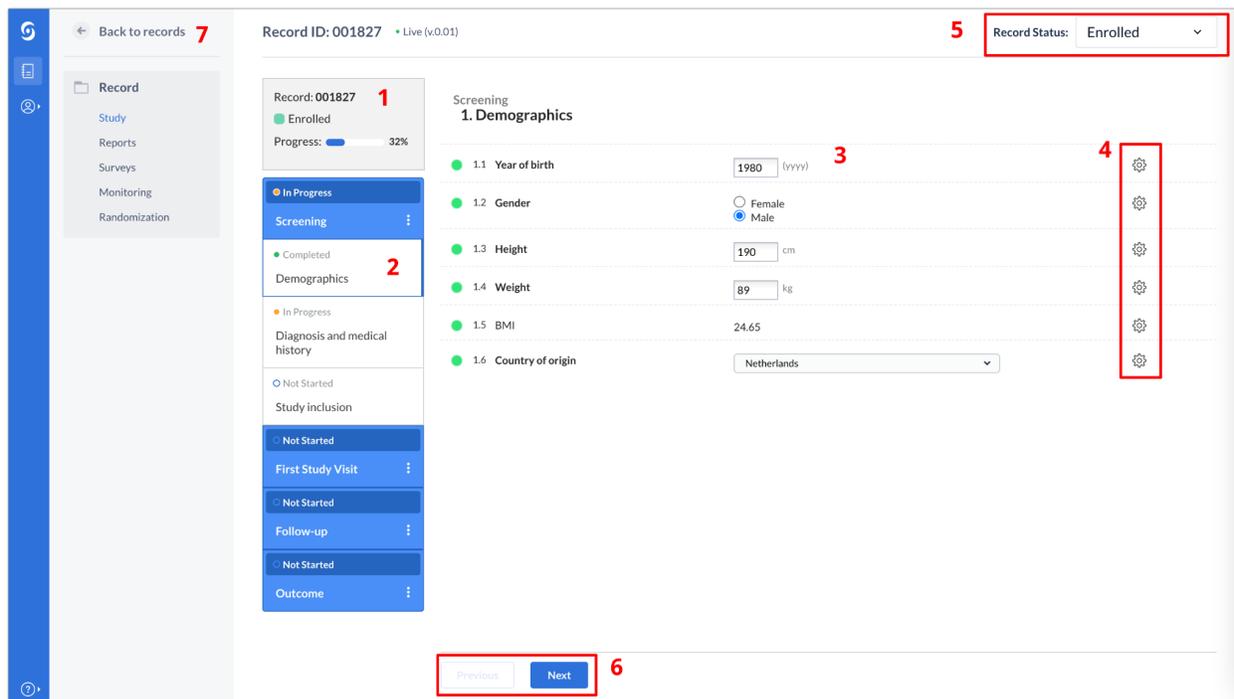


The screenshot displays the 'Castor EDC Study' interface. On the left is a navigation sidebar with options: Records, Reports, Surveys, Monitoring, Statistics, and Main Contact. The main area shows a table of records with columns: Record ID, Institute, Randomiza..., Progress, Created on, Updated on, and Status. The record with ID 110003 is highlighted with a red box. The table also includes a search bar, a '+ New' button, and 'Actions' and 'Filters' dropdowns.

Record ID	Institute	Randomiza...	Progress	Created on	Updated on	Status
110001	Main Institute	-				Excluded
110002	Main Institute	Control				Follow-up
110003	Main Institute	Treatment				Not Set
110004	Main Institute	Treatment				Discharged
110005	Main Institute	-				Not Set
110006	Main Institute	-				Not Set

5. Doing data entry

When a user opens a record, the user will be taken to the main data entry view:



The screenshot displays the main data entry view for Record ID: 001827. The interface includes a sidebar with navigation options (Record, Study, Reports, Surveys, Monitoring, Randomization) and a record overview panel showing the record's status (Enrolled) and progress (32%). The main data entry form is titled 'Screening 1. Demographics' and contains six fields: Year of birth (1980), Gender (Male), Height (190 cm), Weight (89 kg), BMI (24.65), and Country of origin (Netherlands). A 'Record Status' dropdown is set to 'Enrolled'. At the bottom, there are 'Previous' and 'Next' navigation buttons.

It consists of the following elements:

1. Record ID, progress of completion, and Record status.
2. An overview of the study forms (phases and steps of the study). Phases consist of steps and each step contains a set of questions. A user can click on the step of interest in this panel to start entering the required data. Once a user answers a question in the form, a user will see a small wheel turning to the left of the field and this means the data is being saved.
3. Data is entered into questions, or fields within the study forms (steps).
4. Each field is accompanied by a cogwheel menu, containing options for each record. In this menu, a user can clear the data from a field, add a comment or mark the field as 'missing' data.
5. Dropdown field displaying record status. Click on the field to select a different status.
6. Once a user has completed the first form, a user can navigate to the next step by clicking on 'Next'. To navigate to the previous form, click on the 'Previous' button. If

the user is on the first or the last form, the buttons 'Previous' and 'Next' will be grayed out.

- To exit the record and return to the record list, click on the 'Back to records' button.

5.1. Elements in each question

Depending on the type of question, a user will need to select one or more of the provided options, enter a number or date, upload a file etc.

Some fields will appear only under certain conditions. In the example below, question 3.1.1 is shown only because question 3.1 is answered with 'Yes'.

5.1.1 Status icons

Shown to the left of each question is the status icon, which indicates whether the question has been answered (green) or not answered (orange). Where there is a problem with the provided answer, the icon will turn red and a red warning message will appear to provide more information about the problem.

- Green** The input is valid and the data is saved. For example, field 2.1 after the data has been entered and saved:

● 2.1 Are you 16 years of age or older? Yes
 No

● **Orange** Data is required and no input has been entered yet. For example, field 2.3:

● 2.3 Are you planning to reside in this area for the next 6 months? Yes
 No

● **Red** The input is invalid or does not comply with the inclusion criteria for the study. This is accompanied by a red warning message.

● 3.5.1 Error Date of consent is not entered

⚠ Date of consent is mandatory. Please provide the date.

No icon Data entry is not required and no input has been entered yet.

2.14.2 Pre-screen successful?

Not all values for this calculation are available (yet).

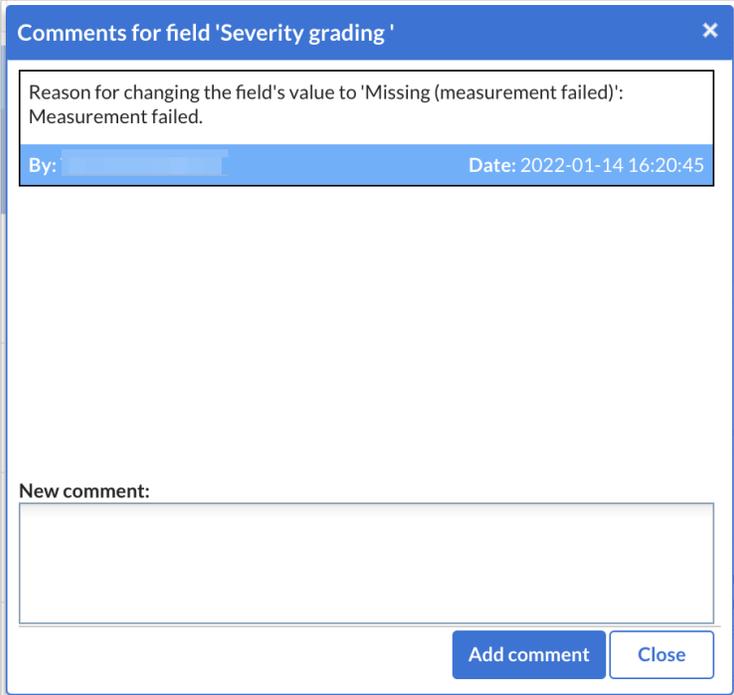
5.1.2 Additional options

To the right of each question there is a cogwheel with additional options:

- To clear the value already entered for a field, press 'Clear'.
- If data is not available for a question, tick the 'User missing' box. A window will open to ask the user to provide the reason why the data is missing:

- Select the appropriate option and if necessary, add a comment. Click Save to store the option and return to the question list. The field marked as 'User Missing' will be grayed out in the list and marked as 'Completed'.

- If a user initially marked a field as missing but received information for this field at a later date, a user can click on the cogwheel again (even if the question is grayed out) and should unselect the option “User missing”.
- If a user wants to add a comment to a field, press “Comments”. Add a user text and press “Add comment”:



Comments for field 'Severity grading' ✕

Reason for changing the field's value to 'Missing (measurement failed)':
Measurement failed.

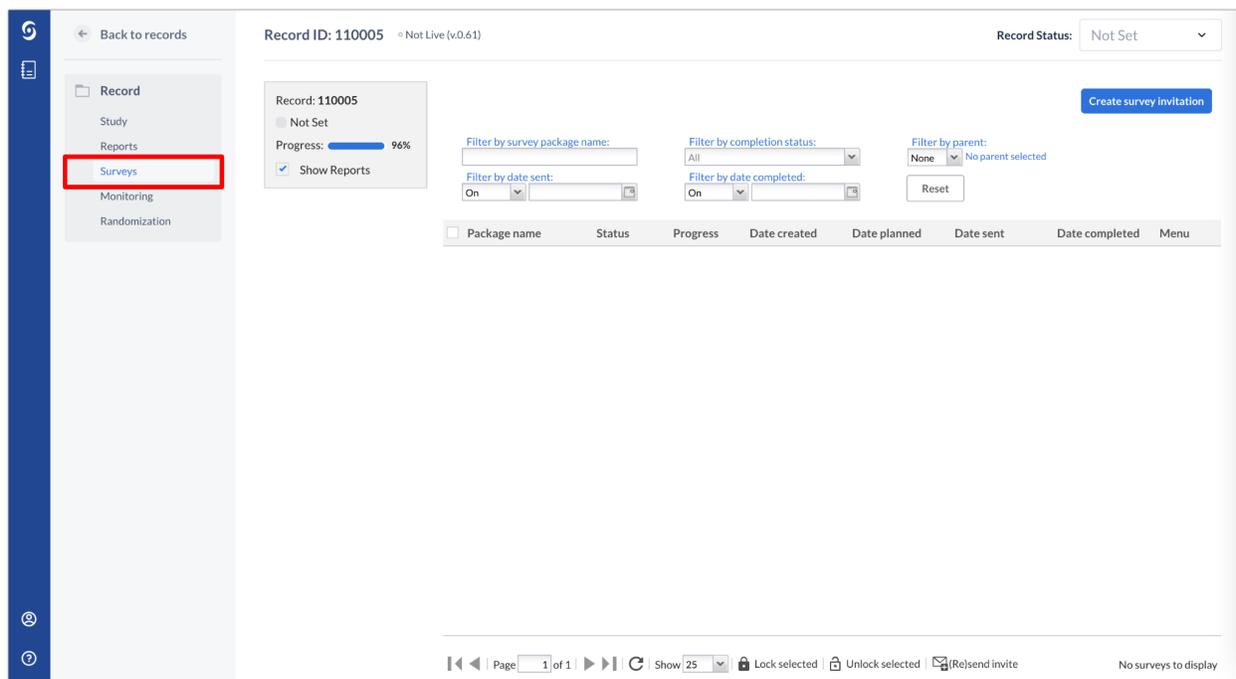
By: [blurred] Date: 2022-01-14 16:20:45

New comment:

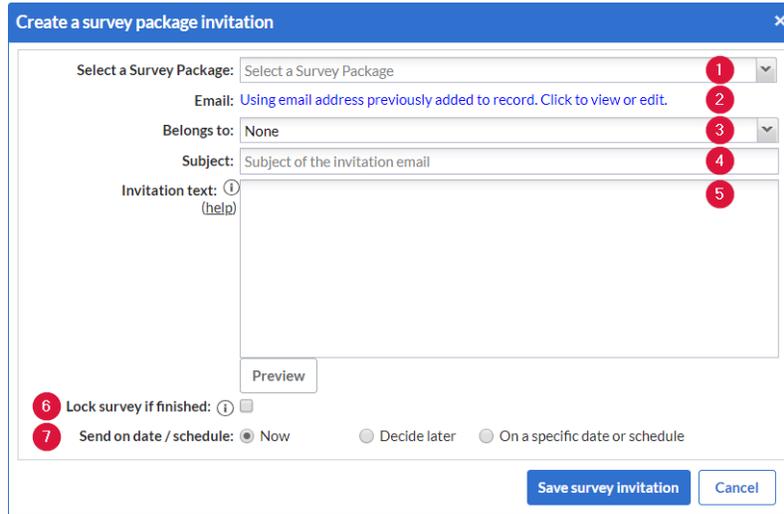
5.1.3 Send a survey

In Castor, surveys are sent out by creating survey invitations. In order to send a survey you must first have created a survey form and a survey package. Surveys are always sent in the form of survey packages, even if the package consists of only one survey.

To send a survey to a single participant, first enter the Record for that participant by navigating to the Records tab and double-clicking on the record of interest (or clicking the eye icon). Within the record, navigate to the Surveys tab and click on 'Create survey invitation':



A dialog window will appear - in here, you are required to select the survey package you want to send and other details of the invitation:

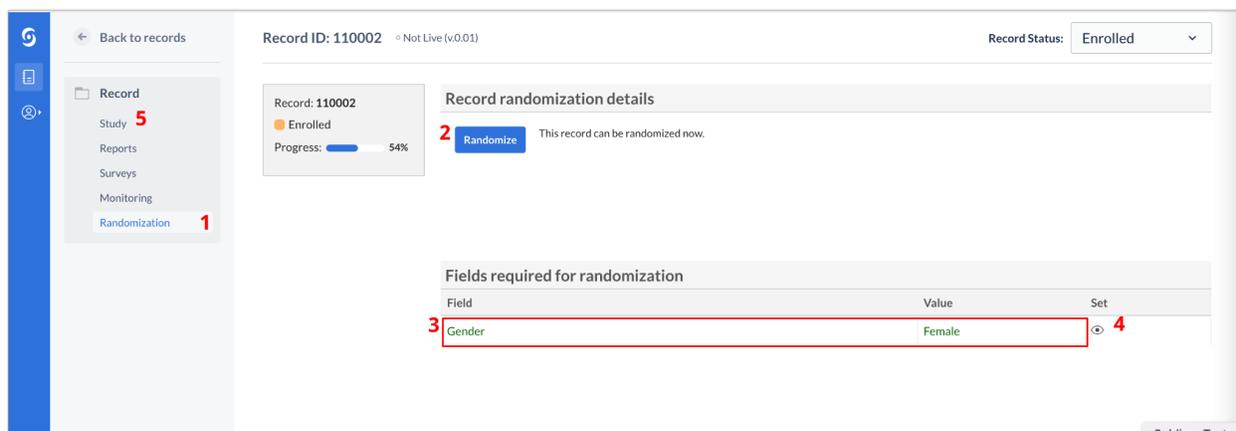


1. Select the survey package you want to send.
2. Add the email of the participant if this hasn't been previously added to the record. If the email was already added in the record itself, it will be automatically extracted and this section will be pre-filled with the email address. To view the address, you will need to authenticate yourself again with your password and this viewing will be logged in the audit trail. If an email address is not associated with a record, a pop-up window will appear asking if you would like to associate an entire record with this e-mail address which will be used as a primary e-mail address for the survey invitations.
3. Select a phase/report of your study, if you want to attach the survey to a certain phase or report. This is optional.
4. The subject of the email that the participant will receive.
5. The text of the email that the participant will receive will be drawn from your survey package settings. You can modify these here, if you wish.
6. Check this box if you want the survey to be locked after finishing. This is convenient if you want to prevent further changes being made when the subject finishes the survey.

7. Select when you want to send the survey. You have three options:
 - a. **Now** - the email invitation will be sent immediately after saving
 - b. **Decide later** - the invitation will be created but will not be sent. You will be able to define the date of sending later.
 - c. **On a specific date or schedule** - you can select a specific date when you want the survey to be sent or you can define a schedule in case you want to send the same package repetitively. You can learn more about survey schedules here.
8. Click 'Save' to create the survey invitation, or click 'Cancel' to exit this dialog and discard the changes.

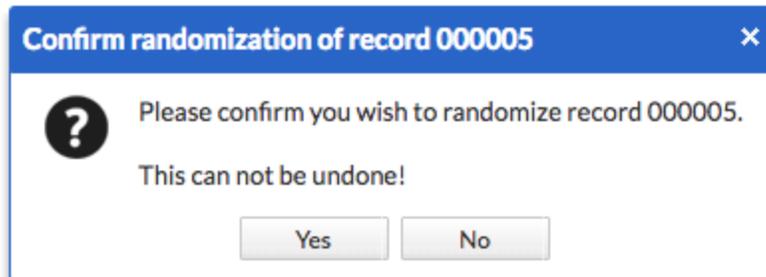
5.1.4 Randomize a record

If a user needs to perform randomization in the study, the user can follow these steps to randomize a record.

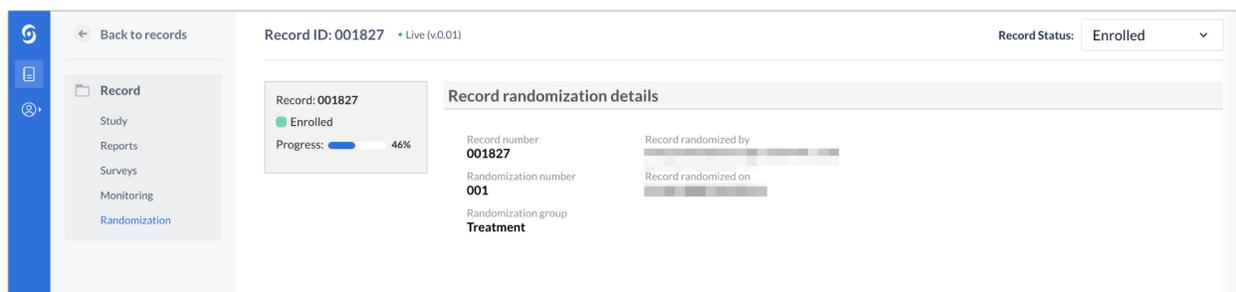


1. From the record overview, select the 'Randomization' sub-tab.
2. Click the 'Randomize' button to randomize the record.
3. Fields required for randomization are summarized in the lower right of the tab.
4. If the required fields for randomization have not been completed, click the eye icon () to be taken to the required field in the CRF.
5. Click on the 'Study' tab to return to the study forms after the record has been randomized.

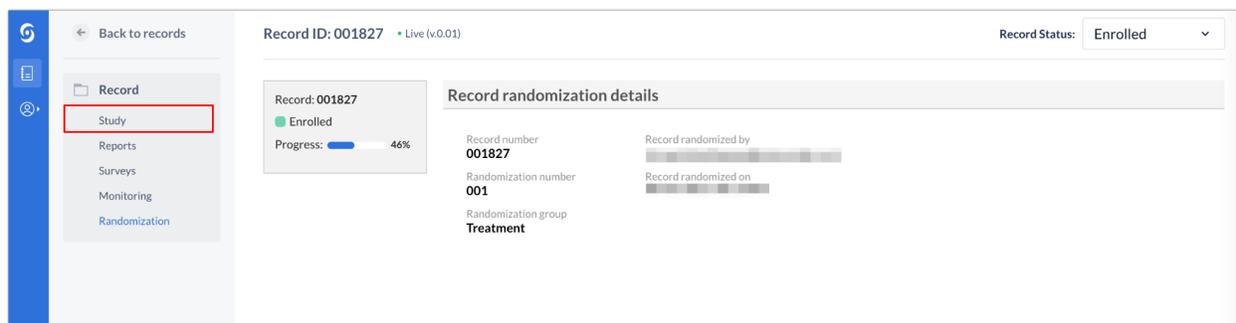
A window will appear and ask to confirm the randomization, advising that randomization cannot be undone once confirmed.



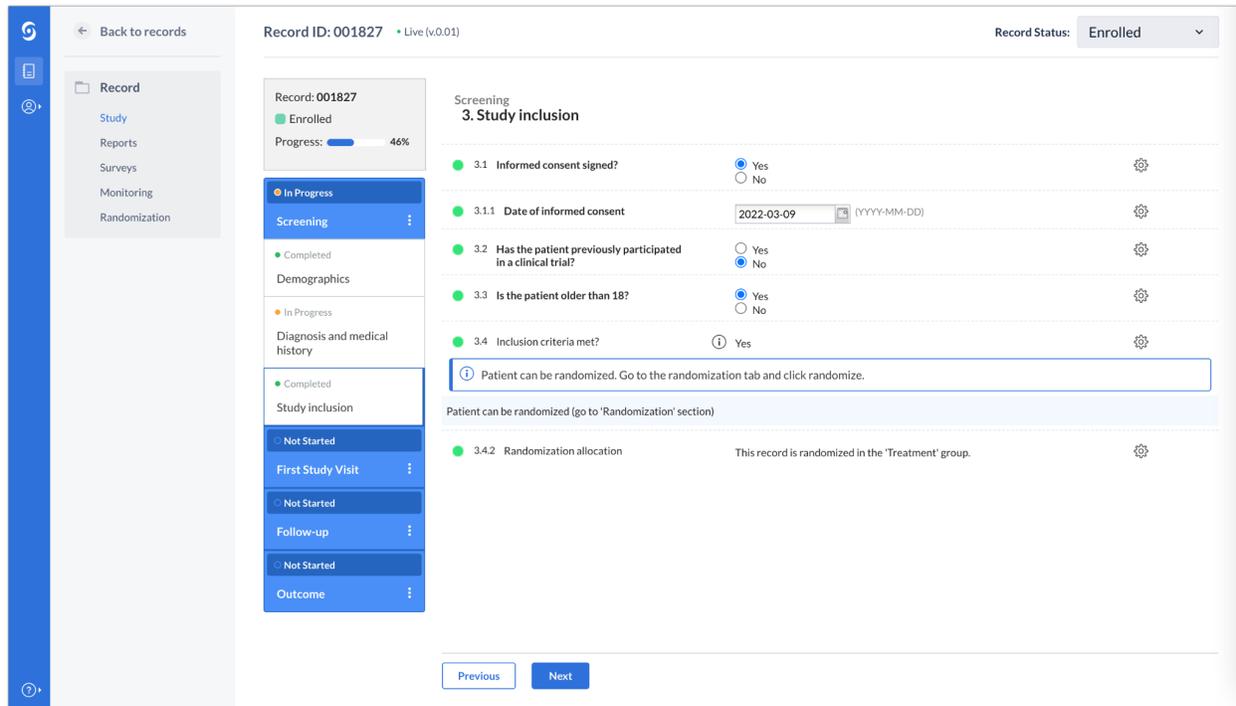
The randomization tab will now display the randomization group and the randomization number and other relevant information. This tab is only visible for users with randomization rights.



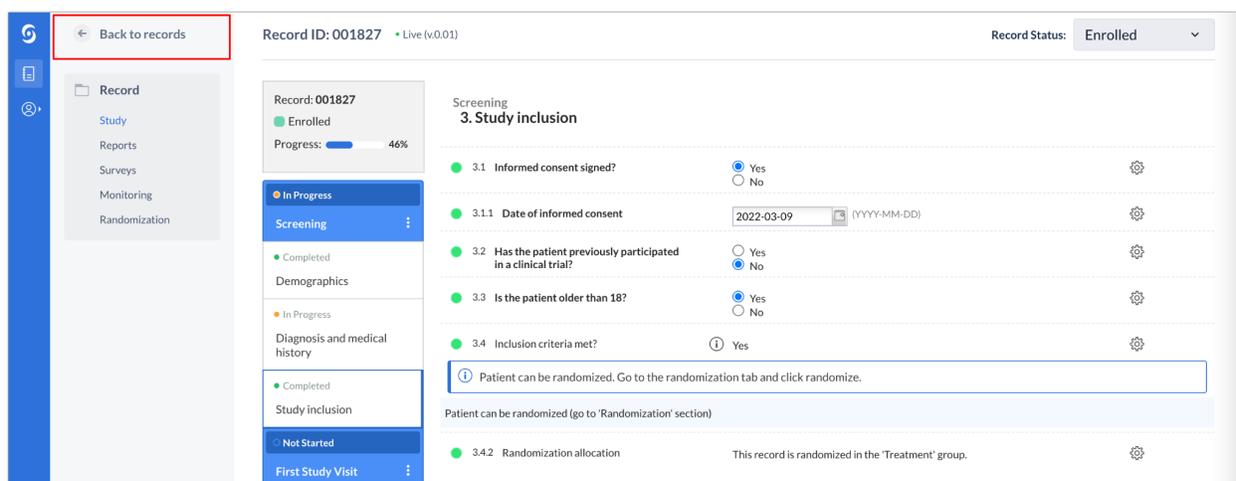
After randomizing a record, to continue the data entry, click on the 'Study' button:



This will open the data entry overview for this record:



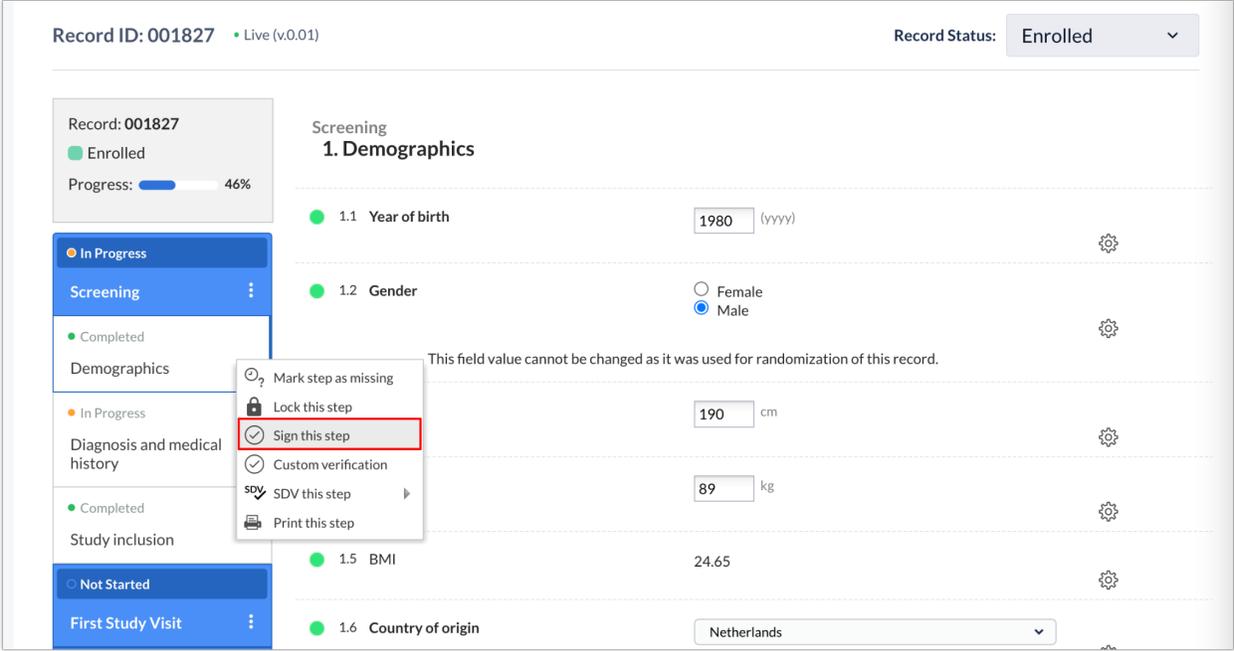
To get back to the global Records tab with an overview of all Records, click the 'Back to records' button:



This will open the global 'Records' tab with all records.

5.1.4 Signing and locking a step

A user can electronically sign and/or lock individual phases and steps in Castor EDC. Users will need the appropriate rights in order to do so.



The screenshot displays the Castor EDC interface for Record ID: 001827 (Live v.0.01) with a status of 'Enrolled'. The record progress is 46%. The current phase is 'Screening' (1. Demographics). A context menu is open over step 1.2 'Gender', showing options: 'Mark step as missing', 'Lock this step', 'Sign this step' (highlighted with a red box), 'Custom verification', 'SDV this step', and 'Print this step'. The step 1.2 'Gender' is currently set to 'Male' and has a note: 'This field value cannot be changed as it was used for randomization of this record.' Other steps include 1.1 'Year of birth' (1980), 1.3 'Height' (190 cm), 1.4 'Weight' (89 kg), 1.5 'BMI' (24.65), and 1.6 'Country of origin' (Netherlands).

1. Hover over the right side of a step or phase with the cursor. Click on the three dots that appear.
2. Click on 'Sign this phase' for phases or 'Sign this step' for steps.
3. The user will be prompted to enter his/her email address and password to confirm their identity.
4. Click 'Sign' to confirm and to sign the phase or step. If a user wishes to also lock this phase, the user will tick the 'Lock phase and child steps' checkbox.
5. The user will receive a confirmation that the audit trail has been updated. Upon signing the next phase/step, only the password will be required.

The phase or step will be updated with icons to reflect that it has been signed and/or locked:

Record: 110002
● Discharged
 Progress: 100%

● Completed SDV ✓	
Screening	⋮
● Completed SDV ✓	
Demographics	
● Completed SDV ✓	
Diagnosis and medical history	
● Completed SDV ✓	
Study inclusion	

A banner will also be displayed at the top of the data entry screen, warning the user that the current step has been signed and/or locked including the date, time and user who applied signature or locked a phase or a step:

Team

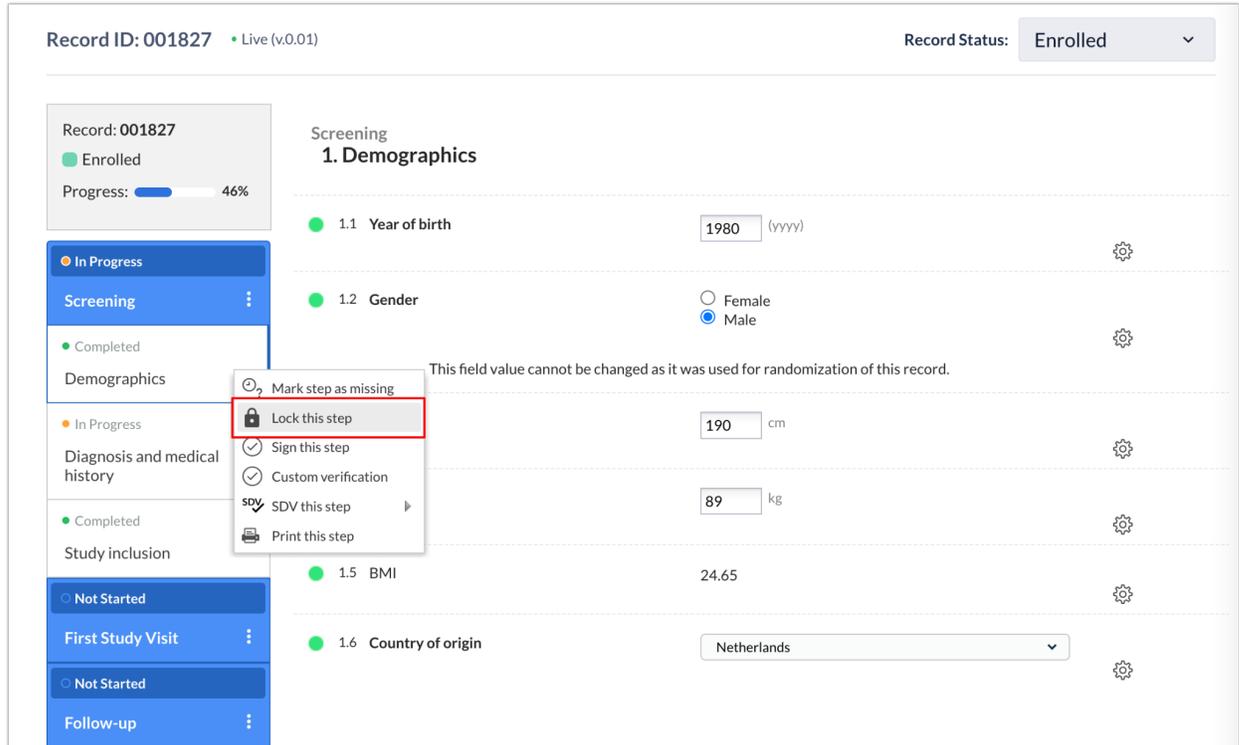
1. Identification of the team

This step was signed on [blurred]	Unsign
This step was locked on [blurred]	Unlock

● 1.1 Country Code	[blurred]	
● 1.2 Team ID	[blurred]	
● 1.3 Team ID (Country Code + ID)	[blurred]	
● 1.4 Team Country	[blurred]	
● 1.5 Location	[blurred]	
● 1.6 Type of team	[blurred]	

If a user does not have view rights for all the steps, they are notified about the signature being applied only to steps for which viewing rights have been granted.

If a user has lock rights, a user can also choose to lock a phase or a step to prevent further data entry directly from the record navigation.



The screenshot displays a record navigation interface for Record ID: 001827 (Live v.0.01) with a status of 'Enrolled'. The progress bar shows 46% completion. The left sidebar lists various phases and steps, with 'Screening' currently selected. The main content area shows the '1. Demographics' phase with several steps: 1.1 Year of birth (1980), 1.2 Gender (Male), 1.3 Height (190 cm), 1.4 Weight (89 kg), 1.5 BMI (24.65), and 1.6 Country of origin (Netherlands). A dropdown menu is open over step 1.2, showing options: 'Mark step as missing', 'Lock this step' (highlighted with a red box), 'Sign this step', 'Custom verification', 'SDV this step', and 'Print this step'. A tooltip message states: 'This field value cannot be changed as it was used for randomization of this record.'

1. Navigate to the right side of a step or phase with a user mouse. Click on the three dots that appear.
2. Click on '(Un)Lock this phase' for phases or '(Un)Lock this step' for steps.

6. Record progress

In the left panel in the data entry, a user can view the progress of the steps which will update as a user fills in the data.

Record ID: 001827 • Live (v.0.01) Record Status: Enrolled

Record: 001827
 Enrolled
 Progress: 46%

Screening
1. Demographics

- 1.1 Year of birth: 1980 (YYYY)
- 1.2 Gender: Female, Male
 This field value cannot be changed as it was used for randomization of this record.
- 1.3 Height: 190 cm
- 1.4 Weight: 89 kg
- 1.5 BMI: 24.65
- 1.6 Country of origin: Netherlands

Previous Next

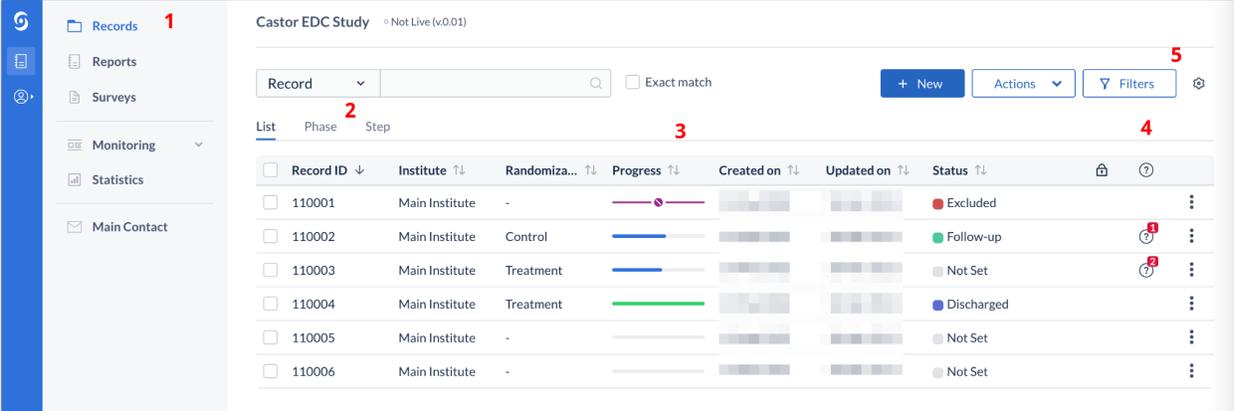
A step can have three different completion stages:

- Gray Not started
- Orange In Progress
- Green Completed

The overall record progress bar shown in the phase tab (blue) will also update automatically. Once all required fields have been completed, the icon will turn green.

7. Record status

In the Records tab, a list is displayed showing all records a user has created (see Section 6). The user may also see records that have been created by other users at the institute.



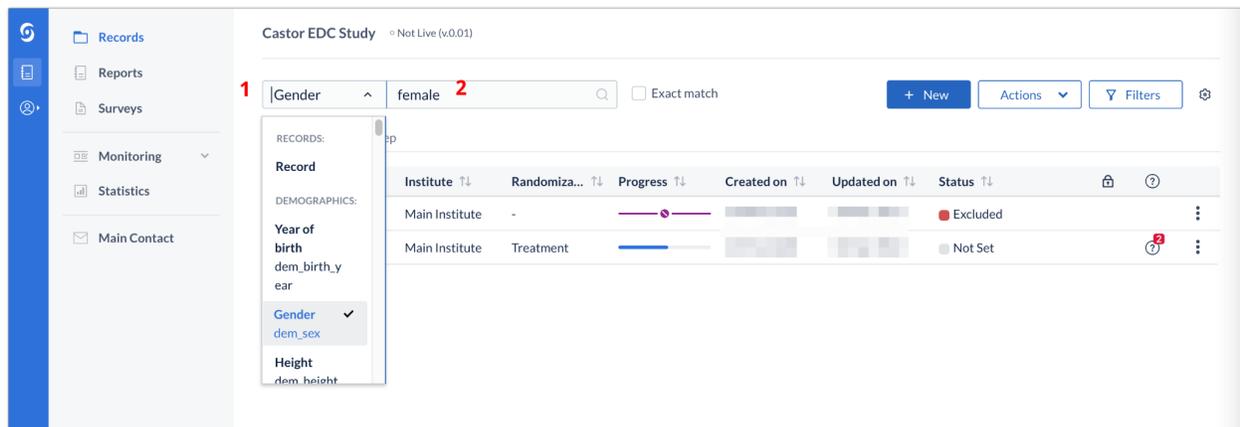
The screenshot shows the 'Records' tab in the Castor EDC Study interface. The interface includes a sidebar with navigation options: Records (1), Reports, Surveys, Monitoring, Statistics, and Main Contact. The main content area displays a table of records for 'Castor EDC Study - Not Live (v0.01)'. The table has columns for Record ID, Institute, Randomization, Progress, Created on, Updated on, and Status. The Progress column shows progress bars with different colors (purple, blue, green) and icons (pencil, checkmark). The Status column shows various statuses like Excluded, Follow-up, Not Set, and Discharged. There are also buttons for '+ New', 'Actions', and 'Filters' (5). The table is filtered by 'Record' (2) and 'Exact match'. The table is sorted by 'Phase' (2) and 'Step' (3). The table has a 'List' view selected (4).

Record ID	Institute	Randomiza...	Progress	Created on	Updated on	Status
110001	Main Institute	-	Progress bar with pencil icon			Excluded
110002	Main Institute	Control	Progress bar			Follow-up
110003	Main Institute	Treatment	Progress bar			Not Set
110004	Main Institute	Treatment	Progress bar			Discharged
110005	Main Institute	-	Progress bar			Not Set
110006	Main Institute	-	Progress bar			Not Set

1. In the 'Records' tab, a search box is available, in which you can search for a particular record ID. More information on the search is provided in section 7.1.
2. It is possible to change the view mode to show the progress of the records by phases or steps (see section 7.2).
3. Progress: This column will show you the status of completion for each record. The same color scheme as for the steps applies (see section 6). The purple bar with a pencil icon indicates that an exclusion validation has been triggered for this record. You can double click on any record to directly access it.
4. Queries: displays the number of queries created for a record.
5. By default, all records are shown, however you can use the 'Filters' button to filter the records based on different parameters.

7.1. Search for data

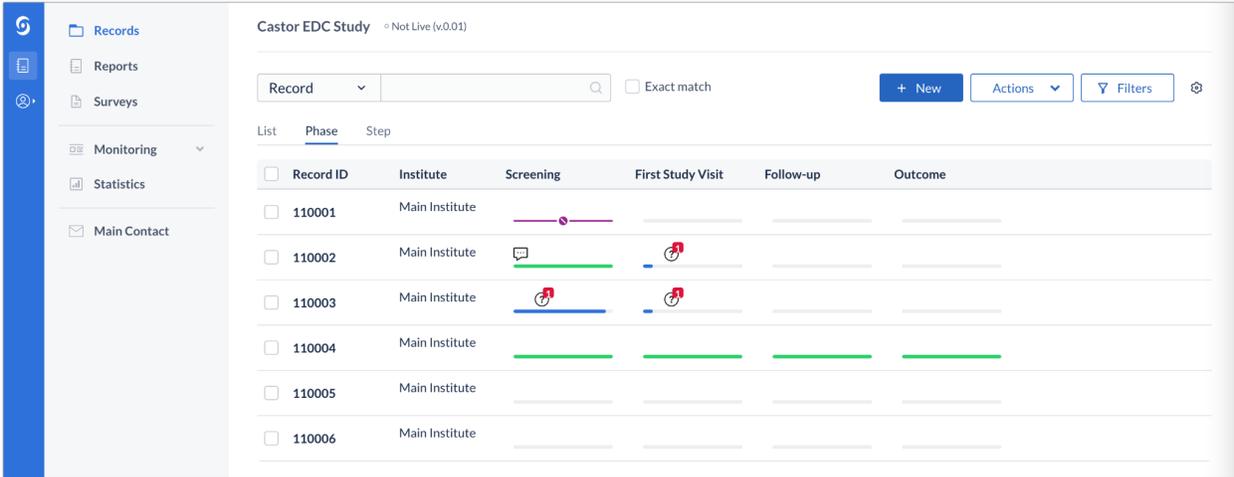
A user can use the search bar to find records that contain certain data, for example if a user wants to find the patients with a certain age at onset.



1. Click on the arrow in the right search box and find the field (question) of interest. In this example 'Please enter the barcode number' field is selected.
2. Enter the value of interest in the left search box (in this example ABC-abc-123) and all matching records will be displayed.

7.2. Phase/Step view

By default, the 'Records' tab displays all records in the "List" view. You can change the view mode to either Phase view or Step view.



Castor EDC Study - Not Live (v0.01)

Record Exact match + New Actions Filters

List Phase Step

Record ID	Institute	Screening	First Study Visit	Follow-up	Outcome
<input type="checkbox"/> 110001	Main Institute				
<input type="checkbox"/> 110002	Main Institute				
<input type="checkbox"/> 110003	Main Institute				
<input type="checkbox"/> 110004	Main Institute				
<input type="checkbox"/> 110005	Main Institute				
<input type="checkbox"/> 110006	Main Institute				

This will show you the status of completion of each phase or step for each record by clicking on "Phase" or "Step". The same color scheme as for the steps applies (see section 6). You can double click on any phase or step to directly access it.

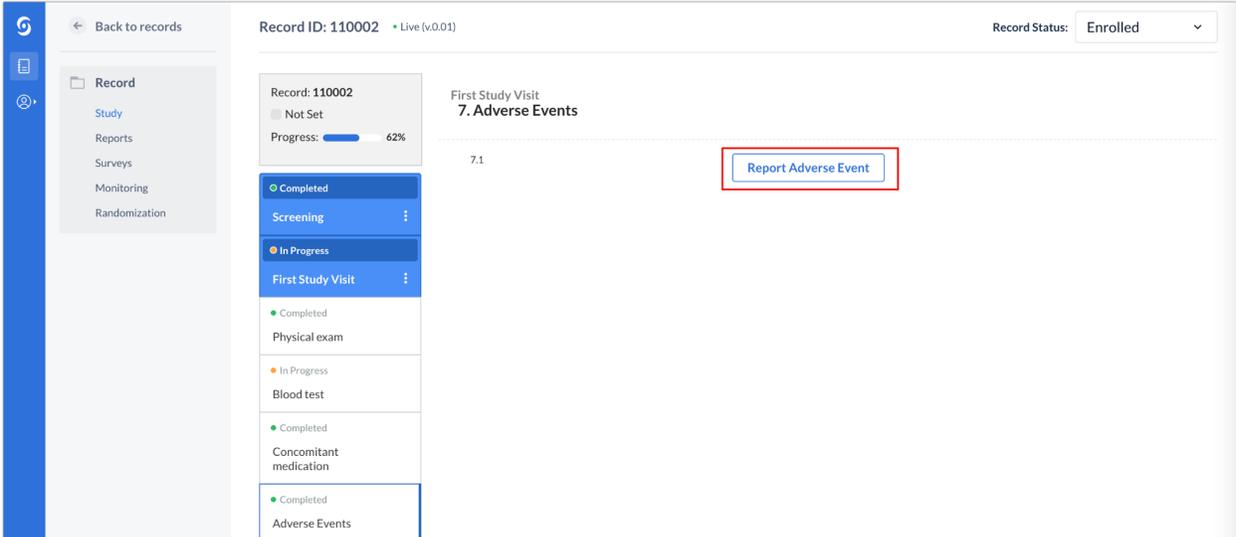
8. Creating Reports

Reports can be used to register adverse events (AE) and also to record any other data which is not part of the main study protocol, for instance any unexpected hospital visits or emergency surgical procedure.

8.1. Adding a report

There are two ways to add a report form to a record: 1) via an Add Report button directly in a step, or 2) via the Reports tab.

To add a report via the button, navigate to the step and click on the 'Add report button' in the relevant step. Please note that the report button might have a different name in your study:



Record ID: 110002 • Live (v.0.01) Record Status: Enrolled

Record: 110002
 Not Set
 Progress: 62%

Completed
 Screening

In Progress
 First Study Visit

Completed
 Physical exam

In Progress
 Blood test

Completed
 Concomitant medication

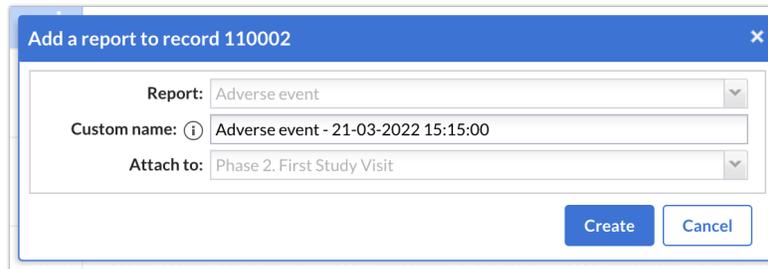
Completed
 Adverse Events

First Study Visit
 7. Adverse Events

7.1

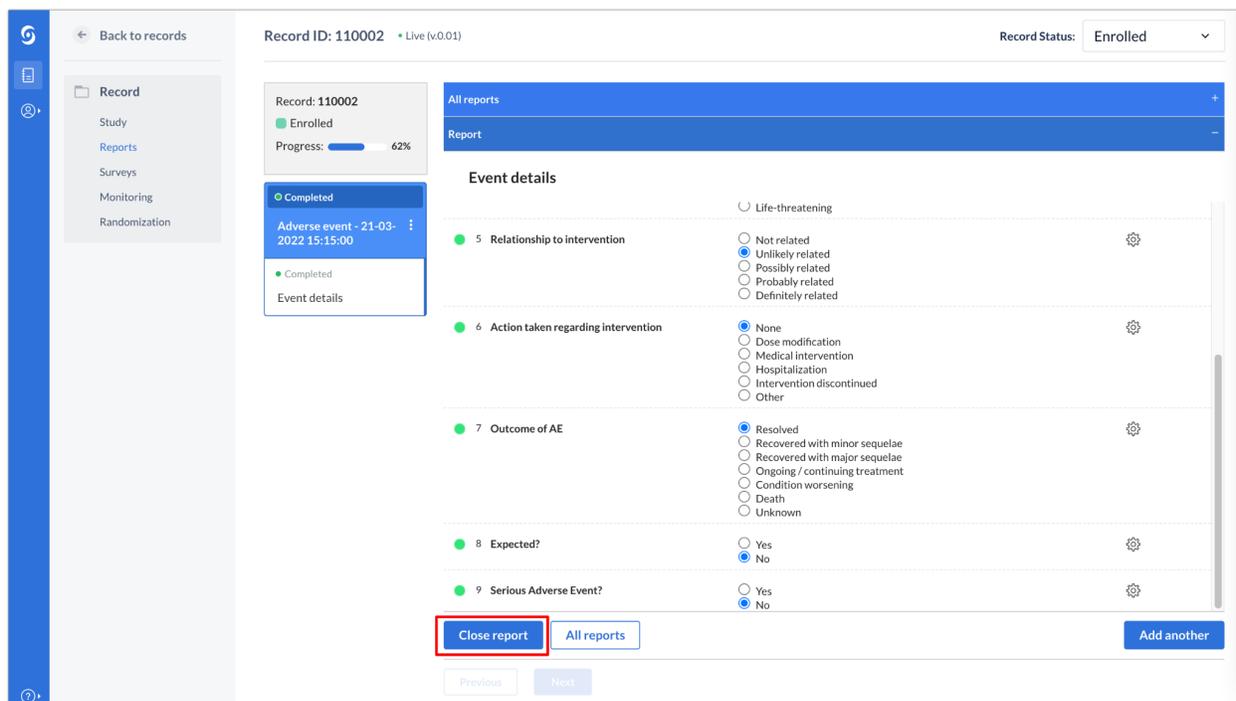
Report Adverse Event

The following dialog window will appear:



The dialog window is titled "Add a report to record 110002". It contains three input fields: "Report" with a dropdown menu showing "Adverse event", "Custom name" with a text input field containing "Adverse event - 21-03-2022 15:15:00", and "Attach to" with a dropdown menu showing "Phase 2. First Study Visit". At the bottom right, there are two buttons: "Create" and "Cancel".

1. Report: this field contains the report type which is pre-filled
2. Custom name: Enter a custom name for the report, this is how the report will be displayed in the study and exports. In some cases, the custom name won't be editable, as the study admin can disable the option to adjust the report name.
3. Attach to: this is a phase to which a report will be linked by default. When creating a report using the 'Add Report' button, this field will be pre-filled.
4. Click the 'Create' button to add the new report.
5. Proceed with the data entry for the report.



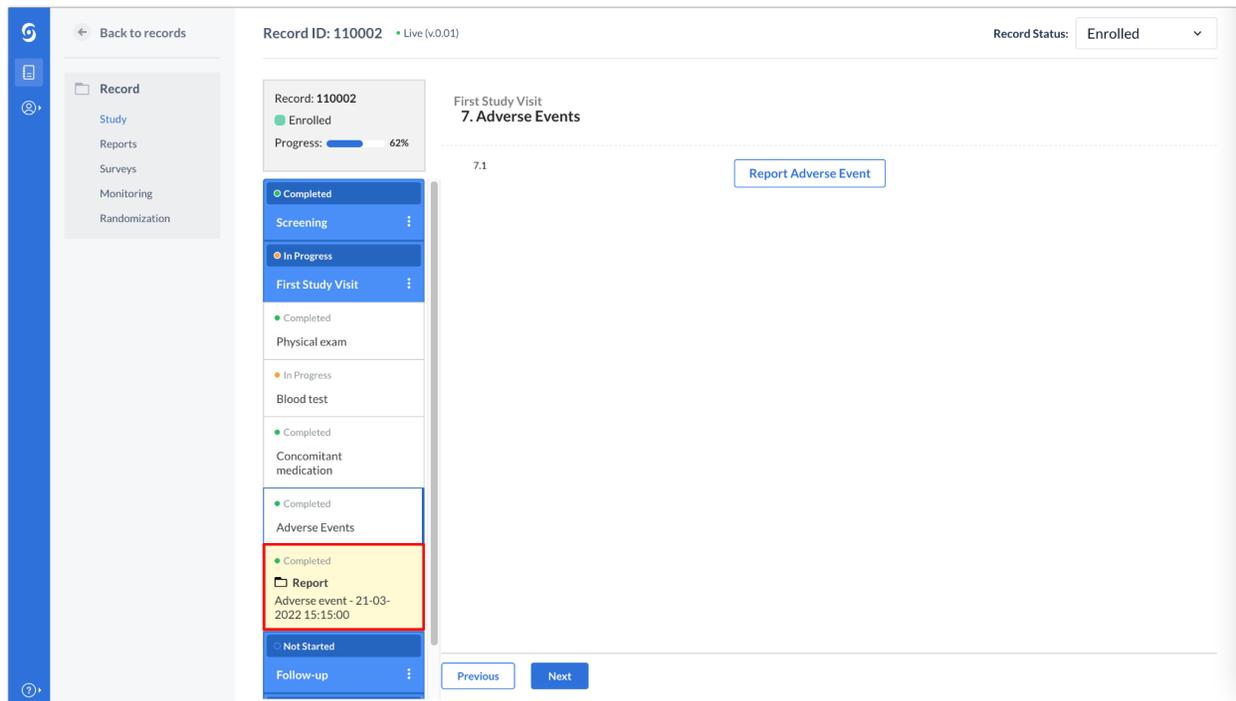
The screenshot shows the Castor interface for record 110002. The record is in an "Enrolled" state with a 62% progress bar. A report titled "Adverse event - 21-03-2022 15:15:00" is shown as completed. The "Event details" section contains the following information:

- Relationship to intervention:** Radio buttons for Life-threatening (unselected), Not related, Unlikely related (selected), Possibly related, Probably related, and Definitely related.
- Action taken regarding intervention:** Radio buttons for None (selected), Dose modification, Medical intervention, Hospitalization, Intervention discontinued, and Other.
- Outcome of AE:** Radio buttons for Resolved (selected), Recovered with minor sequelae, Recovered with major sequelae, Ongoing / continuing treatment, Condition worsening, Death, and Unknown.
- Expected?:** Radio buttons for Yes and No (selected).
- Serious Adverse Event?:** Radio buttons for Yes and No (selected).

At the bottom of the event details, there are buttons for "Close report" (highlighted with a red box), "All reports", and "Add another". Navigation buttons for "Previous" and "Next" are also visible.

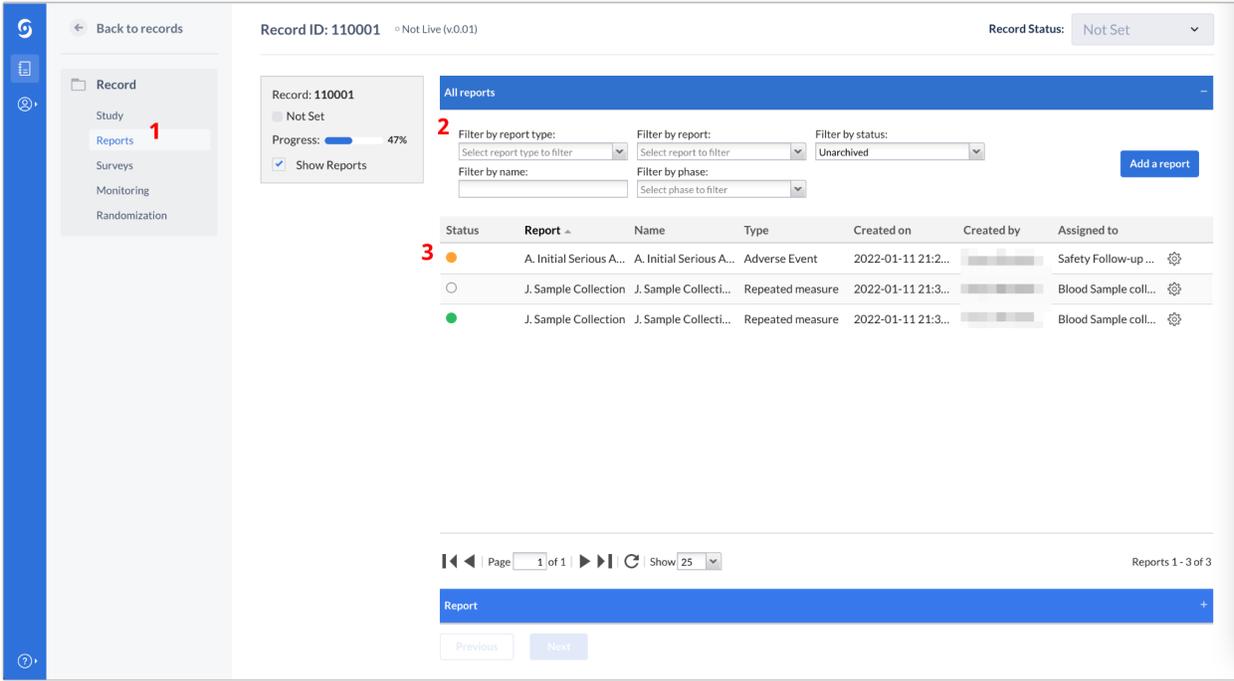
- Once the data for a report is complete, click on the 'Close report' to return to the main study form.

The added report will be linked to the phase where this report was created:



8.2. Viewing the report

It is possible to view the reports which are attached to the record by using the 'Reports' tab:



The screenshot displays the 'Reports' tab for Record ID: 110001. The interface is divided into several sections:

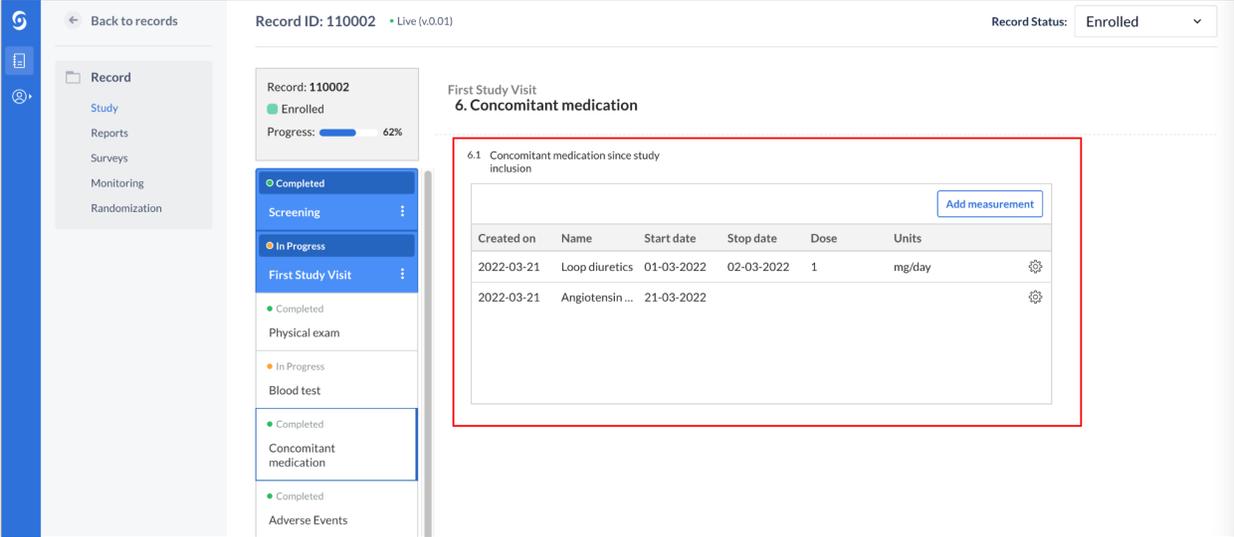
- Sidebar:** Contains navigation options: Record, Study, Reports (highlighted with a red '1'), Surveys, Monitoring, and Randomization.
- Record Overview:** Shows Record ID: 110001, Not Live (v.0.01), Record Status: Not Set, and Progress: 47%.
- Filter Section:** Includes filters for report type, report name, report type, report phase, and status. A red '2' is placed above the filter options.
- Report Table:** A table listing reports with columns: Status, Report, Name, Type, Created on, Created by, and Assigned to. A red '3' is placed above the table. The table contains three rows:

Status	Report	Name	Type	Created on	Created by	Assigned to
●	A. Initial Serious A...	A. Initial Serious A...	Adverse Event	2022-01-11 21:2...		Safety Follow-up ...
○	J. Sample Collection	J. Sample Collecti...	Repeated measure	2022-01-11 21:3...		Blood Sample coll...
●	J. Sample Collection	J. Sample Collecti...	Repeated measure	2022-01-11 21:3...		Blood Sample coll...
- Footer:** Includes pagination (Page 1 of 1), Show 25, and Reports 1 - 3 of 3.

1. Opening the record and navigating to the 'Reports' tab will display the reports overview.
2. A user can filter by report type, report type, report name, or by the phase to which a report is linked.
3. The list of reports linked to the selected record. A status indicator allows a user to see the completion status of the report.

9. Repeated Measures

In main data entry view, the repeated measure field looks like this:



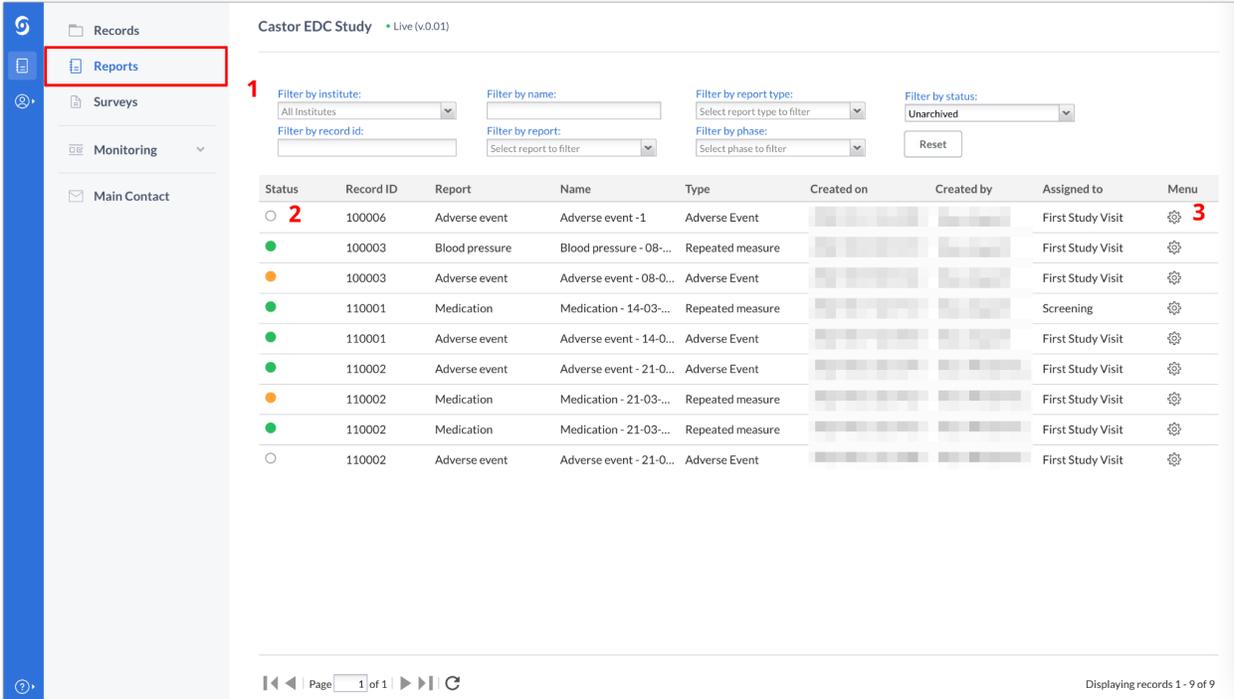
The screenshot shows the Castor data entry interface for Record ID: 110002. The record status is 'Enrolled'. The progress bar is at 62%. The left sidebar shows a navigation menu with 'Record' selected, and sub-items: Study, Reports, Surveys, Monitoring, and Randomization. The main content area is titled 'First Study Visit' and '6. Concomitant medication'. Below this title is a section '6.1 Concomitant medication since study inclusion' with an 'Add measurement' button. A table displays the following data:

Created on	Name	Start date	Stop date	Dose	Units	
2022-03-21	Loop diuretics	01-03-2022	02-03-2022	1	mg/day	⚙️
2022-03-21	Angiotensin...	21-03-2022				⚙️

1. By selecting 'Add measurement', measurements are easily added to the form and will be shown in the form of a grid, representing each measurement as a new row and each field that is part of the repeated measure as a separate column.
2. Each measurement will be saved as a new report and will appear in the 'Reports' tab and will be attached to the phase (or report) where the repeated measure field is located.

10. The global Reports tab

In the 'Reports' tab, an overview of all the reports within the study is shown. A user can only see reports from records that belong to an institute for which they have "View" rights:



Castor EDC Study • Live (v.0.01)

1 Filter by institute: All Institutes Filter by name: Filter by report type: Select report type to filter Filter by status: Unarchived
 Filter by record id: Filter by report: Select report to filter Filter by phase: Select phase to filter Reset

Status	Record ID	Report	Name	Type	Created on	Created by	Assigned to	Menu
○ 2	100006	Adverse event	Adverse event - 1	Adverse Event			First Study Visit	⚙️ 3
●	100003	Blood pressure	Blood pressure - 08-...	Repeated measure			First Study Visit	⚙️
●	100003	Adverse event	Adverse event - 08-...	Adverse Event			First Study Visit	⚙️
●	110001	Medication	Medication - 14-03-...	Repeated measure			Screening	⚙️
●	110001	Adverse event	Adverse event - 14-0...	Adverse Event			First Study Visit	⚙️
●	110002	Adverse event	Adverse event - 21-0...	Adverse Event			First Study Visit	⚙️
●	110002	Medication	Medication - 21-03-...	Repeated measure			First Study Visit	⚙️
●	110002	Medication	Medication - 21-03-...	Repeated measure			First Study Visit	⚙️
○	110002	Adverse event	Adverse event - 21-0...	Adverse Event			First Study Visit	⚙️

Page 1 of 1 | Displaying records 1 - 9 of 9

1. A user can make use of the filters in the top panel. For example, a user can filter on institute, on record ID, or on report type. a user can also click on the column labels to sort the reports in a relevant order.
2. An overview of all reports is shown, with the completion level and other details such as name, date and creator. For example, a user can sort by the date of creation of the report by clicking on the 'Created on'.
3. A user can archive or print a report using the cogwheel menu.
4. The column label turns bold. If a user clicks once, the order is ascending, if a user clicks once again, the order will be descending. A user can also click on the arrowhead next to a column to display an additional menu for report columns. Here, a user can select whether to sort on ascending or descending and a user can also deselect the columns that the user doesn't want to see in a user overview. By default, all columns are visible.

Castor EDC Study • Live (v.0.01)

Filter by institute: All Institutes | Filter by name: | Filter by report type: Select report type to filter | Filter by status: Unarchived

Filter by record id: | Filter by report: Select report to filter | Filter by phase: Select phase to filter | Reset

Status	Record ID	Report	Name	Type	Created on	Created by	Assigned to	Menu
○	100006	Adverse event	Adverse event - 08	Adverse Event			First Study Visit	⚙️
●	100003	Blood pressure	Adverse event - 14-03	Adverse Event			First Study Visit	⚙️
●	100003	Adverse event	Adverse event - 14-03	Adverse Event			First Study Visit	⚙️
●	110001	Medication	Adverse event - 14-03	Adverse Event			Screening	⚙️
●	110001	Adverse event	Adverse event - 14-03	Adverse Event			First Study Visit	⚙️
●	110002	Adverse event	Adverse event - 21-03	Adverse Event			First Study Visit	⚙️
●	110002	Medication	Adverse event - 21-03	Adverse Event			First Study Visit	⚙️
●	110002	Medication	Adverse event - 21-03	Adverse Event			First Study Visit	⚙️
○	110002	Adverse event	Adverse event - 21-03	Adverse Event			First Study Visit	⚙️

11. Responding to queries

If a monitor has placed a query on a record, this query icon appears on the record list in the Queries column.

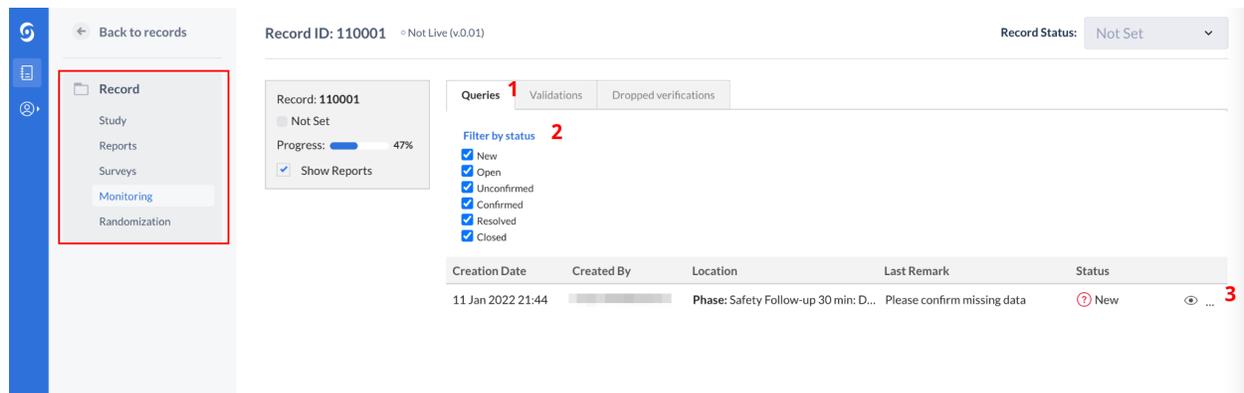
Castor EDC Study • Live (v.0.01)

Record | Exact match | + New | Actions | Filters

Record ID	Institute	Progress	Last opene...	Created on	Updated on	Status	Queries
000005	Test Institute	●		11 Jan 2022	31 Jan 2022	Drop-out	🔍
001827	Test Institute	●		14 Mar 2022	21 Mar 2022	Enrolled	🔍
100001	Test Institute	●		13 Dec 2021	13 Dec 2021	Discharged	
100002	Test Institute	●		13 Dec 2021	11 Jan 2022	Discharged	
100003	Test Institute	●		13 Dec 2021	11 Jan 2022	Discharged	
100004	Test Institute	●		13 Dec 2021	21 Mar 2022	Discharged	
100006	Test Institute	●		11 Jan 2022	21 Mar 2022	Discharged	🔍
100007	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100008	Test Institute	●		11 Jan 2022	21 Mar 2022	Discharged	🔍
100009	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100010	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100011	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100012	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100013	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100014	Test Institute	●		11 Jan 2022	11 Jan 2022	Discharged	
100015	Test Institute	●		11 Jan 2022	11 Jan 2022	Drop-out	

1 2 3 4 5 6 ... 74 Next → Page number 1 - 25 of 1,829 Items per page: 25

Users with only data-entry rights can see all queries for a record on the record's 'Monitoring' tab.



1. The record's monitoring overview opens on the query tab.
2. Queries can be filtered by the query status.
3. Clicking on the eye icon, will take a user to the field where the query was placed.

Queries are shown as a circle and the status is indicated by the sign within it as well as the color.

New: This query has not been reviewed.

Open: This query was viewed but a change of status or comment was not made.

Unconfirmed: The user does not agree with the monitor.



Confirmed: The user agrees with the monitor and will try to resolve the issue.



Resolved: The user has changed the value and indicates the issue is resolved, for example the user has reacted to a query and left a comment.



Closed: The monitor indicates the issue is resolved and marks the query as closed. Only users with query rights can close a query.



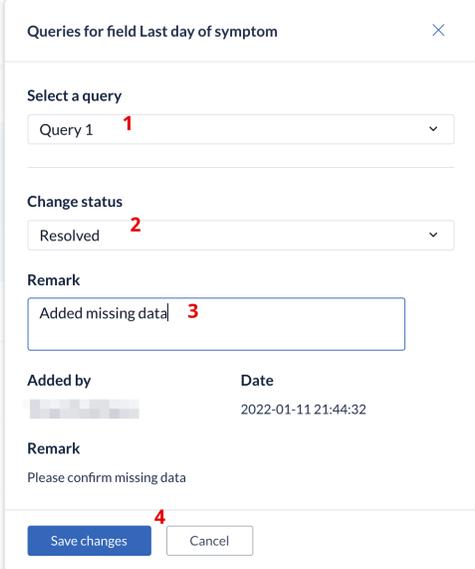
Once the user has accessed the record, a user will see the status icon next to the queried field. To respond to a query, a user needs to click on the query icon next to a field.

The screenshot displays the Castor interface for Record ID: 001827 (Live v.0.01) with a status of 'Enrolled'. The left sidebar shows navigation options like 'Record', 'Study', 'Reports', 'Surveys', 'Monitoring', and 'Randomization'. The main content area is titled 'Screening 2. Diagnosis and medical history' and contains several sections:

- Record Summary:** Shows 'Record: 001827', 'Enrolled' status, and a progress bar at 46%.
- Navigation:** A vertical list of sections including 'In Progress', 'Screening', 'Completed', 'Demographics', 'Diagnosis and medical history', 'Study inclusion', 'First Study Visit', 'Follow-up', and 'Outcome'.
- 2.1 Primary renal diagnosis:** A dropdown menu is set to 'Kidney stones'. A red box highlights a query icon (a question mark in a circle) next to this field.
- 2.2 History of cardiovascular disease:** Radio buttons for 'No' (selected), 'Yes', and 'Unknown'.
- 2.3 History of diabetes:** Radio buttons for 'No', 'Yes', and 'Unknown'.
- 2.4 History of smoking:** Radio buttons for 'No', 'Yes, former', and 'Yes, current'.
- 2.5 Family history of disease:** A list of checkboxes including 'Renal disease' (checked), 'Deafness', '(Cardio)myopathy', 'Encephalopathy', 'Diabetes Mellitus', 'Hypertension/Cardiovascular disease', 'Thrombosis' (checked), and 'Malignancy'.
- 2.6 Record all relevant current medications:** A table with columns for 'Created on', 'Name', 'Start date', 'Stop date', 'Dose', and 'Units', and an 'Add measurement' button.

At the bottom, there are 'Previous' and 'Next' navigation buttons.

A dialog window will appear:



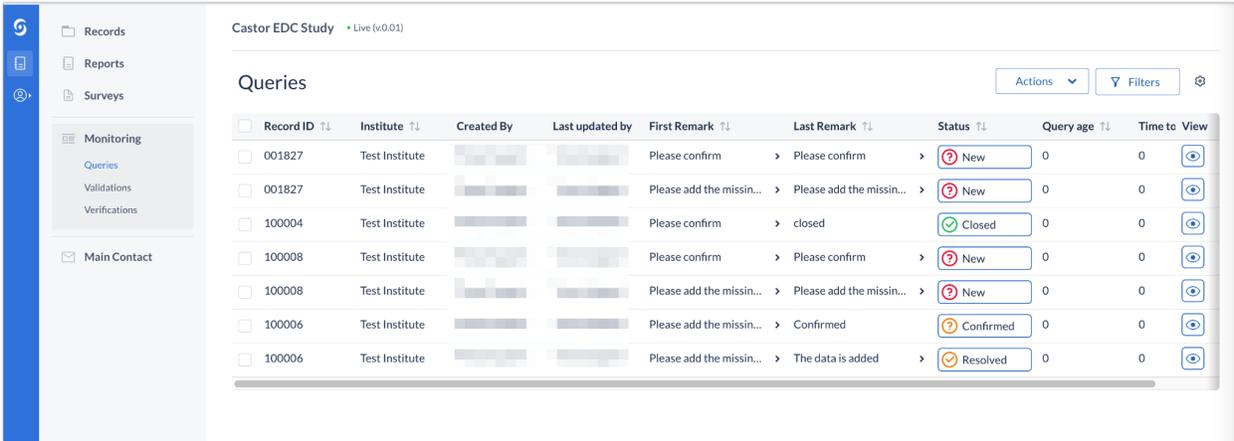
1. In case of multiple queries, a user can select a query to which a user needs to respond.
2. A user can change the status of a query by choosing from the list in the dropdown box.
3. The Remark field allows a user to enter comments on the query.
4. Once a user selects 'Save changes' the status and comment will be saved.
5. All saved remarks are added to the list.

12. The global Monitoring tab

The 'Monitoring' tab gives an overview of all the queries, data validations and dropped verifications in a study. Only users with edit rights can view the 'Monitoring' tab, which contains overviews of queries, data validations and dropped verifications.

12.1. Queries

The 'Monitoring' tab contains three subtabs. Open the 'Queries' tab to access the queries overview:



Record ID	Institute	Created By	Last updated by	First Remark	Last Remark	Status	Query age	Time to View
001827	Test Institute			Please confirm	Please confirm	New	0	0
001827	Test Institute			Please add the missin...	Please add the missin...	New	0	0
100004	Test Institute			Please confirm	closed	Closed	0	0
100008	Test Institute			Please confirm	Please confirm	New	0	0
100008	Test Institute			Please add the missin...	Please add the missin...	New	0	0
100006	Test Institute			Please add the missin...	Confirmed	Confirmed	0	0
100006	Test Institute			Please add the missin...	The data is added	Resolved	0	0

1. The user can click on the 'Filters' button to filter by institute, location, status (open, resolved, closed or all [Monitoring queries](#)), and other parameters.
2. An overview of all queries in the study (unless a user filtered the results) are displayed here.
3. Click on the eye icon to open a step and view the field which contains the query.

By clicking on the status, the queries can be sorted based on the associated record ID or by creation date. Clicking the status icon next to a query opens a window, in which all comments related to the query can be reviewed . It is also possible to add a remark and change the status of the query, if necessary.

Queries for field Was a Covid test performed? ✕

Status: 🔔 New Change to: ▼

Remarks

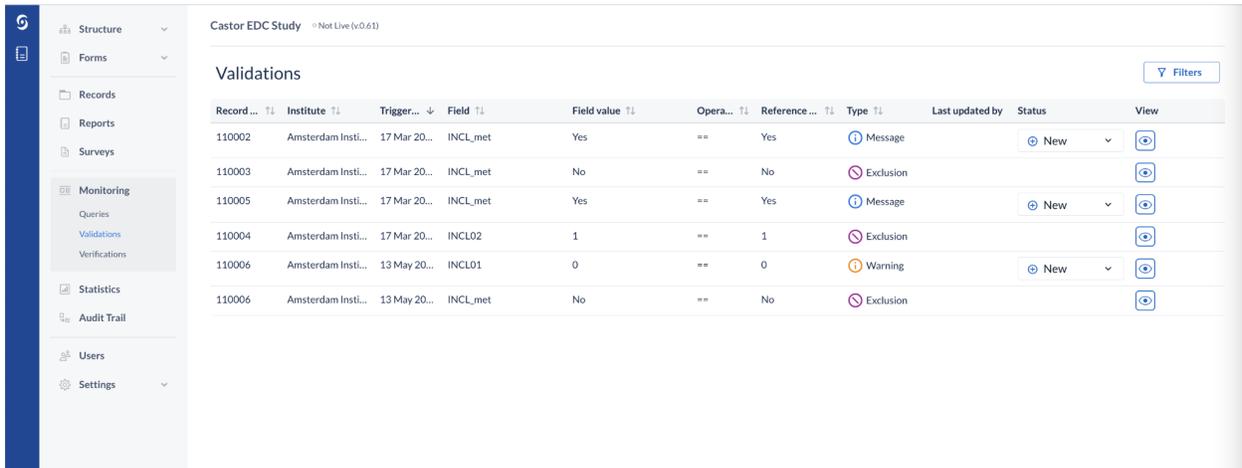
Please confirm the missing data

By ██████████ Date 2022-01-11 21:54:50

New Remark

12.2. Validations

The 'Validations' sub-tab displays all active validation fields in study, reports or surveys of the type Exclusion, Warning, and Message.

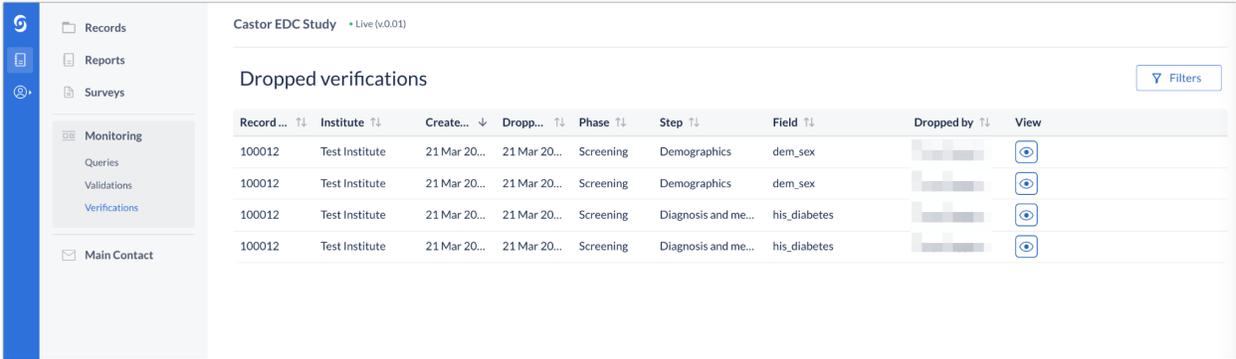


Record ...	Institute	Trigger...	Field	Field value	Opera...	Reference ...	Type	Last updated by	Status	View
110002	Amsterdam Insti...	17 Mar 20...	INCL_met	Yes	==	Yes	Message		New	
110003	Amsterdam Insti...	17 Mar 20...	INCL_met	No	==	No	Exclusion			
110005	Amsterdam Insti...	17 Mar 20...	INCL_met	Yes	==	Yes	Message		New	
110004	Amsterdam Insti...	17 Mar 20...	INCL02	1	==	1	Exclusion			
110006	Amsterdam Insti...	13 May 20...	INCL01	0	==	0	Warning		New	
110006	Amsterdam Insti...	13 May 20...	INCL_met	No	==	No	Exclusion			

1. A user can filter validations by type (Exclusion, Warning, Message), by institute to show records with validations which belong to a particular institute, by data entry type and period when the validations were triggered using the 'Filters' button.
2. An overview of all records is given with the details of the validation.
3. The operator represents how the field value and the reference value are compared, depending on the setup of the validation message. There are several operators: greater than, greater than or equal to, equal to, smaller than, smaller than or equal to, not. The 'Reference value' represents the value that is used in comparison to the value that was entered in a field, as defined during the validation setup.
4. It is possible to manage the field's validation using the status feature in the Monitoring tab. You are able to select the following status: New, Reviewed and Completed for the following validation message types: Message, Warning. In this way, it is possible to see the remaining active validations that still need to be evaluated and resolved. Once marked as 'resolved', the validation is not shown any longer in the Validations overviews AND in Data entry. But as soon as a user changes the status from 'resolved' to 'reviewed' or 'new', the validation is shown again in data entry.
5. To open the record and jump to the step with the validation, click on the eye icon in the column 'View'.

12.3. Verifications

This sub-tab displays all *dropped* verifications in the study or in reports:



The screenshot shows the 'Castor EDC Study - Live (v0.01)' interface. On the left is a navigation sidebar with 'Monitoring' selected, containing sub-items: 'Queries', 'Validations', and 'Verifications'. The main content area is titled 'Dropped verifications' and features a 'Filters' button. Below is a table with the following data:

Record...	Institute	Create...	Dropp...	Phase	Step	Field	Dropped by	View
100012	Test Institute	21 Mar 20...	21 Mar 20...	Screening	Demographics	dem_sex	[Redacted]	[Eye icon]
100012	Test Institute	21 Mar 20...	21 Mar 20...	Screening	Demographics	dem_sex	[Redacted]	[Eye icon]
100012	Test Institute	21 Mar 20...	21 Mar 20...	Screening	Diagnosis and me...	his_diabetes	[Redacted]	[Eye icon]
100012	Test Institute	21 Mar 20...	21 Mar 20...	Screening	Diagnosis and me...	his_diabetes	[Redacted]	[Eye icon]

Using the 'Filters' button, a user can choose to show dropped verifications only for study or reports, and filter by user, by institute, and period when the verifications were dropped.

To open the record and directly view the step where the verification was dropped, click on the eye icon in the column 'View'.

To see *all active* verifications, go to the ['Records' tab](#) and use the "progress by step" view mode. Verified steps can be identified by a green checkmark.

The 'Monitoring' tab will also appear in the record view and will include the same sub-tabs, but these will contain only the information (queries, validations, and dropped verifications) associated with the selected record.

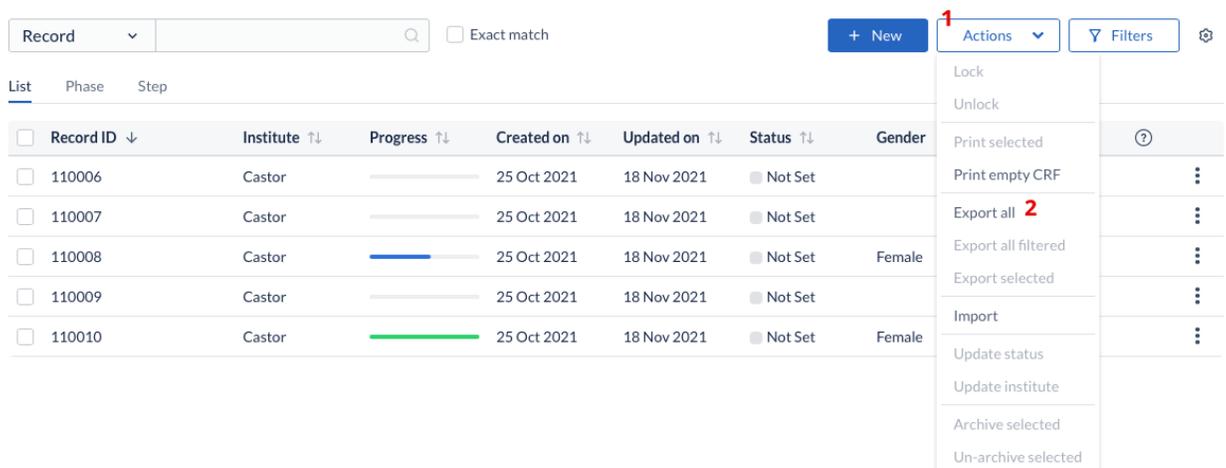
13. Exporting data

Data can be exported in SPSS, SAS, Excel, and CSV formats.

Apart from the study data, the export file will contain a list [of all the variables](#) created in the study and a list of all the option groups with the option group names and values.

13.1. How to export data

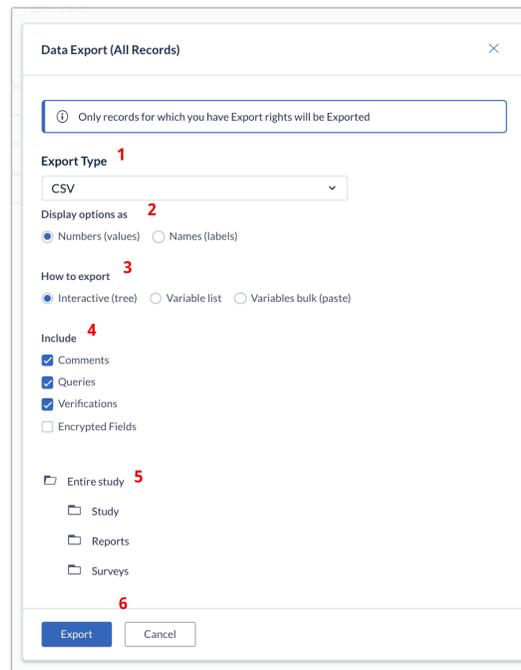
1. Navigate to the 'Records' tab and click the 'Actions' icon.
2. Choose 'Export all' to export all record data. If you are exporting only data from selected or filtered records, first select or filter the records you wish to export and then click the 'Actions' icon, then choose 'Export all filtered' or 'Export selected' from the list:



The screenshot shows a table with columns: Record ID, Institute, Progress, Created on, Updated on, Status, and Gender. The 'Actions' dropdown menu is open, showing options like Lock, Unlock, Print selected, Print empty CRF, Export all (highlighted with a red '2'), Export all filtered, Export selected, Import, Update status, Update institute, Archive selected, and Un-archive selected.

Record ID	Institute	Progress	Created on	Updated on	Status	Gender
110006	Castor	<div style="width: 20%;"></div>	25 Oct 2021	18 Nov 2021	Not Set	
110007	Castor	<div style="width: 20%;"></div>	25 Oct 2021	18 Nov 2021	Not Set	
110008	Castor	<div style="width: 40%;"></div>	25 Oct 2021	18 Nov 2021	Not Set	Female
110009	Castor	<div style="width: 20%;"></div>	25 Oct 2021	18 Nov 2021	Not Set	
110010	Castor	<div style="width: 60%;"></div>	25 Oct 2021	18 Nov 2021	Not Set	Female

3. A 'Data Export' dialog window will appear:



1. Select the file format you want to export your data in. You can choose between CSV, Excel, SPSS and SAS (SAS XPT or SAS 7BDAT) or CDISC-ODM formats. You also have the option to download all uploaded files in the 'Upload file field' in your study by selecting 'Uploaded files (to zip-file)'.
2. In case you select CSV or Excel as export type, pick the way options are displayed in the export. Numbers will export the option values, while Names will export the options labels.
3. Select between exporting the certain parts of the study, variable list or specific variables (only CSV and Excel formats).
4. Choose whether you want to export all comments. These will be exported to a separate sheet in Excel, or in a separate CSV file. The export for comments contains the following information: current value of the field, which type of form the field is located on (study/report) and the report name if applicable. Choose whether you want to export all queries. These will be exported to a separate sheet in Excel, or in a separate CSV file. Choose whether you want to export data verifications. These will be exported to a separate sheet in Excel, or in a separate CSV file.
5. In CSV and Excel formats it is possible to decide which part of the study you want to export. By default, the export will contain all the data from your study, reports and surveys. This is shown in the Entire study export structure immediately being selected in the tree-view. In this interactive tree-view you can select smaller

subsets (on the step-level). Using this tree-view you can export only a subset of your data, for example only study, reports, surveys or steps of your study, any report or any particular survey.

6. Click Export to export your data.

13.2. Exported files

The export includes multiple data sets. In an Excel export, these datasets are in different Excel sheets. In CSV and SPSS exports, the data sets are in separate files.

- Study data in one file called 'STUDYNAME_export_DATE.csv' or 'STUDYNAME_date.dat'
- Report data in separate files. Every report has its own Excel sheet or file. For example, SAE reports and blood pressure reports will be in 2 sheets or files, which are called 'STUDYNAME_SAE_date' and 'STUDYNAME_blood_pressure_date', respectively.
- Survey data in separate files. Like reports, every survey has its own file.
- Variable lists of study forms, reports, and surveys - a list of all fields.
- Comments, incl. the current field value
- Queries

The export file will be saved as a zip-file, containing either:

1. An Excel file with separate sheets for the study data, each report, each survey, a list of variables and option groups.
2. A set of separate CSV files, one for study data and one for each report and survey, a list of variables and option groups, example below.