Castor

Castor CDMS Data Management User Guide

Version 2025.2.0.0

The following user guide contains suggestions and ideas for managing your data. The manual uses activities outlined in the GCDMP as a guide and is divided based on those activities. This manual may reference information provided in our other role specific manuals for Data Entry, Monitoring, and Study Admin.

1. Study Set-up

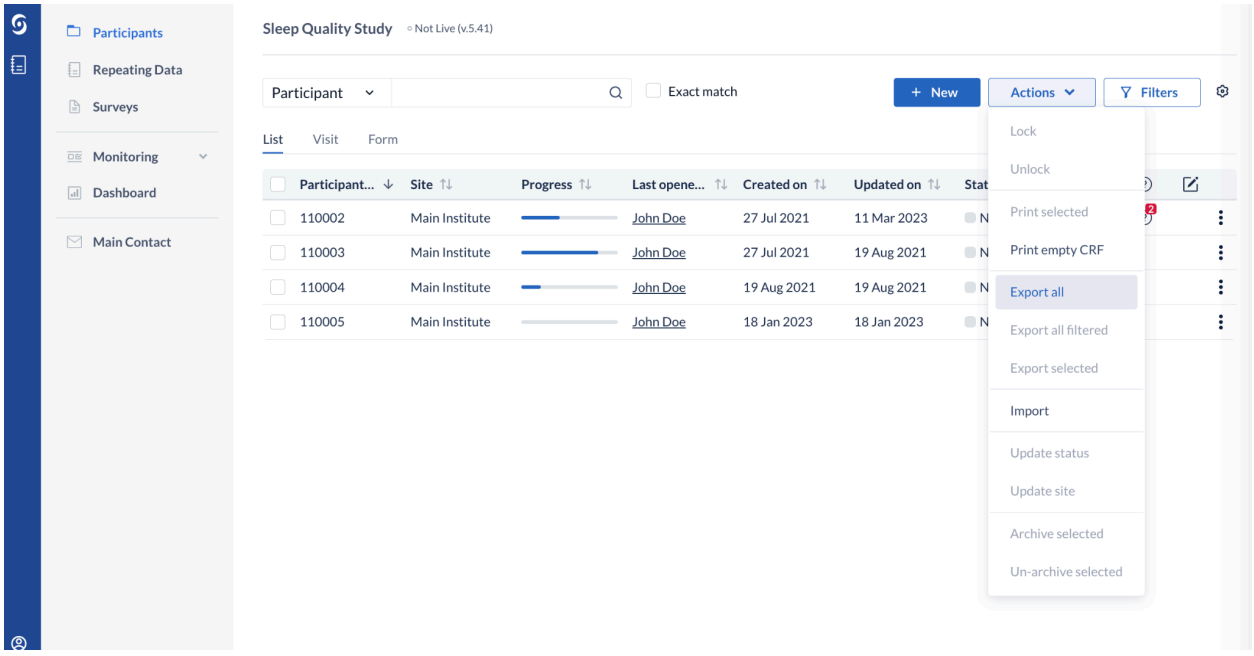
1.1. CRF Review

To review the entire CRF, there are two options: export the data dictionary or print the CRF to PDF.

1.1.1. Data Dictionary

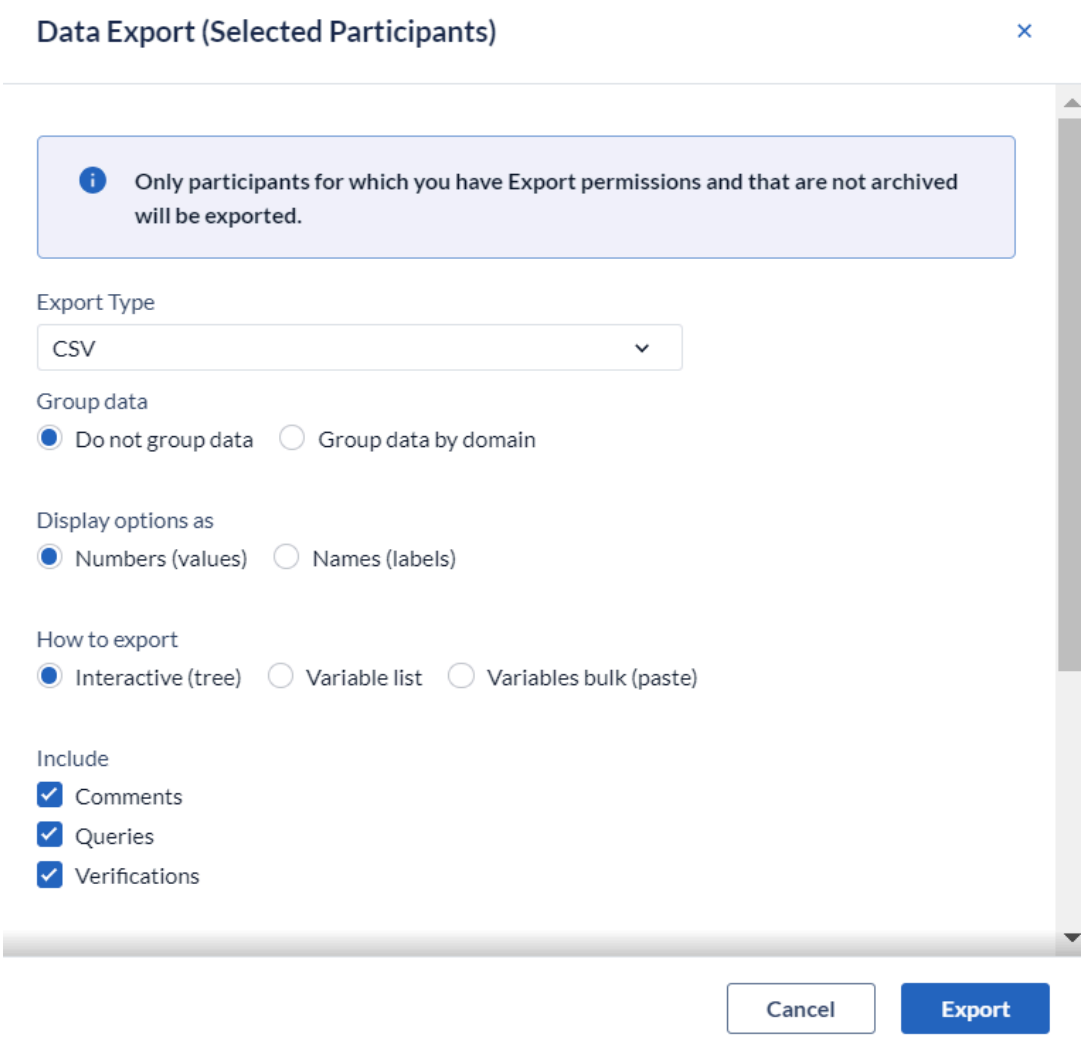
A data dictionary is included with each data export. The data dictionary includes all of the variables within the study, including option groups, and field dependencies.

In the 'Participants' Overview, click on the 'Actions' button and choose the option to 'Export all' to export all participants. If you would like to export only a selection of participants, click on the checkbox next to each participant or use the 'Filters' button to filter the participants based on certain criteria. Afterwards, the options 'Export all filtered' or 'Export selected' will be activated in the 'Actions' menu.



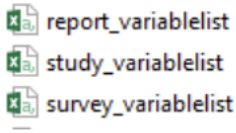
In the 'Data Export' window:

1. Select either Excel or CSV.



- An Excel export will produce one workbook with multiple worksheets.

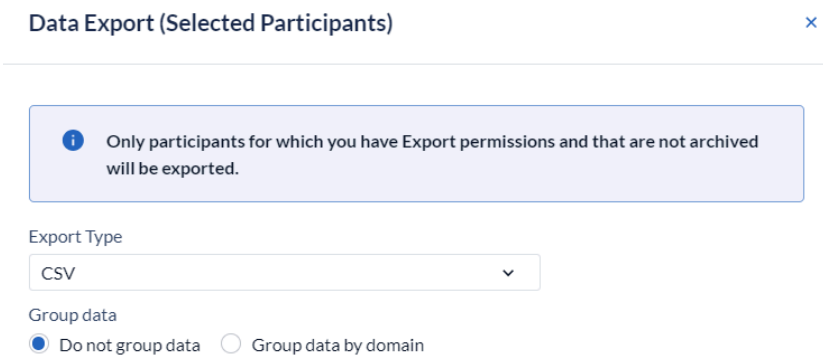
- A CSV export will produce a ZIP file with individual worksheets.



2. Select 'Entire Study'.
3. Click 'Export'. Once the file has been exported successfully the user will receive a completion email. You can select the link located within this email and be directed to the exported file to download. You can also navigate to the 'Export' tab and see a listing of all available exports to download.

Study variables, repeating data variables, and survey variables will be exported as separate variable lists.

In case you select a CSV or SAS file type, an option is presented to 'Do not group data' (default) or 'Group data by domain'.



When data is grouped by domain, the exported file format follows the following structure, with one line per Visit/Repeating Data instance/Survey instance:

- Participant Id
- Participant Status
- Site Abbreviation
- Randomization Id

- Randomization Group
- Randomized On
- Participant Creation Date
- Visit name
- Visit number (as set on the Study Structure page)
- Type (Visit, Repeating data, Survey)
- Name (of the Visit, Repeating data, Survey)

vs

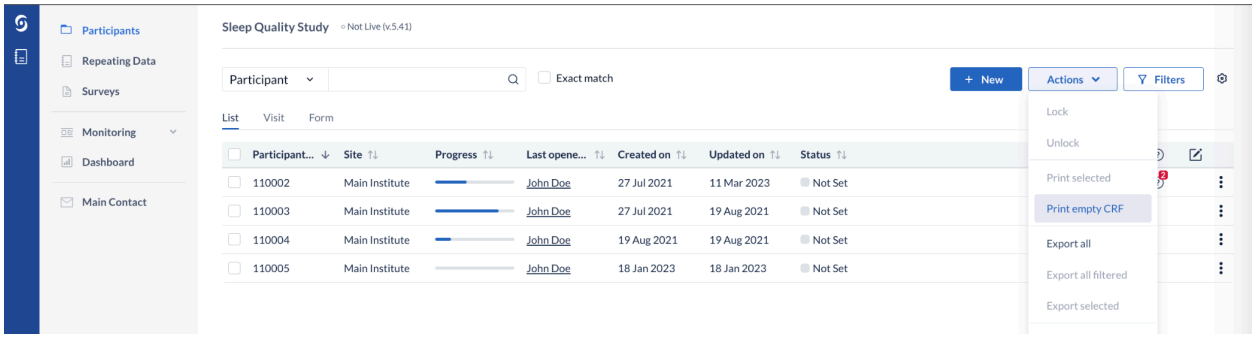
Participant Id	Participant Status	Site Abbreviation	Randomization Id	Randomization Group	Randomized On	Participant Creation Date	Visit name	Visit number	Type	Name	bmi	height	hr	weight
120001	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	23.5	167		65.4
120001	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	21.9	167	75.3	61.1
120001	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			65.6	
120001	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			68.7	63.1
120001	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #2			85.9	78.4
120001	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #3			59.5	76.6
120002	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	30.52	166.7		84.8
120002	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	28.7	166.7	81.6	79.7
120002	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			77	
120002	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			76.2	79
120003	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	21.56	176.4		67.1
120003	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	21.9	176.4	85.8	68.3
120003	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			76.3	
120003	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			67.9	62.1
120004	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	20.5	162.3		54
120004	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	20.2	162.3	78.3	53.1
120004	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			86.8	
120004	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			58.8	68.8
120005	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	24	157.6		59.6
120005	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	24.0	157.6	81.9	59.7
120005	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			91.3	
120005	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			65.7	79.4
120005	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #2			85.1	61.9
120006	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	22.07	183		73.9
120006	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	21.4	183	71.7	71.7
120006	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			69	
120006	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			78.9	55.8
120006	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #2			65.3	57.4
120007	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	21.93	188.6		78
120007	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	11.7	188.6	65.1	41.7
120007	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			70.1	
120007	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			62.2	69.5
120008	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	24.11	172.1		71.4
120008	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	23.6	172.1	71.2	69.8
120008	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			75.9	
120008	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			63.9	70.8
120008	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #2			79.3	86.3
120009	Not Set	GGWC				2024-03-19 11:06:17	Screening	1	Visit	Screening	18.14	171.9		53.6
120009	Not Set	GGWC				2024-03-19 11:06:17	Second Study Visit	2	Visit	Second Study Visit	18.1	171.9	60.8	53.5
120009	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Visit	Follow-up			84.1	
120009	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #1			88.9	71.4
120009	Not Set	GGWC				2024-03-19 11:06:17	Follow-up	3	Repeating data	Unscheduled Visit #2			68.5	81.2

- All dates (field values & metadata) are exported in YYYY-MM-DD hh:mm (date and time), or YYYY-MM-DD (date) format.
- Checkboxes are exported in the [domain variable name]_[option name] format, with a value of 1 representing a checked option, and 0 representing an unchecked option.
- Number and date fields are exported in the [domain variable name]_number and [domain variable name]_date format.
- Grid fields are exported in the [domain variable name]_[row name]_[column name] format.

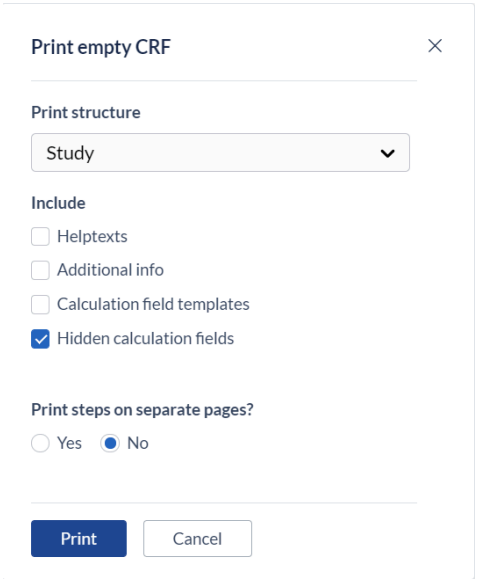
- Row and column names are cut off at 15 characters.
- Data marked as missing is handled the same way as our other exports.
- Form blinding permissions are taken into account while exporting data. In case the user is blinded, the related cells are empty in the export.
- View randomization permissions are taken into account while exporting data. Only randomization information from sites where a user has View randomization permissions for, are included in the export.
- In case variable names are generated, they are limited at 64 characters.
- A field variable list is added per domain ([domain abbreviation]_variablelist.[filetype]).
- If the user does not have decrypt permissions for the site the participant is assigned to, the encrypted value will be exported as *encrypted*.

1.1.2. Blank CRFS

1. Navigate to the 'Participants' tab. In the upper right corner, click on the 'Actions' button, then click on 'Print empty CRF':



2. Here you will select the options for your PDF.



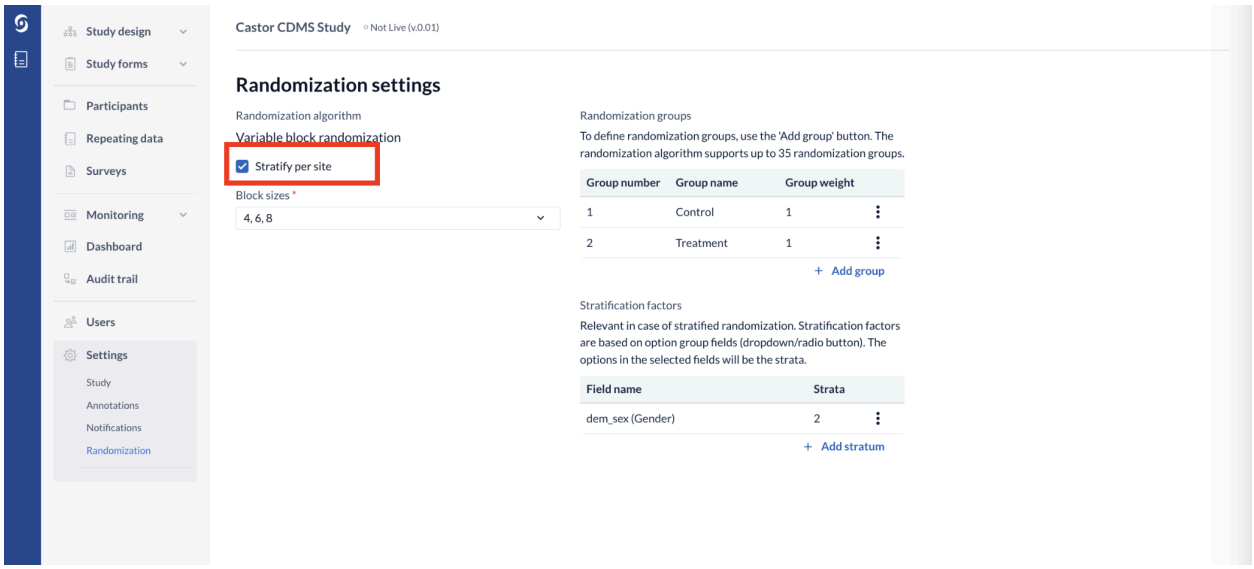
- Select the structure (Study, Repeating Data, Surveys) you would like to print.
- Choose the options you would like to include in the PDF.
- Click ‘Print’.

A new page will open, which contains a preview of the printable study form. You can save this page as a PDF by selecting the option 'Save as PDF' from the available options.

1.2 Randomization Review

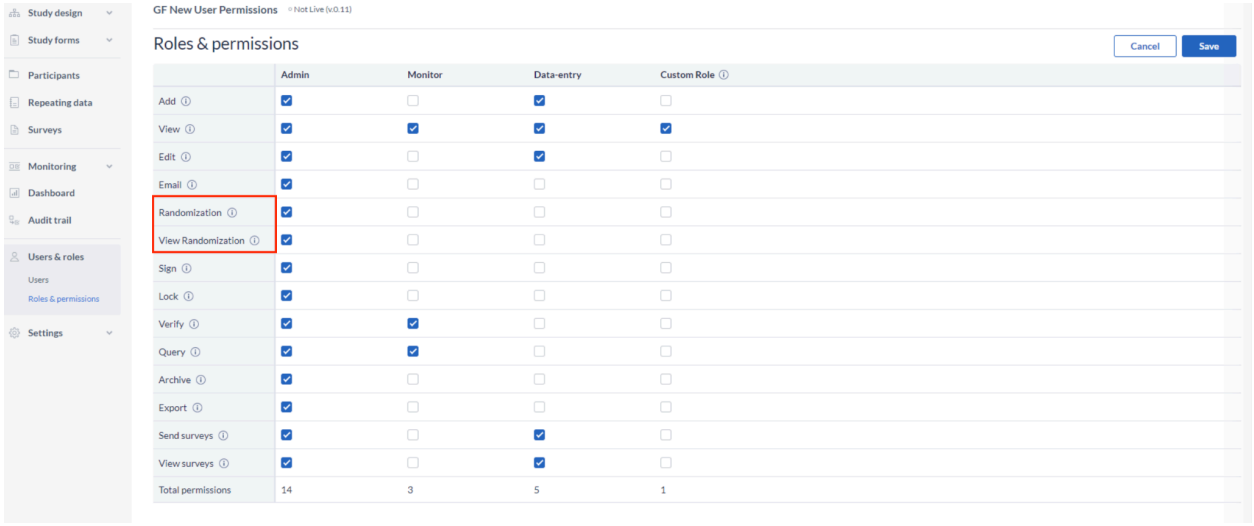
Castor uses a variable block randomization method. Randomization settings can be viewed in the Settings tab. You are able to define randomization groups and weights, block sizes, and fields within the CRF for stratification. Customized randomization settings are available for an additional fee. Please contact your account executive for more information.

The option ‘Stratify per site’ is enabled by default.



1.2.1. Randomization permissions

There are two separate user permissions related to randomization in Castor CDMS. A user can have none, one, or both rights. The 'Randomization' right allows a user to randomize a participant. 'View randomization' allows a user to view the randomization allocation for a participant. Both rights together will allow a user to both randomize and view the randomization allocation for a participant.



Please note that users that do not have view randomization rights will be unable to export randomization data when performing data exports.

1.3. Data Validations/Edit Checks

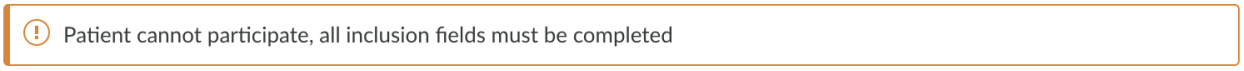
Data validations, or real-time edit checks, are able to be programmed at the field level. A simple or single field validation can be created on the field properties tab. You are able to use these data validations to warn data entry users about a possible error or provide further instructions.

1.3.1. Data validation: Single Field

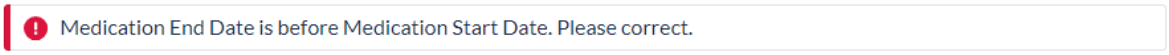
There are 4 validation types:

- **Message**: A simple indication message, outlined in blue, that the user needs to take a certain action.

- **Warning**: An orange coloured message bar appears to warn the user that something is incorrect.

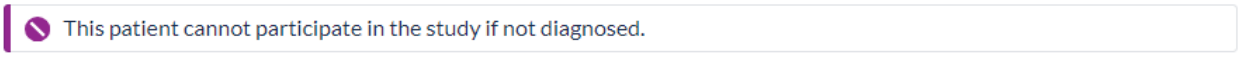


- **Error**: A red outlined message can be used to indicate data has been entered that is not accepted or wrong. When the error message type is displayed, the data for that field is not saved. This means that a subsequent field cannot be dependent on a value that would trigger the 'Error' message.



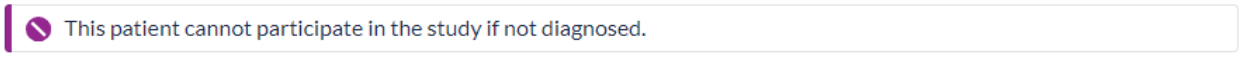
- **Exclusion**: A message in purple that excludes the subject from the study; when this message is visible the user, it is possible to navigate to different forms in a form:

- If an exclusion occurs on the study form, data entry is blocked on the entire study form and on any repeating data instances. The Exclusion message will be displayed on every form in the study data view with the name of the form where the exclusion has been triggered. The repeating data data view will be grayed out:



- If an exclusion occurs on a repeating data instance form, data entry is blocked on that repeating data instance form, but not blocked on any other repeating data instances or study data.

  You can use this for validating inclusion and exclusion criteria. Please be aware, that it's not possible to leave fields with exclusion criteria empty (user missing), nor possible to enter values which are outside the boundaries you have set.



1.3.2. Data validation: Multi-Field

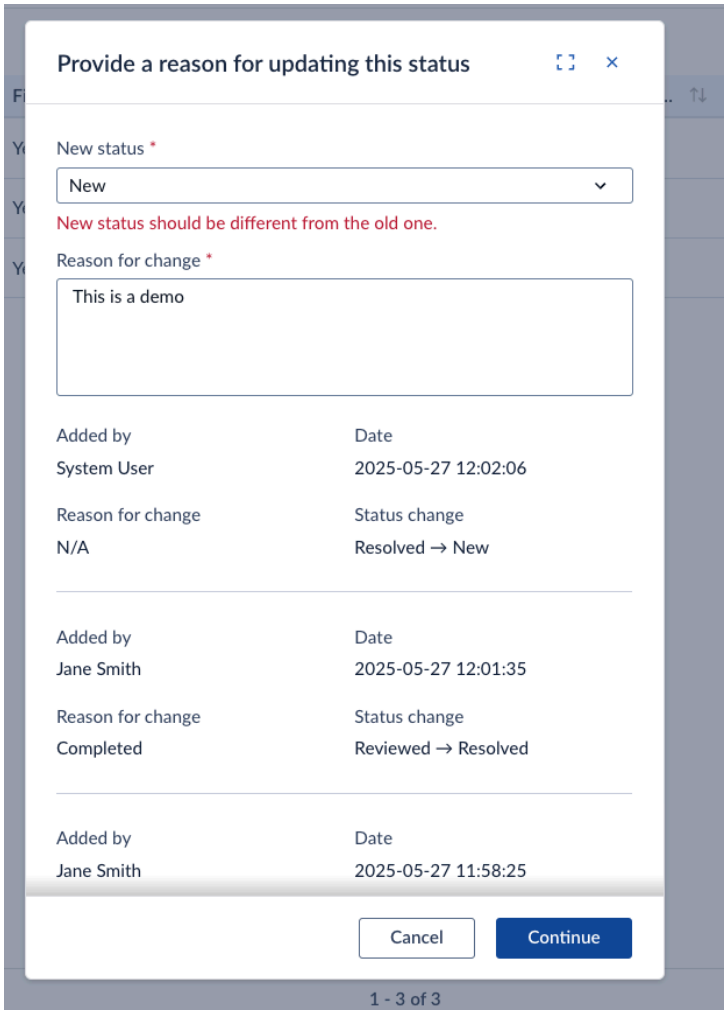
If you would like to validate multiple fields, for example, eligibility criteria, it is necessary to first create a calculation field that considers the variables in the study. For an example calculation, please see the article (Check if the inclusion criteria are met in EDC/CDMS)in our helpdesk. You can then create a data validation in the field properties on the calculation field.

1.4 Validations Management

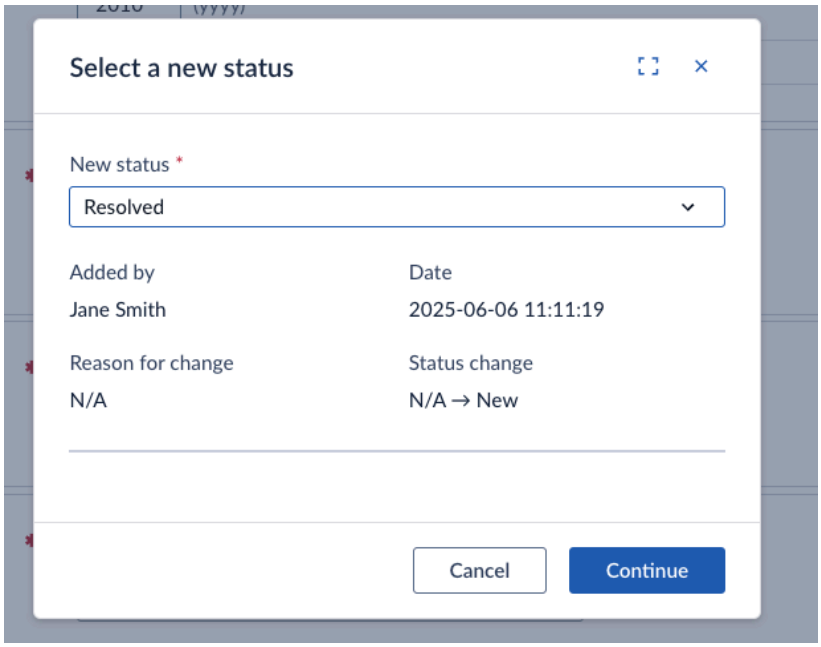
A "Validation" permission is visible and assignable in the Roles and Permissions overviews, with dedicated tooltips for clarity. For all existing studies, roles with the “Query” permission have automatically received the “Validation” permission to ensure a seamless transition. This update improves compliance and role precision across both legacy and the modern Validations logic.
All changes are logged in the Audit Trail.

If a "Confirm validation updates" is enabled for the study settings, it will be required to provide a reason for manual validation status edits and will add a static system generated reason for any automatic changes of the validations status (i.e. when a validation is auto-closed after a value update event). This setting is going to be enabled by default for all new studies, but kept disabled for existing studies to prevent any workflow disruptions. Existing studies can opt in by simply toggling it on, as it enhances traceability.

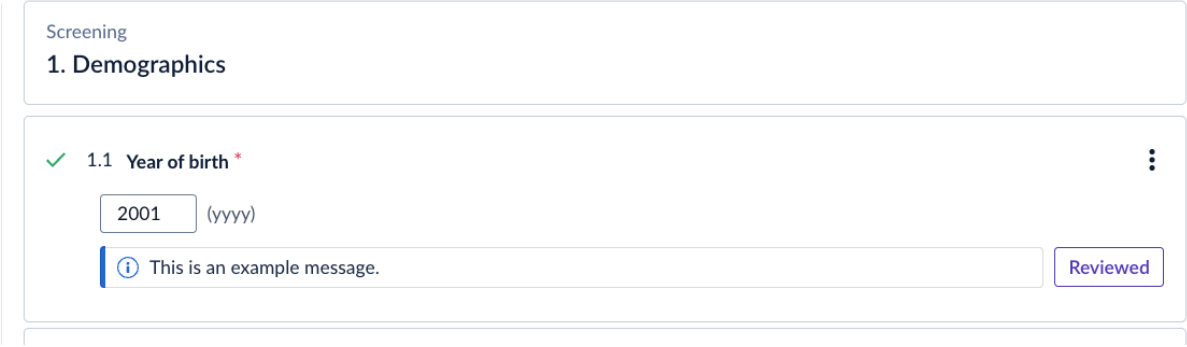
To strengthen audit traceability and compliance, users updating validation statuses in studies with the “Confirm validation updates” setting enabled will now be prompted to enter a mandatory reason for change.
This reason is logged in the Audit Trail.



For system-triggered status changes, the static note "Automatically updated by the system" is recorded automatically. For studies where the “Confirm validation updates” setting is disabled, the status updates can be completed without inputting a reason.



Users can update the status of Information and Warning Validations directly within the CRF views in modern Data Entry. If the user does not have 'Validations' permissions, the status button will be read-only. If Monitoring is disabled, then this will not shown in Data Entry.

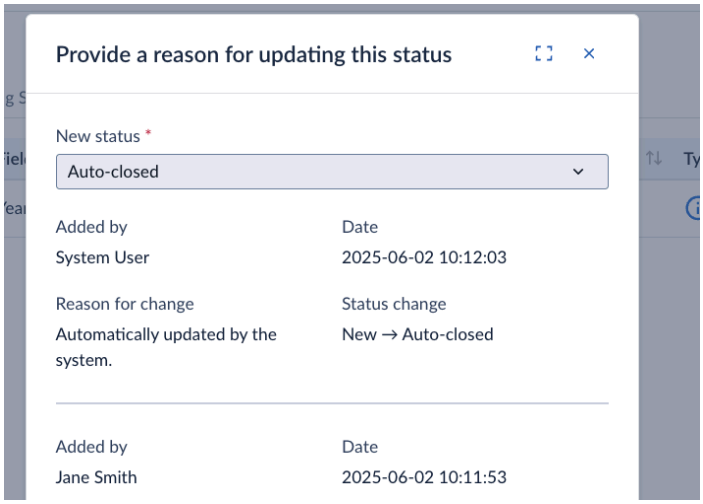


Status changes are permission-based, logged in the Audit Trail, and reflected instantly across all views with confirmation toasts. If Monitoring is not enabled for the study,

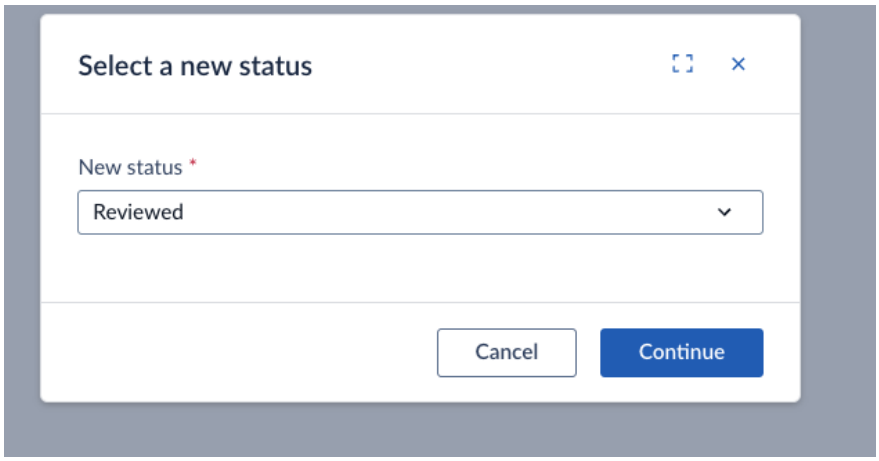
validation statuses remain read-only. This update streamlines workflows for data managers and monitors by reducing clicks and context switching.

Applicable only for studies using the newly released using the updated Validations logic (CDMS v2024.4.0.0):

Validation status updates include a full change history within the status update modal. Users can view the status change history including who made each change, when it was made, and the reason for it, if the "Confirm validation updates" setting is enabled. For studies without the setting enabled, reasons are omitted or marked as "N/A."
Entries are listed from newest to oldest, providing transparency and auditability directly within the workflow.



For studies that have not adopted the new Validations logic, the validations status change flow remains as before. Only some visual changes apply.



1.5. eLearning

The Castor Academy contains a structured series of tutorials with step-by-step instructions for each selected Castor feature. After each section you will receive a practical assignment to get hands-on experience with what you have learned. Some lessons contain optional reading resources if you would like to deepen your knowledge on a particular feature or topic. Finally, you can take quizzes to see how you are progressing with the course. Quizzes are also essential if you would like to obtain a certificate of completion.

1.6. User Acceptance Testing (UAT)

Castor does not offer UAT for studies not created by our Professional Services team. However, we have provided guidance documentation in our online manual. This documentation can be reviewed here (Performing User Acceptance Testing (UAT) in EDC/CDMS).

For studies that are created by our Professional Services team, Castor offers an extensive Quality Assurance process for study builds.

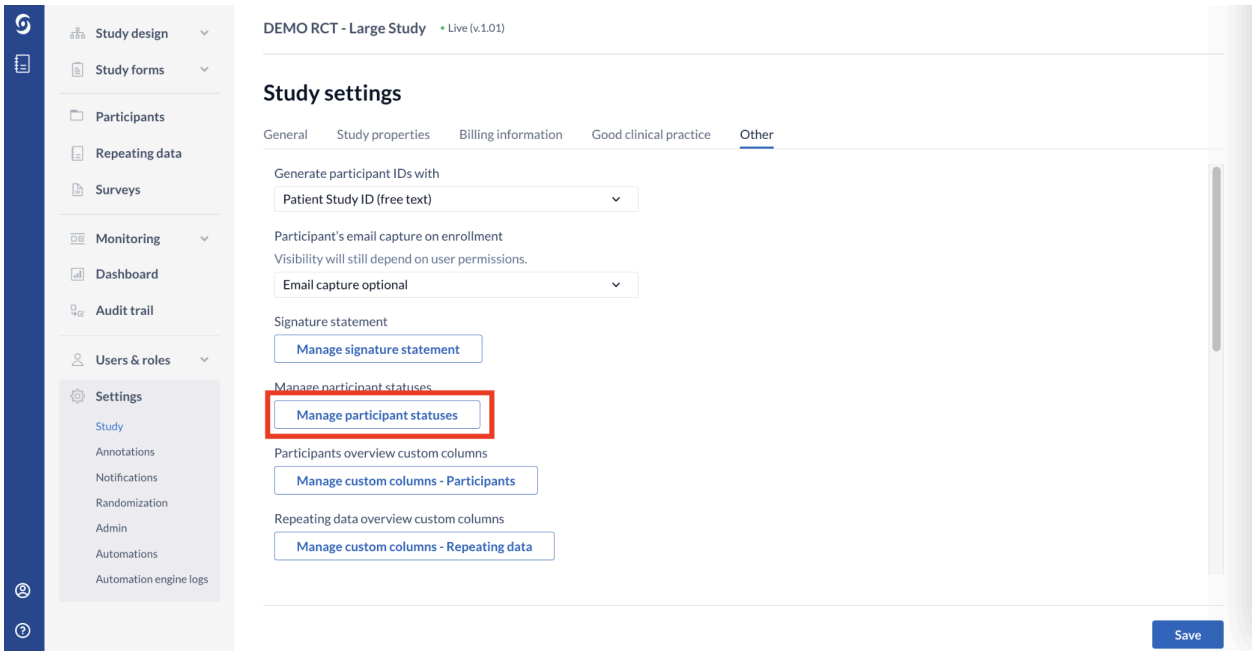
1.6.1 User Acceptance Testing Environment

Castor CDMS offers a separate User Acceptance Testing (UAT) Environment. The purpose of the UAT environment is to test the upcoming release ahead of time in order to accustom with new features, update the Standard Operating Procedures (SOPs) and perform any other necessary testing. You can learn more about the UAT environment here (User Acceptance Testing Environment in CDMS).

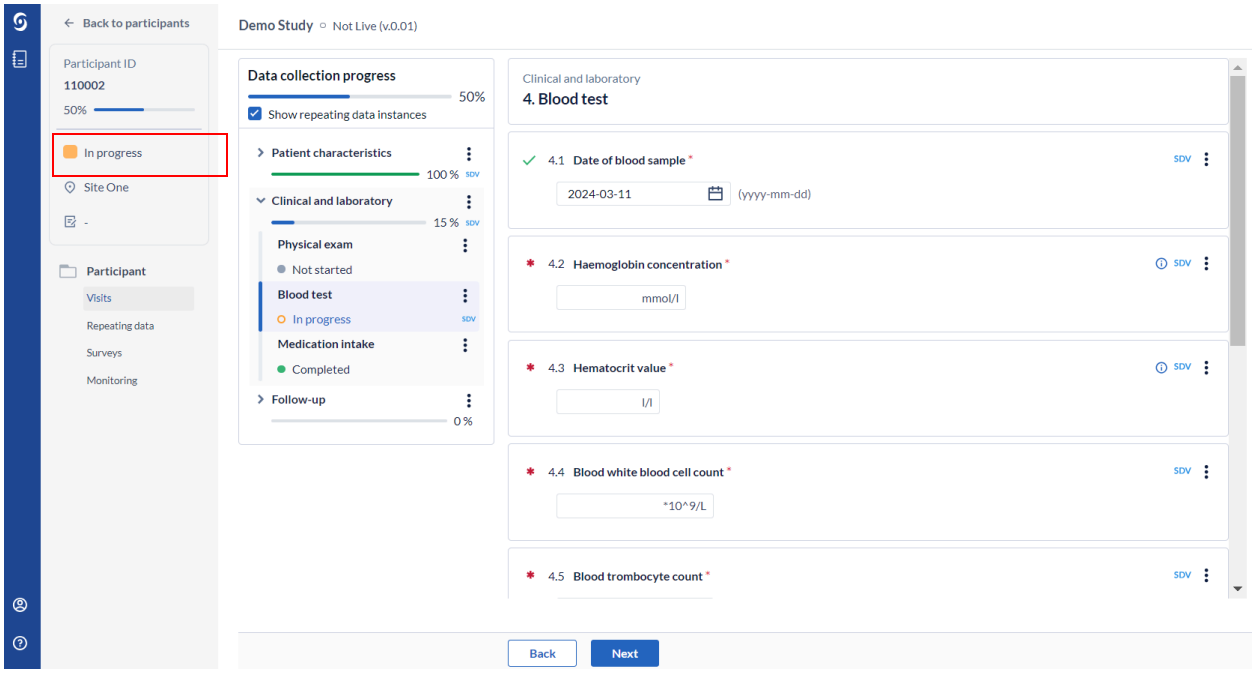
2. Tracking

2.1. Enrollment Status

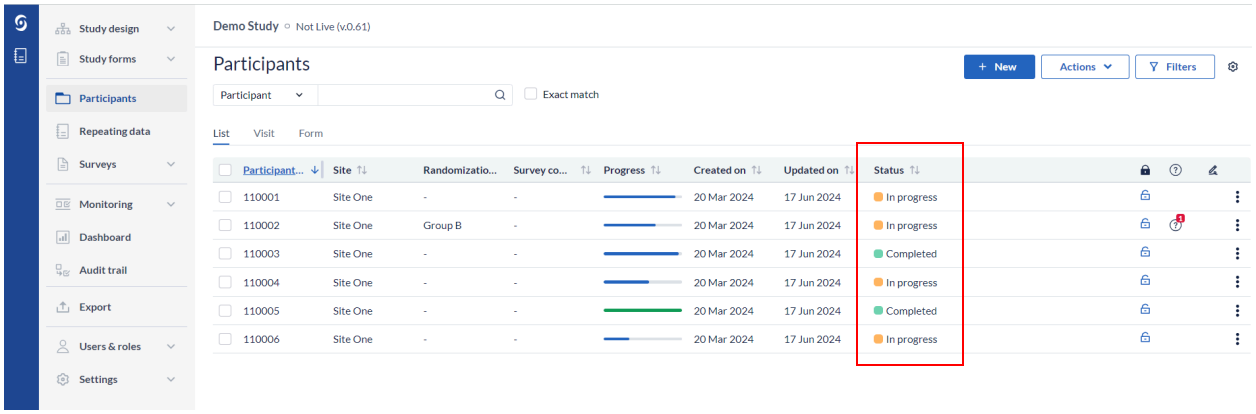
It is possible to track enrollment status using the 'Participant Status' feature in Castor CDMS. Study admins with 'Settings' permissions can create, update and delete participant statuses from the 'Study' settings, page 'Other' by clicking on the 'Manage participant statuses' button.



Once a status is defined in the Settings tab, data entry users will be able to select the status in the Participants view.

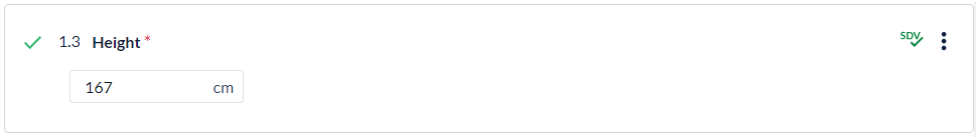


The participant status is also visible in the Participants overview in the Status column.

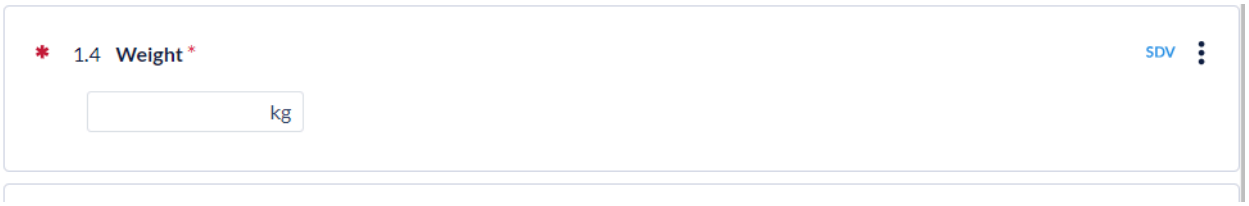


2.2 Progress of completion

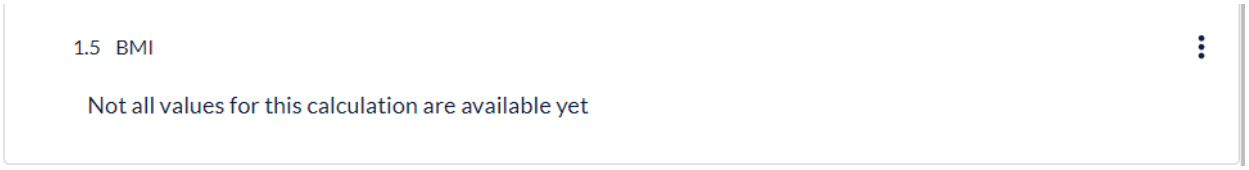
Completion for each area of the CRF is generally coded using colored status icons. Shown to the left of each question is the status icon, which indicates whether the question:
- has been answered (green thick):



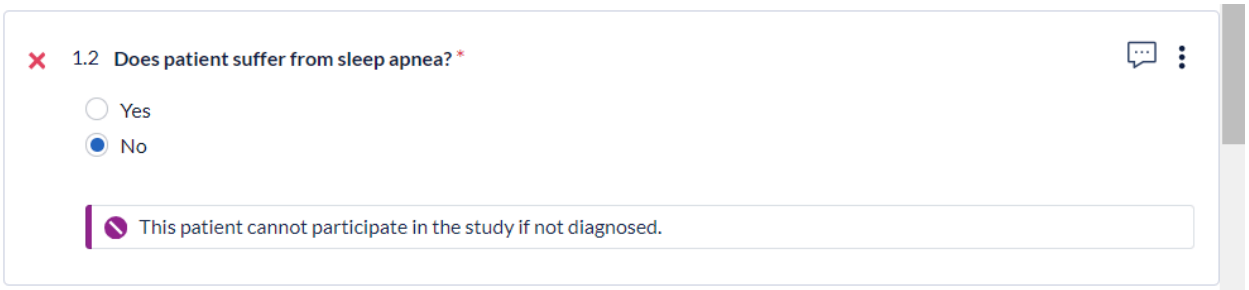
- data entry is required and no input has been entered yet (red asterisk):



- data entry is not required - field shows the value based on calculation (no icon)



- the input is invalid or does not comply with the inclusion criteria for the study. This is accompanied by a red warning message (red cross)

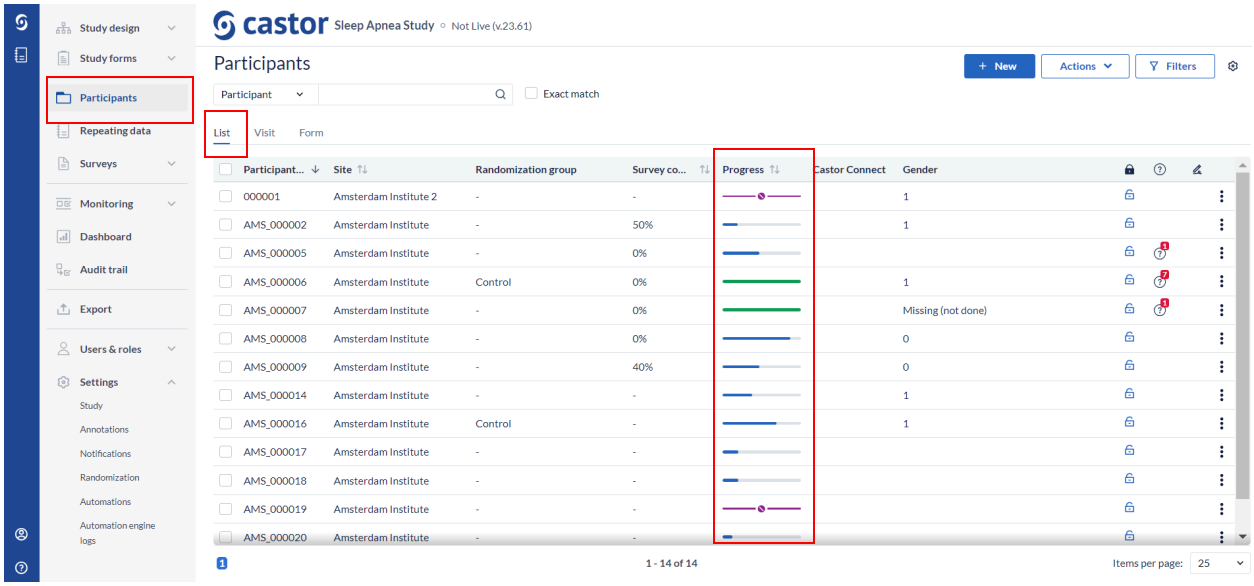


These field level status icons in data entry view are the lowest status level for progress indication in visits, forms, repeating data, and surveys.

Progress for visits, forms, repeating data, and surveys are calculated based on the fields that are marked required in the fields' settings. Fields that are not required are not included in the completion progress.

2.2.1 Participants

Participant progress can be viewed on the Participant Overview screen (1). List view (2) provides an overall view of required fields in the study form in the column 'Progress' (3).

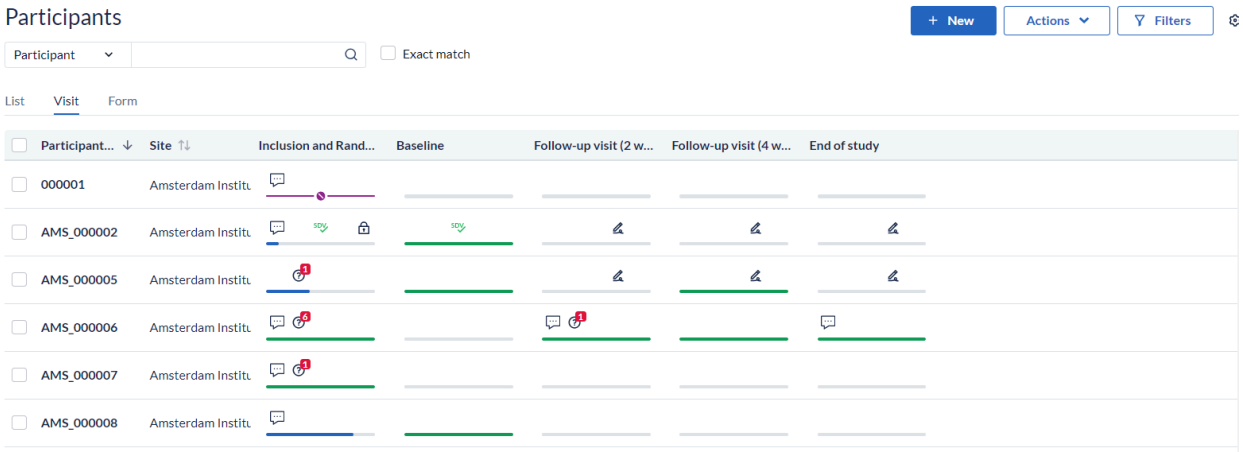


A participant will show as incomplete until required fields in all visits and forms are complete.

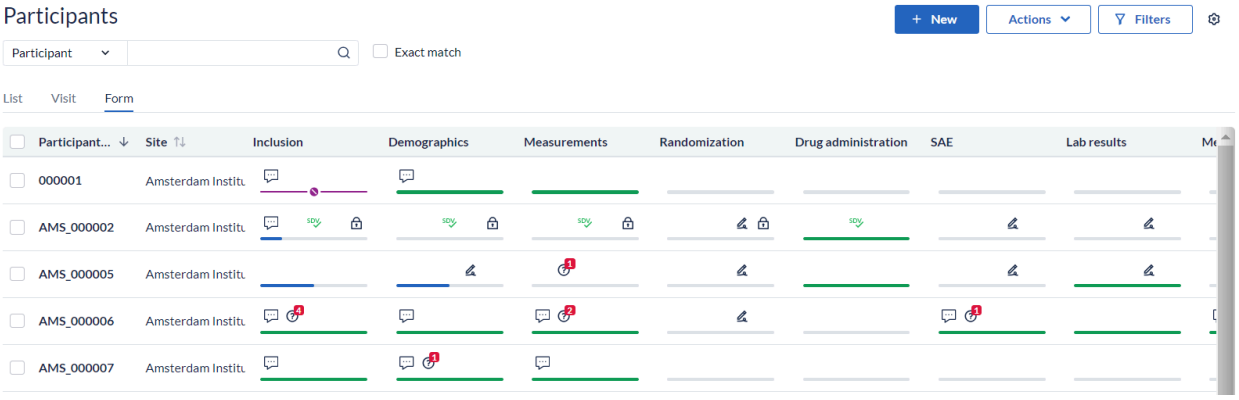
- **Green**: All field values are complete and valid.
- **Gray**: No values have been saved or data entry has not begun.
- **Blue**: Data Entry has started but is not complete.
- **Purple with an icon**: Patient is excluded from the study.

Please note that if a participant contains an unclosed query, progress will remain incomplete even if all data has been entered.

‘Visit’ View provides an overview of the progress for each visit.

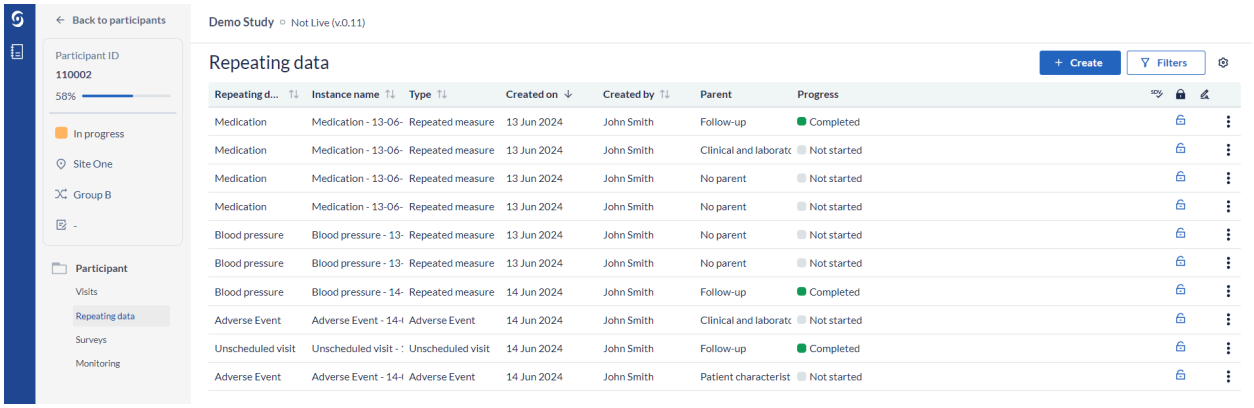


‘Form’ View provides an overview of the progress for each form.



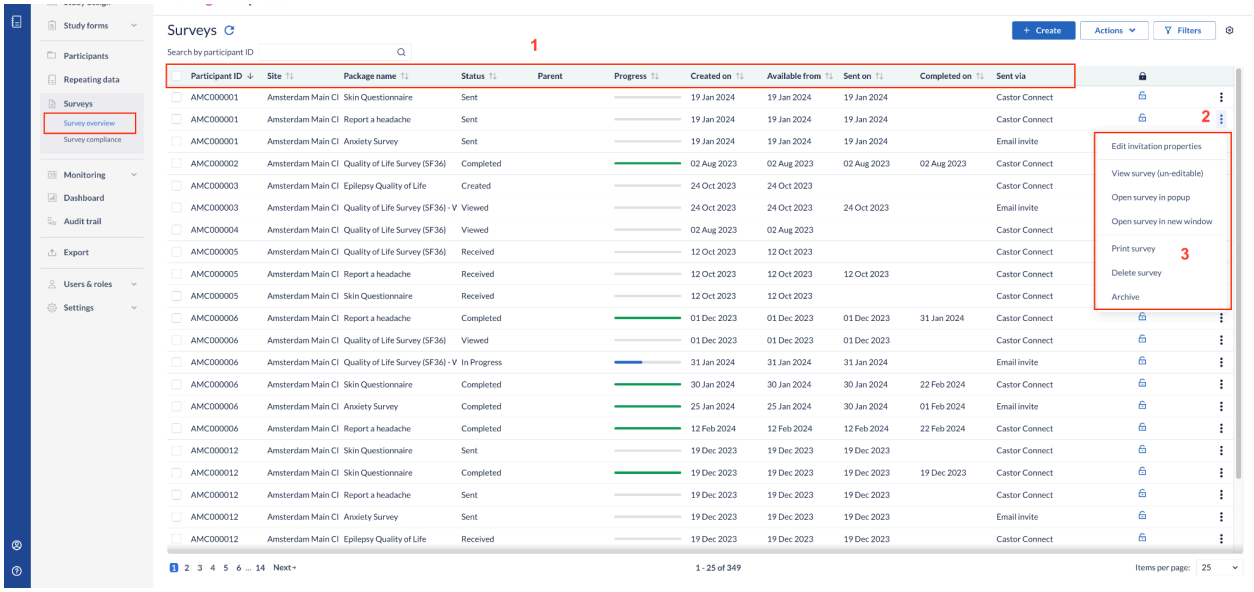
2.2.2 Repeating Data

Since each repeating data structure can have none to many instances for each participant, progress for repeating data does not influence the progress of the participant. Like study data, progress is only influenced by those fields that are required. The color coded status icons indicate the completion status of each repeating data instance (Progress column).



2.2.3 Surveys

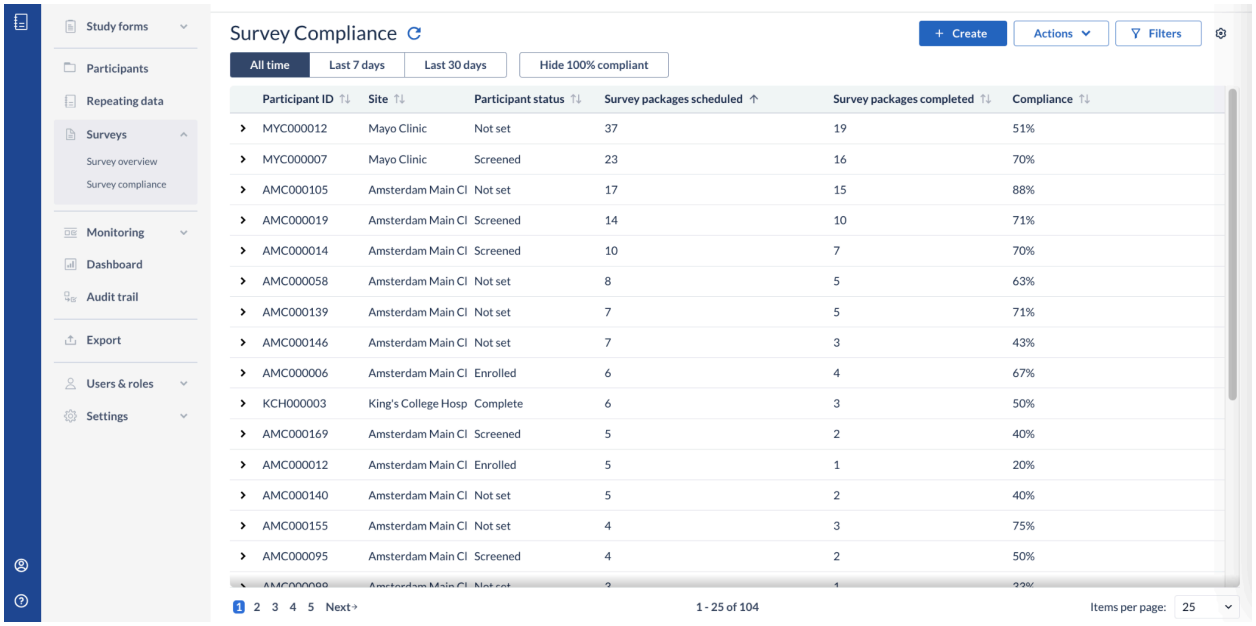
Survey progress is displayed as a percentage of required fields that have been completed in the 'Progress' column in the global Surveys tab (1). You further have the option to automatically lock surveys using the lock icon when a respondent submits a survey and create notifications (Notifications for study events in CDMS) each time a survey is completed. If a respondent does not complete a survey in one sitting, responses are saved and the respondent can continue answering where they left off. Clicking on the three dot menu allows access to additional menu options for each survey invitation.



2.2.4 Survey Compliance

'Compliance' as a measure, calculated based on the number of surveys completed by a participant compared to the number made available to them to date.

The 'Survey compliance' page includes a combined grid displaying participant-level compliance and individual survey packages. Users can apply filters for various parameters and access quick filters for non-compliance participants or recent surveys. An overall compliance number is displayed for each participant.



Clinicians who have both export permissions and access to the survey compliance listing will be able to request an export of their filtered compliance data by clicking on the 'Actions' button and selecting the 'Export copy' option. This will become available as a downloadable file in the 'Exports' section of the CDMS.

2.3 Data Review

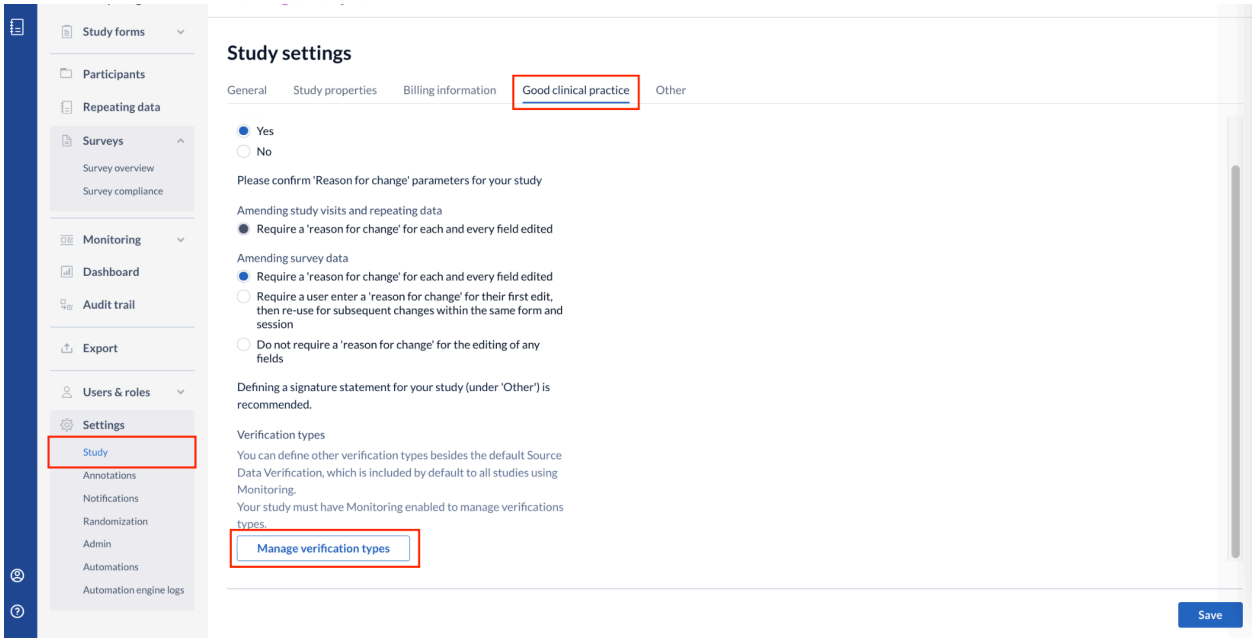
2.3.1 Verification

In Castor you have the option to verify collected data in your study. The most common example is source data verification (SDV), but you can also define your own verification type depending on the quality control that you want to use for your study data.

The SDV option is included by default if 'Monitoring' is enabled. To use this feature you have to first ensure that the correct study settings are applied and that the correct user rights (Define user roles in CDMS) are assigned to users in the study.

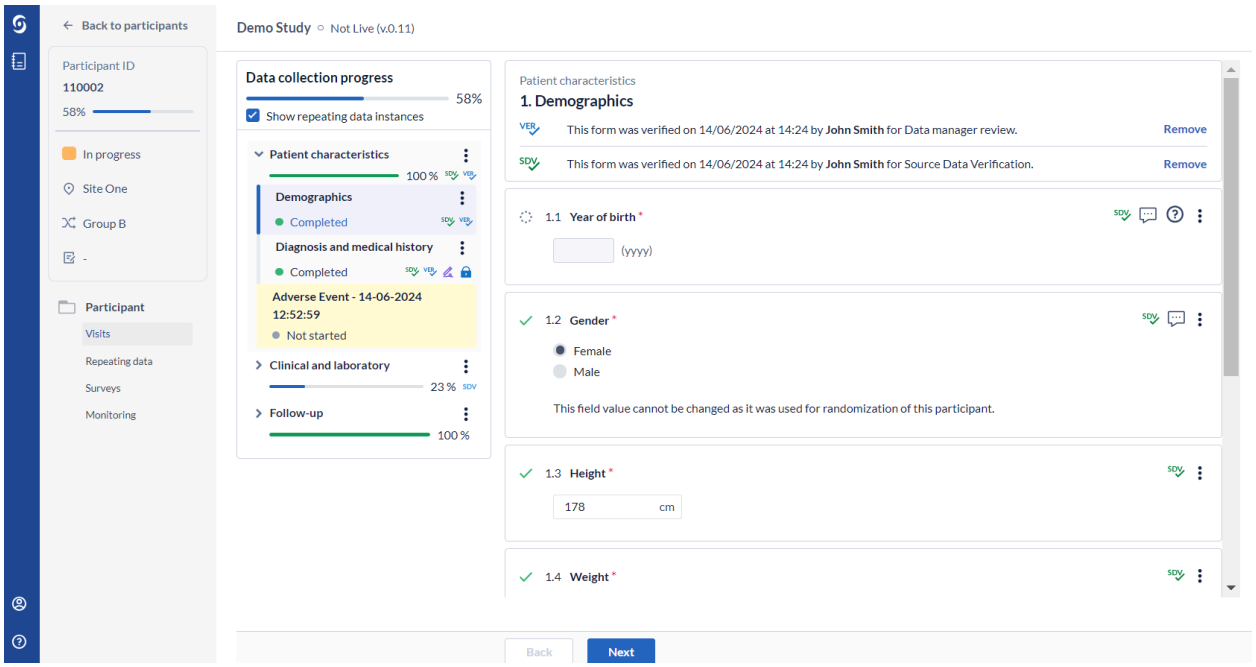
Data verification is linked to Monitoring, so to be able to use it, first enable Monitoring in your study settings. Please note that 'Monitoring' cannot be enabled for retrospective studies.

Under 'Manage verification types', located in the 'Good clinical practice' section of the study settings, you can add or edit the verification types in your study:



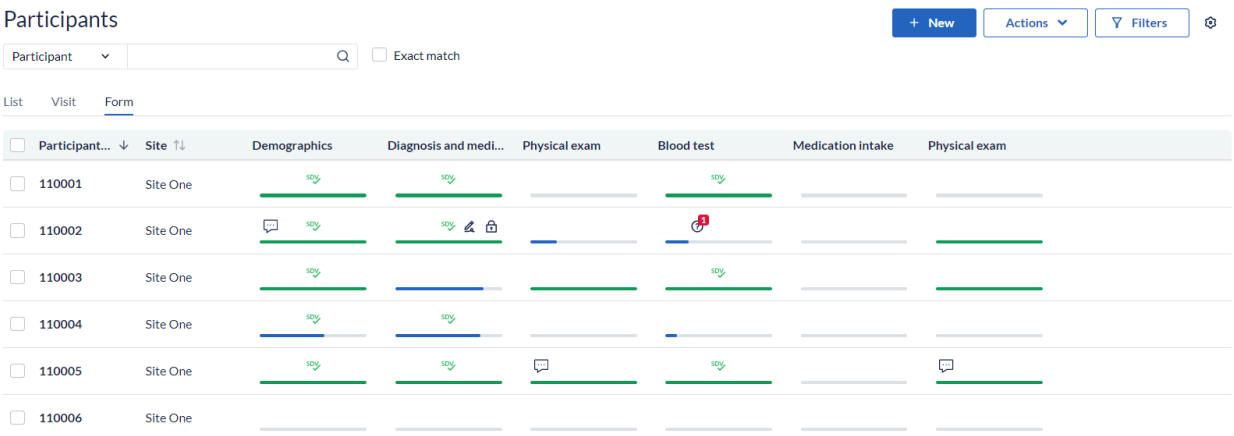
You have the option to SDV all forms in a visit, a form (including all fields or required fields) as well as individual fields. For other custom verification types, you cannot verify individual fields.

At the top of each verified page, a banner is displayed with the verification details. This banner is only visible if SDV has been performed on an entire form.



1. A custom verification banner
2. An SDV banner
3. The form verification icons

Visits and forms that have been SDV'd can be seen on the Participants overview page when in Visit or Form view. Remember that an entire visit or form would need to have SDV performed in order for the SDV icon to appear.


Participants
+ New
Actions
Filters
Participant
Exact match
List
Visit
Form
Participant...
Site
Demographics
Diagnosis and medi...
Physical exam
Blood test
Medication intake
Physical exam
110001
Site One
110002
Site One
110003
Site One
110004
Site One
110005
Site One
110006
Site One

3. Data Processing

3.1 Medical Coding

Castor CDMS allows for medical coding of adverse events and concomitant medications. We have implemented an out-of-the-box integration with a Medical Coding platform: MedCodr.

MedCodr is a web based solution for coding medical terms and products to standard dictionaries including MedDRA and WHODrug or custom dictionaries.

It is possible to attach metadata from the MedDRA and WHODrug to Adverse Event (AE) dictionaries. This means that, upon adding terms in a text field in an AE, Medical History, or Concomitant Medication repeating data instance, it is possible to use MedCodr (an external service) to browse and attach the correct translation from the MedDRA and WHODrug to these repeating data instances.

Once one of the above-mentioned repeating data instances are created and a term is added to a text field, codes are pushed back to Castor CDMS in dedicated coding repeating data that can be exported separately.

Castor also provides Coding-as-a-Service for when your team does not have the time or capabilities to perform this task. Medical Coding is a premium feature. If you are interested in adding this service, please contact your account executive or reach out to support@castoredc.com.

3.2. Loading Electronic Data

There are two methods available to add electronic data to the CDMS: CSV import or Application Programming Interface (API).

3.2.1 CSV Import

You are able to import data into the CDMS via CSV. You can import data for one participant at a time or for multiple participants. For importing via CSV, variable names must exist in the database and there is a limit of 25,000 data points per single import. This limit is much lower for importing encrypted data.

When importing via CSV, it is possible to import study data and repeating data only. The Survey data can only be imported via API. Study and repeating data must be imported seperately. It is not possible to to import the following:

- Queries
- Comments
- Signatures
- Data verifications

Note that in certain circumstances data in the CSV file must be formatted properly for a successful import. Details about these formats can be found in our online manual (Formats for data import in CDMS).
Please review Import Study Data (Import study data in CDMS) and Import Repeating Data (Import repeating data in CDMS) for more information about importing.

3.2.2 Application Programming Interface (API)

Castor CDMS allows for linking the CDMS database to other applications via API. The API supports authentication and authorization of API calls through the industry standard OAuth2. To start, you will need to create API credentials (Where can I find my user/client credentials to use the API/R package in EDC/CDMS?) in the Account Settings.

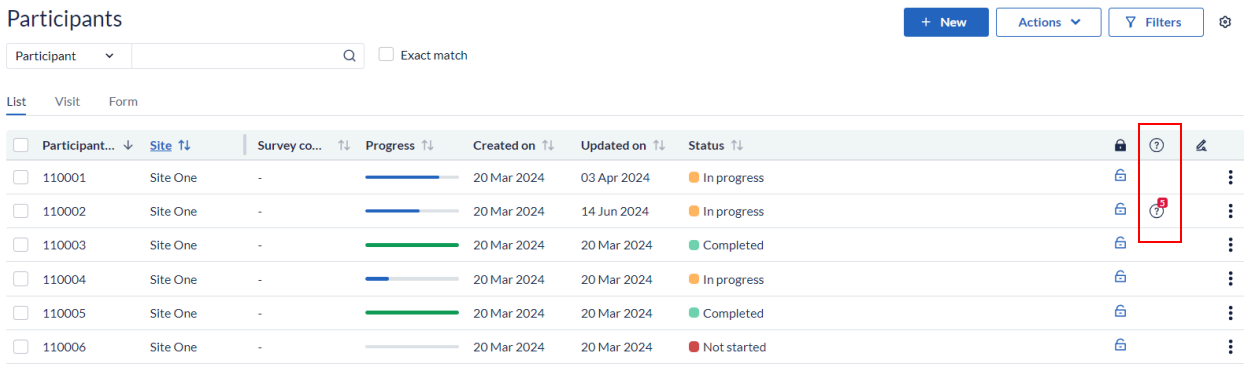
It is possible to retrieve (GET) and send (POST) using API endpoints.
These endpoints can be found in our online manual based on the server you are using for your study:

- EU: https://data.castoredc.com/api
- US: https://us.castoredc.com/api
- UK: https://uk.castoredc.com/api
- AUS: https://au.castoredc.com/api

If questions arise during your setup, please contact support@castoredc.com.

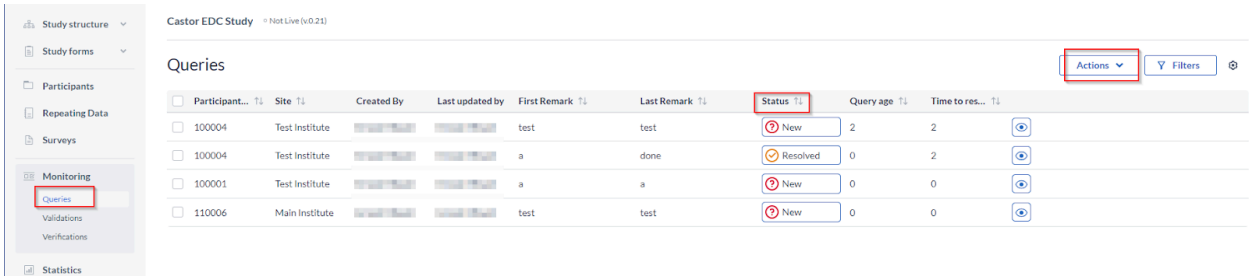
3.3. Data Queries

Data queries can be viewed on the Participant Overview for each participant. The counter displays only queries that have not been closed.



The query icon can also be seen when in visit and form view.

The status and comments for each query can be reviewed on the Monitoring tab, Queries subtab.

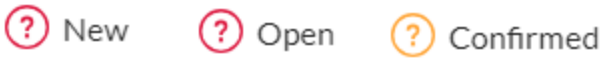


When an existing query is opened, the status is set as New. A normal user can either set the status to:

- **Open**: The user has acknowledged/opened the query, and added a remark. The status changes from New to Open.
- **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. In this case the query is not closed which is why the form status is shown as amber, and not green - the query is still open.
- [Only with 'Query' right (monitor)] **Closed**: The monitor indicates the issue is resolved and marks the query as closed. The query icon will turn into a green check mark and the progress button of the entire form will be green indicating that the form has been completed - all data entered and there are no open queries.

The icon that is displayed next to the field with the query or in the Monitoring tab displays the status of the query:

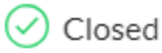
1. Open/Unconfirmed/Confirmed.

2. Resolved.

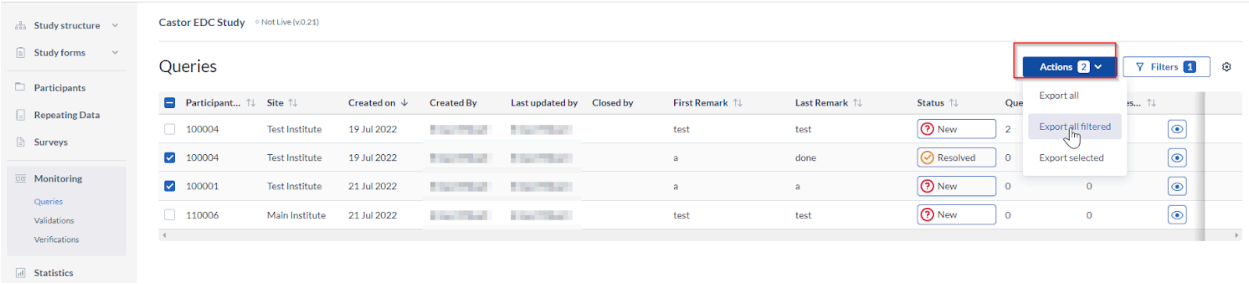
3. Closed.

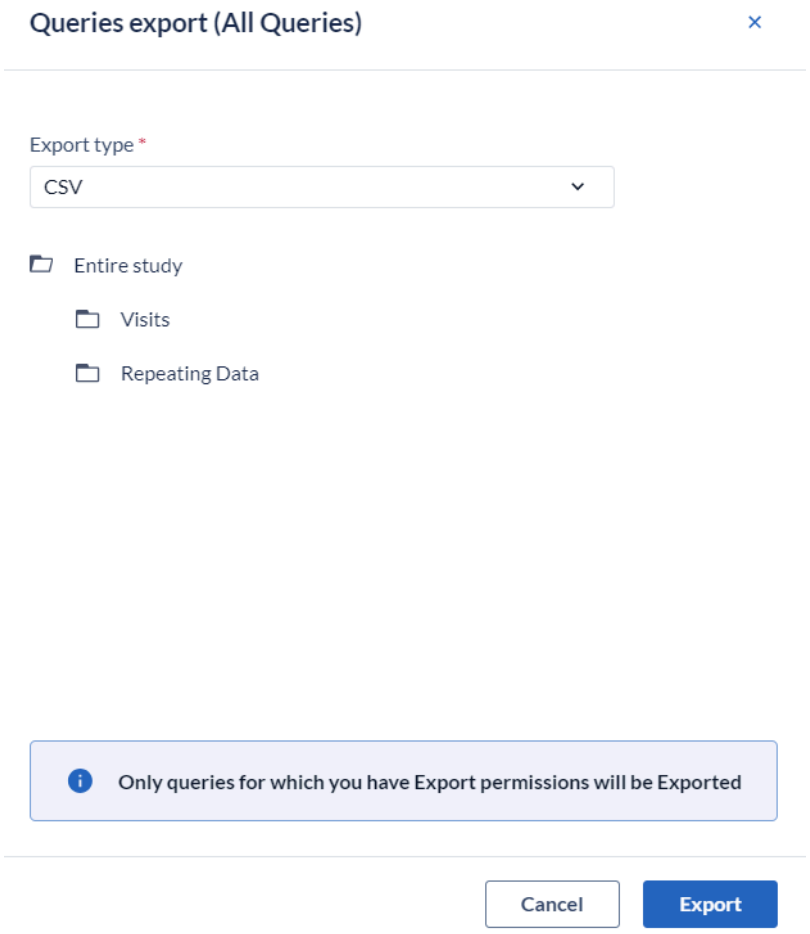
3.3.1 Exporting Queries

Users with Export rights can export the queries overview in bulk, either by exporting all available queries or only the ones that the user has selected or filtered. To export the queries from the Monitoring tab, Queries sub-tab, follow the forms below:

- Click on the Actions button and choose to Export either all queries, export all filtered or all selected:



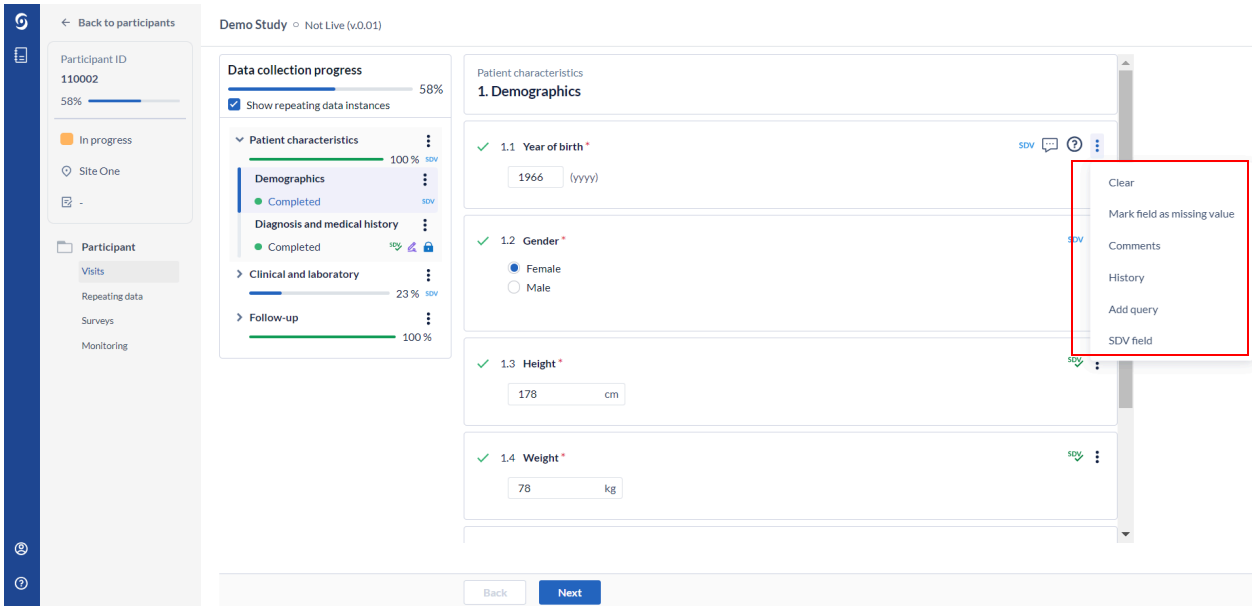
- In Queries export dialog window, you can specify:
  - Export type: choose to export into CSV or Excel (1)
  - Export tree: choose if you would like to export queries for entire study, specific study visits or forms in your study or for repeating data, a specific repeating data or a repeating data form (2)
  - Export: click on Export button to generate export of the queries (3)


Queries export (All Queries)
Export type *
CSV
Entire study
Visits
Repeating Data
Only queries for which you have Export permissions will be Exported
Cancel
Export

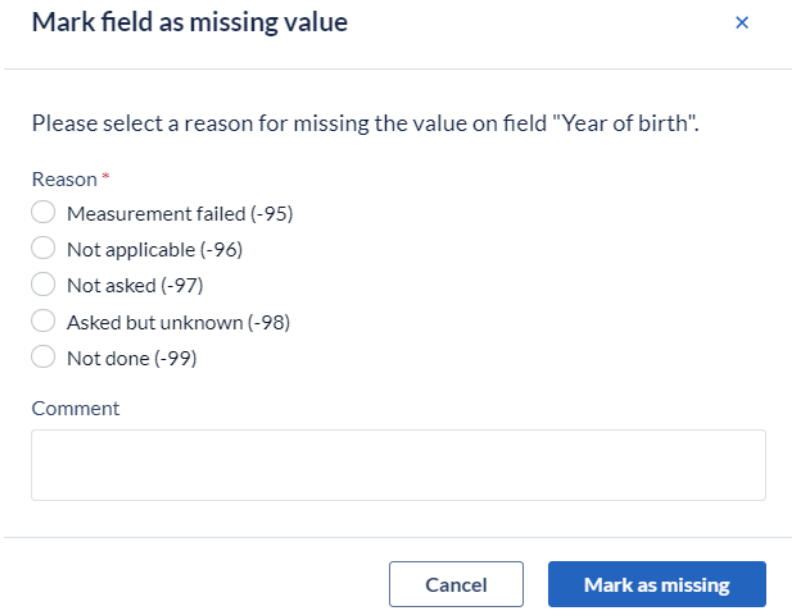
3.4. Missing Pages

3.4.1 Mark field as missing value

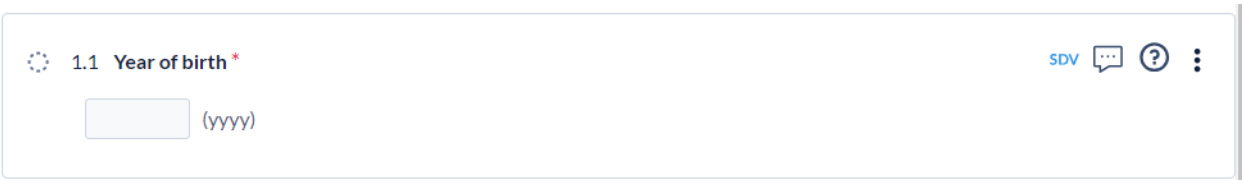
If a data point cannot be answered due to missing data or other known reason, you can address this in the study forms by defining the data as 'Mark field as missing value'. This option can be accessed by clicking on the three dots next to the field and selecting 'Mark field as missing value':



A dialog window will open, in which you are prompted to select the most applicable reason for the missing data point and to add a comment. The selected reason will assign the associated value to the field and this value will also be exported as data values. It is not possible to change the predefined values for missing data. The available values are:



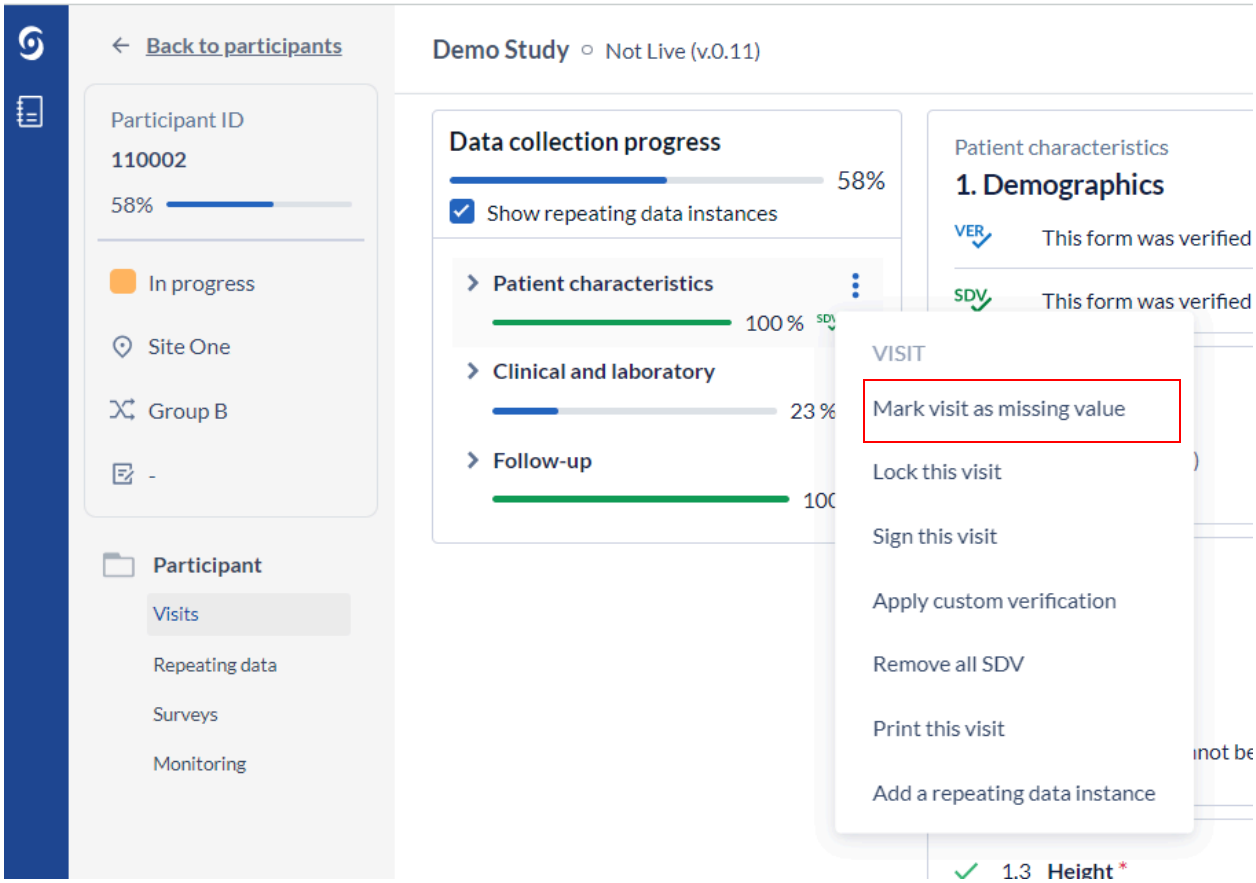
The field marked as missing will be faded/grayed in the form, but the status icon will update to show that the field has been completed. A comment will be added to the field, containing the reason entered.



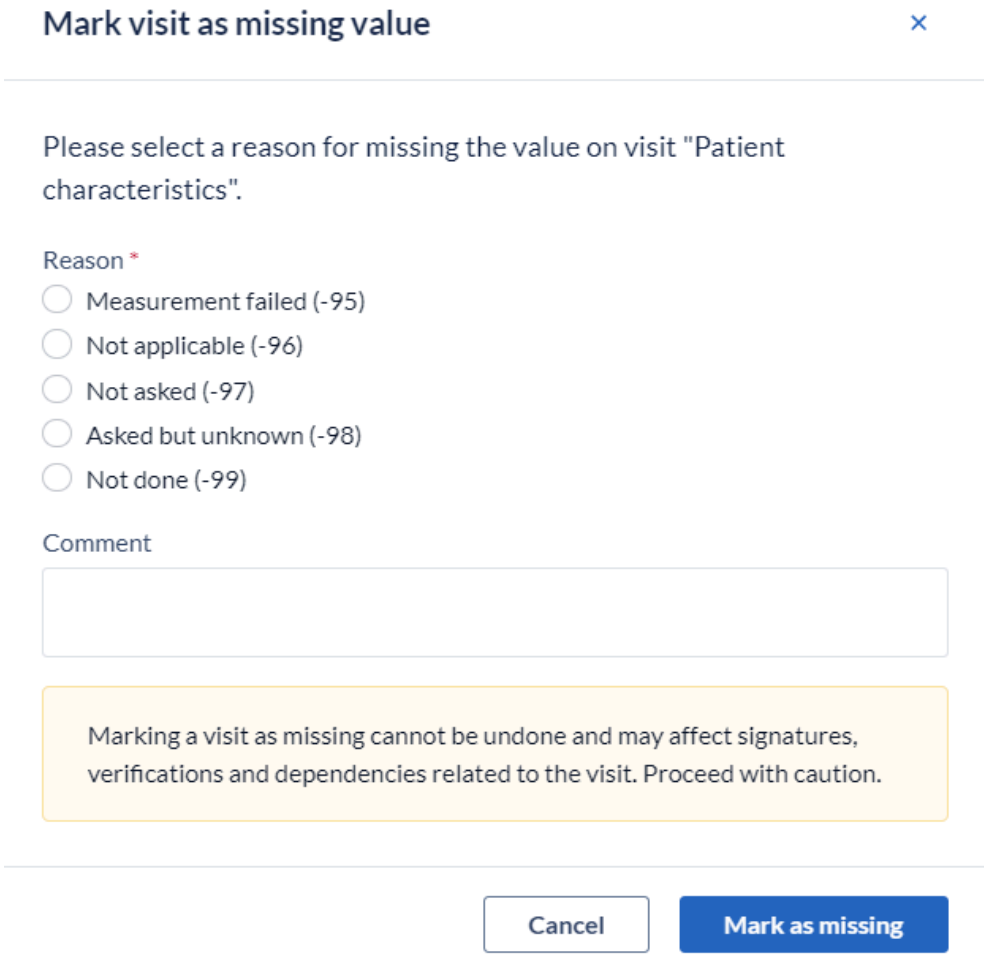
If needed, it is possible to remove the 'Mark field as missing value' entry by clicking on the three dots and selecting the checkbox 'Unmark field as missing value'. This will remove the previous status and allow entry of data into the field. The comment will be kept and each of these actions will be logged in the audit trail.

3.4.2 Mark full forms/visits as missing value

Full forms and visits can also be marked as missing by selecting Mark visit / form as missing in the data entry navigator using the three dot menu right next to the visit/form:



After 'Mark form/visit as missing value' is clicked, a new dialog window will open in which you can provide a reason for the missing information and include a comment:

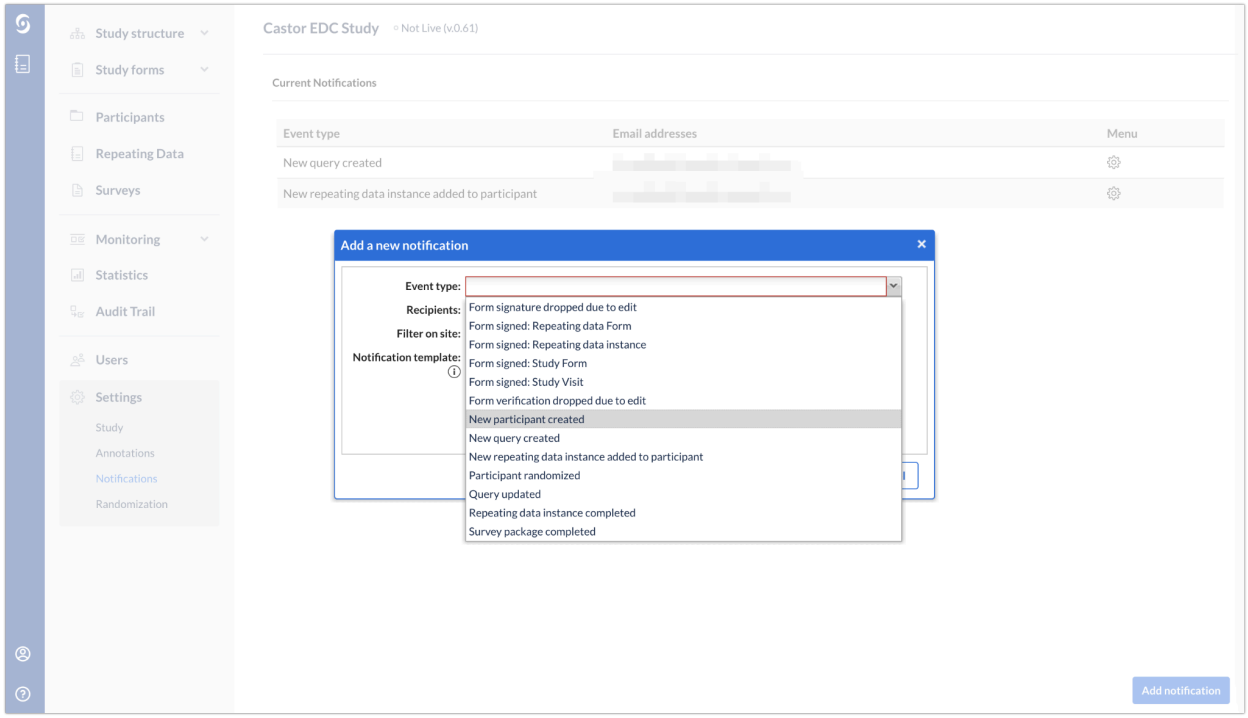


3.5. Notifications

Notifications for specific study events can be created in the study settings. Notifications are not possible for individual fields or completion statuses. Available study events include:

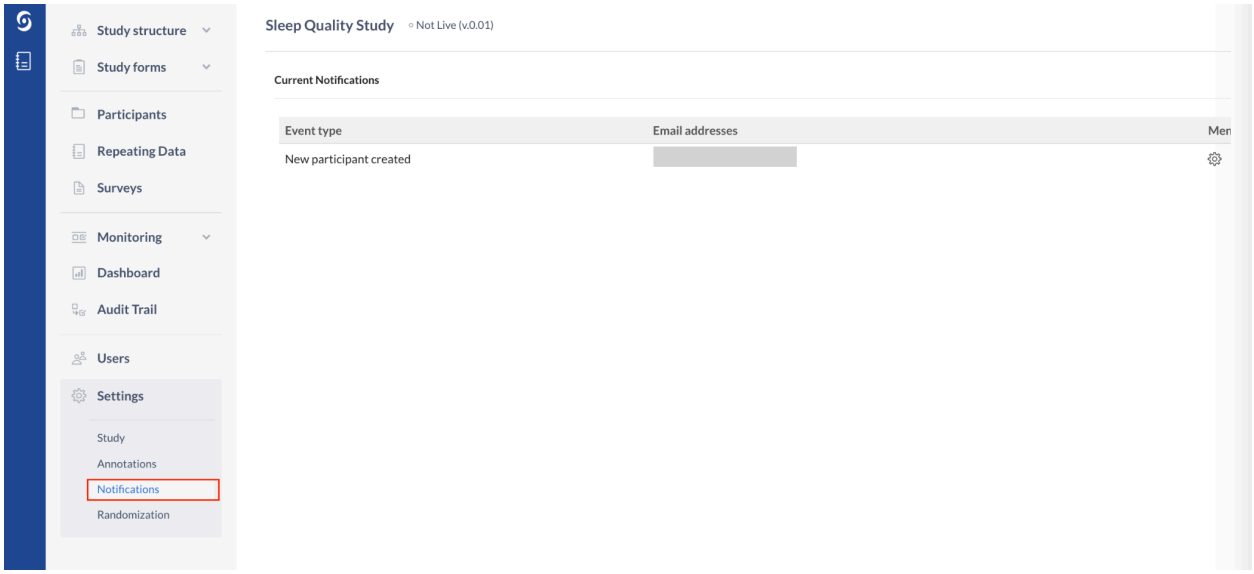
- Field result: Repeating Data
- Field result: Study
- Field result: Survey
- Form signature dropped due to edit
- Form signed: Repeating Data
- Form signed: Repeating Data Form

- Form signed: Study Visit
- Form signed: Study Form
- Form verification dropped due to edit (and field form verification dropped due to edit)
- New query created
- New participant created
- Query updated
- Participant randomized
- Repeating data instance completed
- Survey package completed
- New repeating data instance added to participant: when selecting new repeating data added to a participant, choose from the drop-down menu which is the specific repeating data that you are interested in receiving the notification



1. **Recipient**: Choose a recipient of the notification email in the drop-down (which shows all users added to the study).
2. **Filter on site**: Choose one or multiple sites for which you want to receive the notifications (i.e. only your own hospital). Leave this field empty if you want to receive notifications for all sites.

3. **Notification template**: This is the email text that will be sent when the event occurs. You can modify this as you like. The listed available tags will be replaced by their real values when the notification is sent.
4. Press the 'Save' button to save the notification or the cancel button to return to the notifications overview. This is also where you can find all current the notifications created for your study:



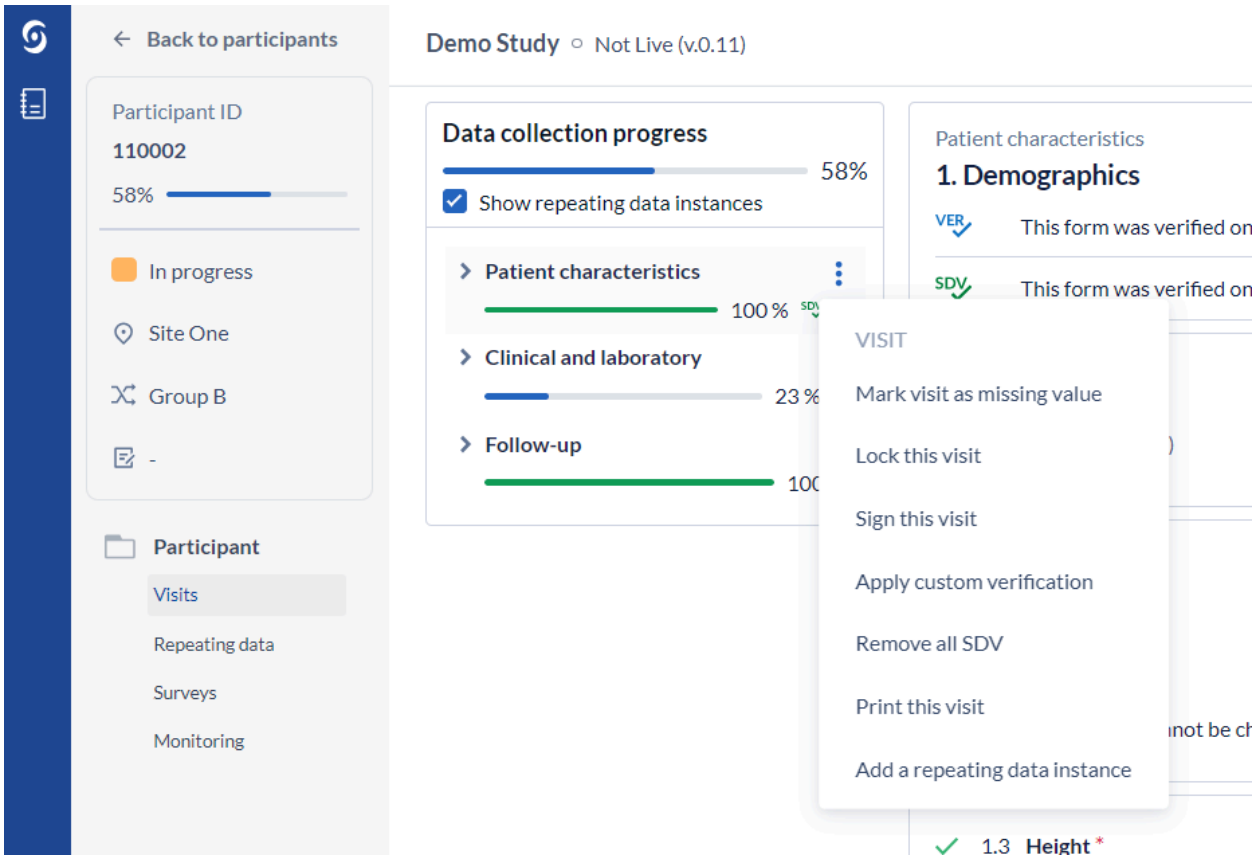
3.6. Signing and Locking

In order to sign or lock a visit, form, or repeating data, it is necessary to have sign and lock user rights. One or both of these rights can be assigned to a user as they are separate rights.

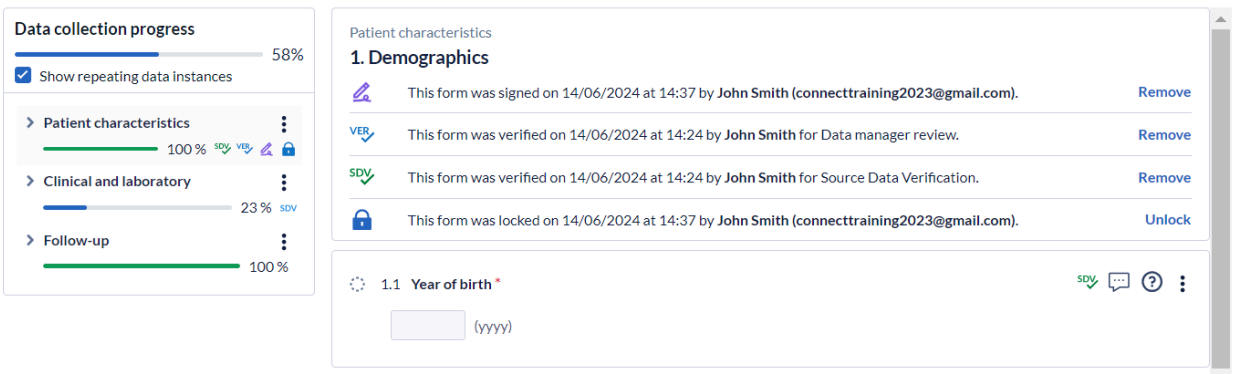
3.6.1 Sign or unsign a visit or form

You can sign individual visits and forms. Open the participant for which you want to sign forms/visits. On the left side you will find the visit and form navigator. In our example, we will sign and lock the form "Inclusion".

1. When in a participant, click on a form or visit. Click on the three dots that appear to the right.
2. Click on "Sign this visit" for visits or "Sign this form" for forms.



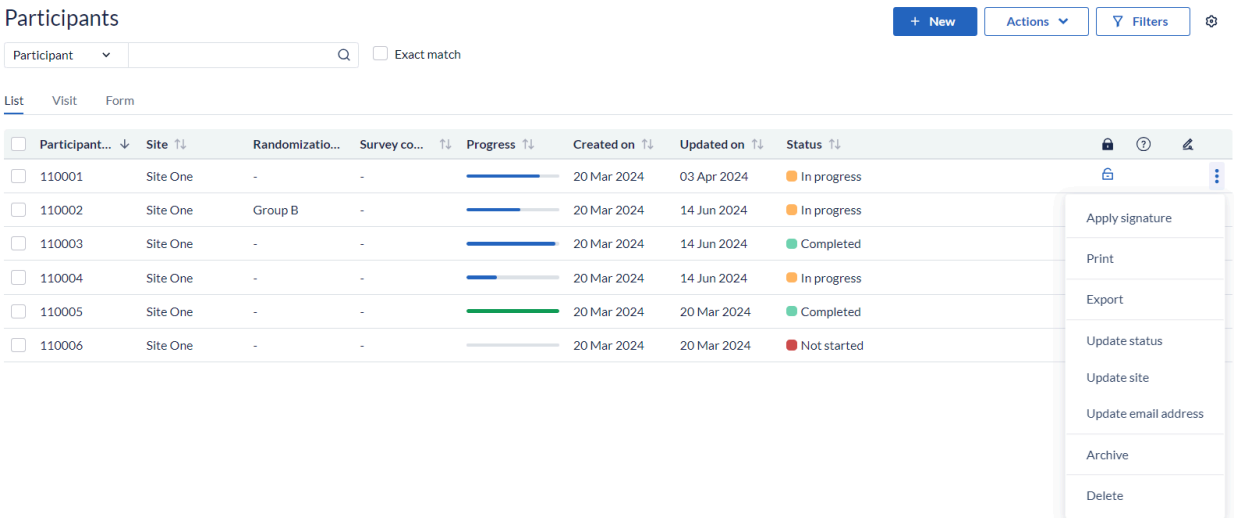
3. Enter your password to confirm your identity. You can choose to also lock the visit/form in the same instance, to prevent further data entry. Click "Sign" to confirm and to sign the visit or form. In order to lock during signing, it is necessary to have the lock user right. For users without the lock user right, an error message will appear if they attempt to lock.



A warning will be displayed at the top of the data entry screen, warning the user that the current form has been signed and/or locked. It is also possible to unsign a form/visit.

3.6.2 Signing the Participant

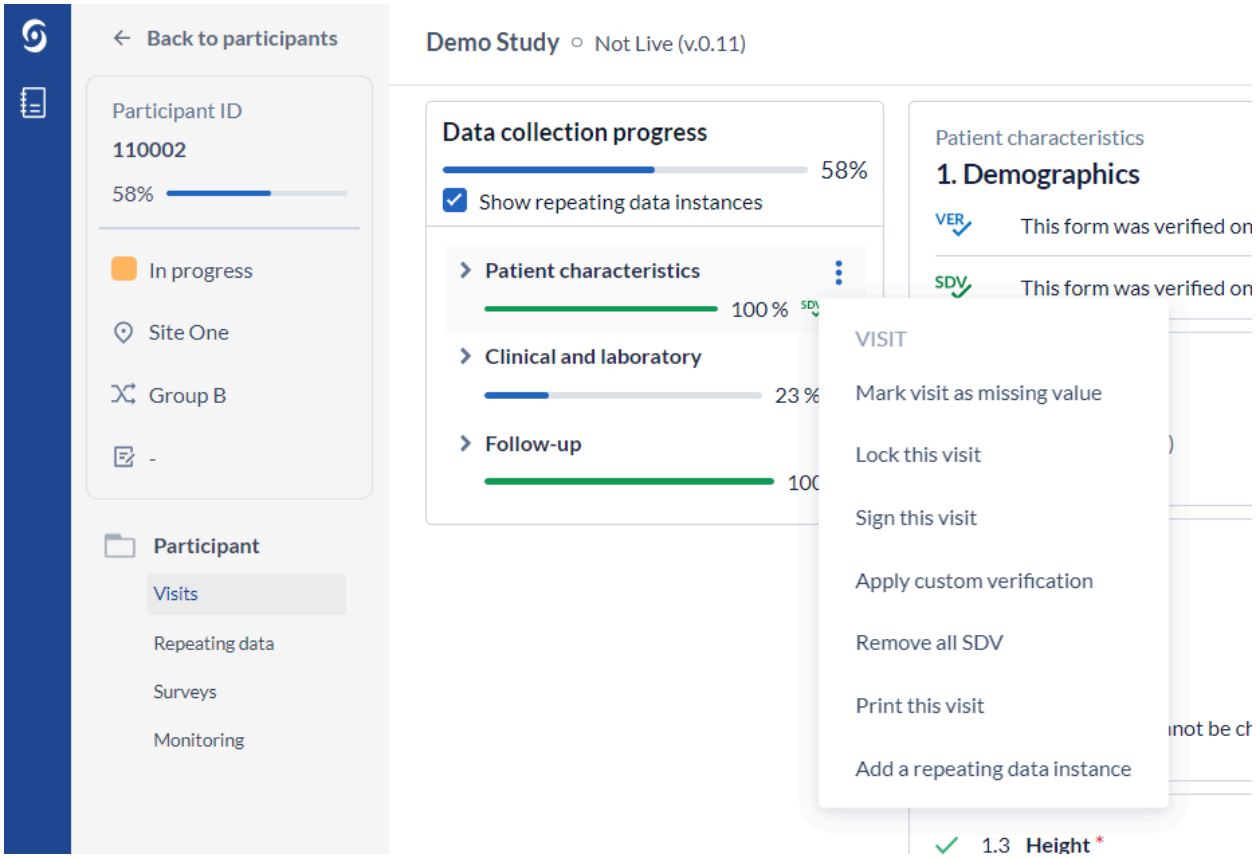
Castor CDMS offers the ability to seamlessly sign all forms of a selected participant at once, directly from the 'Participants overview' page.



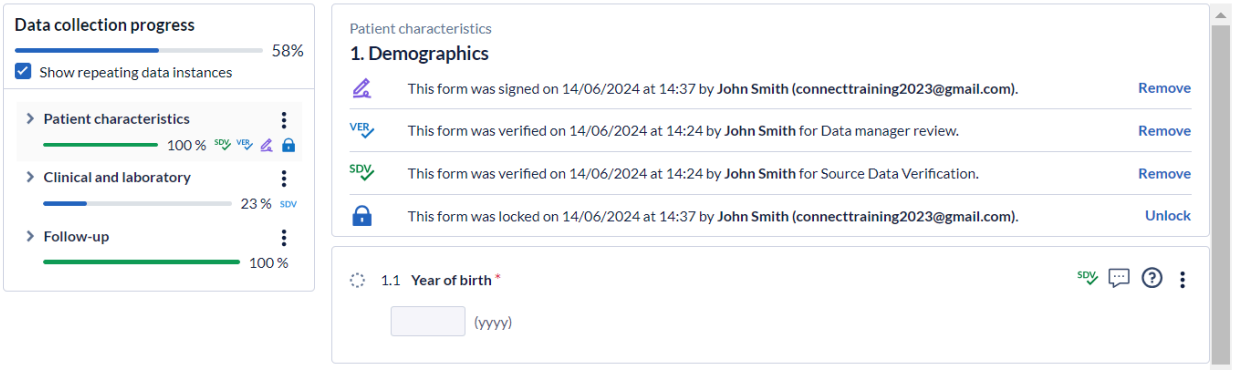
You will be prompted to enter your credentials in order to sign the participant. Additionally you can also select to lock the participant upon signing, by ticking the 'Lock participant' box.

3.6.2 Lock or unlock a visit or form

If you have lock rights, you can also choose to separately lock or unlock a visit or form by choosing the "(Un)lock this visit" or "(Un)lock this form" option.



A lock icon will appear on top of the locked form, as well as in the form navigator panel on the left:


Data collection progress
58%
Show repeating data instances
Patient characteristics
100 %
Clinical and laboratory
23 %
SDV
Follow-up
100 %
Patient characteristics
1. Demographics
This form was signed on 14/06/2024 at 14:37 by John Smith (connecttraining2023@gmail.com).
Remove
VER
This form was verified on 14/06/2024 at 14:24 by John Smith for Data manager review.
Remove
SDV
This form was verified on 14/06/2024 at 14:24 by John Smith for Source Data Verification.
Remove
This form was locked on 14/06/2024 at 14:37 by John Smith (connecttraining2023@gmail.com).
Unlock
1.1 Year of birth *
(yyyy)

4. Study Conduct

The remainder of this manual is dedicated to providing suggestions to maximize the CDMS for managing your data.

4.1 Protocol Amendments

You can keep track of protocol amendments within the CDMS by creating fields within a form that document the protocol or informed consent versions. Doing this allows this information to be documented for each participant.

4.2 Deviations

Repeating Data Structures are useful for keeping track of protocol deviations.
It is recommended that the **add a repeating data** button is utilized and **dependencies** are created where a deviation may occur.

Using the add a repeating data button, the **Protocol Deviation** repeating data will always be linked to the visit in which the repeating data was created.

You are further able to create notifications on the Repeating Data Event type and choose the Deviation Repeating Data.

4.3 Closeout Activities

Once a study is complete, we recommend performing the following actions:

1) Lock (How to lock a participant to prevent further data entry) all participants
2) Export a copy (How to export Participant Data in CDMS) of the study data
3) Set the study to 'Not Live' in the 'Settings' tab (The study 'Settings' tab in CDMS)
4) Remove all users and study admins can reduce their own rights (Define user roles in CDMS). It is recommended that study admins leave themselves as the only user, and remove all user rights except 'View', 'Export' 'Manage Participants' and 'Manage Settings'.
5) Archive the study. Once the study is 'closed', you can archive the study (Archive a study in CDMS) in the 'My studies' overview, which will remove it from the overview for all users

and prevent users from accessing it in future. Please note you must have 'Manage Settings' rights to be able to archive or un-archive a study.

In case medical coding service was used, please make sure to archive any empty coded repeating data instances and inform your Project manager about the study closure, so we could remove the service.

Castor manages retention periods through its “Document management and retention policy”. Clinical Trial documents as defined by ICH-GCP E6 (R2): Good Clinical Practices Consolidated Guideline, FDA’s 21 CFR Part 11, or local/regional regulations are retained throughout the life cycle of the trial.

5. Further Information

For more information regarding data management, check Castor CDMS’s knowledge base:
https://helpdesk.castoredc.com. Additional ready-to-print instructions (User Guides) based on user roles are also available. If you have any questions or concerns, please contact us at
support@castoredc.com