



ENGLISH

platform<sup>24</sup>

# USER MANUAL – CONTENT STUDIO

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TRIAGE24 v.1

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Triage24 is a certified medical device. All data is encrypted while transmitted and processed according to the GDPR and the Patient Data Act.



**Platform24 Healthcare AB**

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Consult instructions for use: eIFU provided from within the product and via manufacturers webpage.



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# 1. Introduction

## 1.1. About this manual

This is the User Manual for Content Studio, Medical developer User Interface within Manage.



### NOTE

The User Manual might not always be fully up to date regarding all User Interface (UI) elements. For example, smaller UI elements, such as updated names for buttons, fields etc. might not in themselves produce a new version of the User Manual. All UI changes will, however, be communicated in the Release Notes at the time of the update. All warnings will always be up to date in the User Manual, and, in addition, new warnings will be communicated in the Release Notes.

## 2. Contact details

### 2.1. Manufacturer

Address     **Platform24 Healthcare AB**  
              Västra Järnvägsgatan 7  
              SE-111 64 Stockholm  
              Sweden  
Website     <https://platform24.com>

### 2.2. Technical Support

#### 2.2.1. End user support

Platform24 does not offer direct access to *end user* support. For questions, the first line of support is your on site *superusers* and trainers.

For information about the superusers in your organisation please refer to your internal routines and procedures.

#### 2.2.2. Superuser support

A *superuser* is an end user with increased knowledge and responsibility about the platform on each unit.

The superuser acts as the first-line support for the end users on the device and is the one who turns to Platform24 for further support, if necessary.

For information about the superusers in your organisation please refer to your internal routines and procedures.

#### Urgent cases

For urgent support cases superusers should call the Platform24 support phone number below.

Phone: +46 (0) 10-140 23 21

#### Non urgent cases

For all non urgent support cases superusers should email the support email below.

E-mail: <[support@platform24.com](mailto:support@platform24.com)>

For questions regarding additional services or modules your organisation may want to buy or activate, superusers should contact their *Customer Success Manager*, (*CSM*) at Platform24.

## 2.3. Feedback and questions regarding the user manual

For feedback and questions regarding the user manual please email the user documentation support email below.

E-mail: <ud.feedback@platform24.com>

### 2.3.1. Request printed version of the instructions for use

Platform24 provides the instructions for use for its products in electronic form.

If you require a paper version of the user manual, please contact Platform24 via:

E-mail: <ud.feedback@platform24.com>



## 3. Symbols



CE marking



Manufacturer



Consult instructions for use



Warning



Medical Device



Translation



Unique Device Identifier

## 4. Warnings



### WARNING

Any changes regarding configuration (adaptations, texts, rules, medical content, etc.) are carried out in Manage in production but should be put through a review process before they are activated in production.



### WARNING

With the product in *active mode*, Manage administers Clinic, where healthcare practitioners receive real patients and the Patient app, in which real patients pursue their digital journey. All changes must be reviewed before releasing them into production.



### WARNING

Any changes to the medical content via Content Studio have essentially an impact on patient journeys and triage. This puts high demands on everyone editing in Content Studio to ensure they have training in how the tool works and use this guide to further understand the functionality.



### WARNING

The medical responsibility for content changes lies with the partner carrying out the changes. This means that responsibility to test that any changes made work as intended lies also with the partner.



### WARNING

Make sure to test all changes made and identify any ensuing changes required to ensure patient-safe flows.

**WARNING**

Visualizations do not show components with values in `Build time if`. For this reason, do not only use the visualizations to understand the structure of the questionnaires.

Recommended use together with the basic view for questionnaires to obtain an overall understanding.

**WARNING**

Removing a component can pose a patient-safety risk unless a careful analysis of the effects is performed. Make sure to test any changes made and identify any ensuing changes required to ensure patient-safe flows.

**WARNING**

If a change is made in a **Library**, the change will affect all questionnaires where the **Library** is used. Consider therefore carefully when editing.

**WARNING**

Editing and adding assessments can pose a patient safety risk unless a careful analysis of the effects is conducted. Make sure to test any changes made and identify any ensuing changes required to ensure patient-safe flows.

**WARNING**

Editing and adding to questionnaires in the **Triage** sub-menu can pose a patient-safety risk if a careful analysis of the effects is not performed. Make sure to test any changes made and identify any ensuing changes required to ensure patient-safe flows.

**IMPORTANT**

The device Triage24 does not by itself offer medical advice, possible diagnosis, or treatment recommendations, or inform/drive management of any medical condition.

If populated with medical content containing e.g. medical advice or recommendations on management, the Triage24 device can present such content to patients.

## 5. Triage24 - Intended Use

### 5.1. Triage24

Triage24 is a medical device consisting of a configurable logic based rule engine for medical triage developed for use in healthcare services. It enables healthcare providers to populate it with medical content and business logic that makes it possible to automate triage and direct patients to appropriate pathways within the healthcare system. These pathways can be digital, physical or digi-physical in nature.

Triage24 is intended to be configured and adopted to the conditions and needs of a specific healthcare provider. This is achieved either through a service provided by Platform24 or its affiliates or by the healthcare provider. The configuration of the system is made through a web user interface.

The configured implementation of the device allows patients to initiate contact, through an associated application (Patient app), with healthcare providers by answering questions about their medical complaint, medical history and health status. It also allows practitioners, on behalf of a patient, to triage the patient by answering questions in the practitioner user interface, which the patient answers.

Based on his/her answers, the patient is (either in the patient or practitioner application) directed to an appropriate level of care, as determined and configured by the health care provider. Such levels are for example: emergency care, physical appointment, digital appointment or self-care. That care can be provided to the patients through a physical meeting or digital meeting with a healthcare provider. Digital appointments can be facilitated through Platform24, which provides both a practitioner and a patient interface.

The triage algorithm is based on the Swedish standard of Telephone triage protocol RGS (Rådgivningsstödet).



#### NOTE

Post-triage questions (additional questions posted before the consultation and potential free text information from the patient) is not part of the triage prioritization but can add clear value for the consultation.

#### 5.1.1. Modules of Triage24

Triage24 consist of three modules. The modules are connected to a specific user group, and *user interface (UI)* for these groups.

- a. Content Studio
- b. Patient triage
- c. Assisted Triage

See also [Intended Users \[14\]](#)

#### 5.1.2. Intended use for Triage24

Triage24's *intended use* is to:

(a) be configured and adopted to the conditions and needs of a specific healthcare provider through population with *medical content*, and

(b) when populated, guide patients to a suitable level of care based on their symptoms and the medical content.

The configuration (a) is achieved either through a service provided by Platform24 or its affiliates, or by the healthcare provider. The configuration of the system is made through the administration user interface Content Studio.

### 5.1.3. Intended Users

**Target client** Healthcare providers who wish to automatically triage patients to the right level of care.

**Intended users** Triage24 has three distinct target groups.

- **Medical content developers** who are trained healthcare personnel, employed or contracted by a healthcare provider utilizing Triage24. The medical content developers' role is to configure and adopt to the conditions and needs of a specific healthcare provider through population with medical content and business rules.
- **Patients** seeking healthcare treatment for themselves or for a child in their care. Patients are the recipients of the device's intended clinical benefits.
- **Healthcare professionals** (or practitioners) who are trained healthcare professionals, employed or contracted by a healthcare provider utilizing Triage24. If patients are unable to themselves use Triage24 and digitally input their symptoms, health care personnel can instead enter these symptoms into Triage24 and obtain results based on the medical content with which Triage24 is populated.

### 5.1.4. Intended operational environment for Triage24

Triage24 is intended to be used by healthcare providers and healthcare systems in countries where the population has access to internet through smartphones or computers.

### 5.1.5. Clinical Benefits

Triage24 generates clinical benefits by offering resource-efficient triage, by providing patients an automated, accurate and safe triage service, which provides patients with information on with what urgency their symptoms may need a medical assessment and/or information on self-care advice.

The accuracy and safety of Triage24 is intended to be superior or equal to that of manual triage and/or other digital triage platforms.

### 5.1.6. Performance characteristics

The performance of the device has been evaluated through clinical evaluations that concluded that when Triage24 is populated with medical content, it offers triage that is safer and more accurate than manual triage using the same medical content. The evaluation also concludes that the risks associated with the use of the device are acceptable when weighed against the benefits to the patient in the form of safe and accurate triage.

The performance of Triage24 depends on the configuration of medical content. Changes to the medical content can fundamentally change the result of the patient triage and therefore puts high demands on persons editing this content. Editors must have basic training in how the tool works and to use this guide to further understand the functionality.

Changes made to the medical content must be validated before it is used in the production environment with real patients.

In addition to the validation built into the tool, each health care organisation is responsible for developing a validation- and test process for the medical content.

### 5.1.7. Implementing Triage24 in the healthcare organisation

The Triage24 software is part of a cloud service offered to patients via the Platform24 portal. This service is controlled and provided solely by Platform24.

The decision to implement Triage24 is not made in relation to an individual patient but instead to the primary care operations of the healthcare provider. The use of the device is further adapted to the operation of the specific provider through the implementation of medical content.

For these reasons, medical staff are not required to verify the hardware or software used to access the service by an individual patient.

## 5.2. Content Studio module

Content Studio is the module of Triage24 created for the needs of the medical developer user group. So for administering and populating Triage24 with medical content. Medical developers interact with Triage24 via the Content Studio user interface.

### 5.2.1. Intended use for Content Studio

Content Studio's *intended use* is to configure and adopt the *medical content* needed for Triage24 to function to the conditions and needs of a specific healthcare provider.

### 5.2.2. Intended users for Content Studio

Medical content developers configuring the care provider medical content.

#### Details

<u>Type of user</u>	Professional
<u>Age</u>	>20 years old
<u>Level of instructions</u>	<ul style="list-style-type: none"> <li>• User manual</li> <li>• Level <i>B1-B2</i> in the language supported in the product for the relevant market.</li> <li>• Undergone education and training for Content Studio. To ensure a safe development of medical product, Platform24 provides a recommended development process for the medical content that is described in "<b>Process description for Medical Content development in Content Studio</b>" (D092). This document is part of the educational material provided to new partners, and outlines the medical content development process recommended by Platform24. Partners are required to use this development process for medical content to safeguard the medical safety of the patients. To change existing medical content, or to produce new medical content, this process must be followed to ensure that medical and technical safety is maintained at all times.</li> </ul>

### 5.2.3. Intended operational environment for Content Studio

Application	Manage
Interface	Content Studio

Environment	<ul style="list-style-type: none"> <li>• Home/office environment with connection to internet</li> <li>• Normal ambient conditions</li> </ul>
Frequency of use	From several times a day to one time a week
Platform	<p>The product is used on a standard PC with the minimum requirements:</p> <ul style="list-style-type: none"> <li>• Hardware; dual-core processor, 4 GB RAM</li> <li>• Software; latest versions of Edge, Safari, Chrome and Firefox</li> <li>• Data bandwidth; 300 mbps (video) / 50 mbps (voice)</li> <li>• IT security; https</li> </ul>

## 5.3. Patient triage module

Patient triage is the module of Triage24 created for the needs of the patient user group. Patients interact with Triage24 via a patient application provided by the healthcare provider.

### 5.3.1. Intended use for Patient triage

Guide patients to a suitable level of care based on their symptoms and the medical content.

### 5.3.2. Intended users for Patient triage

The target treatment group includes patients seeking care for common primary care conditions (excluding conditions, e.g. infectious diseases, that are rare within Europe).

#### Details

<u>Type of user</u>	Layman
<u>Age</u>	<ul style="list-style-type: none"> <li>• System default: 0-120 years</li> <li>• System default: someone over 16 can use the module for a child under the age of 18</li> <li>• Defined by care provider</li> </ul>
<u>Level of instructions</u>	Level <i>B1-B2</i> in the language supported in the product for the relevant market
<u>Patient state</u>	<p>Certain patient populations should not use the system:</p> <ol style="list-style-type: none"> <li>1. Patients with life-threatening symptoms, serious conditions or trauma</li> <li>2. Patients physically or cognitively unable to use digital technology such as smartphones or computers</li> <li>3. Patients with cognitive issues that are able to use technology, but unable to use it correctly (including but not limited to dementia or severe mental retardation)</li> </ol>



#### IMPORTANT

The device Triage24 does not by itself offer medical advice, possible diagnosis, or treatment recommendations, or inform/drive management of any medical condition.

If populated with medical content containing e.g. medical advice or recommendations on management, the Triage24 device can present such content to patients.



**IMPORTANT**

Serious incidents should be reported to the manufacturer and relevant Competent Authority.

### 5.3.3. Intended operational environment for Patient triage

Application	Patient application
Environment	<ul style="list-style-type: none"> <li>• Home/office environment with connection to internet</li> <li>• Normal ambient conditions</li> </ul>
Frequency of use	From once a day to one time per year
Platform	<p>The product is used on a standard PC or mobile device with the minimum requirements:</p> <ul style="list-style-type: none"> <li>• Hardware; dual-core processor, 4 GB RAM</li> <li>• Software; latest versions of Edge, Safari, Chrome and Firefox</li> <li>• Data bandwidth; 300 mbps (video) / 50 mbps (voice)</li> <li>• IT security; https</li> </ul>

## 5.4. Assisted Triage module

Assisted triage is the module of Triage24 created for the needs of the practitioner user group performing assisted triage. This means that the practitioner assists patients in being triaged when they cannot use the patient application themselves.

### 5.4.1. Intended use for Assisted triage

The intended use of Assisted triage is for healthcare professionals to perform automated triage on behalf of the patient and guide patients to a suitable level of care based on their symptoms and the medical content result.

### 5.4.2. Intended users for Assisted triage

Healthcare professionals working within a healthcare provider.

#### Details

<u>Type of user</u>	Professional
<u>Age</u>	>20 years old
<u>Level of instructions</u>	<ul style="list-style-type: none"> <li>• Licensed practitioner, ie medical doctor, nurse, psychologist</li> <li>• Level <i>B1-B2</i> in the language supported in the product for the relevant market.</li> <li>• User manual</li> </ul>

### 5.4.3. Intended operational environment for Assisted triage

Application	Assisted triage in Clinic
Environment	<ul style="list-style-type: none"> <li>• Home/office environment with connection to internet</li> <li>• Normal ambient conditions</li> </ul>
Frequency of use	Several times a day

Platform	The product is used on a standard PC with the minimum requirements: <ul style="list-style-type: none"><li>• Hardware; dual-core processor, 4 GB RAM</li><li>• Software; latest versions of Edge, Safari, Chrome and Firefox</li><li>• Data bandwidth; 300 mbps (video) / 50 mbps (voice)</li><li>• IT security; https</li></ul>
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## 5.5. Contraindications Triage24

### 5.5.1. Patients

Certain patient populations should not use the system:

1. Patients with life-threatening symptoms, serious conditions or trauma
2. Patients physically or cognitively unable to use digital technology such as smartphones or computers
3. Patients with cognitive issues that are able to use technology, but unable to use it correctly (including but not limited to dementia or severe mental retardation)



#### **IMPORTANT**

The device Triage24 does not by itself offer medical advice, possible diagnosis, or treatment recommendations, or inform/drive management of any medical condition.

If populated with medical content containing e.g. medical advice or recommendations on management, the Triage24 device can present such content to patients.

Since the intended use of the device, in its configured form populated with medical logic, is to gradually select suitable recipients of medical information, the use of the device itself entails a narrowing of the user intended to receive the given point of information.

At times, such selection will occur between patient populations that are commonplace to either include or exclude from the intended users of a medical device, such as questions regarding pregnancy which will differentiate between patients based on gender. However, since this selection is inherent to the core functioning of the device, it is deemed more feasible to regard it as part of the mode of operation of the device, rather than as a contra-indication or a limitation of its diagnostic indication.

See also [Intended users for Patient triage \[16\]](#)

### 5.5.2. Medical content developers

Medical content developers should have undergone the training in use of device offered by Platform24 and have a sufficient professional competence to formulate and enter medical logic into the system. See also [Intended users for Content Studio \[15\]](#)

### 5.5.3. Healthcare professionals

Healthcare practitioners should be a licensed practitioner, i.e. medical doctor, nurse, psychologist etc.

See also [Intended users for Assisted triage \[17\]](#)

## 5.6. Residual risks

Platform24 has been in production since the summer of 2017 and has been used millions of times using the Triage24 product that is now separated into a medical software product. Based on data from the testing and production environment, as well as feedback collected over time from practitioners, customers and partners, Platform24 considers that the risks from all identified hazardous situations have been assessed.

After mitigations are done there are no risks categorized as high.

For residual risks of the medium level, the product is deemed to be acceptable. In later releases, additional work shall be put into lowering the risks.

Additionally, post-market surveillance and vigilance will continuously validate the risk management work.

## 5.7. Terms and definitions

B1-B2	B1-B2 in the <i>Common European Framework of Reference</i> (CEFR) self-assessment scale. e.g. Independent user of the language.
Customer Success Manager (CSM)	A CSM (Customer Success Manager) is the customer's main strategic advisor. The CSM is also the customer's main contact person for any contractual, commercial questions/issues. The CSM is the first point of escalation for any unsolved questions/requests/issues
end user	The person who actually uses a particular product. For Platform24 the end users are patients, clinicians, healthcare personnel, medical developers etc.
intended use ()	The intended use (medical devices) means the use for which the device is intended according to the data supplied by the manufacturer on the labelling, in the instructions and/or promotional materials
MADRS-S (MADRS)	The Montgomery-Åsberg Depression Rating Scale (MADRS) is a ten-item diagnostic questionnaire which psychiatrists use to measure the severity of depressive episodes in patients with mood disorders.  MADRS-S is a nine question self-rating version of the MADRS scale, often used in clinical practice.
medical content ()	
superuser	A superuser is an end user with increased knowledge and responsibility around the platform on each unit.  The superuser acts as the first-line support for the end users on the device and is the one who turns to Platform24 for further support, if necessary.
user interface (UI)	The user interface (UI) is the point at which human users interact with a computer, website or application.

## 6. What is Manage and Content Studio?

Manage is an application with the specific aim of managing users and configuring patient flows in the patient and healthcare provider apps included in Platform24. In addition to Manage, Platform24 also consists of Clinic (healthcare provider view) and the Patient app (or the Patient apps). Healthcare providers work in Clinic while patients make their digital journeys in the Patients apps.

Manage is the administration UI where healthcare providers can manage settings for Clinic, the Patient app and the medical content used to support the triage bot, as well as user roles and access rights in Manage and Clinic.

The area where users can manage the medical content in Manage is called Content Studio. This document describes Content Studio and how it can be used to edit the medical content.

### 6.1. Platform24 Environments

There are two different environments in Platform24.

- **Demo environment**

The Patient app and Clinic can be tested at will in the demo environment to learn how the platform works. It is also possible here to test any changes made in Content Studio before they are released into production.

- **Production environment**

All applications (Manage, Clinic and the Patient app) in the production environment are in active mode.



#### **WARNING**

With the product in *active mode*, Manage administers Clinic, where healthcare practitioners receive real patients and the Patient app, in which real patients pursue their digital journey. All changes must be reviewed before releasing them into production.



#### **WARNING**

Any changes regarding configuration (adaptations, texts, rules, medical content, etc.) are carried out in Manage in production but should be put through a review process before they are activated in production.

## 6.2. Log in to Manage

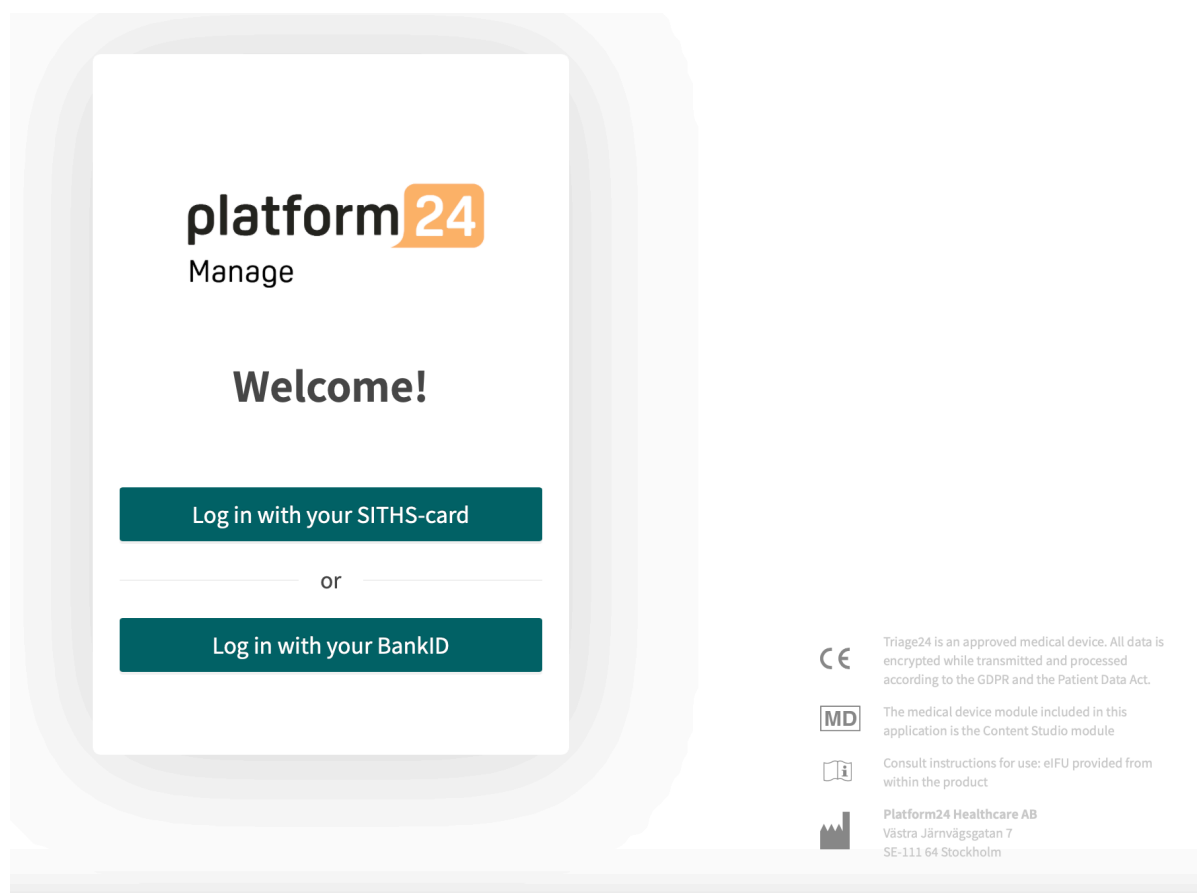
All editing of medical content is carried out in Manage's production environment. Changes are saved in the demo environment before users can actively decide to publish them in the production environment for the Patient app and Clinic. Changes carried out in the production environment are tested in the demo environment.

- **Production environment:** Browse to <https://manage.platform24.se/> and log in with the preferred authentication method.



### NOTE

Some customers might have a unique environment link. Talk to your Customer Success Manager at Platform24 if the link does not work.



- Select in the next step which partner to manage and click on **Approve**.

## 7. Basic Details - Content Studio

### 7.1. Working with Content Studio

Content Studio is used to edit the medical content included in the agreement with Platform24 and to create own medical content. Any changes that are made will only be valid for the partner who makes them, which means that any partner using Content Studio can entirely decide the medical content used in the triage according to how the partner's operations work.

The tool is powerful and can fundamentally change patient triage, which puts high demands on anyone editing in Content Studio to ensure they have basic training in how the tool works and use this guide to further understand the functionality.

The changes made to the medical content using Content Studio must be validated before it is used in the production environment with real patients. In addition to the validation steps that are built into the tool, it is up to each partner to develop a validation and test process for the medical changes.

When changes are made to the medical content in Content Studio, they can and should be checked in the partner's own Patient app and Clinic demo applications.

In addition to a partner's own validation and test processes, a technical review of the changes will be conducted when a partner believes that their own validations and tests are ready for release into production. The assessment is intended to check that any changes that are made will not affect the technical conditions that enable the questionnaires to be used. The technical assessment does NOT include checking the impact any medical changes may have, but only that they are done correctly in a way the system can handle. An example is to check that conditions are written correctly from a technical perspective to ensure steps are not missed.

All changes made after the previous production release will be included in the technical assessment. One recommendation for partners is that they continuously release changes into production as this reduces the extent of the technical assessments.



#### **WARNING**

Any changes to the medical content via Content Studio have essentially an impact on patient journeys and triage. This puts high demands on everyone editing in Content Studio to ensure they have training in how the tool works and use this guide to further understand the functionality.



#### **WARNING**

The medical responsibility for content changes lies with the partner carrying out the changes. This means that responsibility to test that any changes made work as intended lies also with the partner.

**WARNING**

Make sure to test all changes made and identify any ensuing changes required to ensure patient-safe flows.

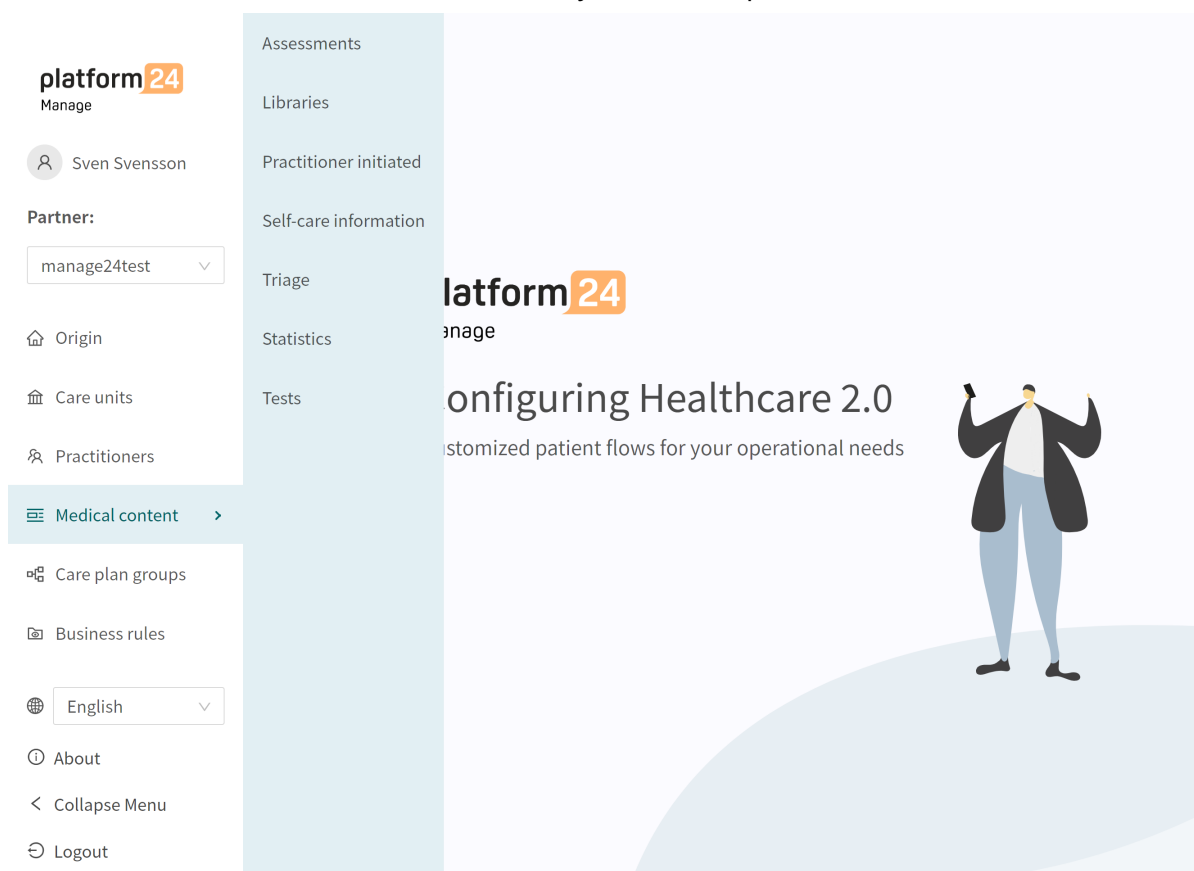
## 7.2. Access to Content Studio

A main menu is displayed on the left when you log into Manage.

- Drag the mouse over the **Medical content** heading.

The screenshot displays the 'platform24 Manage' interface. On the left is a vertical navigation menu with the following items: 'platform24 Manage' (logo), user profile 'Sven Svensson', 'Partner:' dropdown (set to 'manage24test'), 'Origin', 'Care units', 'Practitioners', 'Medical content' (highlighted with a right-pointing arrow), 'Care plan groups', 'Business rules', 'English' (language dropdown), 'About', '< Collapse Menu', and 'Logout'. The main content area features the 'platform24 Manage' logo, the heading 'Configuring Healthcare 2.0', and the subtitle 'Customized patient flows for your operational needs'. An illustration of a man in a suit stands on a light blue curved shape at the bottom right.

- The various sub-menus under the Medical content heading contain various questionnaires or self-care information. Select which **sub-menu** you want to open.



- **Libraries:** Contain questions that are often used in many of the questionnaires in the medical content. The questions are grouped in different Libraries and can be reused in most other questionnaires.
- **Self-care information:** Contains self-care information that can be shown to patients after triage. Existing self-care information cannot be edited but new content can be added and edited.
- **Practitioner-initiated:** Not used.
- **Assessments:** Contains questionnaires that can be used to assess conditions for example mood (*MADRS-5*). These can be sent out on a continual basis to the patient, which means that the healthcare practitioner can see trends based on the answers in the assessment questionnaires.
- **Triage:** Contains the questionnaires patients access from the Patient app by entering different search terms in the search engine.



### 7.3. Overview of questionnaires and self-care information

An overview of the questionnaires or self-care information available in each sub-menu is displayed under each sub-menu (**Libraries, Self-care information, Practitioner-initiated, Assessments, Triage**).

Triage					
Medical content / Questionnaires / Triage				Validated: 2022-10-03 10:50	<a href="#">Run validation</a>
				Search by name	<input type="text"/>
Title	Id	Category	Hidden	Status	
Acne problems	acne	Skin and hair	False		
AddNew	AddNew	Administrative	False	Local copy	
Administrative chat	adminChat	Partner specific conditions	False		
Allergic symptoms	allergy	Allergies and hypersensitivities	False	Modified	
AllQuestionTypes	AllQuestionTypes	Administrative	False	Local copy	
Altered sense of smell	changeOfSmell	Ears, nose, and throat	False	Modified	
Animal bite/scratch	biteAnimal	Injuries and accidents	False		
Arm injury	armInjury	Injuries and accidents	False		

**Title** The column shows the title the questionnaire has been given. This is language-specific and can therefore be available in several languages.



**NOTE**

This is not available under the **Self-care information** sub-menu.

**Id** The ID given to the questionnaire/self-care information. It is designated in English as far as possible because it should be viable to use the ID throughout the system and to also be the key to the questionnaire in other languages.

**Category** Specifies in which category the questionnaire is grouped. This is specified when a questionnaire is created.



**NOTE**

This is not available under the **Self-care information** sub-menu.

**Hidden** Specifies if the questionnaire is hidden from patients in the Patient app and hidden for practitioners in Clinic or not. The questionnaire will automatically be created with the value "False", which means that the questionnaire is not hidden from patients and practitioners. This can be set for each questionnaire if you click on them.

Acne problems Hidden

Hidden:



**NOTE**

This is not available under the **Self-care information** sub-menu.

**Status** Questionnaires/self-care information can have three values for this field:  
**Local copy** = questionnaire/self-care information only created once for the partner.  
**Modified** = questionnaire/self-care information has changed compared to Platform24’s questionnaire/self-care information.  
**Empty** = questionnaire is unchanged compared to Platform24’s questionnaire/self-care information.

## 7.4. Questionnaire Details

A specific questionnaire can be opened by clicking on it in the overview in the **Triage, Assessments, Practitioner-initiated** or **Libraries** sub-menus.

**Arm injury** Convert to local version Visualize

Hidden:

Medical content / Questionnaires / Triage / Arm injury Swedish

Id:  \* Title:  \* Category:

Description of questionnaire (care personnel):  Hide intro questions:  Hide final questions:  Hide in patient app:  Title searchable:

Save

Type	Search term	Properties	Actions
▶	Search Terms		+

Type	Id	Condition	Exit Attribute	Content	Status	Actions
▶	Pre-triage					+

The following information is presented in the questionnaire overview.

**Metadata** Each questionnaire contains a section called **Metadata** with content that can be seen at the top of the questionnaire. **Metadata** is basic information that is used to set basic setting for the questionnaire. Refer to [the Metadata section \[70\]](#) for more information.

Hidden:

Medical content / Questionnaires / Triage / Arm injury Swedish

Id:  \* Title:  \* Category:

Description of questionnaire (care personnel):  Hide intro questions:  Hide final questions:  Hide in patient app:  Title searchable:

### Hidden

Specifies if the questionnaire is hidden from patients in the Patient app and hidden for practitioners in Clinic or not. The questionnaire will automatically be created with the value "False", which means that the questionnaire is visible to patients and practitioners. This can be set for each questionnaire if you click on them.

Acne problems Hidden

Hidden:

### Visualize



#### WARNING

Visualizations do not show components with values in Build time if. For this reason, do not only use the visualizations to understand the structure of the questionnaires.

Recommended use together with the basic view for questionnaires to obtain an overall understanding.

It is possible in each questionnaire to visualize what the questionnaire looks like with each of its components (e.g. Questions, Exits, Includes, etc.).

Click the **Visualize** button to open the interactive visualization.

You can click on "**Download png**" to download the file and view it locally. It is also possible to change the language in the content (if the partner has questionnaires in several languages).

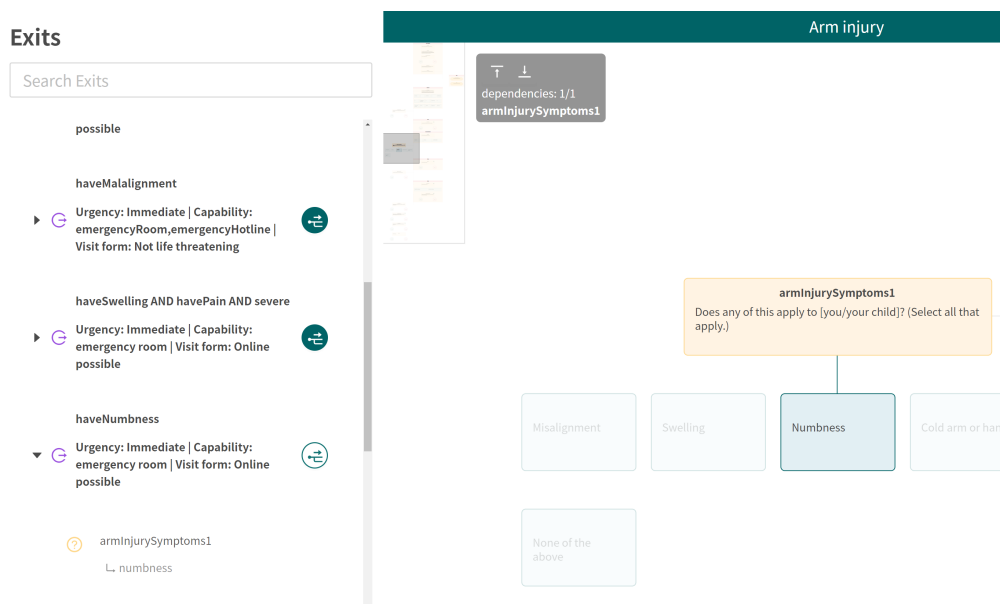
Swedish
Download png

Scrolling allows you to zoom in and out in the visualization. Click and drag to move the window. Click on the expand symbol to maximize and enlarge the visualization in the window.



Clicking on a component in the visualization area displays the dependencies and conditions for the specific component. For example, a prior affirmative answer to

a question may be required in order for this specific question to be activated for the patient.



All exits are displayed in the **Exit** list to the left. It is possible to search for content in exits and click on the exits that have a green symbol to their right. An exit can be expanded by clicking on it. By either clicking on the green symbol or on one of the dependencies below, the dependency will be visualized and displayed on the screen. You can click between the dependencies under the exit. This is a way to easily obtain an overview of what conditions are required to activate an exit for the patient.

This screenshot shows the full Content Studio interface. The 'Exits' list on the left includes 'armInjurySymptoms1' with a green dependency symbol. The central visualization shows 'armInjurySymptoms1' (orange box) depending on five items: 'Misalignment', 'Swelling', 'Numbness', 'Cold arm or hand', and 'Reduced range of motion'. A 'None of the above' box is also present. The right side features a 'Legend' with symbols for 'Go-to', 'Question', 'Answer option', 'Breaking exit', and 'Exit'. An 'Information' banner at the top states: 'There are 1 statements which are not shown in the visualization, as it has value in the Build time if field'. A 'Download png' button is visible in the top right corner.

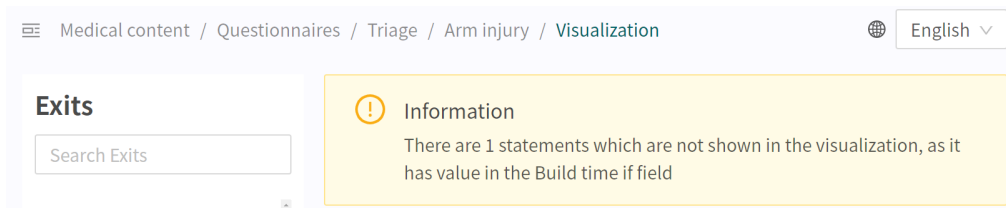
When a change is made to the questionnaire, the visualization will be updated, making it a good tool for determining changes and to be used as part of the validation before changes are released into production.



**NOTE**

The visualizations do not show components with values in `Build time if`.

To warn the user, if there are components that are missing in the visualization, an information box is displayed above the visualization. See image below for examples. Therefore, use the original questionnaire view along with the visualizations to obtain a complete picture of the questionnaires and possible patient journeys



**Search terms**

Section where search terms linked to the questionnaire are compiled. Click on the arrow to expand the section to view all search terms. Refer to the [Search terms \[72\]](#) section for further information.

Type	Search term	Properties	Actions
▼ Search Terms			⊕
☰ Search term	asthma		✎ 🗑
☰ Search term	Could be asthmatic		✎ 🗑

## Status

Questionnaire components can have three values in the status field.

- **Local copy** = component only created for the partner.
- **Modified** = component has changed compared to Platform24's version.
- **Empty** = component has not been changed compared to Platform24's version.

☰ Include	movementPain	libraryLocality	Modified		
☰ Include	injuryOnset.moreThan2to3d	library			
☰ Formula	movementSwelling	haveSwelling AND noReducedMovement	Local copy		

The statuses are displayed partly in the questionnaire overview, but the **Modified** status is also displayed when a component is opened in any field that has been changed.

Question Modified English ▾

* Id	* Type	Category	Build time if	Condition
questionSuspectAllergy	Yes or no ▾	Other ▾		NOT questionKnownAllergy1 AND (vars.severeAllergySymptoms.wantsToContinueOnline == null OR vars.severeAllergySymptoms.wantsToContinueOnline == false)

* Question	Medical term	Practitioner text (if answer no)
Do you want an assessment of a suspected allergy/for your child? <input type="text"/>	Wants assessment for suspected allergy <input type="text"/>	<input type="text"/>

Point (if answer yes) <input type="text"/>	Choose first [ ] alternative if <input type="text"/>	Explanation title <input type="text"/>
--	--	--

Explanation text



### NOTE

If a default component (without changes) is moved to another position in the questionnaire, a local copy (with status **Local copy**) of the component is created and the original component is deactivated and saved in its original position.

## 7.5. History, latest changes and testing

### Latest update

Specifies which user has made the most recent change for the partner. If a status is not visible here, it is because changes have not been made since the last production release.

Last update by Sven Svensson | February 3, 2023 10:38 AM Changes Log History Changes 34

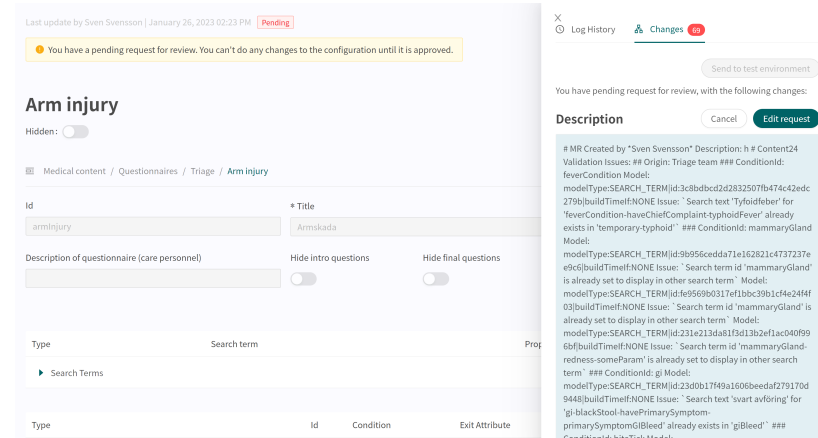
### Arm injury

Hidden:

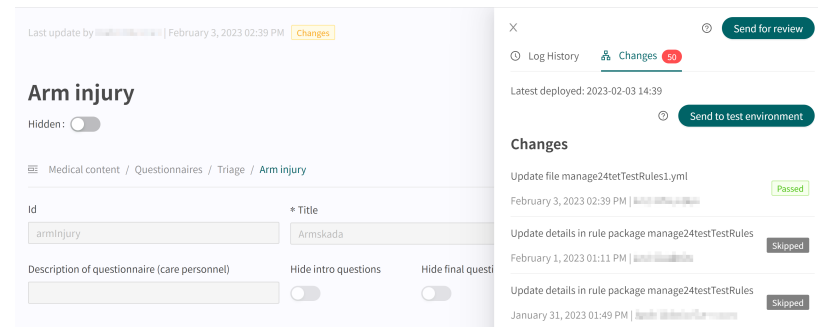
Visualize

If the partner has an ongoing production release, it will be listed here and no further changes can be made until the production release is complete.

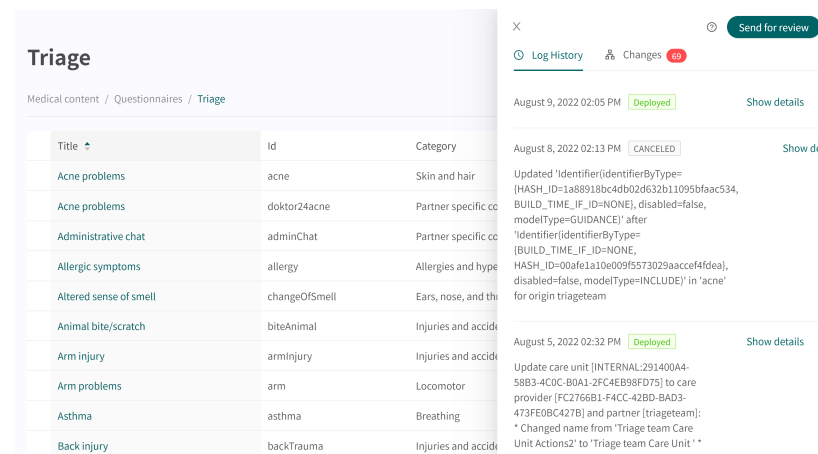
**Log history, Changes, Send to test environment and Send for review**



Any changes made for the partner since the last production release will be displayed in the list. What the change was, who made the change, what date and time and whether the change has been saved correctly can be seen under **Changes**. The number of changes is displayed and listed in the red box. The most recent changes are given a status that informs users if the changes have "Passed" or "Failed" when saving the change. It is always the most recent (at the top) change that is valid. If the top one has passed, all the underlying ones have also been saved correctly. If "Failed" is displayed for the three most recent changes, contact the implementation manager or support at Platform24 for further help.



Information about previous production releases is available under the **Log history** tab. More information about what the production release involves (under **Show details**) is available here and status showing whether the production release was successful or not.



In order for changes in Content Studio/Manage to be updated in the demo application for the Patient app and Clinic (demo/test environment) one must actively upload the changes. When the button “Send to test environment” is green (within the Change log tab), there are new changes that can be sent out to the demo environment. To upload the changes made in Content Studio/Manage, click on "**Send to test environment**". All the changes that were added since the last update to the demo environment will be sent out when clicking on that button. All updates that are listed under a change with “Passed” status have been successfully uploaded to the test environment. If the button “Send to test environment” is gray, there are no new updates to upload to the test environment.

The screenshot shows the 'Triage' interface. On the left, there is a table with columns 'Title', 'Id', and 'Category'. The table lists various medical conditions and their corresponding IDs and categories. On the right, there is a 'Changes' section with a list of updates, each with a 'Skipped' button. At the top right, there are buttons for 'Send for review' and 'Send to test environment'.

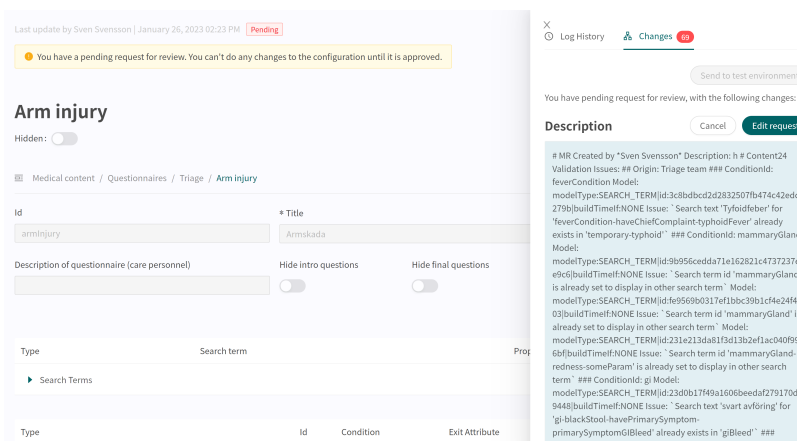
Title	Id	Category
Acne problems	acne	Skin and hair
Acne problems	doktor24acne	Partner specific co
Administrative chat	adminChat	Partner specific co
Allergic symptoms	allergy	Allergies and hype
Altered sense of smell	changeOfSmell	Ears, nose, and thi
Animal bite/scratch	biteAnimal	Injuries and accide
Arm injury	arminjury	Injuries and accide
Arm problems	arm	Locomotor
Asthma	asthma	Breathing
Back injury	backTrauma	Injuries and accide

To release the changes made for the partner into production, click on "**Send for review**", describe what changes have been made and the required impact of the changes. Send the request and wait for the technical review to be completed and it has been released into production.

The dialog box has a title 'Send your changes for review to production'. Below the title is a text area labeled 'Description:'. Below the text area is the text 'You will now send the changes for review.' At the bottom right, there are two buttons: 'Cancel' and 'Save'.


You can cancel the request by clicking **Cancel**, if a review of further changes has to be carried out for the partner.



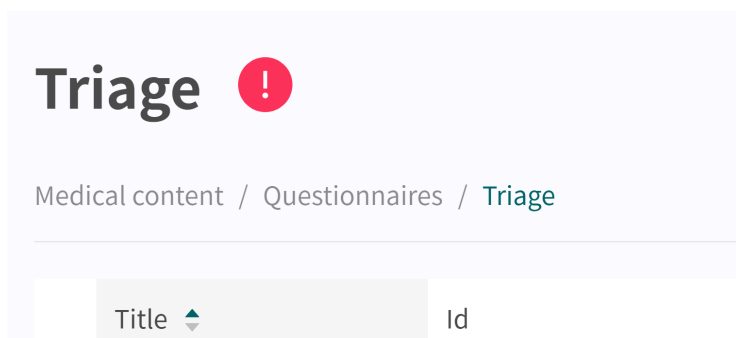


## 7.6. Warnings





### 7.6.1. Overall warnings

A red exclamation mark  will appear next to the questionnaire title, if any changes have been made to the questionnaire which interrupt the logic. The exclamation mark will appear in the list showing all the questionnaires and at the specific component where the logic is interrupted. Information about the specific error is shown if you place the mouse pointer over the exclamation mark. This can for example be specifying an incorrect condition that does not exist. The images below show all views where the exclamation mark is shown

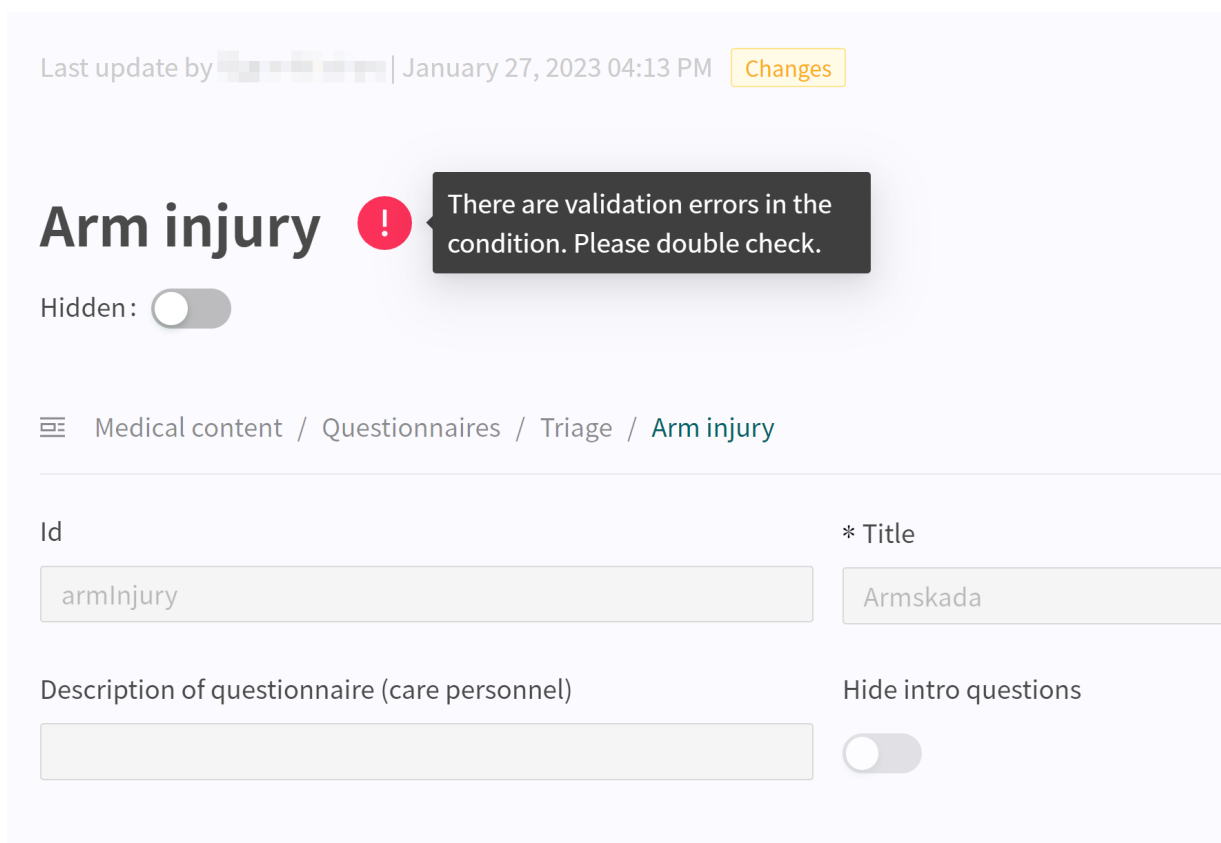
The image below shows the exclamation mark warning in the **Triage** view.



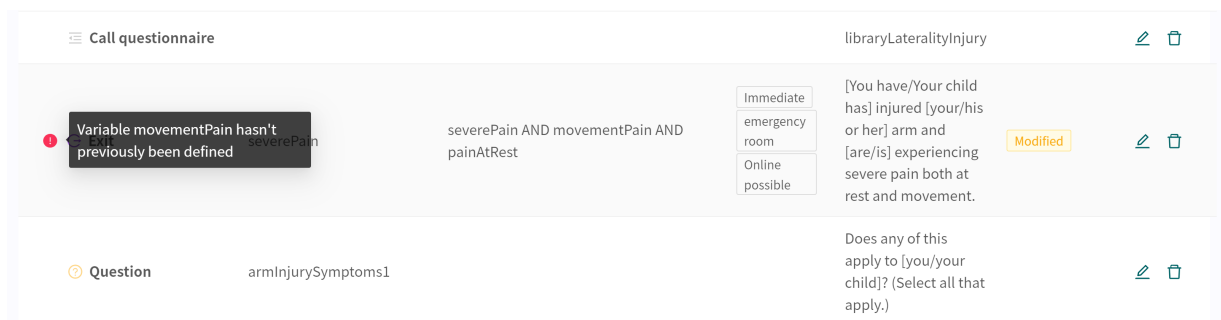
The image below shows the exclamation mark at the questionnaire where the logic is interrupted.

Animal bite/scratch	biteAnimal	Injuries and accidents	 False
 Arm injury	armInjury	Injuries and accidents	 False
Arm problems	arm	Locomotor	 False

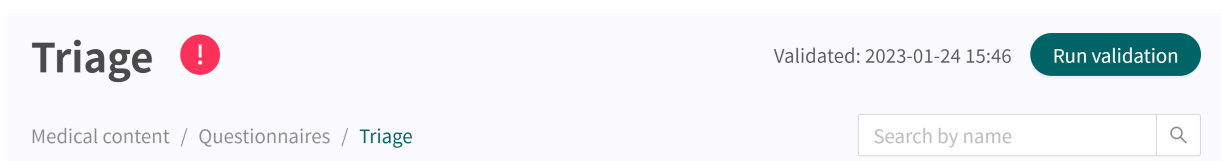
The image below shows the exclamation mark within a specific questionnaire.



The image below shows the exclamation mark at the specific component where the logic is interrupted.



To ensure the questionnaire does not contain any broken logic, always make sure that the questionnaire has no red exclamation marks and conduct thorough tests in the Patient app to rule out errors and patient risks. To trigger a new validation, press on the button **“Run Validation”**. **“Run Validation”** is done in the **Triage** view and starts a validation of all questionnaires.



### 7.6.2. Warning in the event of changes

If changes are made to conditions in the components' exits and formulas as well as to urgency levels in exits, a warning message is displayed when saving the change. This is to remind users

that any changes have been made may result in a risk for patients. The warning appears each time changes have been made to the conditions and urgency levels in each component.

The screenshot shows the 'Exit' configuration screen in Content Studio. The form is titled 'Exit' and includes a language selector set to 'English'. The form contains several sections:

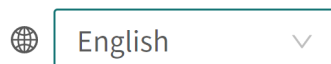
- \* Exit ID:** A text input field containing 'highEnergyTrauma'.
- Type of exit:** A dropdown menu set to 'Recommendation'.
- \* Condition:** A dropdown menu set to 'highEnergyTrauma'.
- Patient text:** A text area containing the text: 'High energy trauma can cause internal damage that is not always noticeable in the beginning, but can quickly develop into a life-threatening situation.'
- Recommendation:** An empty text input field.
- Build time if:** An empty text input field.
- Choose first [ ] alternative if:** An empty text input field.
- Exit Attribute:** A section with the instruction 'At least one field must be selected'. It contains several dropdown menus: 'Urgency' (set to 'Acute'), 'Priority', 'Visit form' (set to 'Offline'), 'Level of care', 'Resource', and 'Capability'.

A warning dialog box is overlaid on the form, with the following text: 'Your changes could cause patient risk. Are you sure you want to save?' Below this text is a list item: '• Changing urgency'. The dialog has 'Cancel' and 'OK' buttons.

## 7.7. Languages

Questionnaires can be created and provided to a patient in several different languages. The languages agreed on to use in Platform24 will be displayed and selectable for the various Content Studio components.

1. Start by selecting which language to use in Manage in the lower left corner.



ⓘ About


< Collapse Menu

↻ Logout

- To edit a questionnaire in another language, select the language in the overview to change the language in language-dependent fields (e.g. the field **Description**).

The screenshot shows the 'Acne problems' questionnaire overview. At the top right, there is a 'Visualize' button. Below it, a 'Hidden' toggle is set to 'off'. A breadcrumb trail reads 'Medical content / Questionnaires / Triage / Acne problems'. A language dropdown menu is open, showing 'English' selected, with 'Swedish' and 'English' (with a sub-item 'skin and hair') also visible. Below the language menu, there are fields for 'Id' (acne) and '\* Title' (Acne problems). Further down, there are several toggle switches: 'Description of questionnaire (care personnel)', 'Hide intro questions', 'Hide final questions', 'Hide in patient app', and 'Title searchable'. A 'Save' button is located at the bottom right of the configuration area. Below this, there are two tables. The first table has columns for 'Type', 'Search term', 'Properties', and 'Actions', with one row for 'Search Terms'. The second table has columns for 'Type', 'Id', 'Condition', 'Exit Attribute', 'Content', 'Status', and 'Actions', with one row for 'Pre-triage'.

- To change the language in a component, for example when editing a **Question**, click on the field and select the language in which the text should be displayed.

 **NOTE**  
The application texts will be displayed in the languages selected in step 1, but the **Question** content will be displayed in the selected language in this step.

The screenshot shows the 'Question' editing form. At the top right, there is a language dropdown menu with 'English' selected, and 'Swedish' and 'English' also visible. The form contains several fields: '\* Id' (movementPain), '\* Type' (Yes or no), 'Category' (Symptom), 'Build time if' (empty), 'Condition' (havePain), '\* Question' (Does it hurt [to move your/for your child to move his or her] arm?), 'Medical term' (Movement-related pain), 'Practitioner text (if answer no)' (empty), 'Point (if answer yes)' (empty), 'Choose first [ ] alternative if' (empty), 'Explanation title' (empty), and 'Explanation text' (empty). At the bottom right, there are 'Cancel' and 'Save' buttons.

## 7.8. Deleting and undoing component changes



Questionnaires cannot be completely deleted. They can however be deactivated in the Patient app and in Clinic by setting them to "**Hidden**" (refer to the [Overview \[25\]](#) section for more information) or "**Hide in patient app**" (refer to [Metadata \[26\]](#) section for more information).













### 7.8.1. Deleting and recalling components



#### WARNING

Removing a component can pose a patient-safety risk unless a careful analysis of the effects is performed. Make sure to test any changes made and identify any ensuing changes required to ensure patient-safe flows.










The components (e.g., questions, exits, formulas, etc.) in a questionnaire can be deleted/removed to adapt the questionnaire to a partner's operations. Click on the **"Rubbish bin"**  icon next to the **"Pen"**  icon to delete a component.

Type	Id	Condition	Exit Attribute	Content	Status	Actions
▼ Pre-triage						🔄
☰ Go to another questionnaire		infant		notYetForInfants		 
🕒 Question	previousDiagnosis			[Have/Has] [you/your child] ever been diagnosed with asthma?		 
🕒 Question	ongoingRespiratory			[Do you/Does your child] currently have breathing problems?		 
☰ Go to another questionnaire		NOT previousDiagnosis AND ongoingRespiratory		breathing		 
🕒 Question	respiratory	previousDiagnosis AND ongoingRespiratory		How severe are [your/your child's] breathing problems?		 
🕒 Question	criticalRespiratory	respiratory.severe		Are [your/your child's] breathing problems so severe that [you/he or she] [are/is] experiencing pronounced shortness of breath/breathlessness?		 

Sure to delete?


Cancel

Questionnaires that do not have **Local copy** status and components in these questionnaires that do not have **Local copy** status will, despite being removed, remain in the questionnaire. They will however be grayed out and not be active in the questionnaire. These removed components can be recalled by clicking on the **arrow**.

Type	Id	Condition	Exit Attribute	Content	Status	Actions
▼ Pre-triage						🔄
☰ Go to another questionnaire		infant		notYetForInfants		 
🕒 Question	previousDiagnosis			[Have/Has] [you/your child] ever been diagnosed with asthma?		 
🕒 Question	ongoingRespiratory			[Do you/Does your child] currently have breathing problems?		 
☰ Go to another questionnaire		NOT previousDiagnosis AND ongoingRespiratory		breathing		 
🕒 Question	respiratory	previousDiagnosis AND ongoingRespiratory		How severe are [your/your child's] breathing problems?	Modified	

### 7.8.2. Undoing component changes


When a component change has been made in questionnaires that do not have **Local copy** status, a **Modified** icon will be displayed by the component in the questionnaire overview and if the





component is opened (via the **Pen** ) , status will also be displayed by the fields that have been changed.

Question Modified
English ▼

<b>* Id</b>	<b>* Type</b>	<b>Category</b>	<b>Build time if</b>	<b>Condition</b>
<input type="text" value="overweightChild"/>	<input style="border: none; border-bottom: 1px solid #ccc;" type="text" value="Yes or no"/>	<input style="border: none; border-bottom: 1px solid #ccc;" type="text" value="Symptom"/>	<input type="text"/>	<input type="text" value="patient17orBelow"/>
<b>* Question</b> <span style="background-color: #ffc107; padding: 2px 5px; font-weight: bold;">Modified</span>		<b>Medical term</b>	<b>Practitioner text (if answer no)</b>	
<input type="text" value="[Are you/Is your child] overweight compared to growth charts?"/>		<input type="text" value="overweight compared to growth charts"/>	<input type="text"/>	
<b>Point (if answer yes)</b>	<b>Choose first [ ] alternative if</b>		<b>Explanation title</b>	
<input type="text"/>	<input type="text"/>		<input type="text"/>	
<b>Explanation text</b>				
<input type="text"/>				

Restore to default
Cancel
Save

If for any reason, users no longer require the changes, they can choose to restore a component to its standard version (i.e., as the component was when the questionnaire was delivered from Platform24). Click on the **Rubbish bin**  by the component (this only removes the change) in the overview or click on **"Reset to default"** inside the component.

 Exit	overweightAdultAndTriedSelfCareWithoutSuccess	overweightAdult AND triedSelfCareWithoutSuccess	Planned general practice Online possible	If you have tried losing weight by altering your dietary habits and exercise, but not been successful, you may need support and advice for losing weight.	
 Exit	overweightAdult	overweightAdult	Wait Online possible overvikt-och-fetma	You are suffering from being overweight and have not tried self-care.	<span style="background-color: #ffc107; padding: 2px 5px; font-weight: bold;">Modified</span>  

! Sure to delete?

Cancel
OK

Question Modified
English ▼

<b>* Id</b>	<b>* Type</b>	<b>Category</b>	<b>Build time if</b>	<b>Condition</b>
<input type="text" value="overweightChild"/>	<input style="border: none; border-bottom: 1px solid #ccc;" type="text" value="Yes or no"/>	<input style="border: none; border-bottom: 1px solid #ccc;" type="text" value="Symptom"/>	<input type="text"/>	<input type="text" value="patient17orBelow"/>
<b>* Question</b> <span style="background-color: #ffc107; padding: 2px 5px; font-weight: bold;">Modified</span>		<b>Medical term</b>	<b>Practitioner text (if answer no)</b>	
<input type="text" value="[Are you/Is your child] overweight compared to growth charts?"/>		<input type="text" value="overweight compared to growth charts"/>	<input type="text"/>	
<b>Point (if answer yes)</b>	<b>Choose first [ ] alternative if</b>		<b>Explanation title</b>	
<input type="text"/>	<input type="text"/>		<input type="text"/>	
<b>Explanation text</b>				
<input type="text"/>				

Restore to default
Cancel
Save

## 8. Grouping and using questionnaires and self-care information

### 8.1. Assessments

Assessments are codified rating scales such as **MADRS-S**, **Dudit** and **Audit**. The assessments always have the category: **Assessments** and are sent from Clinic for the patient appointment.

These questionnaires have no triage exits but contain questions where the answers are rated according to international or national standards. The system totals the user's points, which in turn in its clinical context provides a subset of information about the patient's current wellbeing to healthcare practitioners in Clinic.

It is possible to use assessments that patients can search for in the patient app. These have to be coded as a regular assessment in the **Triage** or **Library** sub-menu. The system enables conditions to be set for the triage exits based on the total points from such an assessment or library.

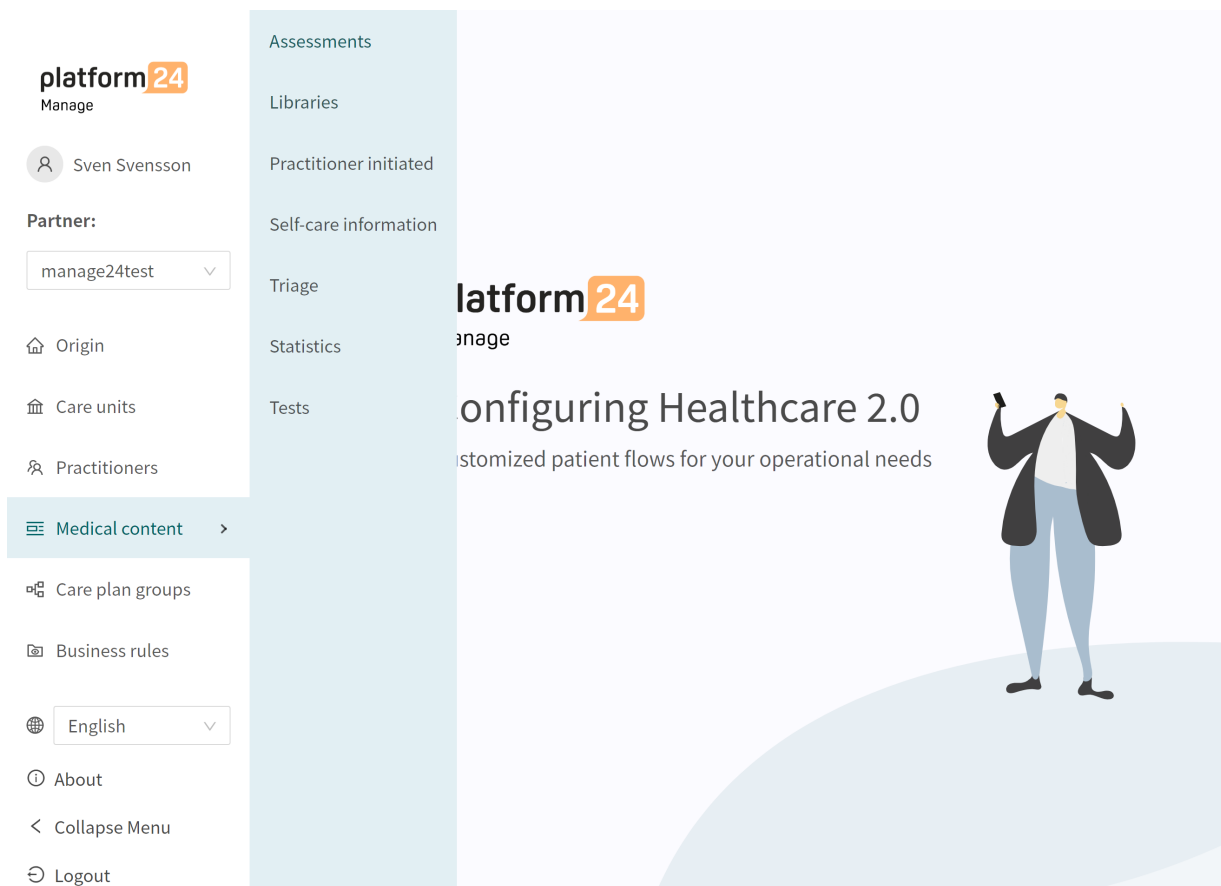


#### **WARNING**

Editing and adding assessments can pose a patient safety risk unless a careful analysis of the effects is conducted. Make sure to test any changes made and identify any ensuing changes required to ensure patient-safe flows.

### 8.1.1. Editing existing questionnaires

To edit an existing assessment, click on the "Assessment" sub-menu under the "Medical content" menu. Then select the assessment you want to edit. Existing assessments in the status column are not selected.



Last update by Signe Winther | January 25, 2023 12:40 PM Changes Log History Changes 13

## Assessments

Validated: 2023-01-24 15:46 Run validation

Medical content / Questionnaires / Assessments

Title	Id	Category	Hidden	Status
ASRS (Adult ADHD Self-Report Scale)	asrs	Assessments	False	
DUDIT	dudit	Assessments	False	
GAD-7	gad7	Assessments	False	
PHQ-9	phq9	Assessments	False	
PSS-14	pss14	Assessments	False	

Click on the questionnaire to be edited (click on the title that is displayed in the "Questionnaire" column).

Assessments always have the "Assessment" category and always have the "Health test" section where the components are available. Click the plus (+) icon to add a new component to the section



or click the **pen** for a component to edit the existing component. It is not possible to add **Flags, Exits** or **Go to another questionnaire** as the assessments are always sent out from Clinic (healthcare practitioner view) and do not then require the above-mentioned components.

**MADRS-S** Visualize

Hidden:

Medical content / Questionnaires / Assessments / MADRS-S Swedish

Id:  Title:  Category:

Description of questionnaire (care personnel):

Hide intro questions:  Hide final questions:  Hide in patient app:  Title searchable:

Type	Search term	Properties	Actions
Search Terms			<input type="button" value="⊕"/>

Type	Id	Condition	Exit Attribute	Content	Status	Actions
Health-test						<input type="button" value="⊕"/>
Question	sadness			Here we ask you to describe your mood, whether you feel sad, moody or gloomy. Think about how you have felt **over the past three days**, if your mood has changed or has been basically the same all the time, and try to remember in particular if you have felt in a better mood if something good has happened.		<input type="button" value="✎"/> <input type="button" value="🗑"/>
Question	tension			Here we ask you to indicate the extent to which you have had feelings of inner tension, uneasiness and anxiety or undefined fear over **the past three days**. In particular, think about how intense the emotions have been, and whether they have come and gone or been there almost all the time.		<input type="button" value="✎"/> <input type="button" value="🗑"/>

### 8.1.2. Creating new questionnaires

New assessments, which can be sent to patients during an appointment, are created in the “**Assessments**” section under the “**Medical content**” menu option.

platform24 Manage

Sven Svensson

Partner: manage24test

Origin

Care units

Practitioners

**Medical content**

Care plan groups

Business rules

English

About

Collapse Menu

Logout

Assessments February 16, 2023 11:46 AM Changes Log History  4

Libraries

Practitioner initiated **Assessments** Run validation

Self-care information Questionnaires / Assessments

	Id	Category	Hidden	Status
Test)	ACT	Assessments	<input type="checkbox"/>	
(f-Report Scale)	asrs	Assessments	<input type="checkbox"/>	
	audit	Assessments	<input type="checkbox"/>	
	audtc	Assessments	<input type="checkbox"/>	
nt Test)	CAT	Assessments	<input type="checkbox"/>	
	contentTest	Assessments	<input type="checkbox"/>	<span style="border: 1px solid #0070c0; padding: 2px;">Local copy</span>
	das28crp	Assessments	<input type="checkbox"/>	<span style="border: 1px solid #0070c0; padding: 2px;">Local copy</span>
	dudit	Assessments	<input type="checkbox"/>	
	epworthSleepinessScale	Assessments	<input type="checkbox"/>	
	gad7	Assessments	<input type="checkbox"/>	
	isi	Assessments	<input type="checkbox"/>	

+

Click the plus sign **+** in the lower right corner to add a new assessment. In the window that opens, enter a name for the new questionnaire according to valid values:

**a-z, A-Z, 0-9** (a-z uppercase and lowercase letters and numbers, no special characters).

Click on **"Save"**. The questionnaire will automatically be set to hidden in the Patient app (**Hide in patient app** slider selected).

### New questionnaire

\* Mode:

\* Title:

Hidden:

Cancel
Save

When the questionnaire has been created, fill in a description of what the questionnaire contains in the **Description** field. Click again on the **"Save"** button. Then click on the plus button **+** to add statements to the **"Health test"** section.

Last update by Ines Admin | January 26, 2023 03:37 PM Changes Log History Changes 30

## NewQuestionnaire

Hidden:  Visualize

Medical content / Questionnaires / Assessments / NewQuestionnaire Swedish

Id newQuestionnaire	* Title newQuestionnaire	* Category Assessments	
Description of questionnaire (care personnel) <input type="text"/>	Hide intro questions <input checked="" type="checkbox"/>	Hide final questions <input checked="" type="checkbox"/>	Hide in patient app <input checked="" type="checkbox"/>
<span style="background-color: #00728f; color: white; border-radius: 15px; padding: 5px 10px;">Save</span>			

Type	Search term	Properties	Actions
Search Terms			
Type	Id	Condition	Exit Attribute
Health-test <span style="float: right; background-color: #00728f; color: white; border-radius: 50%; padding: 2px 5px;">+</span>			

Components are added to the **"Health test"** section by clicking on the plus **+** sign in the **"Health test"** row and selecting which component type to add in the window that opens. Standard components in **Assessments** are **"Questions"**.

New item
English

---

Type

Question

---

\* Id

\* Type

Category

Build time if

Condition

Single choice

---

\* Question

Medical term

Choose first [ ] alternative if

---

Explanation title

Explanation text

Show negative answer in Clinic (none/nope)

---

\* Response options

+Add response

---

Cancel Save

### 8.1.3. Replacing existing questionnaires

To replace an existing questionnaire, go to the questionnaire overview in the **Assessments** section and click on the large plus **+** sign in the lower right corner.

platform24 Manage

Sven Svensson

Partner: manage24test

Origin

Care units

Practitioners

**Medical content**

Care plan groups

Business rules

English

About

Collapse Menu

Logout

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Run validation

Search by name

Id	Category	Hidden	Status
ACT	Assessments	False	
asrs	Assessments	False	
audit	Assessments	False	
auditc	Assessments	False	
CAT	Assessments	False	
contentTest	Assessments	False	Local copy
das28crp	Assessments	False	Local copy
dudit	Assessments	False	
epworthSleepinessScale	Assessments	False	
gad7	Assessments	False	
isi	Assessments	False	

+

New questionnaire

\* Mode:

\* Title:

Hidden:

- ASRS (Adult ADHD Self-Report Scale)
- DUDIT
- GAD-7
- PHQ-9
- PSS-14

Select "**Replace**" in the **Mode** field and which of the existing questionnaires you want to replace in the **Name** field. It is only possible to replace existing questionnaires, meaning that any questionnaires without changes will not be displayed in the list. If a questionnaire must be replaced, delete all changes and then carry out the above steps again. When a questionnaire is replaced, its **Id** and components are reused and this opens the way to also edit the questionnaire's metadata.

Replaced questionnaires can be edited just like New questionnaires. Refer to the [Creating new questionnaires \[41\]](#).

## 8.2. Libraries

**Libraries** contain questionnaire components that are often used and which can be reused in many of the questionnaires in the medical content. These are grouped in different **Libraries**.



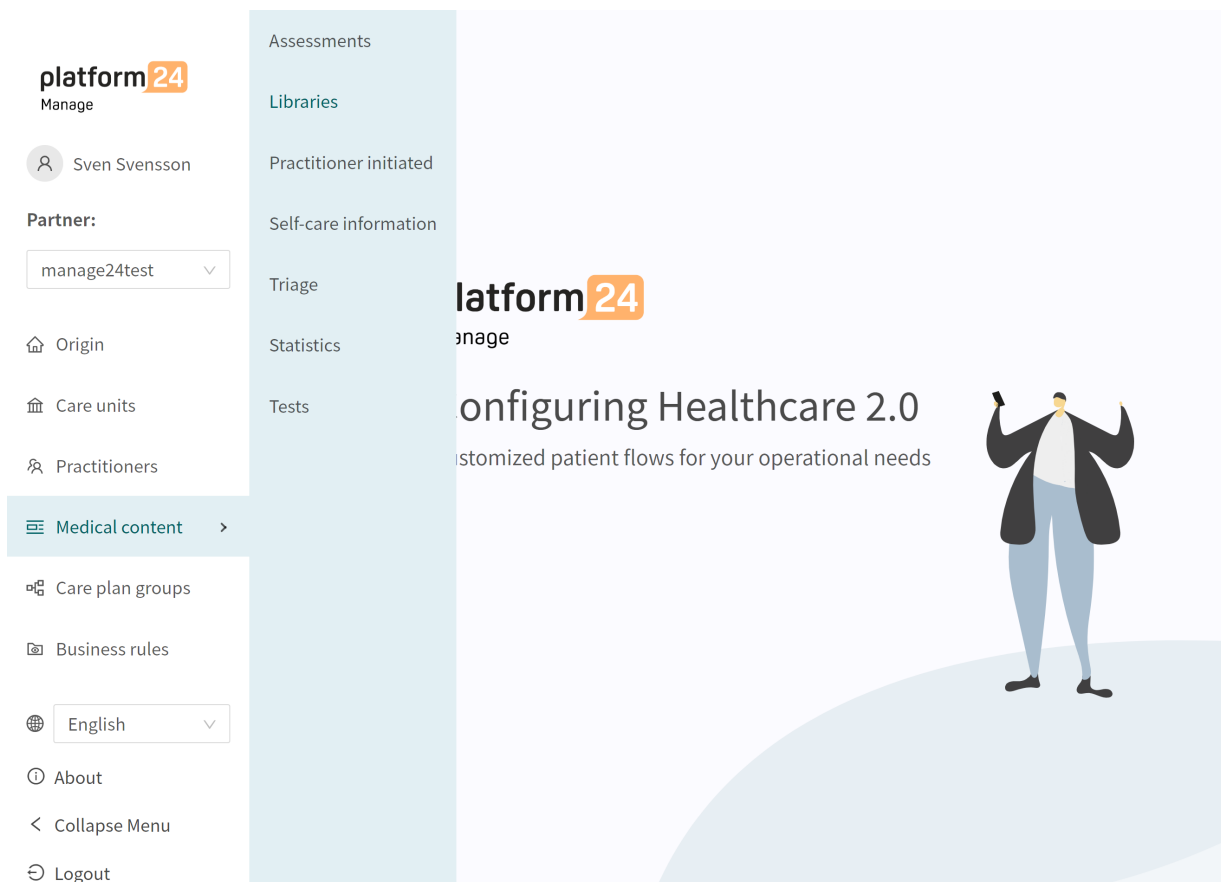
### WARNING

If a change is made in a **Library**, the change will affect all questionnaires where the **Library** is used. Consider therefore carefully when editing.

### 8.2.1. Editing existing libraries

In the existing medical content, there are pre-defined libraries that are used in the medical content questionnaires. It is possible to edit the existing libraries, but be aware that many of the existing libraries and their contents are already used in questionnaires in this solution, and if a library is changed, this will also affect any questionnaires that use that particular library.

To access **Libraries**, move the cursor over "**Medical content**" and click on the "**Libraries**" menu option.



Search for the libraries to be edited and/or click on the libraries to be edited. Each library is displayed with its title (under the **Title** column), **Id** and **Category**. All libraries have the **Library** category.



Last update by Sven Svensson | January 24, 2023 10:45 AM [Changes](#) Log History [Changes](#) 68

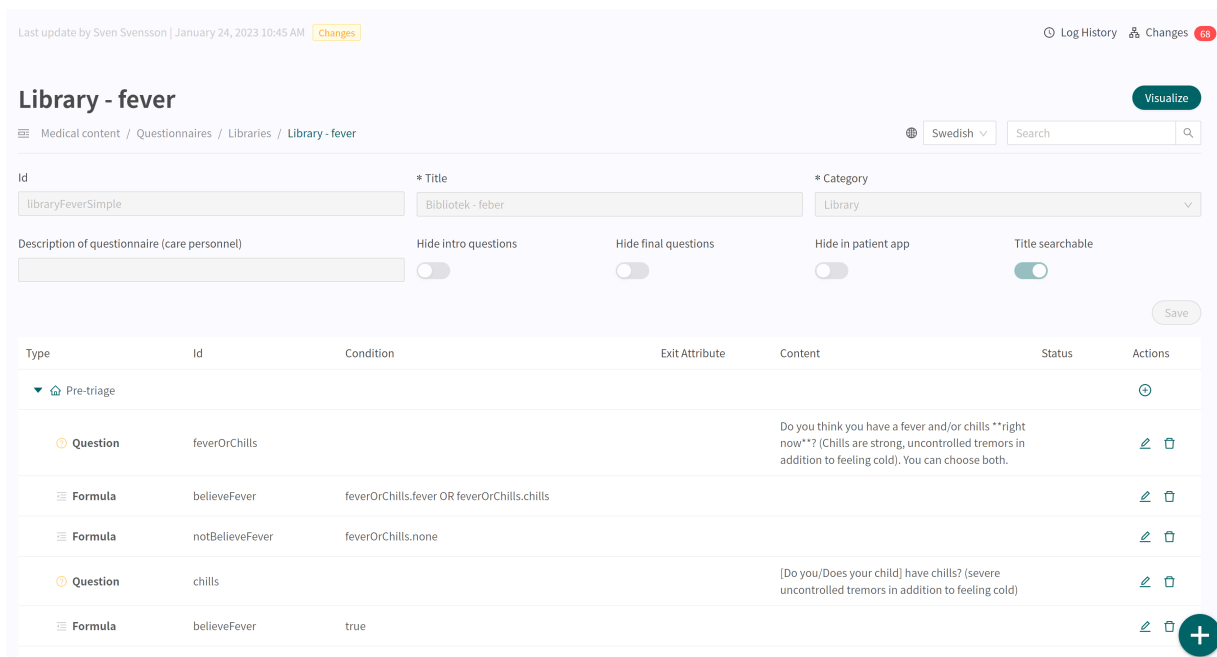
## Libraries

Validated: 2021-10-21 17:32 [Run validation](#)

Medical content / Questionnaires / Libraries Search by name

Title <span style="font-size: 0.8em;">↕</span>	Id	Category	Status
COVID test criteria FHM220128	libraryCovidTestEligability	Library	
Library - acute allergy	libraryAcuteAllergy	Library	
Library - acute breathing problems	libraryAirwaysBreathing	Library	
Library - acute coronary syndrome	libraryACS	Library	
Library - anal pain	libraryAnalPain	Library	
Library - Anxiety and physical symptoms	libraryAnxietySomatic	Library	
Library - Audit	libraryAuditFullVersion	Library	

In the existing questionnaire, the existing components can be edited by clicking on the **pen**  to the right of each component. Click on the plus  in the section (in this case **Pre-triage**) to add additional components and select which component to add.















The screenshot displays the 'Library - fever' configuration page. At the top, it shows the last update by Sven Svensson on January 24, 2023, at 10:45 AM, along with a 'Changes' button and a notification for 68 changes. The page title is 'Library - fever' and it includes a 'Visualize' button. The breadcrumb trail is 'Medical content / Questionnaires / Libraries / Library - fever'. There are language and search options at the top right.

The configuration form includes the following fields and options:

- Id:** libraryFeverSimple
- \* Title:** Bibliotek - feber
- \* Category:** Library
- Description of questionnaire (care personnel):** (empty text field)
- Hide intro questions:**
- Hide final questions:**
- Hide in patient app:**
- Title searchable:**


A 'Save' button is located at the bottom right of the form. Below the form is a table listing the library's components:

Type	Id	Condition	Exit Attribute	Content	Status	Actions
▼ Pre-triage						
Question	feverOrChills			Do you think you have a fever and/or chills **right now**? (Chills are strong, uncontrolled tremors in addition to feeling cold). You can choose both.		 
Formula	believeFever	feverOrChills.fever OR feverOrChills.chills				 
Formula	notBelieveFever	feverOrChills.none				 
Question	chills			[Do you/Does your child] have chills? (severe uncontrolled tremors in addition to feeling cold)		 
Formula	believeFever	true				  

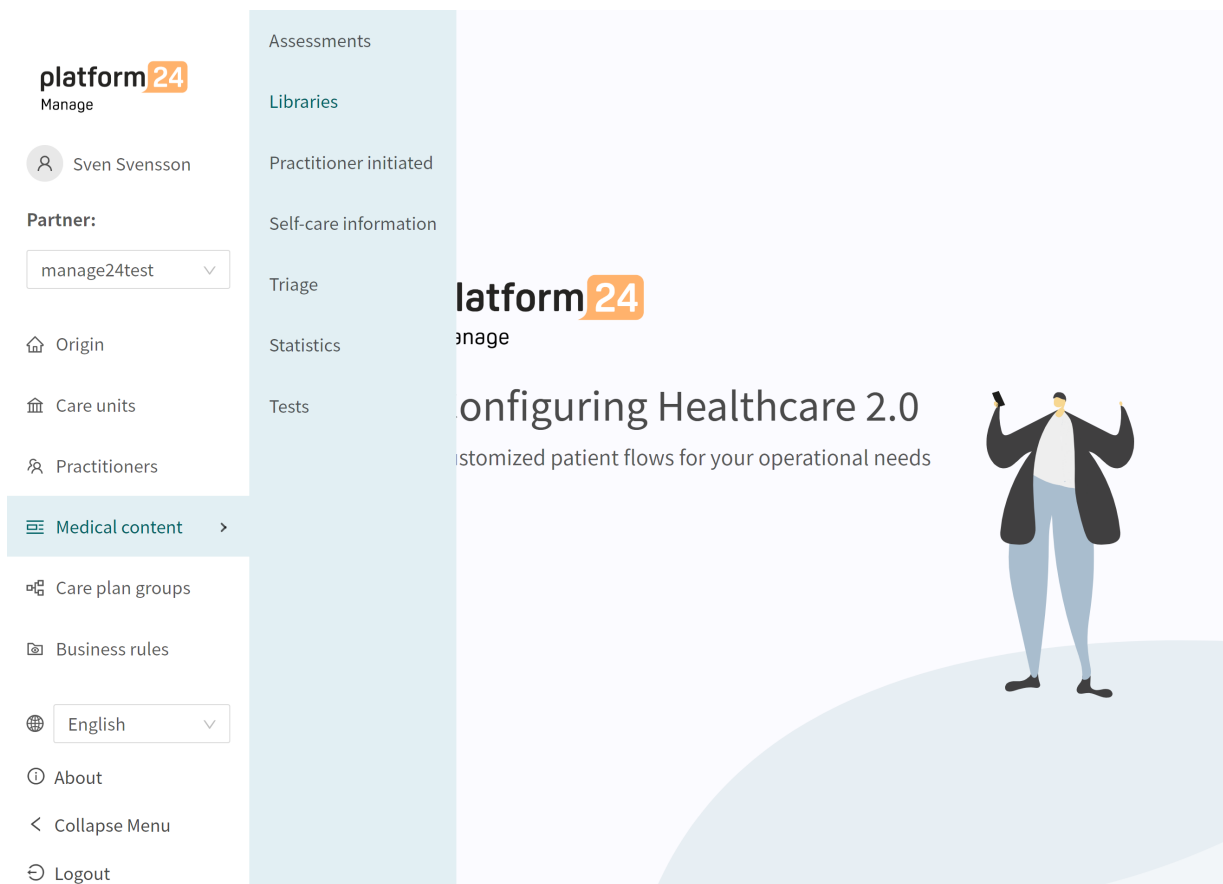
When editing existing libraries, it is not possible to edit a questionnaire's basic information (**meta-data [70]**).

If users wish to edit metadata (for example, the description of the library), refer to the [Replacing Existing Libraries \[50\]](#) section.

## 8.2.2. Creating new libraries

To create a new library, go to the **Libraries** section under the **"Medical content"** menu and click on the plus  icon in the lower right corner.

Click **“Save”**. The questionnaire will automatically be given the **“Library”** category and this cannot be edited.



Last update by Sven Svensson | January 24, 2023 10:45 AM Changes Log History Changes 68

## Libraries

Validated: 2021-10-21 17:32 Run validation

Medical content / Questionnaires / Libraries Search by name

Title	Id	Category	Status
COVID test criteria FHM220128	libraryCovidTestEligability	Library	
Library - acute allergy	libraryAcuteAllergy	Library	
Library - acute breathing problems	libraryAirwaysBreathing	Library	
Library - acute coronary syndrome	libraryACS	Library	
Library - anal pain	libraryAnalPain	Library	
Library - Anxiety and physical symptoms	libraryAnxietySomatic	Library	
Library - Audit	libraryAuditFullVersion	Library	
Library - Audit-C	libraryAuditC	Library	
Library - Auditlastquestions	libraryAuditPart2	Library	

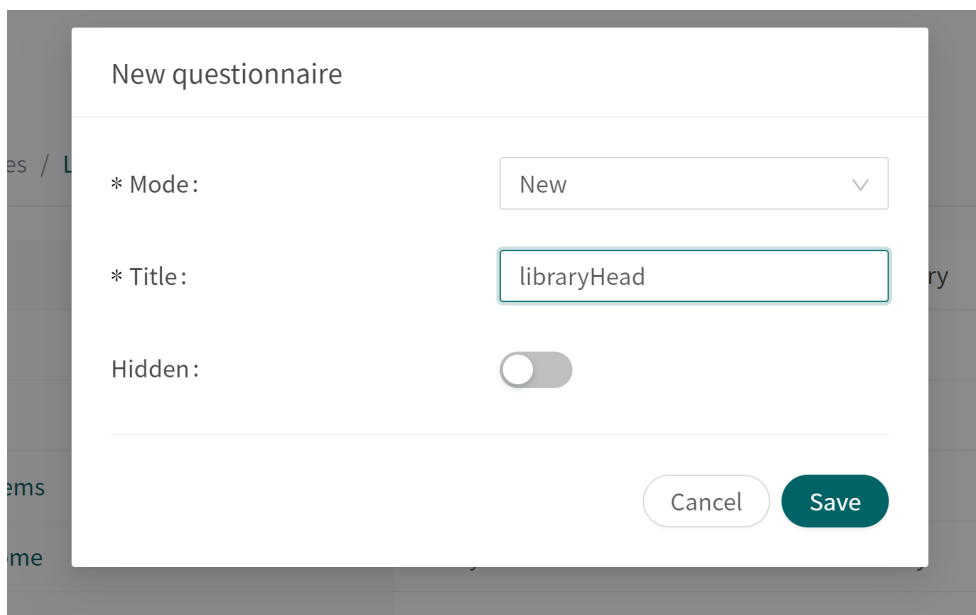
+

Select "**New**" and enter an **Id (Name)** for the new library file.

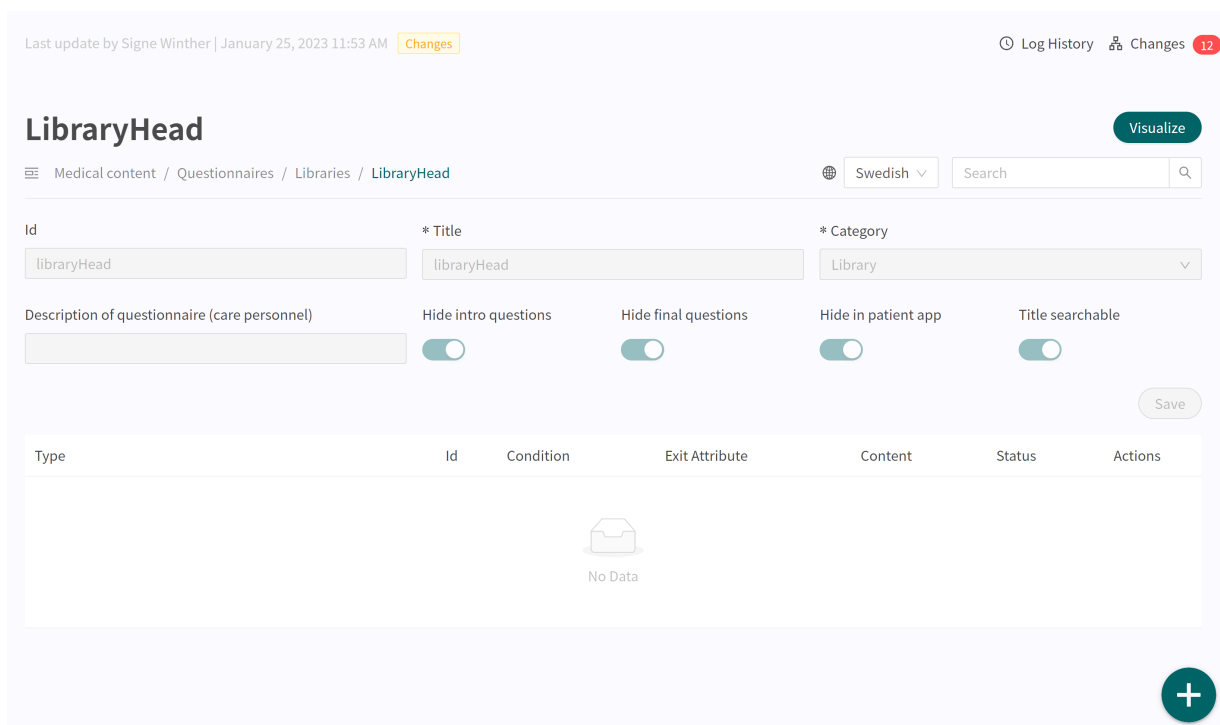
The **ID** needs to be in English and may contain the following characters (no special characters):

- a-z
- A-Z
- 0-9


Click "**Save**". The questionnaire will automatically be given the "**Library**" category and this cannot be edited.

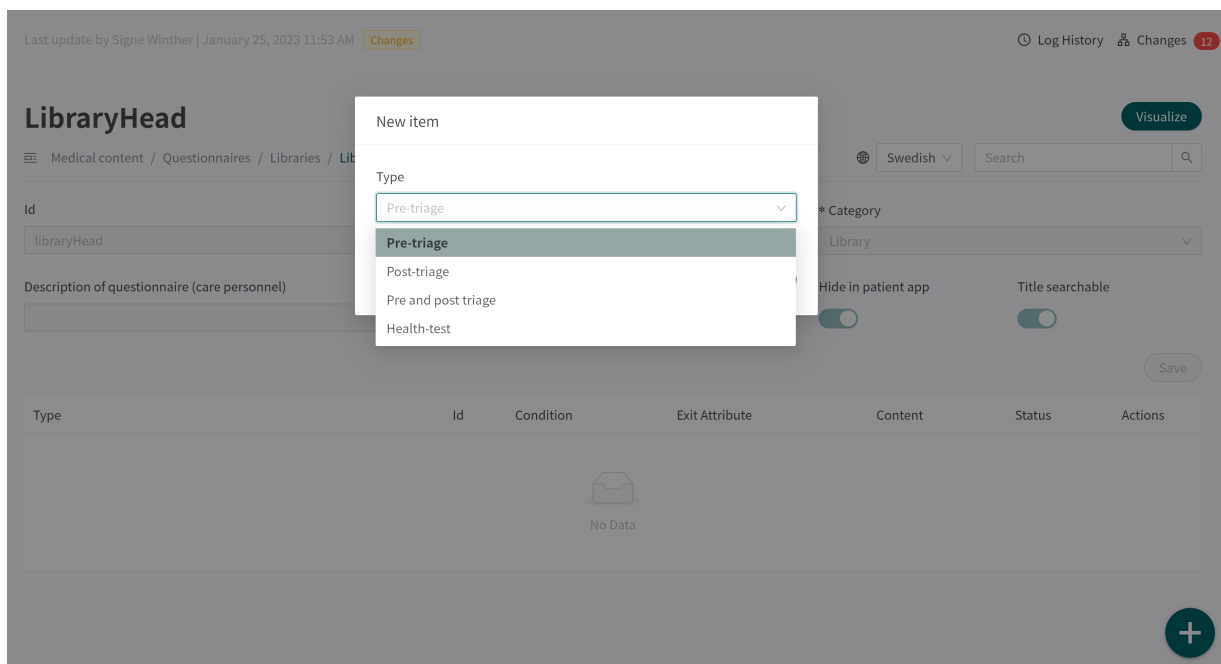



When a new library has been created, it opens directly. **Library metadata** is set automatically to ensure they have the correct settings.

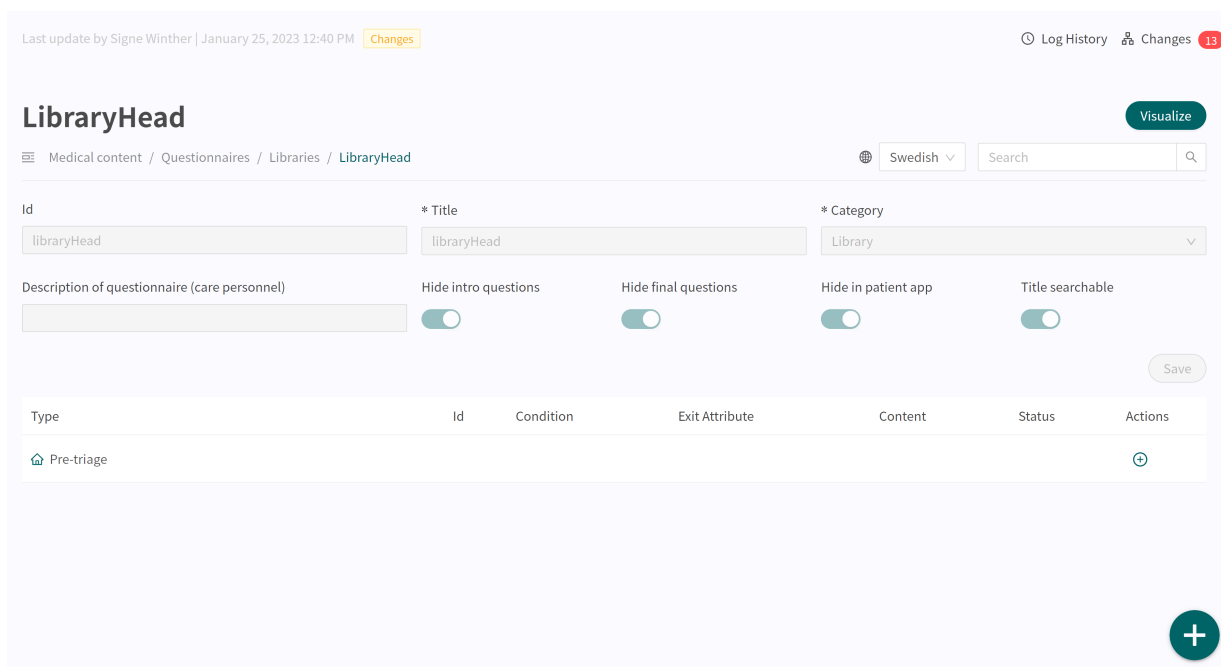




New sections can be added to the library by clicking the plus  button again in the lower right corner, when you are inside the questionnaire. Here you can choose which section you want to add, you can add a section for each type. Select the section and click **Save**.



Components can then be added to the section by clicking the plus  sign in the section in which the component is to be added.



Select in the first **Type** field the type of component to add. Based on component selection, it will be possible to fill in different fields.

New item
🌐 Swedish ▾

---

Type

Question ▾

---

<b>* Id</b>	<b>* Type</b>	<b>Category</b>	<b>Build time if</b>	<b>Condition</b>
<input type="text"/>	Single choice ▾	<input type="text"/>	<input type="text"/>	<input type="text"/>

---

<b>* Question</b>	<b>Medical term</b>	<b>Choose first [ ] alternative if</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

---

<b>Explanation title</b>	<b>Explanation text</b>	<b>Show negative answer in Clinic (none/nope)</b>
<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

---

**\* Response options**

[+Add response](#)

---

Cancel Save

Fields that are mandatory to fill in are marked with an asterisk (\*). Click **Save** when the component is complete. The new component will be displayed at the bottom of the selected section. You can drag the new component in the list to sort the order.

### 8.2.3. Replacing existing libraries

To replace an existing library, go to the **Libraries** section, click on the plus **+** icon in the lower right corner.

platform24 Manage
February 16, 2023 11:46 AM Changes
🕒 Log History Changes 4

---

**Partner:**

manage24test ▾

Search by name

Run validation

---

	Id	Category	Status
	contentTest		Local copy
M220128	libraryCovidTestEligability	Library	
	libraryAcuteAllergy	Library	
ing problems	libraryAirwaysBreathing	Library	
ary syndrome	libraryACS	Library	
	libraryAnalPain	Library	
physical symptoms	libraryAnxietySomatic	Library	
	libraryAuditFullVersion	Library	
	libraryAuditC	Library	
estions	libraryAuditPart2	Library	
	libraryJointMuscleThrombus	Library	

+

Select "**Replace**" in the **Mode** drop-down list, and then select which library to replace.

The screenshot shows a 'New questionnaire' form with the following fields and options:

- \* Mode:** A dropdown menu currently showing 'Replace'.
- \* Title:** A text input field with a search icon on the right. A dropdown menu is open below it, listing several library names.
- Hidden:** A text input field.

The dropdown menu for the title field contains the following items:

- COVID test criteria FHM220128
- Library - Anemia post triage
- Library - Anxiety and physical symptoms
- Library - Audit
- Library - Audit-C
- Library - Auditlastquestions
- Library - Blood clot

Replacing a questionnaire means copying the entire questionnaire, reusing the same **Id** and the content is copied, but the questionnaire is given **Local copy** for the partner status, meaning that the partner takes full responsibility for further development of the questionnaire.

In order to replace an existing library, changes cannot be made in the library (the questionnaire cannot have **Modified** status and all changes carried out by the partner must be deleted (via **delete**).

### 8.3. Practitioner-initiated

Not used.

### 8.4. Self-care information

Consists of self-care information provided to patients after triage, if the patient has been triaged to self-care information with a **wait** urgency level. There is self-care information that is included from Platform24 and which is referred to as **default**. It is possible to add new self-care information or replace existing self-care information if required. Self-care information can be linked to a triage exit if the **wait** exit attribute is selected. Refer to the [Exits \[82\]](#) section.

#### 8.4.1. Existing self-care information

The default self-care information is provided by Platform24.



#### NOTE

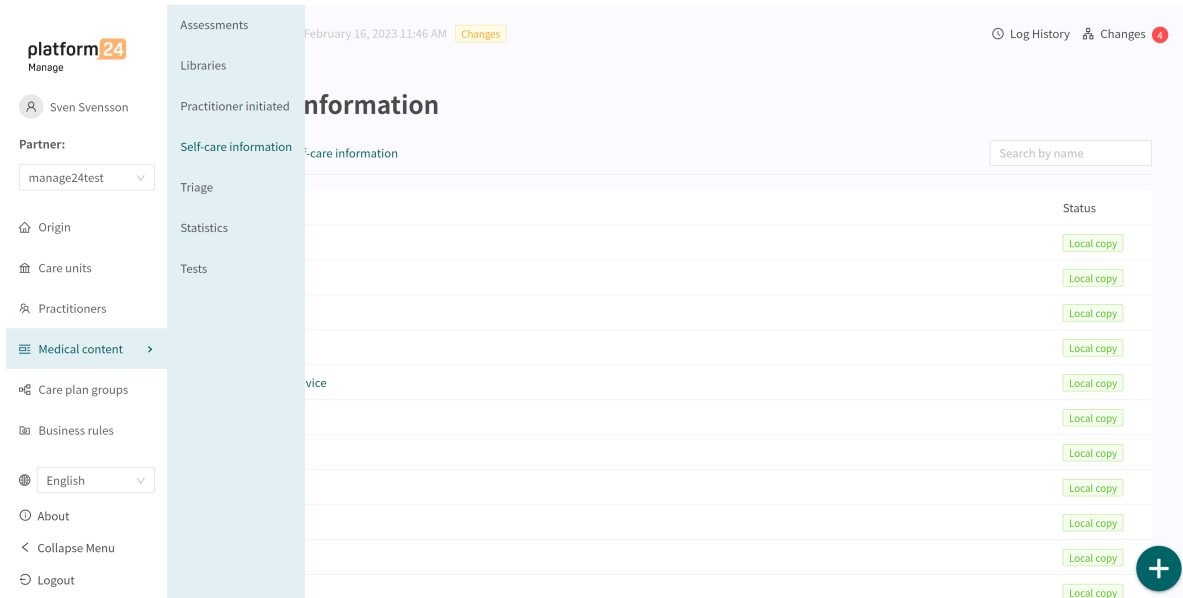
If more languages are to be supported, this option must be added in the setting **Customization** for key **Available Languages** for this origin.

## 8.4.2. Creating new self-care information

Healthcare practitioners can, if they wish, create their own self-care information in Content Studio.

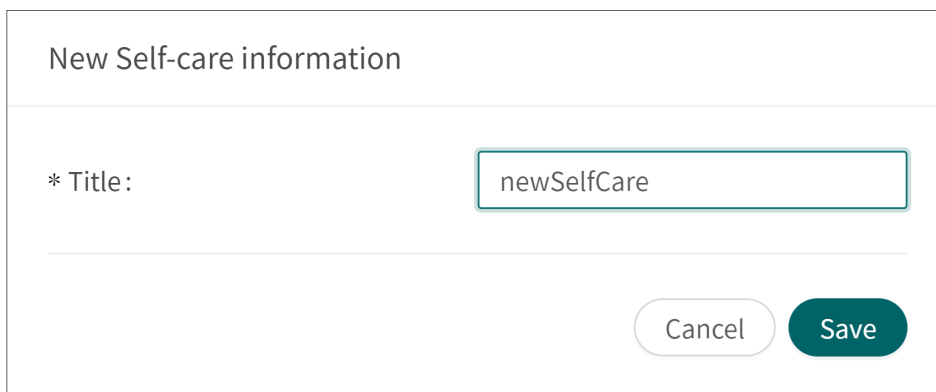
To create new self-care information in Content Studio:

1. Click the plus sign **+** in the lower right corner of the self-care information's overview window.



The screenshot shows the 'Self-care information' overview window in Content Studio. The window title is 'Self-care information' and it displays a table of existing items. The table has a 'Status' column with 'Local copy' entries. A plus sign (+) is visible in the bottom right corner of the window, indicating the option to create new information.

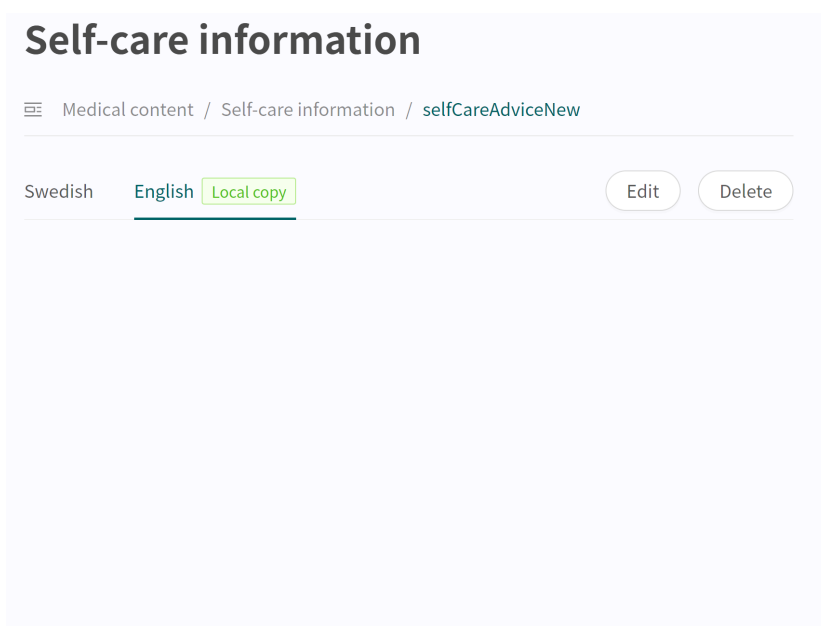
2. Enter a title of the self-care information in the **Title** field. Allowed values: **a-z, A-Z, -, \_** (lower-case and uppercase letters (a-z), hyphens and underscores).



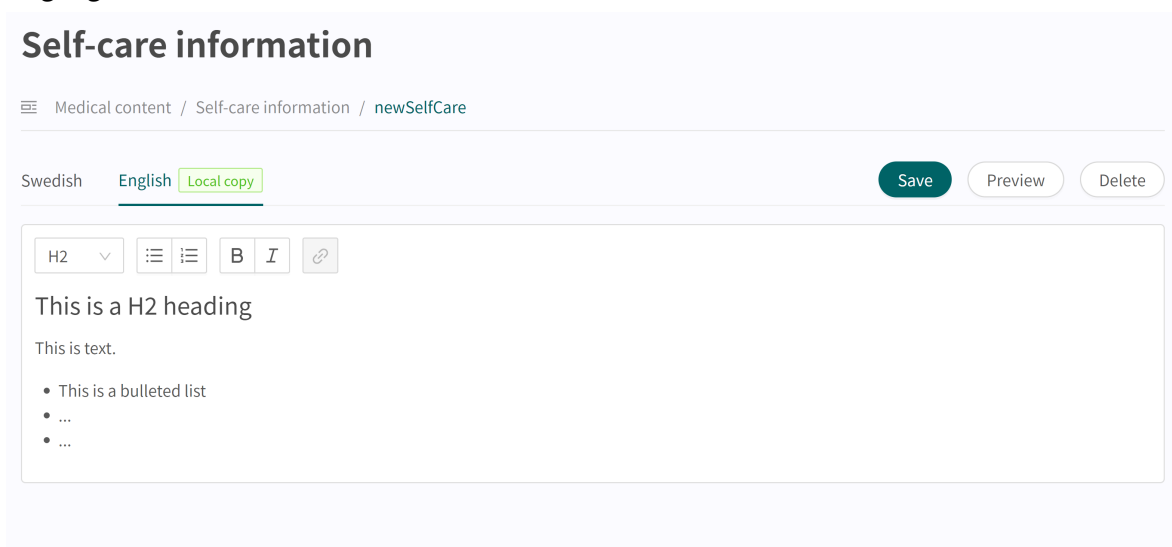
The screenshot shows the 'New Self-care information' form. The form has a title field labeled '\* Title:' with the text 'newSelfCare' entered. There are 'Cancel' and 'Save' buttons at the bottom right.

3. Click **Save**.

- When the new self-care information has been created, click on the language the self-care information will be edited in and then click the **Edit** button.



- Enter the required self-care information and format the information using the available format options: bold, italic, ordered list, unordered list, links, H2-format (heading styles). It is also possible to select to **Preview** the self-care information and to **Delete** a specific language.



- When the desired changes are made, click the **Save** button.

New self-care information is given **Local copy** status ( Local copy ), which can be seen in the language of the added self-care information and in the self-care information overview.

### 8.4.3. Editing existing self-care information

Click the **Edit** button to edit existing self-care information. Edited self-care information will get the status **Modified** ( Modified ) with the exception of self-care advice created by medical content developers that always will have the status **Local copy** ( Local copy ).

## 8.5. Triage

The questionnaires available in the **Triage** section are those patients themselves can search for in the patient app.





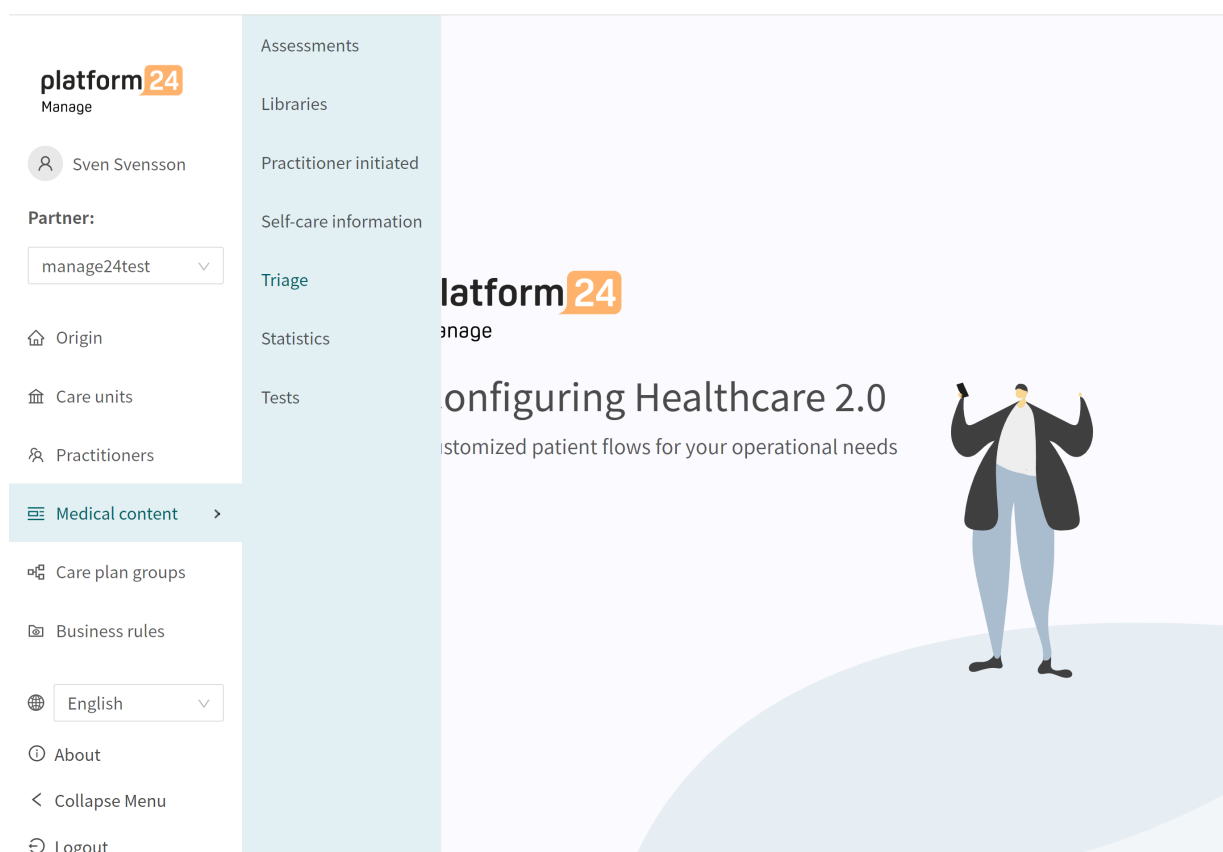
### WARNING

Editing and adding to questionnaires in the **Triage** sub-menu can pose a patient-safety risk if a careful analysis of the effects is not performed. Make sure to test any changes made and identify any ensuing changes required to ensure patient-safe flows.

### 8.5.1. Editing existing questionnaires

The existing questionnaires in this section can be edited with regards pre- and post-triage components. The **metadata** (basic settings) cannot be edited. If one of these fields has to be edited, users can either create a new questionnaire or replace the existing questionnaire.

An existing questionnaire in the **Triage** section can be edited by clicking on the questionnaire you want to edit, either by clicking on the **pen**  for the component you want to edit or clicking on the **+**  button for the section a component is to be added.



The screenshot displays the platform24 user interface. On the left is a navigation sidebar with the platform24 logo and 'Manage' text. Below the logo is a user profile for 'Sven Svensson' and a 'Partner:' dropdown menu set to 'manage24test'. The sidebar lists various menu items: Origin, Care units, Practitioners, Medical content (highlighted with a right-pointing arrow), Care plan groups, Business rules, English (language dropdown), About, Collapse Menu, and Logout. A secondary menu on the right lists: Assessments, Libraries, Practitioner initiated, Self-care information, Triage (highlighted in blue), Statistics, and Tests. The main content area features a large banner with the platform24 logo and the text 'Configuring Healthcare 2.0' and 'Customized patient flows for your operational needs'. An illustration of a person in a suit holding a smartphone is positioned on the right side of the banner.

### Triage

Validated: 2022-10-03 10:50 Run validation

Medical content / Questionnaires / Triage

Title	Id	Category	Hidden	Status
Acne problems	acne	Skin and hair	False	
AddNew	AddNew	Administrative	False	Local copy
Administrative chat	adminChat	Partner specific conditions	False	
Allergic symptoms	allergy	Allergies and hypersensitivities	False	Modified
AllQuestionTypes	AllQuestionTypes	Administrative	False	Local copy
Altered sense of smell	changeOfSmell	Ears, nose, and throat	False	Modified
Animal bite/scratch	biteAnimal	Injuries and accidents	False	
Arm injury	armInjury	Injuries and accidents	False	

### Acne problems

Hidden:

Medical content / Questionnaires / Triage / Acne problems Swedish

Id: 
 Title: 
 Category:

Description of questionnaire (care personnel): 
 Hide intro questions: 
 Hide final questions: 
 Hide in patient app: 
 Title searchable:

Save

Type	Search term	Properties	Actions
Search Terms			

Type	Id	Condition	Exit Attribute	Content	Status	Actions
Pre-triage						
Go to another questionnaire		((infant AND ((childMonths >= 1) OR (childDays != null))))		notInfant	Modified	
Include				library		
Question	intensity	triedSelfCareOTC6w.notTried		How bothersome is [your/your child's] acne?	Modified	

Planned: You have/your child has/ tried treating the acne using

## 8.5.2. Maximum limit for changes to questionnaires

There is a maximum limit to the number of changes that are allowed in the medical content without converting the changes to the local copy. When the maximum limit for changes is reached, a message will be displayed and no further changes will be possible. The number of permitted changes is determined for each specific customer. To convert the modified version with changes to a local version, click the **Convert to local version** button, see image below.

### Acne problems

Hidden:

Medical content / Questionnaires / Triage / Acne problems Swedish

Convert to local version Visualize

### 8.5.3. Creating new questionnaires

A new questionnaire is created in the questionnaire overview in the **Triage** section. Click on the large **+** sign in the lower right corner to open the dialog for creating new questionnaires.

The screenshot shows the 'Triage' section of the platform24 interface. The left sidebar contains navigation options: Assessments, Libraries, Practitioner initiated, Self-care information, Triage (selected), Statistics, and Tests. The main content area displays a table of questionnaires with the following data:

Id	Category	Hidden	Status
acne	Skin and hair	False	
adminChat	Partner specific conditions	False	
AgeRestrictionsTest	Administrative	False	Local copy
AgeRestrictionsTestMax	Administrative	False	Local copy
allergy	Allergies and hypersensitivities	False	
allQuestionTypesForDevs	Administrative	False	Local copy
AllQuestionTypes	Administrative	False	Local copy
changeOfSmell	Ears, nose, and throat	False	
biteAnimal	Injuries and accidents	False	
armlnjury	Injuries and accidents	False	
asd	Administrative	False	Local copy

A large green '+' button is located in the bottom right corner of the table area.

In the window that opens, enter a name **Id** for the new questionnaire using valid characters: **a-z, A-Z**, select which category the questionnaire belongs to, specify if the pre-triage and/or post-triage



sections in the questionnaire should be created straightaway (can also be added afterwards) and click on "**Save**".

### New questionnaire

\* Mode:

\* Title:

\* Category:

Hidden:

Create pre-triage section

Create post-triage section

---

The newly created questionnaire will be visible straightaway on the screen and additional details can be entered or changed, for example a questionnaire **Description**, **Category**, settings if intro and final questions should be asked, etc.

### NewCondition Visualize

Hidden:

Medical content / Questionnaires / Triage / NewCondition Swedish

<b>Id</b>	<b>* Title</b>	<b>* Category</b>	
<input type="text" value="newCondition"/>	<input type="text" value="newCondition"/>	<input type="text" value="Administrative"/>	

Description of questionnaire (care personnel)	Hide intro questions	Hide final questions	Hide in patient app	Title searchable
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Save

Type	Search term	Properties	Actions
Search Terms			<span style="border: 1px solid #007060; border-radius: 50%; padding: 2px 5px;">+</span>

Type	Id	Condition	Exit Attribute	Content	Status	Actions
<div style="display: flex; align-items: center; justify-content: center;"> <span>No Data</span> </div>						

+

Begin constructing the newly created questionnaire by clicking on the plus + buttons in the different sections.


Type	Search term	Properties	Actions
Search Terms			<span style="border: 1px solid #007060; border-radius: 50%; padding: 2px 5px;">+</span>

Type	Id	Condition	Exit Attribute	Content	Status	Actions
Pre-triage						<span style="border: 1px solid #007060; border-radius: 50%; padding: 2px 5px;">+</span>
Post-triage						<span style="border: 1px solid #007060; border-radius: 50%; padding: 2px 5px;">+</span>

All newly created questionnaires (as well as replaced ones) will have **Local copy** status in the **Medical questionnaires** overview section.

Constipation	constipation	Gastrointestinal	False	
Consult a psychologist	seeAPsychologistInterim	Psychological problems	False	
Contact tracing Sars-CoV-2	contactTracingCovid	Administrative	False	
ContentTest	contentTest		False	Local copy
Coronavirus	covidPortal	Infections	False	
Cough	cough	Breathing	False	
COVID-19	covidShort	Infections	False	
Cramp	cramp	Bifurcation	False	
Crying infant	infantCry	Health risks	False	

### 8.5.4. Replacing existing questionnaires


Existing questionnaires can be replaced in the questionnaires overview in the triage section by clicking on the large plus  sign in the lower right corner.


## Triage

Validated: 2022-10-03 10:50
Run validation

Medical content / Questionnaires / Triage

Q

Title 	Id	Category	Hidden	Status
Acne problems	acne	Skin and hair	False	
AddNew	AddNew	Administrative	False	Local copy
Administrative chat	adminChat	Partner specific conditions	False	
Allergic symptoms	allergy	Allergies and hypersensitivities	False	Modified
AllQuestionTypes	AllQuestionTypes	Administrative	False	Local copy
Altered sense of smell	changeOfSmell	Ears, nose, and throat	False	Modified
Animal bite/scratch	biteAnimal	Injuries and accidents	False	
Arm injury	armInjury	Injuries and accidents	False	
Arm problems	arm	Locomotor	False	
Asthma	asthma	Breathing	False	



New questionnaire

\* Mode: Replace

\* Title:

\* Category: 

- Acne problems
- Altered sense of smell
- Animal bite/scratch
- Back injury
- Back problems
- Belly button problems, new-born
- Birth control

Hidden:

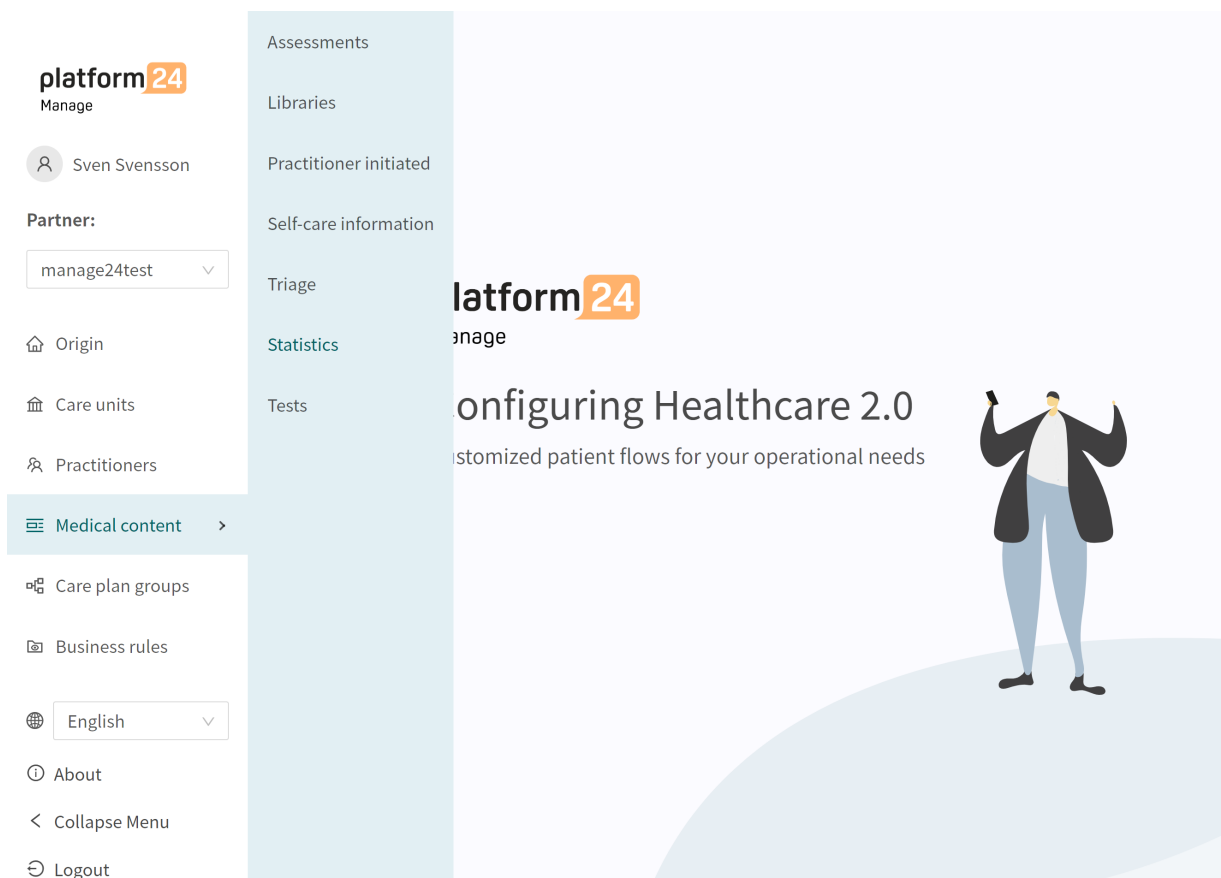
ageRestrictionTest

Select “**Replace**” in the first drop-down list and which of the existing questionnaires you want to replace in the second drop-down list. Select also which category the replaced questionnaire must belong to (can also be changed afterwards). When a questionnaire is replaced, its **Id** and components are reused and this opens the way to also edit the questionnaire's metadata.

Replaced questionnaires can be edited just like New questionnaires. Refer to the [Creating new questionnaires \[56\]](#).

## 8.6. Statistics

Under the **Statistics** section in Content Studio, it is possible to create reports containing the existing outcomes in the medical content together with the actual number of interviews that resulted in the outcomes.



The reports in the **Statistics** section present the number of unique outcomes of the interview based on the medical content. The outcomes are grouped according to Condition, Exit id, Urgency, Priority, Level of care, Visit form, Resource, Capability and number of interviews that received that specific exit. The reports in Statistics count outcomes based on exit IDs that exist in a specific

questionnaire. The reports allow the user to look at concrete combinations of outcome attributes and how often interviews end up on the specific combination.

The screenshot shows the 'Statistics' interface. At the top, it says 'Last update by Sven Svensson | January 26, 2023 01:44 PM' with a 'Changes' button. Below this is the 'Statistics' title and a subtitle: 'Here you can find the statistics regarding triage and resource allocation. Pick the report from the list or create new one (this can take some time to complete)'. There are controls for '2022-11-28 14:30 Complete', a 'Filter' button, and an 'Export to CSV' button. The main table has the following data:

Condition	Exit ID	Urgency	Priority	Level of care	Visit form	Resource	Capability	Interviews that received the exit
Diagnostic search	temporary_notPreviousDiagnosis	Wait			Online possible			0
Administrative chat	adminChat_adminChatElse	Planned			Online recommended			0
Library - Local signs of infection skin and musculoskeletal system	librarySkinAndJoinInfections_suspectedInfectionConstitutional	Immediate					emergency room, emergency hotline	0
Library - Local signs of infection skin and musculoskeletal system	librarySkinAndJoinInfections_increasedRednessAndFever	Promptly			Online possible		general practice	0

When you open the **Statistics** tab, the most recent report is displayed at the top by default. However, it is possible to change to an earlier result. It is also possible to filter by exit attribute value to get more specific results and to be able to export the report in CSV format. The filtering function can also be used to manage multiple selections for each filtering option.

To generate a new report, the user needs to open the report drop down and click on the "+New" button.

This screenshot is similar to the previous one but shows a dropdown menu open for the report selection. The dropdown lists several reports with their completion times: '2022-11-28 14:30 Complete' (selected), '2022-11-28 14:02 Complete', '2022-11-28 11:30 Complete', '2022-11-28 09:52 Complete', '2022-11-25 16:46 Complete', '2022-11-25 16:35 Complete', '2022-11-25 15:24 Complete', and '2022-11-25 14:35 Complete'. At the bottom of the dropdown is a '+New' button. The table below the dropdown is partially obscured but shows the same data as the previous screenshot.

## 8.7. Unit tests

Unit tests enables the testing of patient flows in Content Studio.

Through unit tests, automatic tests are conducted to test different patient flows. When changes are made to the questionnaires, unit testing can be used to discover potential interruptions or errors in the patient flow.

### 8.7.1. The interview

Interviews for testing purposes are performed via the Patient app in the demo environment.

Each interview has a unique **interview ID**, that can be used to identify it. The **interview ID** can be found from the URL when the final question has been answered in the interview.

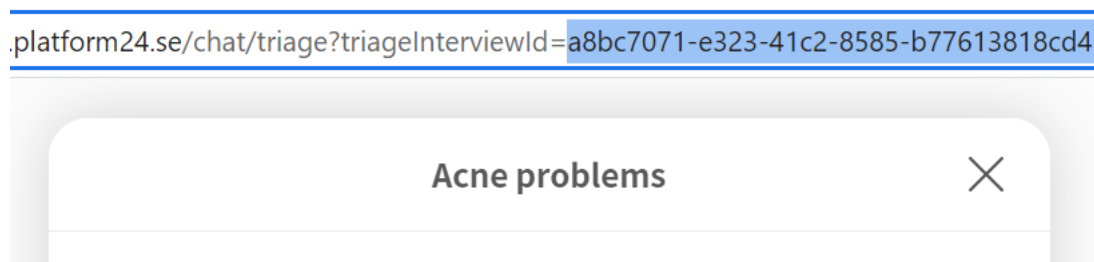
The URL of an interview always ends with the element:

`...triageinterviewid=...` followed by a text string containing letters, numbers and hyphens.

#### Example:

`...triageinterviewid=f303bd76-6e2d-43fc-bf61-2b8dceb04908`

The text string after `triageinterviewid=` is the **interview ID**.



### Interview types

An interview can be performed as an anonymous patient or as a logged in patient.

#### ***Logged in Patient***

When testing as a logged in patient, this particular patient's parameters, such as gender, age etc, are taken into account in the unit test logic.

#### ***Anonymous (not logged in) patient***

Patient parameters, such as gender, age etc, are inserted into the system via the interview questions.



#### **NOTE**

If a logged in or anonymous patient is to be used for testing depends on what type of patient flows your organisation uses.

All types of patient interviews used in production should be tested.



#### **IMPORTANT**

Interviews used for testing purposes should always be saved and documented.

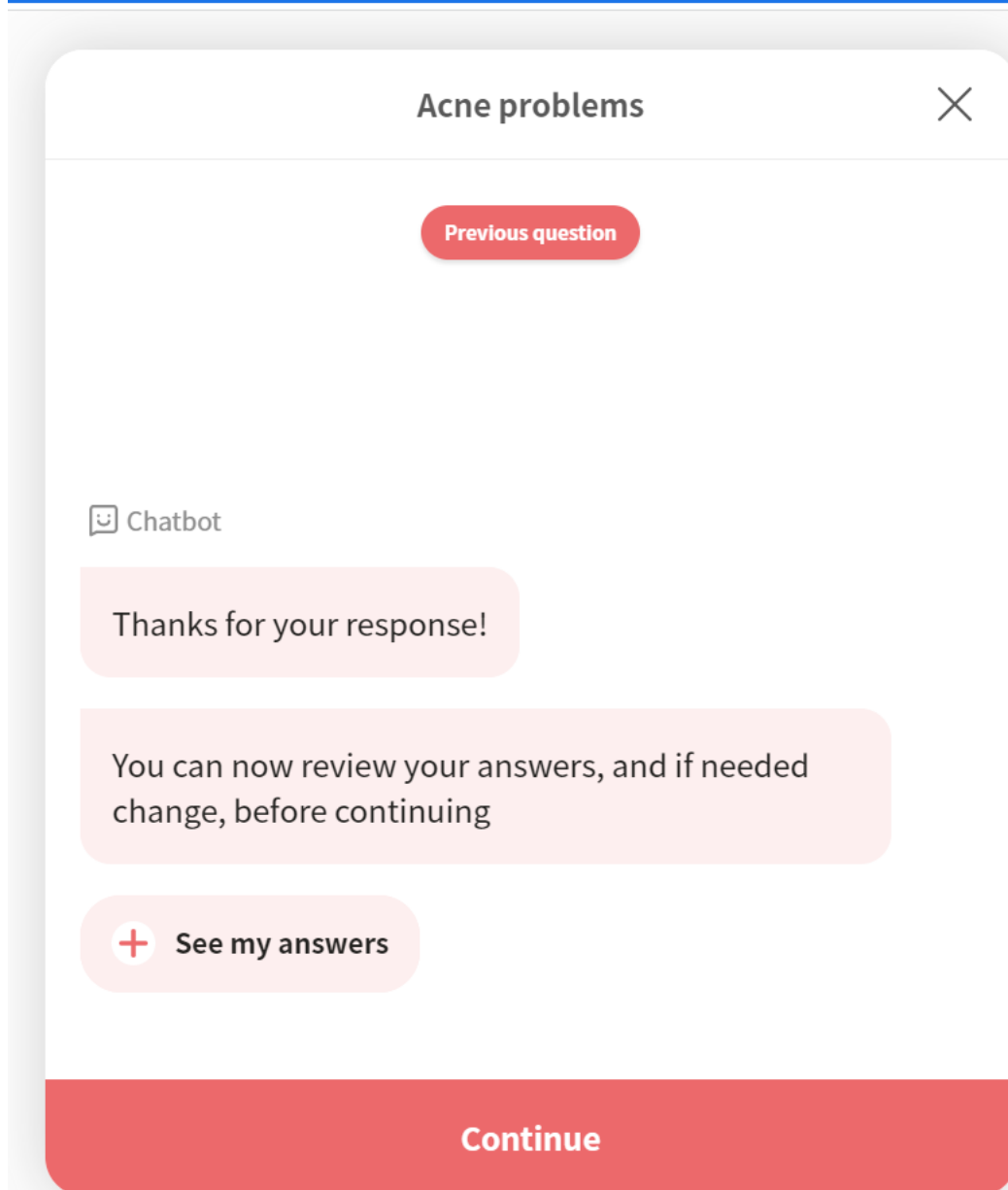
## 8.7.2. Conducting unit tests

To create a unit test you need the an **interview ID** from an interview performed in the patient flow you intend to test.

Each **interview ID** is unique and connected to a specific interview.

1. Go to the demo environment.
2. Start the Patient app and step through the patient flow that you wish to test, but without clicking the **Continue** button (clicking the **Continue** button will lock the interview and the **interview ID** will no longer be displayed).
3. Before clicking the **Continue** button, copy the **interview ID** from the interview URL.

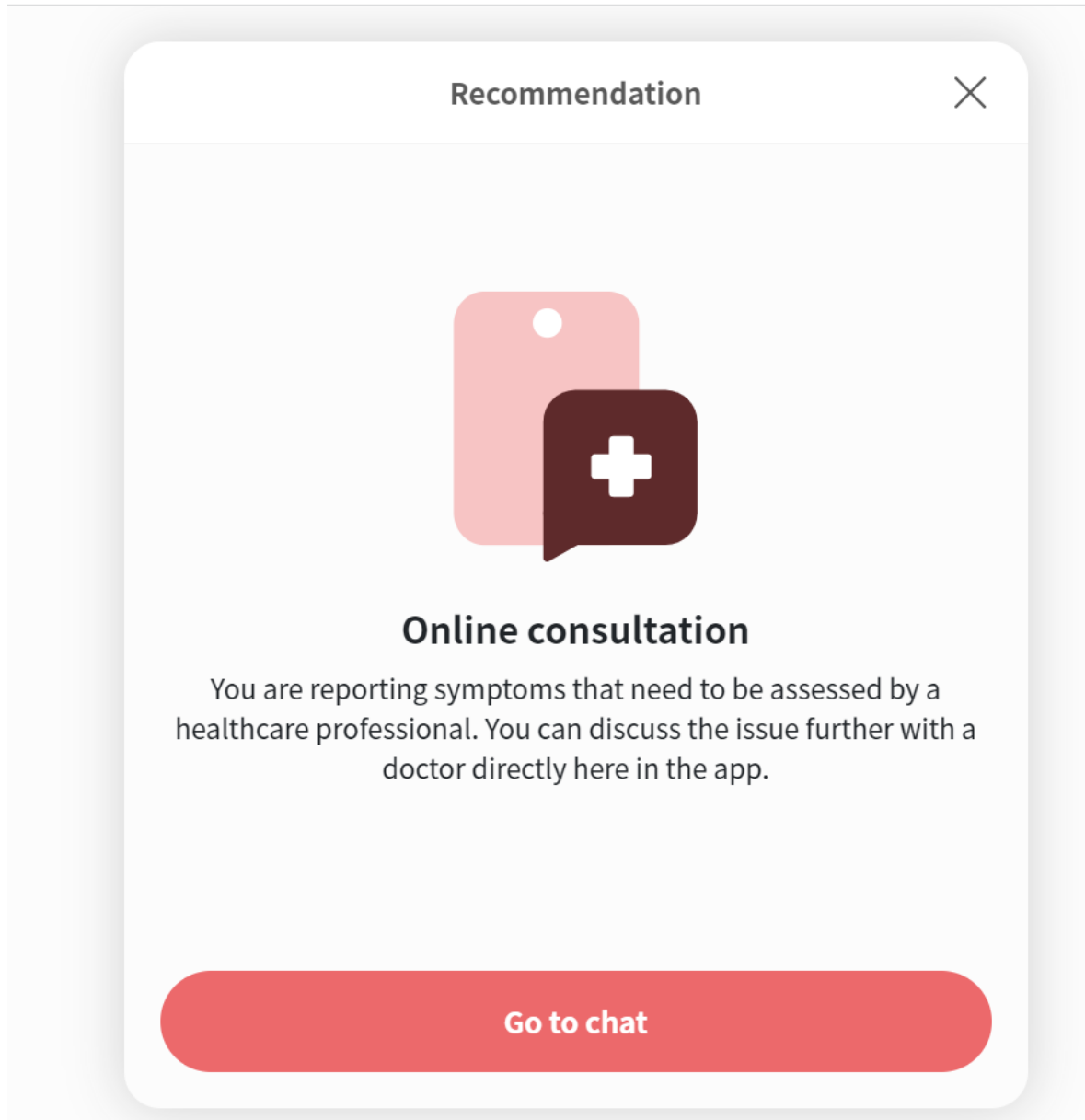
[.platform24.se/chat/triage?triageInterviewId=a8bc7071-e323-41c2-8585-b77613818cd4](https://platform24.se/chat/triage?triageInterviewId=a8bc7071-e323-41c2-8585-b77613818cd4)





- 4. Click the **Continue** button. This will lock the interview and exit in a **Recommendation**.

platform24.se/exitActions/453c8230-c2ea-48b1-9519-856c4cd13784



- Go to Manage and click on the **Tests** section in the **Medical content**.

The screenshot shows the 'platform24 Manage' interface. On the left, a navigation menu is visible with 'Medical content' expanded to show 'Tests'. The main content area displays a banner for 'platform24 Configure Healthcare 2.0' with the text 'Customized patient flows for your operational needs' and an illustration of a person in a suit.

- Click on the large green plus **+** button in the lower right corner.

The screenshot shows the 'Tests' page. It includes a header with the title 'Tests' and a subtitle 'Here you find all tests verifying your interview logic'. Below the header, there is a 'Run all tests' button and a search bar labeled 'Search by name'. A table displays the test results:

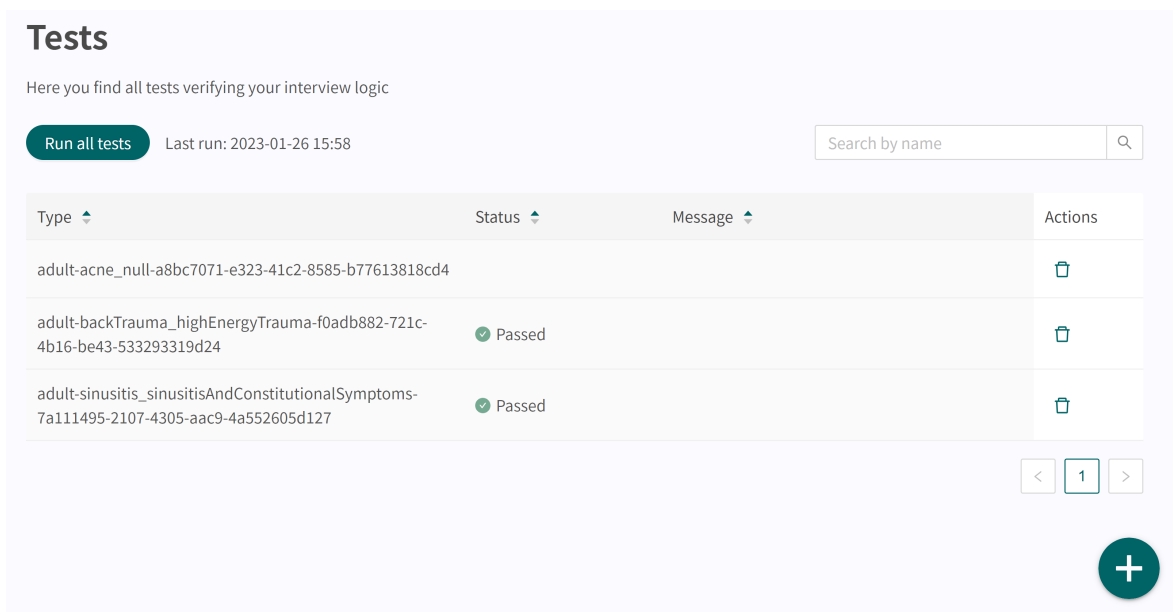
Type	Status	Message	Actions
adult-backTrauma_highEnergyTrauma-f0adb882-721c-4b16-be43-533293319d24	Passed		
adult-sinusitis_sinusitisAndConstitutionalSymptoms-7a111495-2107-4305-aac9-4a552605d127	Passed		

At the bottom right of the page, there is a large green plus button **+**.

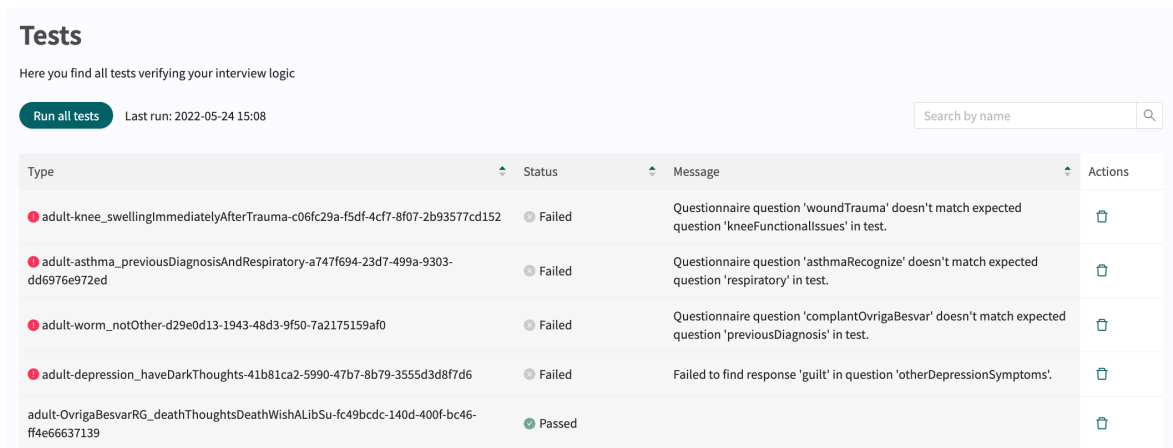
- Paste the Interview ID into the **Interview ID** field in the pop-up and click **Save test**.



- To start the test, click on the **Run all tests** button.



- When the tests are running the **Run all tests** button will be blocked and a text **Validation in progress** will be visible.
- The result of each tested patient flow is presented in the **Status** column with **"Passed"** or **"Failed"**. Tests with the **Failed** result are displayed at the top of the list.



- If the test gets the result **"Failed"**, the error message is displayed in the **Message** column.

**Tests**

Here you find all tests verifying your interview logic

[Run all tests](#) Last run: 2022-05-24 15:08

Type	Status	Message	Actions
adult-knee_swellingImmediatelyAfterTrauma-c06fc29a-f5df-4cf7-8f07-2b93577cd152	Failed	Questionnaire question 'woundTrauma' doesn't match expected question 'kneeFunctionalIssues' in test.	
adult-asthma_previousDiagnosisAndRespiratory-a747f694-23d7-499a-9303-dd6976e972ed	Failed	Questionnaire question 'asthmaRecognize' doesn't match expected question 'respiratory' in test.	
adult-worm_notOther-d29e0d13-1943-48d3-9f50-7a2175159af0	Failed	Questionnaire question 'complantOvrigaBesvar' doesn't match expected question 'previousDiagnosis' in test.	
adult-depression_haveDarkThoughts-41b81ca2-5990-47b7-8b79-3555d3d8f7d6	Failed	Failed to find response 'guilt' in question 'otherDepressionSymptoms'.	
adult-OvrigaBesvarRG_deathThoughtsDeathWishALibSu-fc49bcddc-140d-400f-bc46-ff4e66637139	Passed		

- To the right, next to the **Run all tests** button, the date and time of the last test run is presented.

### 8.7.3. Searching for tests

Searching for a test is done by using the search field in the upper right corner.

**Tests**

Here you find all tests verifying your interview logic

[Run all tests](#) Last run: 2022-05-24 15:34

Type	Status	Message	Actions
adult-asthma_previousDiagnosisAndRespiratory-a747f694-23d7-499a-9303-dd6976e972ed	Failed	Questionnaire question 'asthmaRecognize' doesn't match expected question 'respiratory' in test.	
adult-OvrigaBesvarRG_deathThoughtsDeathWishALibSu-fc49bcddc-140d-400f-bc46-ff4e66637139	Passed		
child-OvrigaBesvarRG_haveConstitutionalSymptomsC-270788f0-6a00-4ac3-8e9d-0a7ed7173157	Passed		

### 8.7.4. Deleting tests

- To delete a test, click the rubbish bin icon to the right of the test.

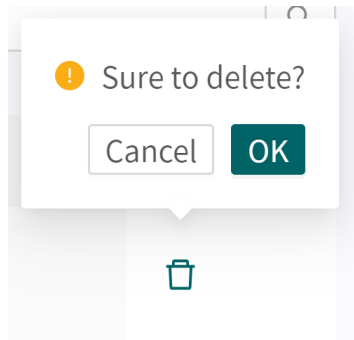
**Tests**

Here you find all tests verifying your interview logic

[Run all tests](#) Last run: 2022-05-24 15:34

Type	Status	Message	Actions
adult-asthma_previousDiagnosisAndRespiratory-a747f694-23d7-499a-9303-dd6976e972ed	Failed	Questionnaire question 'asthmaRecognize' doesn't match expected question 'respiratory' in test.	
adult-OvrigaBesvarRG_deathThoughtsDeathWishALibSu-fc49bcddc-140d-400f-bc46-ff4e66637139	Passed		

2. Click OK to confirm that you wish to delete the selected test.



## 9. Components in Questionnaires

Questionnaires can consist of many different components. Here is a description of what different components do and should be used for and what attributes exist for each component.

### 9.1. Metadata

Each questionnaire contains a section called **Metadata** with content that can be seen at the top of the questionnaire. **Metadata** is basic information that helps to identify the questionnaire.

#### 9.1.1. Attributes and values in Metadata



#### NOTE

All attributes are not valid for all types of questionnaires.

#### Id

All questionnaires have an **Id**. The **Id** needs to be in English and may contain the following characters (no numbers or special characters):

- a-z
- A-Z

#### Title

Questionnaire free text title. This must be stated for all languages the questionnaires will be displayed in. Switch language for the questionnaire to edit the **Title** field in another language.

The screenshot shows the metadata form for a questionnaire titled 'Test3'. At the top right is a 'Visualize' button. Below it is a 'Hidden' toggle switch. The breadcrumb trail is 'Medical content / Questionnaires / Triage / Test3'. There is a language selector set to 'Swedish' and a search bar. The form fields are: 'Id' (Test3), '\* Title' (Test3), and 'Category' (Administrative). Below these are five toggle switches: 'Description of questionnaire (care personnel)', 'Hide intro questions', 'Hide final questions', 'Hide in patient app', and 'Title searchable' (which is turned on).

#### Category

All questionnaires are divided into categories. Certain categories can only be selected within certain sections, for example, only questionnaires in the **Libraries** section can have the **Libraries** category. Categories can only be selected and edited when users create a new or replaces an existing questionnaire in the triage section. In the other sections, system categories are defined based on section.

#### Description of questionnaire

A free text field where a description of the questionnaire can be added. This description will be visible in Clinic for practitioners. Switch language for the questionnaire to edit the **Description of questionnaire** field in another language.

The screenshot shows the configuration interface for a questionnaire titled 'Test3'. At the top right, there is a 'Visualize' button. Below it, a 'Hidden' toggle switch is shown. The breadcrumb trail indicates the path: 'Medical content / Questionnaires / Triage / Test3'. A language dropdown menu is open, showing 'Swedish' and 'English' options. A search bar is located to the right of the language menu. Below this, there is a table with columns for 'Id', '\* Title', and 'Category'. The 'Id' and '\* Title' columns both contain the text 'Test3'. The 'Category' column contains 'Administrative'. Below the table, there are five toggle switches: 'Description of questionnaire (care personnel)', 'Hide intro questions', 'Hide final questions', 'Hide in patient app', and 'Title searchable'. The 'Title searchable' toggle is currently turned on.

- Hidden** A setting that hides the questionnaire. The questionnaire will not be visible in Clinic or in the Patient app.
- Hide intro questions** A setting that enables intro questions from the `libraryTriage-Boot` library to be asked or not asked. They are always automatically asked in questionnaires.
- Hide final questions** A setting that enables final questions from the `libraryTriage-Boot` library to be asked or not asked. They are always automatically asked in questionnaires once the triage is concluded.
- Hide in patient app** A setting that prevents any search terms from being loaded into the questionnaire's *NLP* and as a result the patient cannot see the questionnaire in the Patient app. This applies to the entire system and should be used if questionnaires are never loaded into NLP or displayed to patients, e.g. assessments.
- Title searchable** A setting that enables questionnaire descriptions to be generated as search terms in the Patient app.

## 9.2. Sections

### 9.2.1. Pre-triage

This section defines the components used before patients are given recommendations after a concluded triage. This section contains logic-driven questions and exits, where most of a questionnaire is defined. Can only be added to the following "**Triage**" and "**Libraries**" questionnaire categories.

### 9.2.2. Post-triage

This section is used to define components that are used after the patient has been booked/has queued for an appointment. This section normally contains questions that are good for healthcare practitioners to be aware of, but which do not drive any logic further in how patients should be triaged. For example, the issue of asking patients to upload photos is something that currently cannot drive logic but is good for healthcare practitioners to see, even if it is not decisive. This section can be added to all questionnaire categories except "**Assessments**".

### 9.2.3. Health tests

Occurs in questionnaires with the questionnaire category "**Assessment**" and, in certain cases, "**Libraries**" categories. Questionnaires with the "**Assessment**" section very rarely have logic-driving components, but are static and straightforward with the most questions. An example is the *MADRS-S* questionnaire

### 9.2.4. Pre-Post triage

Only in questionnaires with "**Libraries**" category. Library statements can be defined as "pre-and-post-triage", which means that questionnaires using library questions can be borrowed for either pre- or post-triage.

## 9.3. Search terms

Search terms describe which search terms patients or healthcare practitioners should use using a free text search in the Patient app or Clinic to access a specific questionnaire. If users select a search term, the questionnaire to which the search term belongs will be displayed. E.g.: **Search term**: “Headache” results in **Questionnaire**: “Headache”. Normally, there are already several search terms defined for a questionnaire, but it is possible for users to add more if required.

The search term must always contain:

- Search term

### 9.3.1. Attributes and values in the Search term component

**Search term** Search term displayed in the patient app to provide access to the questionnaire where it is defined. Note that the *NLP* solution in Platform24 calculates probabilities that what the patient has written matches the exact search terms for a questionnaire and, based on this, displays the search results

#### Properties



#### NOTE

It is currently not possible to edit properties.

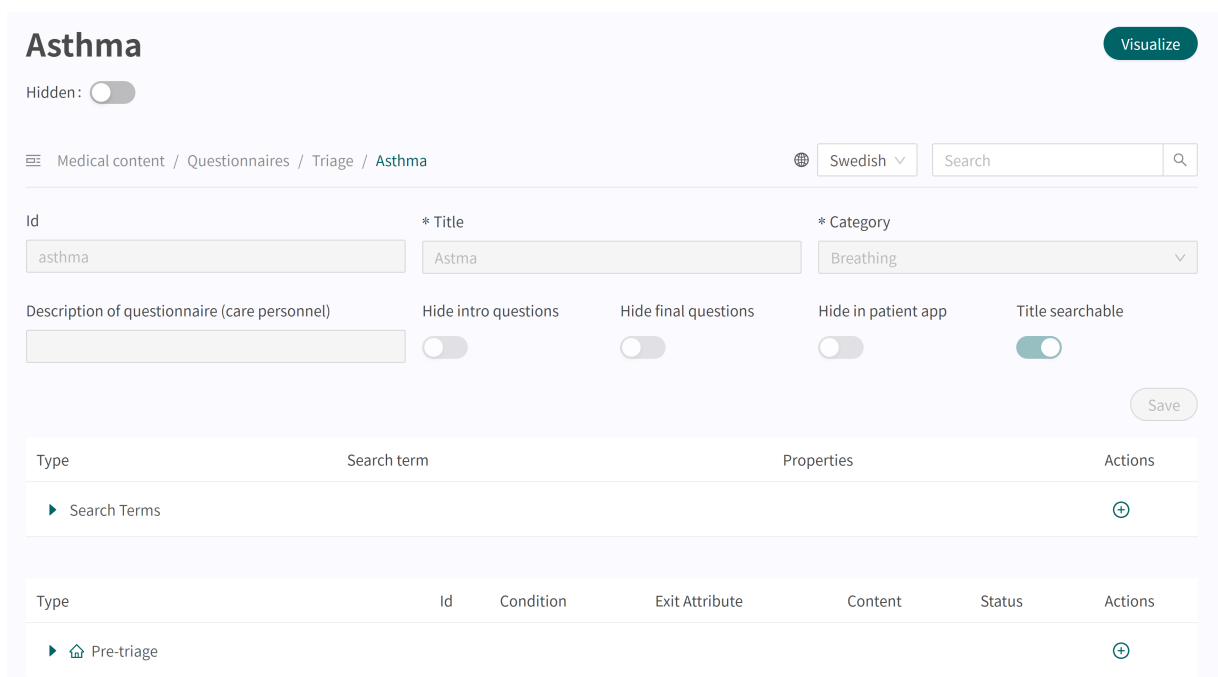
Properties added to questionnaires by patients, such as a search term like “pain in leg” should have “**leg**” as a property to ensure the logic in the questionnaire can then be based on the knowledge that patients have already stated that the pain is in a leg (and not an arm). The properties can be used for conditions (in other components) by typing “`properties.<properties>`”. Users are allowed to define their own properties for search terms, but then they also are required to add logic for how a property must be used in a questionnaire, for example using conditions.


The “`someParam`” property is set for some search terms in the medical content. It has been used for many search terms because it is easier to specify logic based on a property used by many search terms and which, as a patient, then has an impact on more inputs in the questionnaire. Can be compared to a generic property used by many search terms.

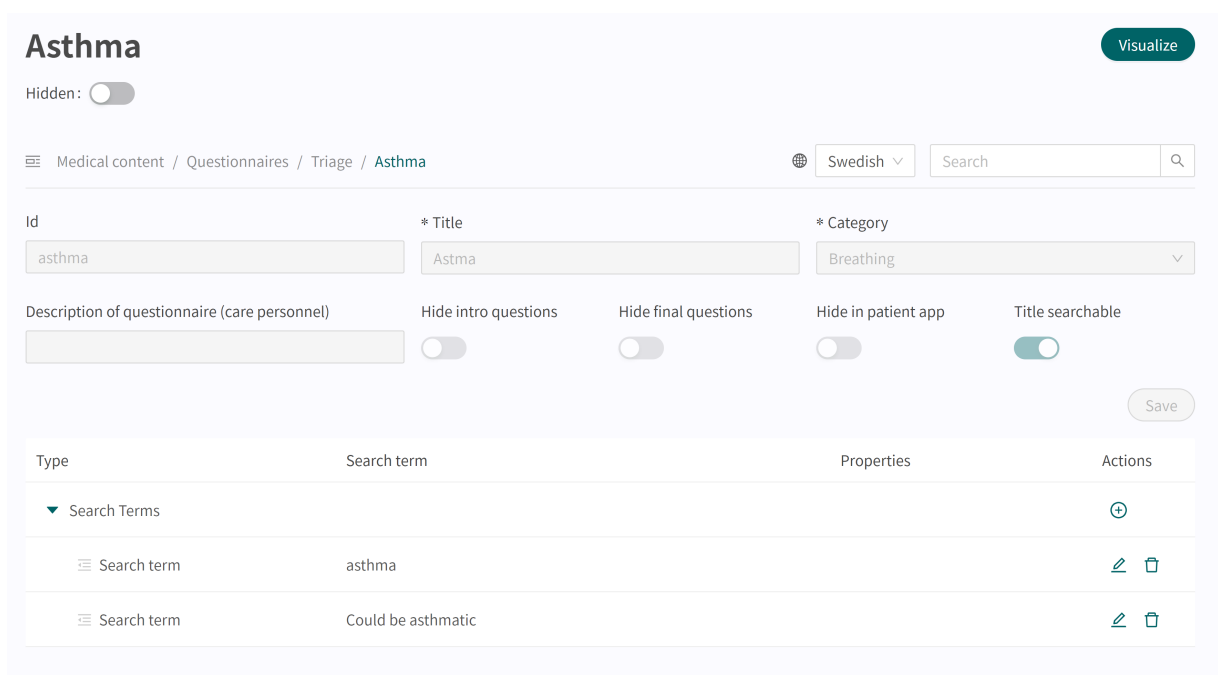


### 9.3.2. How to add a search term

Open a questionnaire and expand the "Search Terms" section.



Click the plus  sign to add new terms for the specific questionnaire for the selected input.



Select which language **(1)** the search term should be added to and specify the search term to enter in the "Search term" **(3)** field to the left. Properties **(2)** of the search term can be filled in to indicate, for example, that the patient has already indicated the localisation of the pain and therefore a question about this does not have to be asked in the questionnaire. It should now be displayed in the search term list. The properties can be called up in conditions by typing "properties.<Properties>". Users are allowed to define their own properties for search terms,

but then they also are required to add logic for how a property must be used in a questionnaire, for example using conditions.

**Example:**

In the **Headache questionnaire**, there is the search term, “Got a pounding headache” with the properties "severe", "suddenly" and "suddenlySevere".

In relation to the question "headacheInfection", there is a condition (`properties.suddenlySevere == null`) further down the questionnaire, which means that patients who have sought

help using the above search term will not be asked this question. This is because they have already provided information that makes the question below unnecessary from a medical perspective.

Question
English ▾

<b>* Id</b>	<b>* Type</b>	<b>Category</b>	<b>Build time if</b>	<b>Condition</b>
headacheInfection	Yes or no ▾	Symptom ▾		properties.suddenlySevere == null
<b>* Question</b>		<b>Medical term</b>	<b>Practitioner text (if answer no)</b>	
Did the headaches start with a respiratory tract infection? (e.g. cough, runny nose or sore throat)		headache debut in conjunction with a cold		
<b>Point (if answer yes)</b>	<b>Choose first [ ] alternative if</b>		<b>Explanation title</b>	
<b>Explanation text</b>				

Cancel Save

## 9.4. Questions

The core functionality of the triage is to ask patient some questions. In this section, more detailed information about how questions are created is given.

### Questions must always contain:

- **ID**
- **Question type**
- **Category** (if the question is to be included in the medical history summary in Clinic)
- **Question**
- **Response** (for Single choice and Multiple choice question type)
- **Medical term** (if the question is to be included in the medical history summary in Clinic)

Question
English v

<b>* Id</b>	<b>* Type</b>	<b>Category</b>	<b>Build time if</b>	<b>Condition</b>
facialInjurySymptoms1	Multiple choice <span style="font-size: 0.8em;">v</span>	Symptom <span style="font-size: 0.8em;">v</span>		

<b>* Question</b>	<b>Medical term</b>	<b>Choose first [ ] alternative if</b>
Does any of this apply to [you/your child]? (Select all that apply.)	symptoms	

<b>Explanation title</b>	<b>Explanation text</b>	<b>Show negative answer in Clinic (none/nope)</b>
		<input type="checkbox"/>

**\* Response options**

v Response breathing
🗑

<b>* Type</b>	<b>* Id</b>	<b>Condition</b>
Response <span style="font-size: 0.8em;">v</span>	breathing	

<b>Build time if</b>	<b>* Patient text</b>	<b>Practitioner text</b>
	Breathing problems	breathing problems

<b>Choose first [ ] alternative if</b>	<b>Negate to show response in Clinic</b>	<b>Points</b>
	<input type="checkbox"/>	

> Response dizziness
🗑

### 9.4.1. Attributes and values in Questions

#### ID

All questions have an **ID**.

The **ID** needs to be in English and may contain the following characters (no special characters):

- a-z
- A-Z
- 0-9

## Question type

Different types of questions to ask can be selected. The following question types are available:

- **Multiple choice** – must contain at least one response option and several answers can be selected by the patient
- **Single choice** – must contain at least one response option and one answer can be selected by the patient
- **Yes/No** – the system auto-generates the Yes and No response options
- **Yes/No/Maybe** – the system auto-generates the Yes, No and Maybe response options
- **Number** – a minimum and maximum value can be specified to indicate within which range the patient can answer the question
- **File** – used when the patient is asked to upload an image or a pdf file. Supported file formats are jpg, png, jpeg and pdf. The question can be made optional using the "skippable" field.
- **Medication** – Prescription renewal uses this question type.
- **Date** – displays a calendar view to the patient in question. The question can be made optional using the "skippable" field.
- **Free text** – the patient can answer using free text. The question can be made optional using the "skippable" field.



### NOTE

The triage bot doesn't use the content of the **Free text** field to calculate its results. Instead the free text reply is used to give the practitioner additional context.

- **Range** – provides the patient with a slider in the patient app to interact with when providing an answer. Min and Max values, Step and Unit headings are stated in the question. Step indicate how many decimals are allowed in the answer, i.e., how detailed the answer can be.

New item English ▾

Type  
Question ▾

* Id	* Type	Category	Build time if	Condition
<input type="text"/>	Range ▾	<input type="text"/>	<input type="text"/>	<input type="text"/>

* Question	Medical term	* Min	* Max	Step	Unit
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 ← .0  .00 →	<input type="text"/>

Min label	Max label	Choose first <input type="checkbox"/> alternative if	Explanation title
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Explanation text

**Category**

**Category** can be specified for questions. The category specifies how and under which category the question should be summarized in the medical history summary in Clinic. There is a table and instructions (refer to the *smartText in Content Studio User Manual*) which specify how categories for each question type should be specified.

**Build time if**

Refer to general **Build time if** in the [Frequently occurring attributes](#) section.

## Condition

Conditions for when a component will be activated for the patient. For example, a response to a question is required for the next question to be asked.

If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only THAT the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- **Properties** (`properties.creationDate`, `properties.startedDate`, `healthDataValue.date`)
- **Answers to date questions**, using the `questionId` of the date question.
- **Static dates** (using the syntax `date(YYYY-MM-DD)`).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

```
systemBirthDate (the birth date of the patient)
```

`systemAge` (the age of the patient)

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

**Binding conditions:**

AND = and

OR = or

**What has to be fulfilled:**

"!=" = not equal to

"==" = equal to

**If no value can exist:**

null = no value



**NOTE**

The `Free Text`, `Medication` and `File` question types cannot be used in conditions.

**Question**

The text that the patient sees in the patient app. The following [... /...] syntax can be used here to direct the question to the correct person seeking medical care which is [You /your child] by default.

This [... /... /... /...] syntax can also be used to direct the question based on answers to previous questions and properties. Enter the conditions in the **"Choose first [ ] alternative if"** to specify which of the options should be used.



**Choose first [ ] alternative if**

If a logic other than default [You/Your child] has to be used, other conditions can be used to control whether the first or second option in the syntax should be used.

For example, if the question:

“[Have the problems arisen/Did the problems arise] in connection with exposure to the cold?”

is displayed in the “**Question**” field, the parameter `ongoing` has to be specified in the “**Choose first [ ] alternative if**” field, where “`ongoingAllergy`” is a parameter from a search term that accompanies the patient in their patient journey if they sought help e.g. for “Ongoing allergic reaction” If `ongoingAllergy` exists, the first option in “[ ]” will be used, and if `ongoing` is not specified for the patient, the second option will be displayed in the question.

The screenshot shows a configuration window for the 'Choose first [ ] alternative if' field. At the top, there is a 'Search term' field containing 'Current allergic reaction'. To its right is a 'Properties' field containing 'ongoingAllergy'. Below these fields is a 'Display' checkbox, which is currently unchecked. At the bottom right of the window are 'Cancel' and 'Save' buttons. The window also has a language dropdown set to 'English'.

**Medical term**

The text that will be used in the medical history summary of the interview and displayed in Clinic. Refer to the *smartText in Content Studio User Manual* for more information.

**Points (if answer is yes)**

Points that can be set for Yes/No question types. The points are generated if a patient answers Yes to a question and this can be used in the questionnaire to calculate a total score or control other flows in the questionnaire.

**Points (for response options)**

For **Single choice** and **Multiple choice** question types, one or more response options must be added and points can be set for each answer option, which are then generated if the patient answered exactly with that answer in the interview.

**Information**

Information text that is displayed under a question if the questionnaire is sent from Clinic.

**Explanation title**

Information title that is displayed under a question if patients themselves search for the questionnaire using the Patient app. This text is clickable and leads to **Explanation text** (see below).

**Explanation text**

Information text that is displayed under a question if patients themselves search for the questionnaire using the Patient app. Displayed if a patient has clicked on the title (**Explanation title**).

## 9.5. Exits

Exits are used to define triage rules, and therefore **Urgency**, **Visit form**, **Level of care**, **Resource** and **Capability** recommended to patients based on interview answers.

The screenshot shows the 'Exit' configuration form. At the top left, it says 'Exit' with a red flag icon. At the top right, there is a language selector set to 'English'. The form is divided into several sections:

- \* Exit ID:** A text input field containing 'haveSwelling'.
- Type of exit:** A dropdown menu with 'Recommendation' selected.
- \* Condition:** A text input field containing 'haveSwelling AND havePain AND severe'.
- Patient text:** A text input field containing '[You are/Your child is] seeking medical care for an arm injury and swelling. The problems are severe.'
- Recommendation:** An empty text input field.
- Build time if:** An empty text input field.
- Choose first [ ] alternative if:** An empty text input field.
- Exit Attribute:** A section with the instruction 'At least one field must be selected'. It contains six dropdown menus:
  - Urgency:** 'Immediate' (with a dropdown arrow).
  - Priority:** (empty dropdown).
  - Visit form:** 'Online possible x' (with a dropdown arrow).
  - Level of care:** (empty dropdown).
  - Resource:** (empty dropdown).
  - Capability:** 'emergency room x' (with a dropdown arrow).

At the bottom right, there are 'Cancel' and 'Save' buttons.

**Exits must always contain values for the following attributes:**

- **Condition**
- **Exit ID**
- At least one of the following **Exit Attributes**:
  - **Urgency**
  - **Visit form**
  - **Level of care**
  - **Resource**
  - **Capability**

### 9.5.1. Attributes and values in Exits

#### Exit ID

All exits are assigned an **ID**. The **ID** needs to be in English and may contain the following characters (no special characters):

- a-z
- A-Z
- 0-9

## Condition

Conditions for when an exit is activated for a patient. For example, if a specific answer to a question is to activate the exit. If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only THAT the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- Properties (`properties.creationDate`, `properties.startedDate`, `healthDataValue.date`)
- Answers to date questions, using the `questionId` of the date question.
- Static dates (using the syntax `date(YYYY-MM-DD)`).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

```
systemBirthDate (the birth date of the patient)
```

`systemAge` (the age of the patient)

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

#### Binding conditions:

AND = and

OR = or

#### What has to be fulfilled:

"!=" = not equal to

"==" = equal to

#### If no value can exist:

null = no value

It is important to have spaces between the first value, the minus sign and the next value to write a formula with subtraction (-). If this is not done, the formula is interpreted as a name instead of an equation.

- **OK:** 23 - someVariable
- **Not OK:** 23-someVariable



#### NOTE

The Free Text, Medication and File question types cannot be used in conditions.

#### Type of exit

Here the following types can be selected (numerous types can be selected)

- `Service request` - when a service request has to be created for a patient. An analysis is selected in “**Analyses**” field.
- `Recommendation` - when a patient should receive a recommendation about the next step, for instance booking an appointment.

If both `Service request` and `Recommendation` are selected, patients will receive the recommendation (for example, “Book an appointment”) and a service request with listed tests.

#### Patient text

The text entered here will be displayed as the final chat bubble in the triage. This text often confirms what details the patient has provided.

#### Recommendation

A specific recommendation text based on a specific exit given to the patients in the recommendation page. If urgency level “**Wait**” is selected under the “**Recommendation**” exit type, this text is not displayed on the recommendation page but only when a patient clicks forward to read the self-care information.

### Build time if

**Build time if** can be set for the following components in questionnaires and is used to decide if components should be included or not, based on formulas, properties and parameters. Refer to the [Frequently occurring attributes \[110\]](#) section for a longer description of **Build time if**:

- **Include**
- **Exits**
- **Answer** (in questions)
- **Formulas**
- **Questions**
- **Go to another questionnaire**
- **Call questionnaire**

### Choose first [ ] alternative if

If a logic other than default [You/Your child] has to be used, other conditions can be used to control whether the first or second option in the syntax should be used.

For example:

For the **Patient text** “[You are/Your child is] in pain, experiencing stiff or a reduced range of motion in the [hand/hands] and self-care has not had a good enough effect.”, the parameter `bothOrSingle.oneHand` has to be specified in the **Choose first [ ] alternative if:** field, where `bothOrSingle.oneHand` is a parameter from a previous question that accompanies the patient in their patient journey. If `bothOrSingle.oneHand` exists, the first option in “[ ]” will be used, and `if ongoing` is not specified for the patient, the second option will be displayed to the patient.

### Analyses

The “**Analyses**” field can be filled in if the **Service request type** is selected under **Type of exit**. This is a drop-down list with selectable analyses for which a **Service request** can be sent. Select one or more.

## Exit attributes

The **Exit attributes** section can be displayed if the **Recommendation type** is selected under **Type of exit**. Attributes that will be generated if the patient ends up in this exit are shown in this section.

<b>Urgency</b>	<ul style="list-style-type: none"> <li>• <b>Immediate</b></li> <li>• <b>Promptly</b></li> <li>• <b>Acute</b></li> <li>• <b>Planned</b></li> <li>• <b>Wait</b></li> </ul>
<b>Visit form</b>	<ul style="list-style-type: none"> <li>• <b>Online recommended</b> – if patient will receive an online recommendation</li> <li>• <b>Online possible</b> – if patient is offered choice to go online as a secondary recommendation</li> <li>• If value is not selected here, the patient is recommended offline care</li> </ul>
<b>Level of care</b>	<ul style="list-style-type: none"> <li>• <b>Stop</b></li> <li>• <b>Online</b></li> <li>• <b>Hotline</b></li> <li>• <b>Primary care</b></li> <li>• <b>Specialist care</b></li> <li>• <b>Emergency</b></li> <li>• <b>Previous clinic</b></li> <li>• <b>Self-care</b></li> </ul>
<b>Resource</b>	<p>Partners can choose to add their own resources by contacting their implementation manager (PSM) at Platform24. The added resources will have a green asterisk next to their name to indicate that they are partner-specific.</p> <p>These are the resources that come with and can be used in the system:</p> <ul style="list-style-type: none"> <li>• Occupational therapist</li> <li>• Paediatrician</li> <li>• Midwife</li> <li>• Biomedical analyst</li> <li>• Dermatologist</li> <li>• Dietician</li> <li>• Pharmacist</li> <li>• Physiotherapist</li> <li>• Health scientist</li> <li>• Counsellor</li> <li>• Speech therapist</li> <li>• Doctor</li> </ul>

- Medical administrator
- Optician
- Orthopaedist
- Personal trainer
- Psychiatrist
- Psychologist
- Rehab Coordinator
- Nurse
- Dentist
- Therapist
- Assistant nurse
- Care Coordinator
- Ophthalmologist

### Capability

Partners can choose to add their own capabilities by contacting their implementation manager (PSM) at Platform24. The added capabilities will have a green asterisk next to their name to indicate that they are partner-specific.

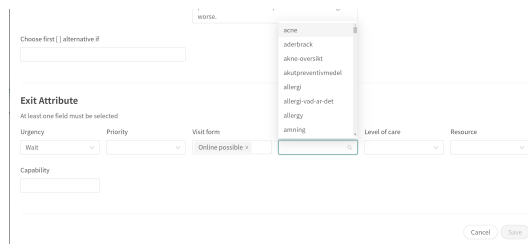
These are the capabilities that come with and can be used in the system:

- addiction
- antenatal
- child health center
- dental
- emergency hotline
- emergency room
- general practice
- guidance hotline
- gynecology
- home care
- infection
- maternity
- obstetrics
- ophthalmology
- optometry
- poisoning
- personal training
- physiotherapy
- psychiatry
- psychiatric hotline
- psychology

### Self-care advice

- youth

If the urgency level "Wait" is selected, an **Selfcare advice** field is displayed under the exit attributes. Self-care information that exists and has been created in the solution can be selected in the drop-down list. This is then the self-care advice patients will receive if they meet the condition for this exit.



## 9.5.2. Exit care advice



### NOTE

This feature is optional and only available for partners who have activated it.

Contact the your *super user* or *customer success manager* for further information.

To give further information to healthcare professionals about a specific exit, the free text field **Exit Care Advice** is used. The exit care advice is shown to practitioners in the Clinic patient view of the triage results. The advice does not affect the triage logic or the exit.

The exit care advice is a free-text field on the exit statement in the medical content, and intends to guide patients to the right level of care by giving the practitioner additional information based on the exit level. The exit care advice is shown for practitioners in Clinic, if the patient exited on an exit with a defined exit care advice.

Example of exit care advice: “*The patient is suitable for an appointment with an orthopedist with a previous MR examination.*”



### NOTE

Exit care advice must NOT be used to diagnose or to recommend a specific drug for one or more patients.



09 February 2023

You must receive the appointment before you can start the chat

- Din sjukvårdshistorik
- Din läkemedelslista

Receive

SURVEY
 PHRASES

Type your message here...

**APPOINTMENT (SYNC PHASE), MANAGE24 TEST CARE UNIT** Consult

Overweight

Origin Manage24 Test Prac... <a href="#">Results</a>	Triage	Non Medical Info <b>Show</b>
Allergies —	Diagnosis —	Medication —
Surgery —		

**Exit Care Advice**

Follow process xxx and consider referral to dietitian.

Notes Original Text

**Anamnesis:** 25-year-old male presenting with overweight. The patient has tried losing weight but with no success. Not suffering from being overweight.

**General health:** Not asked about general health.

**Diagnostics:** BMI over 25.

**Har du tidigare haft samma eller liknande besvär? TESTING:** No

**Give me the number:** 0

**Negated symptoms:** No negated symptoms.

Show original answers

## How to create an exit care advice

1. Select the questionnaire where the exit is defined or is going to be created by clicking the questionnaire title.

### Triage

Validated: 2022-10-03 10:50 Run validation

Medical content / Questionnaires / Triage Search by name

Title	Id	Category	Hidden	Status
Acne problems	acne	Skin and hair	<input checked="" type="checkbox"/> False	
AddNew	AddNew	Administrative	<input checked="" type="checkbox"/> False	<span style="background-color: #c8e6c9; padding: 2px 5px;">Local copy</span>
Administrative chat	adminChat	Partner specific conditions	<input checked="" type="checkbox"/> False	
Allergic symptoms	allergy	Allergies and hypersensitivities	<input checked="" type="checkbox"/> False	<span style="background-color: #ffcdd2; padding: 2px 5px;">Modified</span>
AllQuestionTypes	AllQuestionTypes	Administrative	<input checked="" type="checkbox"/> False	<span style="background-color: #c8e6c9; padding: 2px 5px;">Local copy</span>
Altered sense of smell	changeOfSmell	Ears, nose, and throat	<input checked="" type="checkbox"/> False	<span style="background-color: #ffcdd2; padding: 2px 5px;">Modified</span>
Animal bite/scratch	biteAnimal	Injuries and accidents	<input checked="" type="checkbox"/> False	
Arm injury	armInjury	Injuries and accidents	<input checked="" type="checkbox"/> False	

- Select the Exit where you wish to add the exit care advice by clicking the title. You can also create a new exit.

Exit	overweightChild	overweightChild	Planned general practice Online possible	It is important that overweight children are assessed. The child may, for example, be experiencing pain in the knees and feet, having trouble sleeping or sometimes being bullied.	
Exit	overweightAdultAndTroubling	overweightAdult AND troubling	Planned general practice Online possible	If someone is having trouble moving around, sleeping or has pain in his or her knees and feet due to, for example, being overweight, they should be assessed. Sometimes being overweight can contribute to mental illness issues.	
Exit	overweightAdultAndTriedSelfCareWithoutSuccess	overweightAdult AND triedSelfCareWithoutSuccess	Planned general practice Online possible	If you have tried losing weight by altering your dietary habits and exercise, but not been successful, you may need support and advice for losing weight.	
Exit	overweightAdult	overweightAdult	Wait Online possible	You are suffering from being overweight and have not tried self-care.	
Exit	notOverweightAdult	NOT overweightAdult	Wait Online possible	You are seeking medical care for being overweight, but have indicated that you are not overweight according to the BMI calculator.	

- Write the advice in the free text field **Exit Care Advice**. It is possible to format the exit care advice text by using the toolbox in the text field.

Exit Modified English ▾

---

\* Exit ID

Type of exit

\* Condition

---

Patient text

Recommendation

Build time if

---

Choose first [ ] alternative if

Exit Care Advice

☰ ☰ B I

---

**Exit Attribute**

At least one field must be selected

Urgency

Priority

Visit form

Level of care

Resource

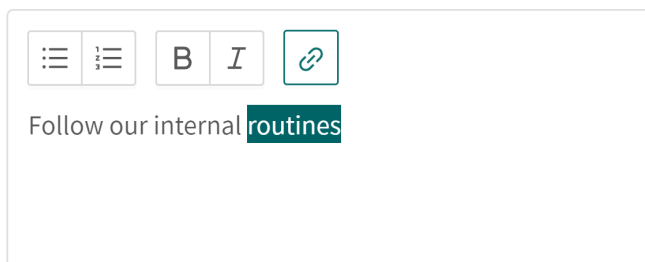
Capability

\* Mandatory field   \* Partner specific value

Restore to default
Cancel Save

4. It is possible to add a link to the exit care advice.
  - a. Highlight the part of the text you want to connect the link to, and click on the link icon.

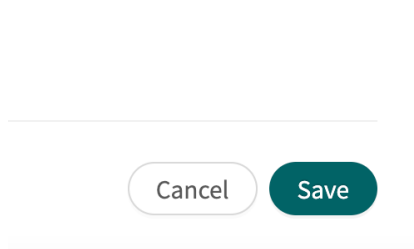
Exit Care Advice



- b. Paste the link into the **Value** field in the pop-up and click on "**Save**".



5. Finish adding the advice by clicking the **Save** button.



### 9.5.3. Breaking exits

If urgency level "**Immediate**" is set for a "**Recommendation**" exit type, for example in a questionnaire for an ongoing chest pain, the exit will break the process. This means that if a user meets the **Exit condition**, the interview is immediately cancelled and the user is taken to the recommendation page straightaway, without having to answer the remaining questions in the questionnaire.

The questionnaire is cancelled even if a "**Stop**" level of care is set for an Exit.

### 9.5.4. Default exits

Default exits are exits that are unconditional. If conditions are not specified for an **Exit**, any patient journeys not identified by the other previous Exits in triage will end up in this **Exit**. It is only possible to have one exit for each questionnaire that is unconditional. These exits are used as a backup to ensure patients always receive a recommendation.

## 9.6. Formulas

A formula is a complex expression of normally several, longer expressions (e.g. answers to questions).

When a **Formula** is set, it can be used again in the questionnaire, for example as a question condition to avoid a repeat of all expressions.

*Formulas must always contain values for following attributes:*

- **Formula ID**
- **Condition**

### 9.6.1. Attributes and values in Formulas

**Formula ID** All formulas have an **ID**.  
The **ID** needs to be in English and may contain the following characters (no special characters):

- a-z
- A-Z
- 0-9

**Condition** Conditions for when formulas are activated for a patient. For example, if a specific answer to a question is to activate the formula. The **Formula ID** can then be used again in the questionnaire.

If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only THAT the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- **Properties** (`properties.creationDate`, `properties.startedDate`, `healthDataValue.date`)
- **Answers to date questions**, using the `questionId` of the date question.
- **Static dates** (using the syntax `date(YYYY-MM-DD)`).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

```
systemBirthDate (the birth date of the patient)
```

```
systemAge (the age of the patient)
```

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

### Binding conditions:

AND = and

OR = or

### What has to be fulfilled:

"!=" = not equal to

"==" = equal to

### If no value can exist:

null = no value

It is important to have spaces between the first value, the minus sign and the next value to write a formula with subtraction (-). If this is not done, the formula is interpreted as a name instead of an equation.

- **OK:** 23 - someVariable
- **Not OK:** 23-someVariable

### If Then Else conditions

IF `someVariable` THEN `someValue` ELSE `someOtherValue`

If the condition `someVariable` is met, `someValue` will be used, but if the condition `someVariable` isn't met, `someOtherValue` will be used.

### Example:

Type		
Formula		
* Formula ID	* Condition	Build time if
twoArms	IF bothArms THEN disabilityArms ELSE leftOrRight	
		Cancel Save



### NOTE

The Free Text, Medication and File question types cannot be used in conditions.

In the above expression, laterality is the question's ID, and left and right are the answer's ID in the question you want to include.

Answers can also be negated in a formula.

Where **Formula Id** = `isNotItching`

**Condition** = `NOT allergySymptoms.itching AND properties.itching == null`

Here the user must not have answered itching on the question `allergySymptoms`, hence the `NOT` is written, and the property `itching`, which comes from a search term, is not true i.e. `== null`.



## NOTE

- Formulas cannot be negated, meaning `NOT unilateralSymptoms` **cannot** be written. A new formula could be created instead called `notUnilateralSymptoms = NOT laterality.left AND NOT laterality.right`.
- Note also that Formulas are not included when a user goes to another questionnaire.

## 9.7. Include

Used to include (drag in) a question or a completely different library, in the questionnaire in question.

The aim here is to avoid duplicates of questions and answers.

### 9.7.1. Attributes and values in Include

**Include library** Drop-down list of existing libraries that can be included.

**Question** Drop-down list where a specific question can be selected to be included or all questions are selected. Only one selection can be made in the list.

**Build time if**

**Build time if** can be set for the following components in questionnaires and is used to decide if components should be included or not, based on formulas, properties and parameters. Refer to the [Frequently occurring attributes \[110\]](#) section for a longer description of **Build time if**:

- **Include**
- **Exits**
- **Answer** (in questions)
- **Formulas**
- **Questions**
- **Go to another questionnaire**
- **Call questionnaire**



## Condition

Conditions for when a component has to be activated for the patient. For example, if the option that an answer to a question is required before the next one is asked has been selected to include another questionnaire. If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only THAT the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- **Properties** (`properties.creationDate`, `properties.startedDate`, `healthDataValue.date`)
- **Answers to date questions**, using the `questionId` of the date question.
- **Static dates** (using the syntax `date(YYYY-MM-DD)`).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

```
systemBirthDate (the birth date of the patient)
```

```
systemAge (the age of the patient)
```

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

#### Binding conditions:

AND = and

OR = or

#### What has to be fulfilled:

"!=" = not equal to

"==" = equal to

#### If no value can exist:

null = no value

It is important to have spaces between the first value, the minus sign and the next value to write a formula with subtraction (-). If this is not done, the formula is interpreted as a name instead of an equation.

- **OK:** 23 - someVariable
- **Not OK:** 23-someVariable



#### NOTE

The `Free Text`, `Medication` and `File` question types cannot be used in conditions.



#### NOTE

A library can only be included once per questionnaire. If, on the other hand, the condition for including a library is not met, a library that meets another condition can be included in the same form.

It is possible to set **Condition** and **Build time if** to define when the **Include library** statement should be activated. This is done, for instance, to prevent all users in the main questionnaire receiving the questions that are in the included library or questionnaire.

Include
English ▾

* Include library	Question	Condition
Library - frequently recurring questions ▾	severe ▾	haveSwelling

Build time if

Cancel Save

The library, or the question from a library, that is included in a questionnaire will inherit the condition that led to the library being included. This means that when the library is included in the questionnaire, the previously fulfilled conditions will be merged with the new conditions that are added in connection with questions in the included library.

Examples of when the terms for the include are merged with the terms for the question in the included library:

The `cough` questionnaire has the following include:

`libraryFlu` has a question with the following conditions:

When `libraryFlu` is included in `cough` These two conditions will be merged, leading to the question `fluTriedSelfCare` to be asked if the following condition is met:

`(haveFluSymptoms OR haveHeadache) AND (patient1orAbove AND (noClearCause OR copdExacerbation.none))`

However, the condition in **Include** is not merged with the condition for the outcome in the included file.

## 9.8. Go to another questionnaire

Skip to an entirely different questionnaire as soon as the conditions for the component are met. Patients then do not return to the first questionnaire.

**Go to another questionnaire must always contain attribute values:**

If `(conditions to be met e.g. believeAllergy AND triedSelfCareSuffix.unsuccessful)`  
 Go to `(name of the questionnaire skipped to e.g. Suspected allergy)`

## 9.8.1. Attributes and values in Go to another questionnaire

### Condition

Conditions for when a component has to be activated for the patient. For example, if the option that an answer to a question is required before the next one is asked has been selected to **Go to another questionnaire**.

If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only THAT the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- **Properties** (`properties.creationDate`, `properties.startedDate`, `healthDataValue.date`)
- **Answers to date questions**, using the `questionId` of the date question.

- Static dates (using the syntax `date(YYYY-MM-DD)`).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

`systemBirthDate` (the birth date of the patient)

`systemAge` (the age of the patient)

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

#### **Binding conditions:**

AND = and

OR = or

#### **What has to be fulfilled:**

"!=" = not equal to

"==" = equal to

#### **If no value can exist:**

null = no value

It is important to have spaces between the first value, the minus sign and the next value to write a formula with subtraction (-). If this is not done, the formula is interpreted as a name instead of an equation.

- **OK:** `23 - someVariable`
- **Not OK:** `23-someVariable`



#### **NOTE**

The Free Text, Medication and File question types cannot be used in conditions.

**Go to** Drop-down list where another questionnaire can be selected which the patient will answer instead.

**Build time if** **Build time if** can be set for the following components in questionnaires and is used to decide if components should be included or not, based on formulas, properties and parameters. Refer to the [Frequently occurring attributes \[110\]](#) section for a longer description of **Build time if**:

- **Include**
- **Exits**
- **Answer** (in questions)
- **Formulas**
- **Questions**
- **Go to another questionnaire**
- **Call questionnaire**

**Properties** Properties can be set when you **Go to** another questionnaire to include the required properties in the next questionnaire.



#### NOTE

Formulas are not included when Skipping to other questionnaire, while Properties are included.

Properties can, for instance, be used when a user has already answered a question about where an injury is and then does not have to answer the same question again when the user has gone to another questionnaire

## 9.9. Import data

**Import data** is a statement that can be used in questionnaires where logic has to be based on values in the health database for patients. The value retrieved from the health database can then be checked with different conditions to drive logic in the patient flow. It is possible to write conditions that define if the value is greater or less than X. It is possible to drive logic based on how old the result is, i.e. when it was added to the health database. It is also possible to create different types of equations using the value that can drive logic.

The screenshot shows a configuration form for 'Import data'. It includes the following fields and options:

- Type:** A dropdown menu with 'Import data' selected.
- Condition:** An empty text input field.
- \* Type:** A dropdown menu with 'PHQ-9' selected.
- \* Source:** A dropdown menu with 'healthdata' selected.
- \* Local name:** A text input field containing 'phq-9'.
- Mandatory:** A checkbox that is currently unchecked.

At the bottom right of the form, there are two buttons: 'Cancel' and 'Save'.

Examples of data imports that can be carried out in questionnaires are the importing of values from analyses (lab) conducted for patients and then defining when results are still valid or not in formulas. There may for instance be formulas that indicate how old the test may be, what the

result was or if there is a value or not. In the continuation of the questionnaire, the formula is then used to drive logic for the questions and exits that the patient receives.

Formula	haveReducedMovement	armInjurySymptoms1.reducedMovement	
Import data	score_phq9	Local copy	
Formula	noReducedMovement	NOT armInjurySymptoms1.reducedMovement	
Include	haveSwelling	library	

The following checks on results from Importing data can be conducted (the tsh test example):

- `tsh.ageInDays` - to import number of days since the test was done
- `tsh.value` - to import test result

Greater than (>), less than (<), not equal to (!=), equal to (==) can be checked for both call-ups.

### 9.9.1. Attributes and values in Import data

- Condition** Conditions for when importing data from selected source.
- Type** Drop-down list with selectable values to import from specified source.
- Source** The database from which values are imported.
- Local name** Imported values can be given a local value name for reuse in the questionnaire under conditions. For example, P-glucose can have the local name: glucose to simplify using the value.
- Mandatory** Check box indicating whether a value has to be imported from the database.

## 9.10. Export data

**Export data** is a component that can be used in questionnaires where logic has to be based on values in the health database for patients. Values that are exported from the health database can then be used to create visualizations in Clinic (trends, etc.) but can also be used if patients return with a new case. The **Formula** component also works well with **Export data**, for example to calculate values to export into the health database.

Export data  English ▾

---

Condition \* Integer or variable (eg. 2 or age) \* Destination

madrss\_score

healthdata







\* Type Mandatory

Total score MADRS-S ▾

---

Cancel
Save

An example is where answers provided by patients in assessments are converted into a formula and exported to the health database.

Question	willToLive	This question relates to your zest for life and whether you have experienced Weltschmerz. Do you have thoughts of suicide, and if so, to what extent do you feel this is a real way out?	 
Formula	madrss_score	sadness.points + tension.points + sleep.points + appetite.points + concentration.points + initiative.points + interest.points + pessimism.points + willToLive.points	 
Export data	score_madrss		 

### 9.10.1. Attributes and values in Exporting data

<b>Condition</b>	Conditions for when exporting data to the health database.
<b>Local name</b>	The formula or value that is given in the questionnaire and which is exported to the database. The <b>Local name</b> component will only accept allowed values for the specific Type. The statement will guide what type of value is expected, e.g., integer, decimal or Snomed CT code.
<b>Destination</b>	The database to which values are exported. Only one database can be currently selected.
<b>Type</b>	Drop-down list with selectable values to export to the database.
<b>Mandatory</b>	Check box indicating whether a value has to be exported to the database in order for the questionnaire to be valid for patients to complete.

## 9.11. Call questionnaire

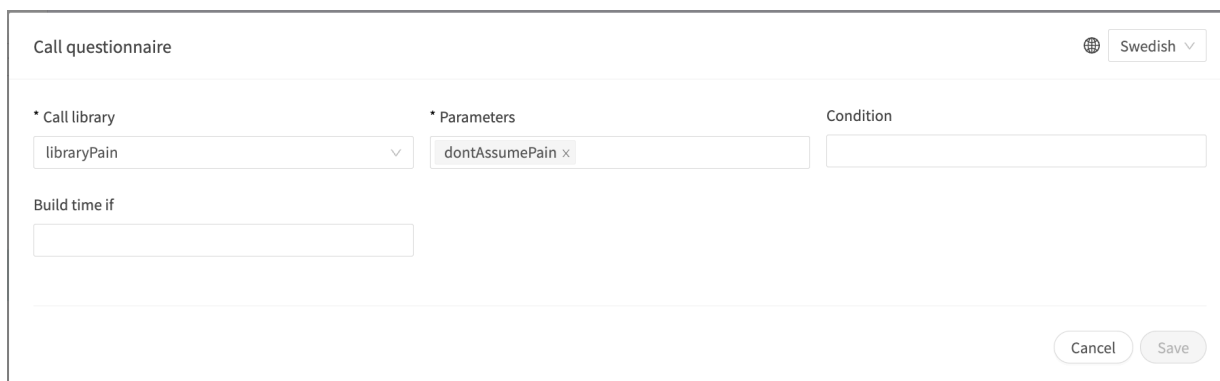
Used to Include a library questionnaire, but with the option of specifying parameters (properties) that control the included questionnaire assuming the **Parameter**.

### 9.11.1. Attributes and values in Call questionnaire

<b>Call library</b>	Drop-down list with libraries that can be used.
<b>Parameters</b>	The parameters required to be sent to the included library. At least one parameter must be specified to use the component. More than one parameter can be added. Ensure that the parameter is used in the included questionnaire.
<b>Condition</b>	Conditions for when a library is included with the specified parameters.
<b>Build time if</b>	<p><b>Build time if</b> can be set for the following components in questionnaires and is used to decide if components should be included or not, based on formulas, properties and parameters. Refer to the <a href="#">Frequently occurring attributes [110]</a> section for a longer description of <b>Build time if</b>:</p> <ul style="list-style-type: none"> <li>• <b>Include</b></li> <li>• <b>Exits</b></li> <li>• <b>Answer</b> (in questions)</li> <li>• <b>Formulas</b></li> <li>• <b>Questions</b></li> <li>• <b>Go to another questionnaire</b></li> <li>• <b>Call questionnaire</b></li> </ul>



For example, in the **Shoulder** problems questionnaire, the **Pain** library, where the `assumePain` parameter is sent, has the following call-ups which impacts on how the questions in the library are asked. A component condition is also set, which steers the logic if the component will be activated for the patient.



## 9.12. Flags

The flag component displays additional information to a healthcare professional when a patient fulfills certain symptoms or answers. In Content Studio, the medical content developers can add one or more flags in questionnaires. A flag can be seen by the practitioner in Clinic if the patient, in the triage, fulfills the conditions of that flag.

The flag will not change the interview exit attributes in the rule engine. However, the flag can be used in the rule engine to adjust the recommendation to the patient after the triage.

Flags have two use cases:

- To guide patients to the right level of care by highlighting/flagging important information to the practitioner that has been gathered in the triage.
- To use flags in the rule engine to enhance the recommendation of care for the patient.

Example of use case for Flags: “*You have an ongoing COVID-19 infection and it is important to be aware of current guidelines. Read more about testing and isolation at [Folkhälsomyndigheten](#).*”



### NOTE

Flags must NOT be used to diagnose (including making statements of a diagnostic nature) or to recommend treatment for an individual patient. Flags are to be used at a common level and applied to a group of patients.

## 9.12.1. Attributes and values in flags

**Condition** Conditions for when a component has to be activated for the patient. For example, if the option that a response to a question is required before the next one is asked has been selected to activate and display flags in Clinic.  
If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only THAT the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- **Properties** (`properties.creationDate`, `properties.startedDate`, `healthDataValue.date`)
- **Answers to date questions**, using the `questionId` of the date question.
- **Static dates** (using the syntax `date(YYYY-MM-DD)`).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

```
systemBirthDate (the birth date of the patient)
```

`systemAge` (the age of the patient)

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

#### Binding conditions:

AND = and

OR = or

#### What has to be fulfilled:

"!=" = not equal to

"==" = equal to

#### If no value can exist:

null = no value

It is important to have spaces between the first value, the minus sign and the next value to write a formula with subtraction (-). If this is not done, the formula is interpreted as a name instead of an equation.

- **OK:** 23 - someVariable
- **Not OK:** 23-someVariable



#### NOTE

The `Free Text`, `Medication` and `File` question types cannot be used in conditions.

<b>Medical term</b>	Flag text displayed to healthcare practitioners in Clinic for patients who have fulfilled the flag condition (see <b>Condition</b> ).
<b>Code</b>	A code that can be specified if apply additional logic to the business rules.
<b>Symptom</b>	One or more symptoms patients have fulfilled, meaning the current flag has been defined.

For example, in the **Nasal congestion** questionnaire for the unilateral nasal congestion for more than 3 weeks condition, the **Duration** more than 3 weeks symptom is stated and the **Consider**

referring to an ENT specialist to rule out malignancy' recommendation are displayed. **Flags** are only displayed to healthcare professionals in Clinic and do not in themselves affect exits.

Flag English

* Condition	Medical term	Code
patient18orAbove	If the patient is troubling, consider providing suitable advice.	

Symptoms  
[+Add symptom](#)

Cancel Save

Flag English

* Condition	Medical term	Code
true	If the patient has gained weight, remember that this also could affect the mental health of the patient.	

Symptoms  
[+Add symptom](#)

Cancel Save

06 February 2023

You must receive the appointment before you can start the chat

- ✔ Din sjukvårdshistorik
- ✔ Din läkemedelslista

Receive

**APPOINTMENT (SYNC PHASE), MANAGE24TEST** Consult

Overweight

Origin Triage Non Medical Info

Manage24 Test Client Patient Appointment

Flags

**Alarming Symptoms**

**Recommendation**

If the patient has gained weight, remember that this also could affect the mental health of the patient

---

**Alarming Symptoms**

**Recommendation**

If the patient is troubling, consider providing suitable advice

weight but with no success. Not suffering from being overweight.

**General health:** Not asked about general health.

## 10. Frequently occurring attributes

Certain attributes and values occur in several different questionnaire components. A more detailed description of what this entails is shown below.

### 10.1. ID

Formulas, components, response options etc have an ID that is used to drive logic.

The **ID** needs to be in English and may contain the following characters (no special characters):

- a-z
- A-Z
- 0-9

Numbers, 0-9, may be used in Question and Formula IDs. Other IDs use only letters.

This type of ID may be used for self-care information IDs.

### 10.2. Patient

The questions that patients see in the patient app can be formatted according to the following options and commands:

- `\n\n` = line break
- `*italic*` = italic
- `**bold**` = bold
- `\n\n*` = bullet point list
- `\n\n**1.Text... \n\n**2.Text\n\n**3.Text... \n\n*` = bullet point list with numbers.

### 10.3. Build time if

**Build time if** can be set for the following components in a questionnaire:

- **Include**
- **Exits**
- **Answer** (in questions)
- **Formulas**
- **Questions**
- **Go to another questionnaire**
- **Call questionnaire**

Libraries contain questionnaire components that are used in most medical content questionnaires. These are grouped in different **Libraries**.

To use a library for more than one medical condition, variations to the library's questionnaire components are permitted using the **Build time if** parameter.

An example is the "libraryFeverSimple" library where the first question asks patients if they have a fever and/or chills.

If patients are actually seeking medical care for a fever, it is not a good idea to ask that question.

To prevent this, the "feverCondition" questionnaire begins with a formula that states whether the patient thinks or knows that they have a fever:

- **Formula:** `suspectFever = true`

This formula is specified before "libraryFever" and, also as a result, "libraryFeverSimple" are included.

The "believeFeverOrChills" question in "libraryFeverSimple" has a **Build Time If** condition ensuring it is not asked when "suspectFever" is included. Note that it does not matter how the formula is set, only that it exists.

- **Id field:** `believeFeverOrChills AS yesno`

**Category field:** `Symptom`

**Build Time If field:** `NOT suspectFever`

**Question field** (visible for the patient): "Do you think [you have/your child has] at this moment a fever and/or..."

**Medical term field** (visible for practitioners in Clinic): "Ongoing fever/chills"

Another way to send values to a Library is to use the Call questionnaire component with parameters which are then used in the **Build time if**.

- **Call:**libraryLateralityInjury (arm)

arm is then used as a **Build time if** for a response option to the question in the library.

Note that answers from patients in **Build time if** cannot be used because they are evaluated before a patient journey has begun.

There are a number of other conditions that can be used:

**Build time if:** xxx [NOT] IN QUESTIONS Includes the questionnaire component if a question exists or does not exist in the set of questions.



**Build time if:** WORKSHEET IS [NOT] xxx Includes the questionnaire component if the medical condition questionnaire is/is not specified.

**Build time if:** WORKSHEET IS [NOT] INCLUDED Includes the questionnaire component if it is added/not added as a result of the **Include** or **Call up** questionnaire component.

## 10.4. Condition

Conditions for when a component has to be activated for the patient. For example, if a specific answer to a question is to activate the component.

If the condition is to validate that a patient has answered a certain answer, the following syntax is specified:

```
<questionId>.<responsId>
```

If the condition is to validate that a patient answered **Yes** (yes/no question) the following is used:

```
<questionId>
```

If the condition is to validate that the patient answered **No** (yes/no question) the following is used:

```
NOT <questionId>
```

If the condition is based on **answer points**, the following is used:

```
<questionId>.points
```

If the question has to be answered but the answer to the question does not affect the logic but only **THAT** the question is answered:

```
vars.<questionId>
```

```
vars.<questionId>.<responsId>
```

Conditions can be based on dates. A date can come from three sources:

- **Properties** (properties.creationDate, properties.startedDate, healthDataValue.date)
- **Answers to date questions**, using the questionId of the date question.
- **Static dates** (using the syntax date(YYYY-MM-DD)).

To get days/months/years:

```
day(someDate)
```

```
month(someDate)
```

```
year(someDate)
```

To get the amount of days/weeks/months/years between to dates:

```
days(someDate, someOtherDate)
```

```
weeks(someDate, someOtherDate)
```

```
months(someDate, someOtherDate)
```

```
years(someDate, someOtherDate)
```

It is also possible to write conditions based on:

`systemBirthDate` (the birth date of the patient)

`systemAge` (the age of the patient)

`systemGender` (the gender of the patient)

Conditions can contain several validations and answers to previous questions or questionnaires where the following can be used to bind the conditions together and check the value:

#### Binding conditions:

AND = and

OR = or

#### What has to be fulfilled:

"!=" = not equal to

"==" = equal to

#### If no value can exist:

null = no value

It is important to have spaces between the first value, the minus sign and the next value to write a formula with subtraction (-). If this is not done, the formula is interpreted as a name instead of an equation.

- **OK:** 23 - someVariable
- **Not OK:** 23-someVariable



#### NOTE

The `Free Text`, `Medication` and `File` question types cannot be used in conditions.

## 10.5. Choose first [ ] alternative if

If a logic other than default [You/Your child] has to be used, other conditions can be used to control whether the first or second option in the syntax should be used.

For example, if the question:

“[Have the problems arisen/Did the problems arise] in connection with exposure to the cold?”

is displayed in the “**Question**” field, the parameter `ongoing` has to be specified in the **Choose first [ ] alternative if** field, where `ongoingAllergy` is a parameter from a search term that accompanies the patient in their patient journey if they sought help e.g. for “Ongoing allergic reaction”. If `ongoingAllergy` exists, the first option in “[ ]” will be used, and if `ongoing` is not specified for the patient, the second option will be displayed in the question.

Question
English

<b>* Id</b>	<b>* Type</b>	<b>Category</b>	<b>Build time if</b>	<b>Condition</b>
coldAllergy	Yes or no	Other		(doesHaveRash OR havelitching) AND notPossibleCrossReactivity AND NOT medicine AND (vars.severeAllergySymptoms.wantsToContinueOnline == null OR vars.severeAllergySymptoms.wantsToContinueOnline == false)
<b>* Question</b>	<b>Medical term</b>		<b>Practitioner text (if answer no)</b>	
[Have your problems arisen/Did your problems arise] when exposed to the cold? (e.g. on hands and face or ingesting cold drink or food)	the problems arose due to exposure to cold			
<b>Point (if answer yes)</b>	<b>Choose first [ ] alternative if</b>		<b>Explanation title</b>	
<b>Explanation text</b>				

Cancel Save

## 10.6. Properties

**Properties** are set in the **Search terms** section, for example the search term: “Problem with breastfeeding” has the `infantEatingProblems` property.

New item
English

<b>* Search term</b>	<b>Properties</b>	
Problem with breastfeeding	infantEatingProblems x	<input type="checkbox"/> Display

Cancel Save

This property can then be used as a condition for a question, e.g. **Question:** `eatingProblemDetails` has the conditions: `properties.infantEatingProblems AND infant`

**Properties** can also be set when you use **Go to another questionnaire** to include the required properties in the next questionnaire.



**NOTE**

**Formulas** are not included when using **Go to another questionnaire**, while **Properties** are included.

## 10.7. Response options

- **Type: Response**
- **ID**, refer to [ID \[110\]](#) above
- **Condition**: refer to [Condition \[113\]](#) above
- **Choose first [ ] alternative if**: refer to [Choose first \[ \] alternative if \[114\]](#) above
- **Patient response**: what the response option is called for the patient
- **Health practitioner response**: how the response option is displayed in the medical history summary in Clinic.
- **Denies displaying response options in Clinic**: refer to the *smartText in Content Studio User Manual*
- **Points** (only for `multiple choice`, `single choice` and `yesNo` questions)

∨ Response left
🗑️

<p>* Type</p> <input type="text" value="Response"/>	<p>* Id</p> <input type="text" value="left"/>	<p>Condition</p> <input type="text"/>
<p>Build time if</p> <input type="text" value="arm"/>	<p>* Patient text</p> <input type="text" value="Left arm"/>	<p>Practitioner text</p> <input type="text" value="Left arm"/>
<p>Choose first [ ] alternative if</p> <input type="text"/>	<p>Negate to show response in Clinic</p> <input type="checkbox"/>	<p>Points</p> <input type="text"/>

## 10.8. Points

Points can be specified as attributes in **Frequently Answered Questions** for the following questions:

- **Multiple choice** questions
- **Single choice** questions
- **Yes or no** questions

The points can be used to sum up a score from a questionnaire and build logic from the outside.

## 11. Versions

Versions of the Content Studio User Manual.

#	Date	Description	Created by	Reviewed by
0.1	2020-11-02	First draft	Lovisa Lundin	Åsa Holmberg Daniel Eduards Eva Daskalaki
0.2	2020-11-27	Updated after assessment	Lovisa Lundin	Eva Daskalaki
0.3	2021-02-16	Updating and addition of function descriptions	Lovisa Lundin	Eva Daskalaki
1.0	2021-02-16	1st version of Content24 User guide	Lovisa Lundin	Eva Daskalaki
2.0	2021-03-29	2nd version of Content24 User guide including updating of function descriptions.	Lovisa Lundin	Eva Daskalaki
3.0	2021-09-06	Format updates. Cover, color-scheme, format of warnings.	Eva Daskalaki	Lovisa Lundin
4.0	2021-10-04	Addition of descriptions on how to edit search terms.	Lovisa Lundin	Nicole Kvist
5.0	2021-11-02	Update based on release-notes.	Nicole Kvist	Lovisa Lundin
5.1	2022-03-02	Transfer of the content from the Word file version to Paligo. No content updates apart from minor spelling and grammatical fixes and to fix some re-use issues.	Anna Eklund	Eva Daskalaki
8.0	Not released to end users. Transitional version.	Transition to version 8 for synchronisation with the SE-sv manual. Updates made in the SE-sv in v6, v7 and v8 are included.  from v6 SE-sv - Update of contact information, unit tests and exit care advice.  from v7 SE-sv - Links in exit care advice.  from v8 SE-sv - added IF THEN ELSE explanation for formulas added, Scale removed from note on usage in conditions, Metadata "hide health profile" is now deactivated	Anna Eklund	Eva Daskalaki
9.0	2022-03-17	Rewrite and update of Unit tests	Eva Daskalaki	Nicole Kvist
9.1	2022-03-29	Structural updates with no effect on content	Anna Eklund	Eva Daskalaki
9.2	2022-05-25	Correction of texts for Unit tests. Not officially published.  Added clarification to Free text question types.	Nicole Kvist	Anna Eklund
10.0	2022-10-31	Updated publication after Triage24 MDR certification.  Changed manual name from User Guide to User Manual.  Changed name from decision support to flags.  Updated sections regarding exit care advice, conditions and flags.	Helena Nilsson	Nicole Kvist Oskar Höllgren

#	Date	Description	Created by	Reviewed by
11.0	2023-04-17	<p>Main updates are:</p> <ul style="list-style-type: none"> <li>• Changed Content24 to Content Studio, Manage24 to Manage and Clinic24 to Clinic</li> <li>• Almost all images replaced (due to new logotype and UI changes)</li> <li>• <i>Section 5.1.3 Intended users</i> updated for medical content developers: medical developers changed to medical content developers and business rules added to their role.</li> <li>• <i>Section 5.2.3. Intended operational environment for Content Studio</i> updated. Clarified that the application is Manage and the interface is Content Studio.</li> <li>• Self-care information updates (UI changes, and information on MediBas removed)</li> <li>• Question type</li> <li>• Questionnaire description</li> <li>• Metadata (new and changed fields)</li> <li>• Export data in Local name component</li> <li>• More supported file formats for questions</li> <li>• "Replace staff response on question" field deleted as it is no longer in use</li> <li>• Name/Title/Description/Questionnaire aligned to title</li> <li>• Date questions possible to add as as skippable</li> <li>• Information about automatic added none responses removed</li> <li>• Text from Abstract moved into an Introduction chapter. Clarifying note added to the Introduction chapter regarding updates in the manuals.</li> </ul>	Helena Nilsson	Nicole Kvist Lovisa Lundin

## 12. References

Title	Description
User Manual - smartText in Content Studio	The smartText User Manual gives more information about smartText and how it is configured. smartText is the text summary for practitioners that is generated after a patient interview.