



ENGLISH

platform24

USER MANUAL – CONTENT STUDIO+

MANAGE V. 3.105, TRIAGE24 MEDICAL DEVICE VERSION 1

Manual version 15.0
2024-06-17



Copyright © 2024 Platform24 Healthcare AB



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

Västra Järnväggsgatan 7, SE-111 64 Stockholm, Sweden



Consult instructions for use: eIFU provided from within the product and via manufacturers web-page.



2022-11-01



Basic UDI-DI: 735012722P24001LR

UDI-DI: 7350127221004

Any serious incidents that have occurred in relation to the medical device should be reported to Platform24 and to the competent authority of the Member State in which the user and/or patient is established.

Paligo publication ID	12929 (UUID-9bacbc48-5e1b-cc92-2316-e73260947e5e)
Paligo internal publication version	11.0

Table of Contents

1. Introduction	6
1.1. About this manual	6
2. Contact details	7
2.1. Manufacturer	7
2.2. Support	7
2.2.1. End user support	7
2.2.2. Urgent cases	7
2.2.3. Non urgent cases	7
2.3. Feedback and questions regarding the User Manual	7
2.3.1. Request printed version of the Instructions for Use	7
3. Definition of symbols and precautions	8
3.1. Symbols definition	8
3.2. Precautions definition	8
4. Warnings	10
5. Triage24 - Intended Use	13
5.1. Triage24	13
5.1.1. Modules of Triage24	13
5.1.2. Intended use for Triage24	13
5.1.3. Intended Users	14
5.1.4. Intended operational environment for Triage24	14
5.1.5. Clinical Benefits	14
5.1.6. Performance characteristics	14
5.1.7. Implementing Triage24 in the healthcare organization	15
5.2. Content Studio+ module	15
5.2.1. Intended use for Content Studio+	15
5.2.2. Intended users for Content Studio+	15
5.2.3. Intended operational environment for Content Studio+	15
5.3. Patient triage module	16
5.3.1. Intended use for Patient triage	16
5.3.2. Intended users for Patient triage	16
5.3.3. Intended operational environment for Patient triage	17
5.4. Assisted triage module	17
5.4.1. Intended use for Assisted triage	17
5.4.2. Intended users for Assisted triage	17
5.4.3. Intended operational environment for Assisted triage	17
5.5. Contraindications Triage24	18
5.5.1. Patients	18
5.5.2. Medical content developers	18
5.5.3. Healthcare professionals	18
5.6. Residual risks	18
5.7. Terms and definitions	19
6. What is Manage and Content Studio+?	20
6.1. Platform24 Environments	20
6.2. Log in to Manage	21
7. Basic Details - Content Studio+	22
7.1. Working with Content Studio+	22
7.2. Access to Content Studio+	23
7.3. Overview of questionnaires and self-care information	25
7.4. Questionnaire Details	26
7.5. History, latest changes and testing	29
7.6. Warnings	32
7.6.1. Overall warnings	32
7.6.2. Warning in the event of changes	34

7.7. Languages	34
7.8. Deleting and undoing component changes	35
7.8.1. Deleting and recalling components	36
8. Grouping and using questionnaires and self-care information	37
8.1. Assessments	37
8.1.1. Editing existing questionnaires	38
8.1.2. Creating new questionnaires	39
8.1.3. Replacing existing questionnaires	41
8.2. Libraries	42
8.2.1. Editing existing libraries	42
8.2.2. Creating new libraries	44
8.2.3. Replacing existing libraries	48
8.3. Practitioner-initiated	49
8.4. Self-care information	49
8.4.1. Existing self-care information	49
8.4.2. Creating new self-care information	50
8.4.3. Editing existing self-care information	51
8.5. Triage	51
8.5.1. Editing existing questionnaires	52
8.5.2. Creating new questionnaires	53
8.5.3. Replacing existing questionnaires	56
8.6. Statistics	58
8.7. Unit tests	59
8.7.1. The interview	60
8.7.2. Conducting unit tests	61
8.7.3. Searching for tests	65
8.7.4. Deleting tests	65
9. Components in Questionnaires	67
9.1. Metadata	67
9.1.1. Attributes and values in Metadata	67
9.2. Sections	68
9.2.1. Pre-triage	68
9.2.2. Post-triage	68
9.2.3. Health tests	68
9.2.4. Pre-Post triage	69
9.3. Search terms	69
9.3.1. Attributes and values in the Search term component	69
9.3.2. How to add a search term	70
9.3.3. Unique search terms and the Display option	72
9.4. Questions	73
9.4.1. Attributes and values in Questions	73
9.5. Exits	79
9.5.1. Attributes and values in Exits	79
9.5.2. Exit care advice	85
9.5.3. Breaking exits	88
9.5.4. Default exits	88
9.6. Formulas	88
9.6.1. Attributes and values in Formulas	89
9.7. Include	92
9.7.1. Attributes and values in Include	92
9.8. Go to another questionnaire	97
9.8.1. Attributes and values in Go to another questionnaire	97
9.9. Import data	99
9.9.1. Attributes and values in Import data	100
9.10. Export data	100

9.10.1. Attributes and values in Exporting data	101
9.11. Call questionnaire	101
9.11.1. Attributes and values in Call questionnaire	102
9.12. Flags	102
9.12.1. Attributes and values in flags	104
10. Frequently occurring attributes	108
10.1. ID	108
10.2. Patient	108
10.3. Build time if	108
10.4. Condition	111
10.5. Choose first [] alternative if	112
10.6. Properties	113
10.7. Response options	114
10.8. Points	114
11. Versions	115
12. References	118

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 Järnväggsgatan 7
SE-111 64 Stockholm
Sweden
Website <https://platform24.com>

2.2. Support

2.2.1. End user support

For questions about editing medical content, contact the Customer Success Manager at Platform24.

2.2.2. Urgent cases

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

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

2.2.3. Non urgent cases

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

E-mail: <support@platform24.com>

For questions regarding additional services or modules your organization may want to buy or activate, users 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, email the user documentation support email below.

E-mail: <support@platform24.com>

2.3.1. Request printed version of the Instructions for Use

The Instructions for Use (IFU) information is included in the User Manual for each product and available in digital format in the user interface.

If you require a paper version of the User Manual, contact Platform24 via:

E-mail: <support@platform24.com>

A paper version will be provided at the latest within 7 calendar days of receiving a request from the user, or at the time of delivery of the device if so requested at the time of order.

3. Definition of symbols and precautions

3.1. Symbols definition



CE marking



Manufacturer



Consult instructions for use



Date of manufacture



Consult the instructions for use for important information such as warnings and cautions.



Medical Device



Unique Device Identifier

3.2. Precautions definition

This section describes the different types of precautions that are used in the User Manuals.



WARNING

A warning indicates a hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION

A caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.



IMPORTANT

An important precaution indicates information that is important for the user to take note of.

**NOTE**

A note indicates information that the user should take note of.

**TIP**

A tip indicates recommendations for the user.

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.

**NOTE**

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

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

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.



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 business rules, 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 application Manage¹.

5.1.3. Intended Users

Target client	Healthcare providers who wish to automatically triage patients to the right level of care.
Intended users	<p>Triage24 has three distinct target groups.</p> <ul style="list-style-type: none"> • 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.

¹For the sake of clarity, it is noted that the intended use does not include issuing a diagnosis, but to investigate the medical state of the patient to the extent necessary to provide the mentioned guidance to a suitable level of care. It is further noted that the medical content mentioned in the above points (a) and (b) does not in itself form part of the Triage24 medical device.

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 organization

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"> User manual Level <i>B1-B2</i> in the language supported in the product for the relevant market. Undergone education and training for Content Studio+. <p>To ensure a safe development of medical product, Platform24 provides a recommended development process for the medical content that is described in "Process description for Medical Content development in Content Studio+" (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.</p> <p>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.</p>

5.2.3. Intended operational environment for Content Studio+

Application	Manage
Interface	Content Studio+

Environment	<ul style="list-style-type: none"> • Home/office environment with connection to internet • Normal ambient conditions
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"> • Hardware; dual-core processor, 4 GB RAM • Software; latest versions of Edge, Safari, Chrome or Firefox • Data bandwidth; 300 kb/s (video) / 50 kb/s (voice) • IT security; https

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"> • System default: 0-120 years • System default: someone over 16 can use the module for a child under the age of 18 • Defined by care provider
<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"> 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)



NOTE

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

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

5.3.3. Intended operational environment for Patient triage

Application	Patient application
Environment	<ul style="list-style-type: none"> • Home/office environment with connection to internet • Normal ambient conditions
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"> • Hardware; dual-core processor, 4 GB RAM • Software; latest versions of Edge, Safari, Chrome or Firefox • Data bandwidth; 300 kb/s (video) / 50 kb/s (voice) • IT security; https

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"> • Licensed practitioner, ie medical doctor, nurse, psychologist • Level B1-B2 in the language supported in the product for the relevant market. • User manual

5.4.3. Intended operational environment for Assisted triage

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

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)



NOTE

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

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

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 Common European Framework of Reference (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
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)	<p>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.</p> <p>MADRS-S is a nine question self-rating version of the MADRS scale, often used in clinical practice.</p>
Natural language processing (NLP)	Natural language processing (NLP) is a subfield of linguistics, computer science, and artificial intelligence concerned with the interactions between computers and human language, in particular how to program computers to process and analyze large amounts of natural language data.
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

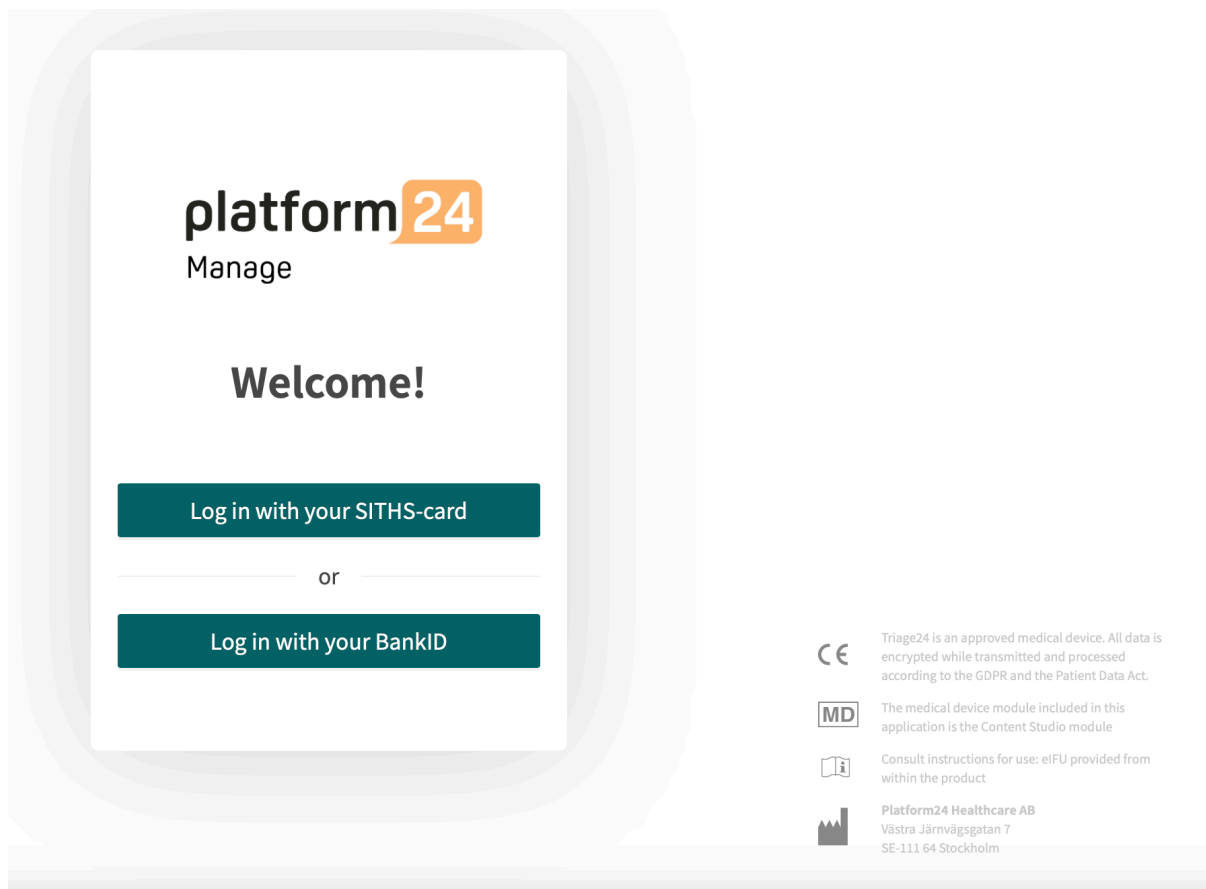
All editing of medical content is carried out in Manage's production environment. Changes are saved in the demo environment before users can actively decide to publish them in the production environment for the Patient app and Clinic. Changes carried out in the production environment are tested in the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

platform24
Manage


 Sven Svensson

Partner:

manage24test ▾


 Origin


 Care units

 Practitioners

 Medical content ▸

 Care plan groups

 Business rules

 English ▾

 About

< Collapse Menu

 Logout

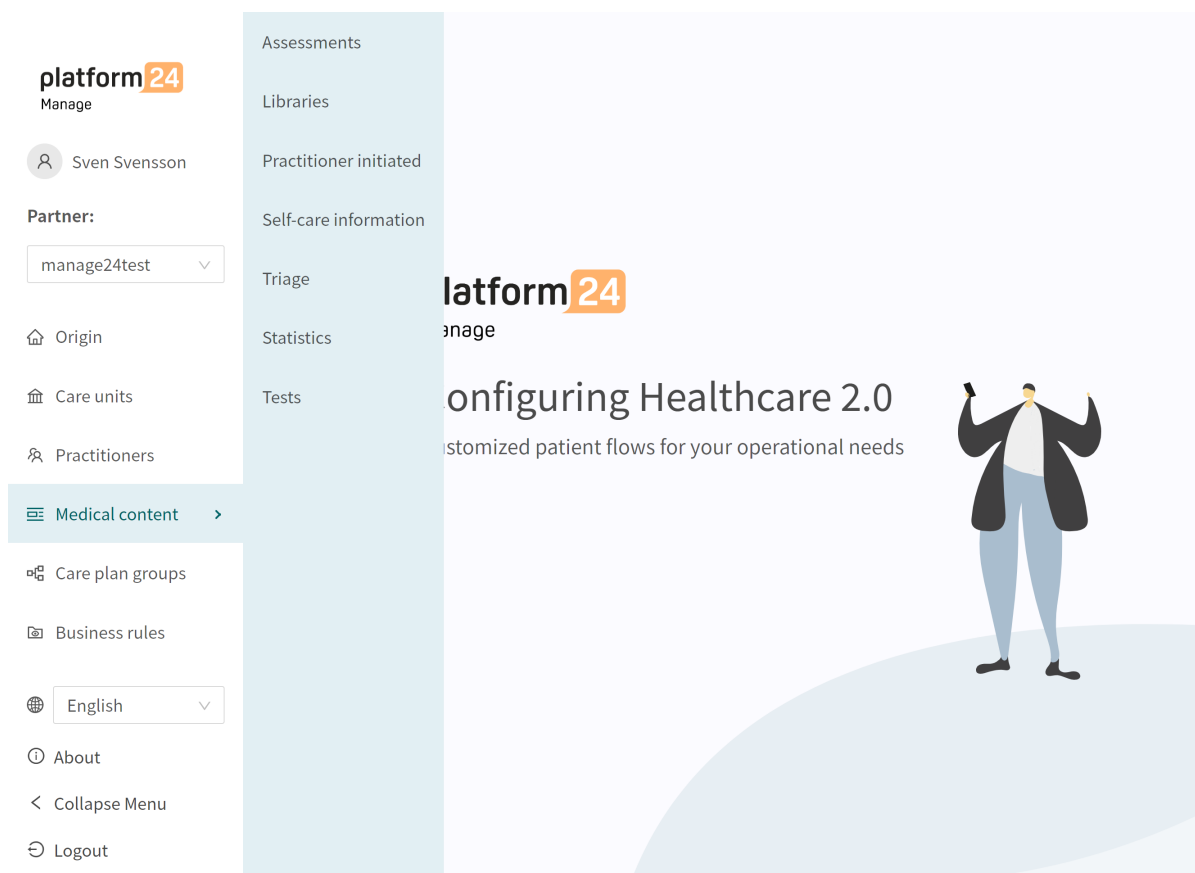
platform24
Manage

Configuring Healthcare 2.0

Customized patient flows for your operational needs



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



- **Assessments:** Contains questionnaires that can be used to assess conditions for example mood (*MADRS-S*). 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.
- **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.
- **Practitioner-initiated:** Not used.
- **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.
- **Triage:** Contains the questionnaires patients access from the Patient app by entering different search terms in the search engine.
- **Statistics:** This section provides the possibility to see data and statistics on the outcomes of the questionnaires.
- **Tests:** In this section automatic unit tests are created for the triage questionnaires.

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	Run validation
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	

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.
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 versionVisualize

Hidden: ☐

Medical content / Questionnaires / Triage / Arm injury

SwedishSearch

Id

* Title

* Category

arminjury

Armskada

Injuries and accidents

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 \[67\]](#) for more information.

Hidden: ☐

Medical content / Questionnaires / Triage / Arm injury

SwedishSearch

Id

* Title

* Category

arminjury

Armskada

Injuries and accidents

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



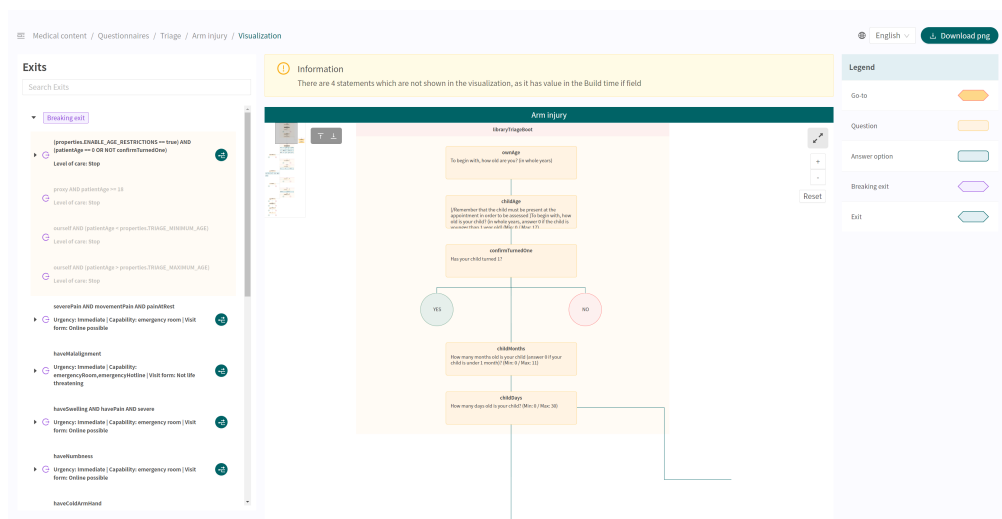
WARNING

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).

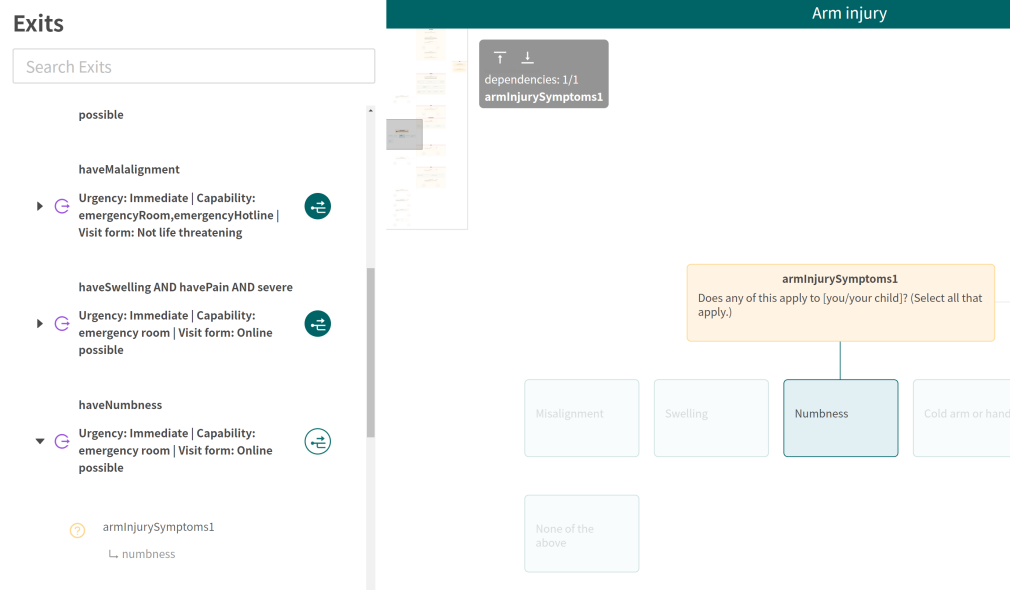


Scrolling allows you to zoom in and out in the visualization. Click and drag to move the window. Click on the expand symbol to maximize and enlarge the visualization in the window.

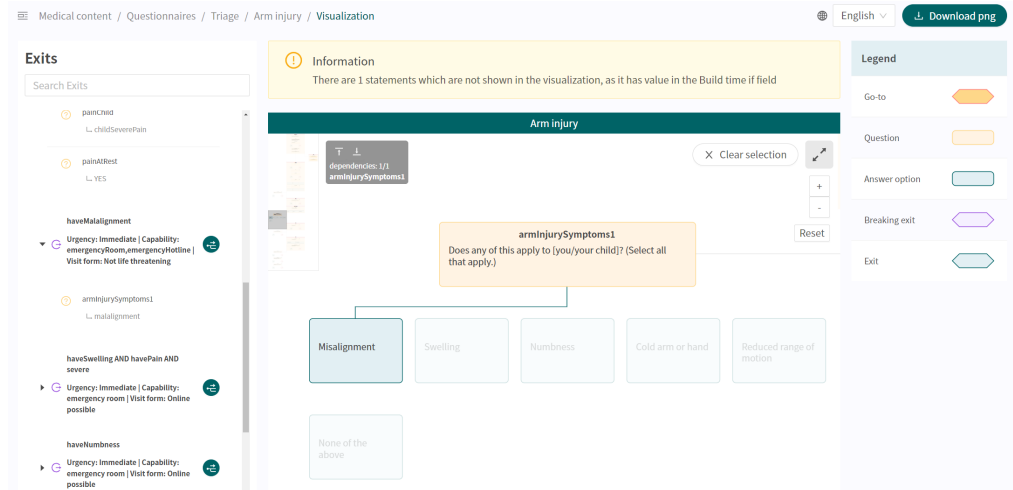


Clicking on a component in the visualization area displays the dependencies and conditions for the specific component. For example, a prior affirmative answer to

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.



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

Medical content / Questionnaires / Triage / Arm injury / Visualization English

Exits

Information

There are 1 statements which are not shown in the visualization, as it has value in the Build time if field

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 \[69\]](#) section for further information.

Type	Search term	Properties	Actions
▼ Search Terms			+
☰ Search term	asthma		edit delete
☰ Search term	Could be asthmatic		edit delete

Status

Questionnaire components can have three values in the status field.

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

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

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 Visualize

Hidden: ☐

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". 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.

Triage

Medical content / Questionnaires / Triage

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 th
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

X

Send for review

Log History

Changes
 69

August 9, 2022 02:05 PM

Deployed

Show details

August 8, 2022 02:13 PM

CANCELED

Show de

Updated 'Identifier(identifierByType= (HASH_ID=1a88918bc4db02d632b11095bfaac534, BUILD_TIME_IF_ID=NONE), disabled=false, modelType=GUIDANCE)' after 'Identifier(identifierByType= (BUILD_TIME_IF_ID=NONE, HASH_ID=00afe1a10e009f5573029aacce4f4dea), disabled=false, modelType=INCLUDE)' in 'acne' for origin triageteam

August 5, 2022 02:32 PM

Deployed

Show details

Update care unit [INTERNAL:291400A4-58B3-4C0C-B0A1-2FC4EB98FD75] to care provider [FC2766B1-F4CC-42BD-BAD3-473FE0BC427B] and partner [triageteam]: " Changed name from 'Triage team Care Unit Actions2' to 'Triage team Care Unit " " Changed substitution

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.

Triage

Medical content / Questionnaires / Triage

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 th
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

X

Send for review

Log History

Changes
 69

Send to test environment

Changes

Upload of: heacache, for partner: triageteam
January 26, 2023 02:23 PM | Sven Svensson

Upload of: newSelfCare, for partner: triageteam
January 24, 2023 10:45 AM | Sven Svensson

Upload of: newSelfCare, for partner: triageteam
January 24, 2023 10:38 AM | Sven Svensson

Upload of: biteTick, for partner: triageteam
January 19, 2023 04:45 PM | Sven Svensson

Upload of: biteTick, for partner: triageteam
January 19, 2023 04:45 PM | Sven Svensson

Upload of: biteTick, for partner: triageteam

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.

Send your changes for review to production

Description:

You will now send the changes for review.

Cancel
Save

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

Last update by Sven Svensson | January 26, 2023 02:23 PM Pending

You have a pending request for review. You can't do any changes to the configuration until it is approved.

Arm injury

Hidden: ☐

Medical content / Questionnaires / Triage / Arm injury

Id	Title		
arminjury	Armskada		
Description of questionnaire (care personnel)	Hide intro questions	Hide final questions	
	<input type="checkbox"/>	<input type="checkbox"/>	
Type	Search term	Prop	
Search Terms			
Type	Id	Condition	Exit Attribute

Log History

Changes 2

Send to test environment

You have pending request for review, with the following changes:


Description

Cancel
Edit request

MR Created by "Sven Svensson" Description: h # Content24 Validation Issues: ## Origin: Triage team ## ConditionId: feverCondition Model: modelType:SEARCH_TERM[id:3c8b8bcd2d2832507b474c42edc279b]buildTimef:NONE Issue: "Search text 'Tyfoidfeber' for 'feverCondition-haveChiefComplaint-typhoidFever' already exists in 'temporary-typhoid' " ## ConditionId: mammaryGland Model: modelType:SEARCH_TERM[id:96956cedda71e162821c4737237e9c6]buildTimef:NONE Issue: "Search term id 'mammaryGland' is already set to display in other search term" Model: modelType:SEARCH_TERM[id:fe9569b0317ef1bbc39b1cf4e24f4f03]buildTimef:NONE Issue: "Search term id 'mammaryGland' is already set to display in other search term" Model: modelType:SEARCH_TERM[id:231a213da81f5d13b2ef1ac040996bf]buildTimef:NONE Issue: "Search term id 'mammaryGland-redness-someParam' is already set to display in other search term" ## ConditionId: gl Model: modelType:SEARCH_TERM[id:22d0b17f49a1006beedaf279170d544b]buildTimef:NONE Issue: "Search text 'svart avföring' for 'gi-blackStool-havePrimarySymptom-primarySymptomGIbleed' already exists in 'giBleed' " ## ConditionId: kiteTide Model:

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.

Triage

Medical content / Questionnaires / Triage

Title 	Id
---	----

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.

Last update by | January 27, 2023 04:13 PM [Changes](#)

Arm injury ⓘ

There are validation errors in the condition. Please double check.

Hidden: ☐

Medical content / Questionnaires / Triage / Arm injury

Id
armInjury

*** Title**
Armskada

Description of questionnaire (care personnel)

Hide intro questions
☐

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

Call questionnaire libraryLateralityInjury [edit](#) [delete](#)

Variable movementPain hasn't previously been defined severePain

severePain AND movementPain AND painAtRest

Immediate emergency room
Online possible

[You have/Your child has] injured [your/his or her] arm and [are/is] experiencing severe pain both at rest and movement.

Question armInjurySymptoms1

Does any of this apply to [you/your child]? (Select all that apply.)

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.

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**).

Acne problems Visualize

Hidden: ☐

Medical content / Questionnaires / Triage / Acne problems

English Search

English

Swedish

English

skin and hair

Id: acne

* Title: Acne problems

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						+

- 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.

Question

English

Swedish

English

* Id: movementPain

* Type: Yes or no

Category: Symptom

Build time if:

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):

Point (if answer yes):

Choose first [] alternative if:

Explanation title:


Explanation text:

Cancel Save

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 OK

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 to the patient.

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.

platform24 Manage

Sven Svensson

Partner: manage24test

Origin

Care units

Practitioners

Medical content

Care plan groups

Business rules

English

About

Collapse Menu

Logout

Assessments

Libraries

Practitioner initiated

Self-care information

Triage

Statistics

Tests

platform24 Manage

Configuring Healthcare 2.0

Customized patient flows for your operational needs

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

Search by name

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: ☐

Save

Type	Search term	Properties	Actions
Search Terms			

Type	Id	Condition	Exit Attribute	Content	Status	Actions
Health-test						
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.		
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.		

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:

Origin

Care units

Practitioners

Medical content

Care plan groups

Business rules

English

About

Collapse Menu

Logout

Assessments

Libraries

Practitioner initiated

Self-care information

Triage

Statistics

Tests


February 16, 2023 11:46 AM Changes

Log History 4

Run validation

Search by name

	Id	Category	Hidden	Status
(Test)	ACT	Assessments	<input type="checkbox"/>	
(If-Report Scale)	asrs	Assessments	<input type="checkbox"/>	
	audit	Assessments	<input type="checkbox"/>	
	auditc	Assessments	<input type="checkbox"/>	
(nt Test)	CAT	Assessments	<input type="checkbox"/>	
	contentTest	Assessments	<input type="checkbox"/>	Local copy
	das28crp	Assessments	<input type="checkbox"/>	Local copy
	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:

New

* Title:


newQuestionnaire

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: ☐

Medical content / Questionnaires / Assessments / NewQuestionnaire

Swedish

Search

Id

* Title

* Category

newQuestionnaire

newQuestionnaire

Assessments

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
Health-test						

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
Single choice
Category
Build time if
Condition

* 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

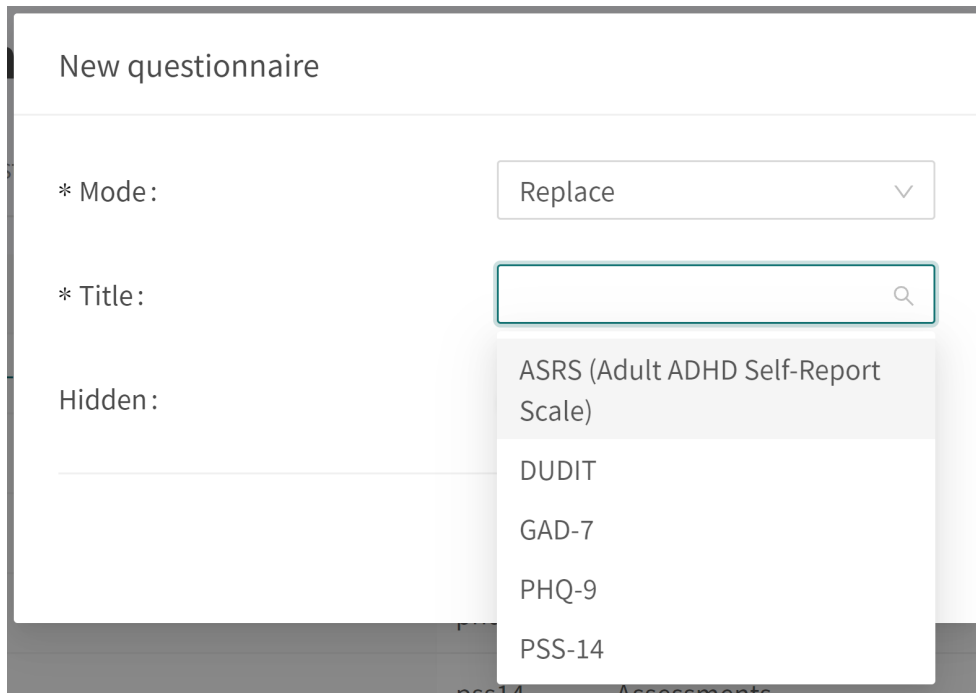
To replace an existing questionnaire, go to the questionnaire overview in the **Assessments** section and click on the large plus **+** sign in the lower right corner.

platform24 Manage
Sven Svensson
Partner: manage24test
Origin
Care units
Practitioners
Medical content
Care plan groups
Business rules
English
About
Collapse Menu
Logout

Assessments
February 16, 2023 11:46 AM
Changes
Log History
Changes 4
Run validation
Search by name

	Id	Category	Hidden	Status
Test)	ACT	Assessments	False	
(If-Report Scale)	asrs	Assessments	False	
	audit	Assessments	False	
	auditc	Assessments	False	
nt Test)	CAT	Assessments	False	
	contentTest		False	Local copy
	das28crp	Assessments	False	Local copy
	dudit	Assessments	False	
	epworthSleepinessScale	Assessments	False	
	gad7	Assessments	False	
	isi	Assessments	False	

+



New questionnaire

* Mode: Replace

* 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 \[39\]](#).

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**.



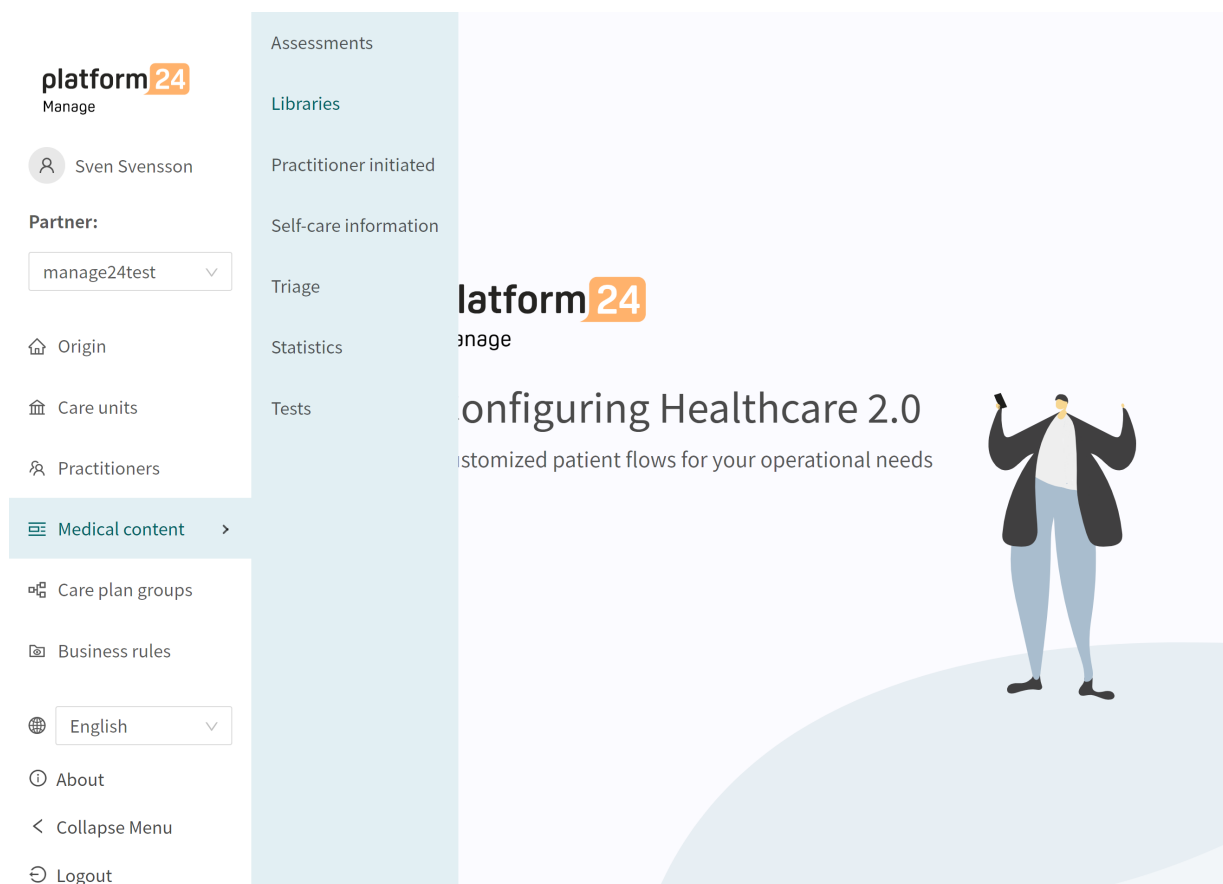
WARNING

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

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	

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.

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

Library - fever

[Medical content](#) / [Questionnaires](#) / [Libraries](#) / [Library - fever](#) Swedish

Id *** Title** *** Category**

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


[Save](#)

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](#) [67]).

If users wish to edit metadata (for example, the description of the library), refer to the [Replacing Existing Libraries](#) [48] 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.

The screenshot shows the platform24 Manage interface. On the left is a sidebar with a menu. The 'Medical content' item is highlighted with a right-pointing arrow. Below it are 'Care plan groups', 'Business rules', a language dropdown set to 'English', 'About', 'Collapse Menu', and 'Logout'. The main content area has a light blue header with the platform24 logo and 'Manage' text. Below this is a vertical list of menu items: 'Assessments', 'Libraries', 'Practitioner initiated', 'Self-care information', 'Triage', 'Statistics', and 'Tests'. The 'Libraries' item is highlighted. The main content area features a large illustration of a person in a suit holding a phone, with the text 'platform24 Configure Healthcare 2.0' and 'Customized patient flows for your operational needs'.

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	

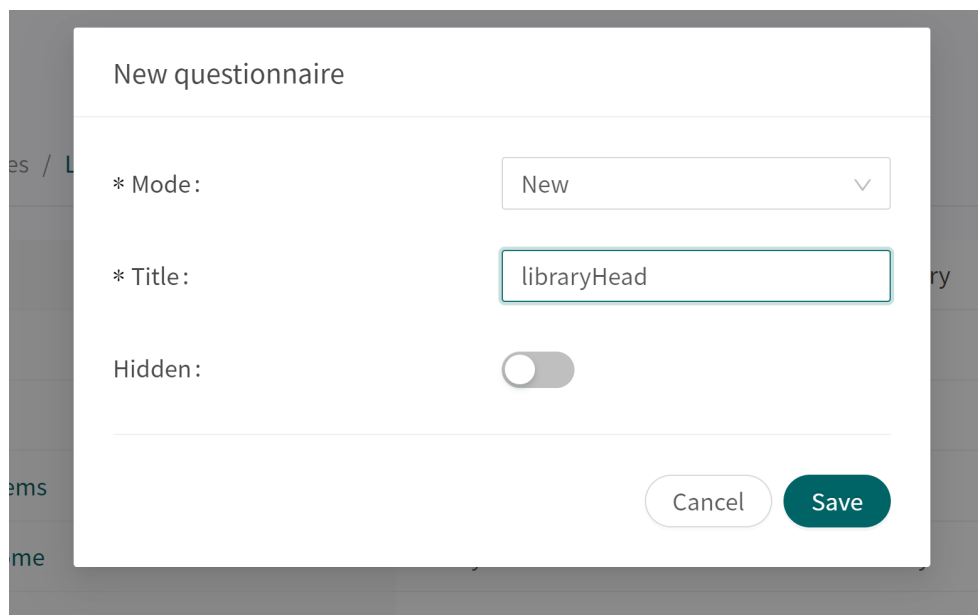


Select "**New**" and enter an **Id (Name)** for the new library file.

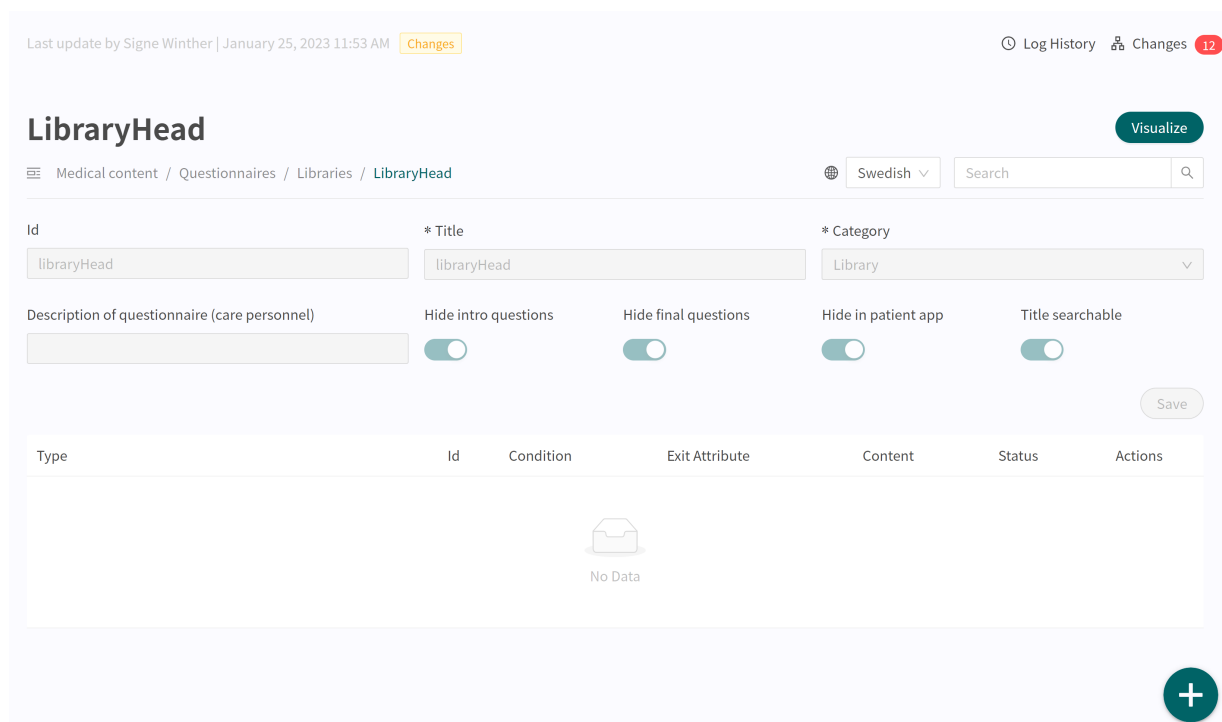
The **ID** needs to be in English and may contain the following characters (no special characters):


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

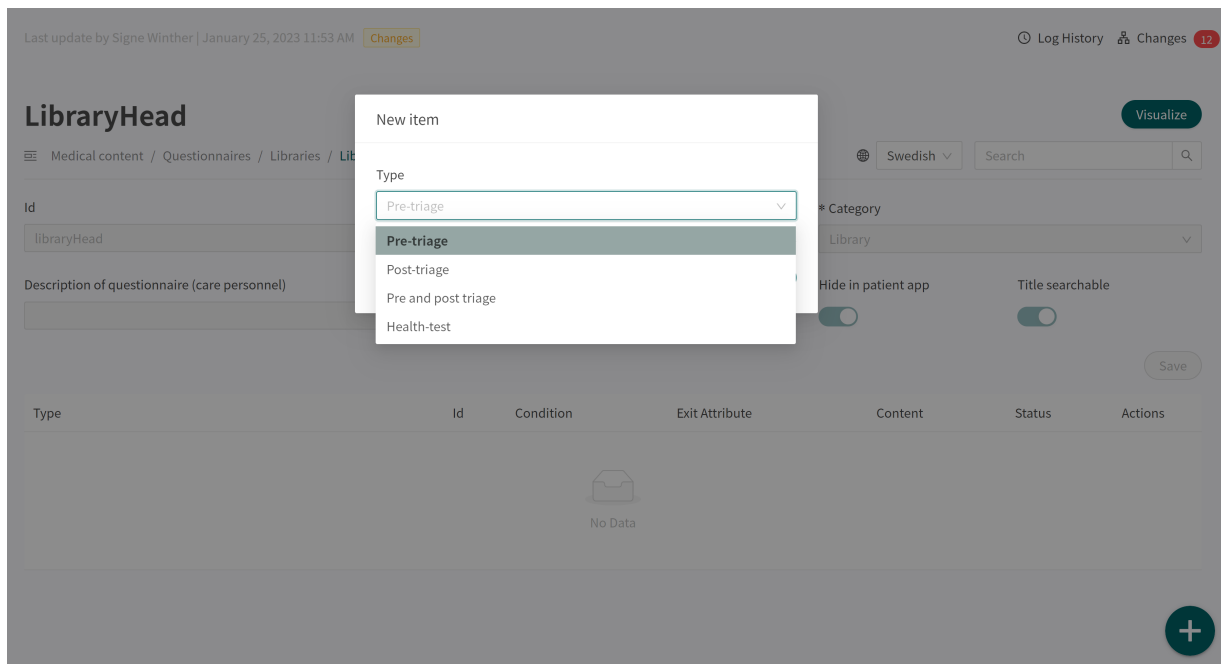
Click "**Save**". The questionnaire will automatically be given the "**Library**" category and this cannot be edited.




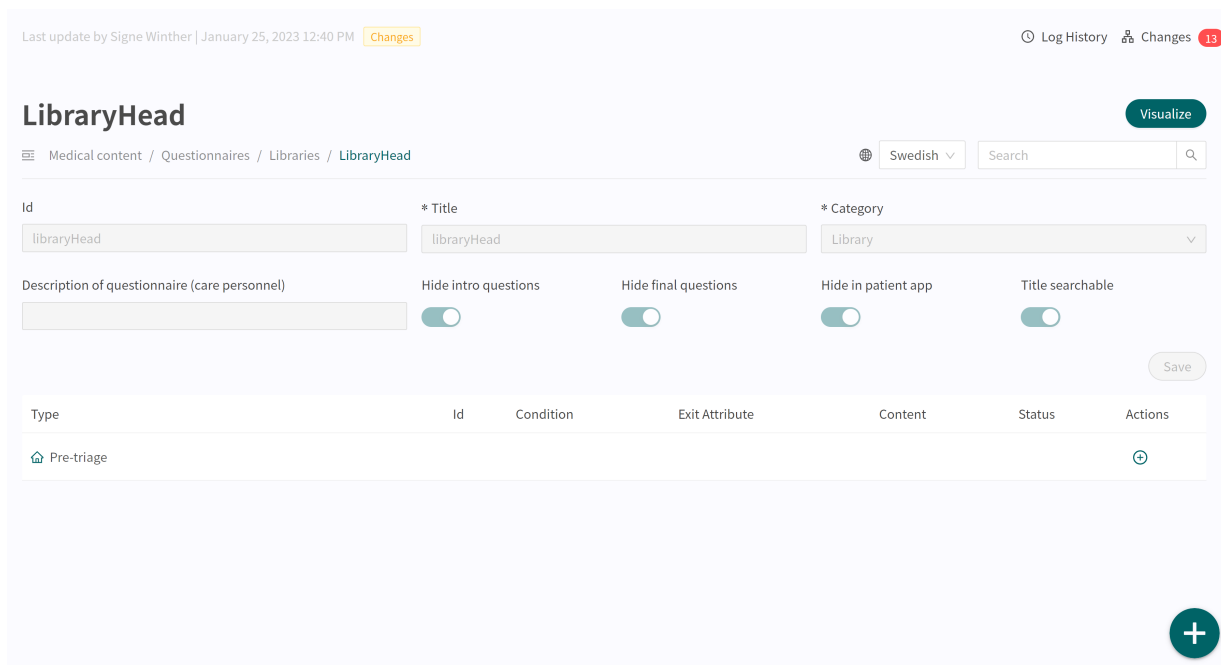
When a new library has been created, it opens directly. **Library metadata** is set automatically to ensure they have the correct settings.



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

* Id * Type Category Build time if Condition

* Question Medical term Choose first [] alternative if

Explanation title Explanation text Show negative answer in Clinic (none/nope)

* 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

Sven Svensson

Partner: manage24test

Origin Care units Practitioners Medical content Care plan groups Business rules English About Collapse Menu Logout

Assessments Libraries Practitioner initiated Self-care information Questionnaires / Libraries

February 16, 2023 11:46 AM Changes

Log History Changes

Run validation

Search by name

Id	Category	Status
contentTest		Local copy
libraryCovidTestEligability	Library	
libraryAcuteAllergy	Library	
libraryAirwaysBreathing	Library	
libraryACS	Library	
libraryAnalPain	Library	
libraryAnxietySomatic	Library	
libraryAuditFullVersion	Library	
libraryAuditC	Library	
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. The 'Mode' dropdown is set to 'Replace'. The 'Title' field is active, showing a search dropdown with several library names including 'COVID test criteria FHM220128', 'Library - Anemia post triage', 'Library - Anxiety and physical symptoms', 'Library - Audit', 'Library - Audit-C', 'Library - Auditlastquestions', and '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.

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 \[79\]](#) section.

8.4.1. Existing self-care information

The default self-care information is provided by Platform24.



NOTE

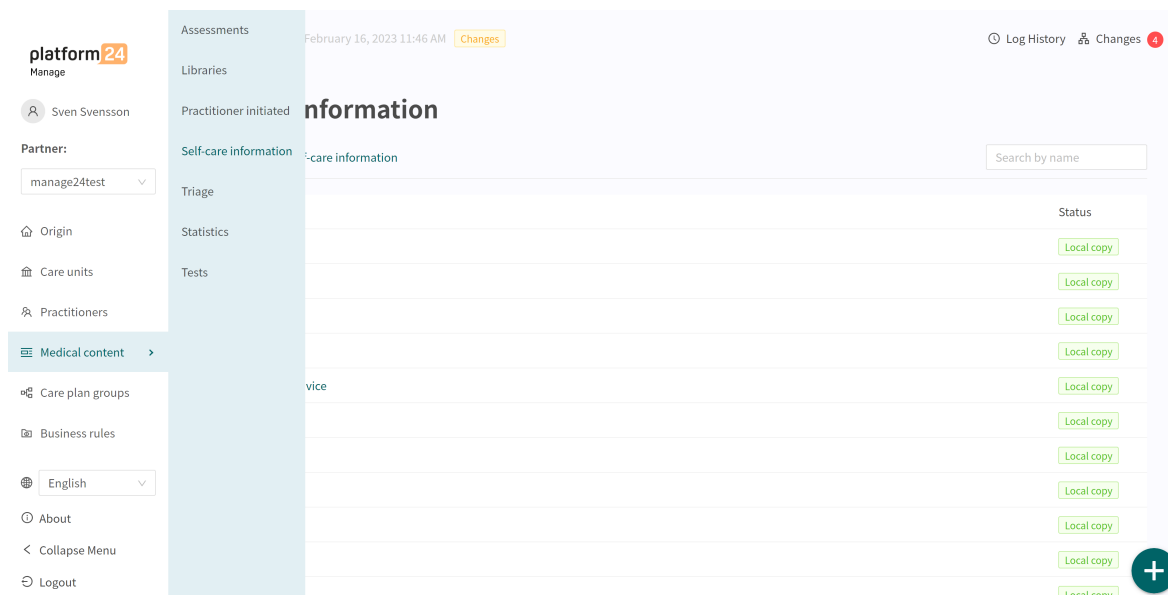
If more languages are to be supported, this option must be added in the setting **Customization** for key **Available Languages** for this origin.

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.



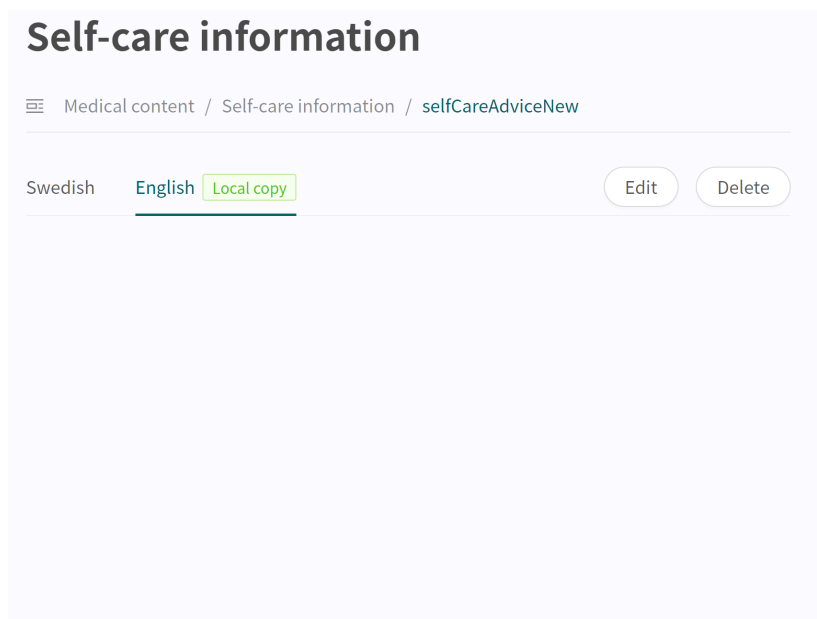
2. Enter a title of the self-care information in the **Title** field. Allowed values: **a-z, A-Z, -, _** (lower-case and uppercase letters (a-z), hyphens and underscores).

New Self-care information

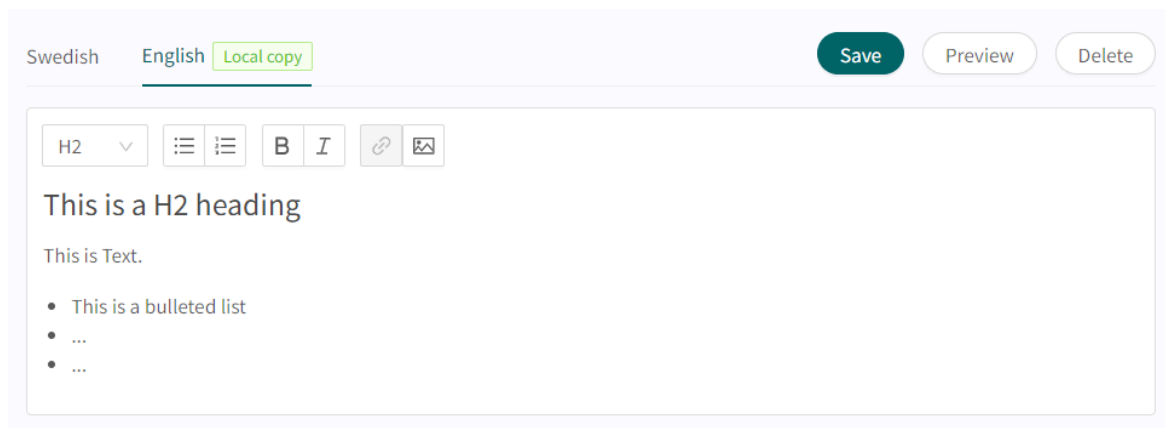
* Title:

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 desired 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 possible to add a picture to the self-care information by clicking the picture icon. The images available to select from are uploaded by Platform24 upon request. Select **Preview** to preview the self-care information. Use the **Delete** button 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. In the questionnaire you can select to edit an existing component by clicking on the **pen** , or to add a new component by clicking on the **+**  button in the desired section.

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	 False	
AddNew	AddNew	Administrative	 False	Local copy
Administrative chat	adminChat	Partner specific conditions	 False	

Arm problems

Hidden: ☐

Medical content / Questionnaires / Triage / Arm problems

Swedish Search

Id: arm Title: armbesvär Category: Locomotor

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	Actions
Pre-triage					
Go to another questionnaire		infant		notYetForInfants	
Question	armAreaLocalisation	properties.jointElbow == null		Where are [your/your child's] problems? (Select all that apply.)	
Formula	haveElbow	armAreaLocalisation.elbow OR properties.jointElbow			
Formula	haveHand	armAreaLocalisation.hand			
Formula	notHaveElbow	NOT armAreaLocalisation.elbow AND properties.jointElbow == null			
Formula	haveWrist	armAreaLocalisation.wrist			

8.5.2. 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.

platform24 Manage

Sven Svensson

Partner: manage24test

Origin

Care units

Practitioners

Medical content

Care plan groups

Business rules

English

About

Collapse Menu

Logout

Assessments

Libraries

Practitioner initiated

Self-care information

Questionnaires / Triage

February 16, 2023 11:46 AM Changes

Log History Changes

Run validation

Search by name

Id	Category	Hidden	Status
acne	Skin and hair	<input type="checkbox"/>	
adminChat	Partner specific conditions	<input type="checkbox"/>	
AgeRestrictionsTest	Administrative	<input type="checkbox"/>	Local copy
AgeRestrictionsTestMax	Administrative	<input type="checkbox"/>	Local copy
allergy	Allergies and hypersensitivities	<input type="checkbox"/>	
allQuestionTypesForDevs	Administrative	<input type="checkbox"/>	Local copy
AllQuestionTypes	Administrative	<input type="checkbox"/>	Local copy
changeOfSmell	Ears, nose, and throat	<input type="checkbox"/>	
biteAnimal	Injuries and accidents	<input type="checkbox"/>	
armInjury	Injuries and accidents	<input type="checkbox"/>	
asd	Administrative	<input type="checkbox"/>	Local copy

+

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:

New

* Title:

* Category:

Administrative

Hidden:

☐

☐ Create pre-triage section

☐ Create post-triage section

Cancel

Save

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

Search

Id

newCondition

* Title

newCondition

* Category

Administrative

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			<div></div>

Type	Id	Condition	Exit Attribute	Content	Status	Actions
<div>No Data</div>						

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


Type	Search term	Properties	Actions
Search Terms			<div></div>




Type	Id	Condition	Exit Attribute	Content	Status	Actions
<div></div> Pre-triage						<div></div>
<div></div> Post-triage						<div></div>

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

8.5.3. 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: 2023-05-24 17:29 Run validation
Medical content / Questionnaires / Triage					Search by name 
Title 	Id	Category	Hidden	Status	
18monthsVisit	18monthsVisit	General questions	False	Local copy	
Acne problems	acne	Skin and hair	False	Local copy	
Administrative chat	adminChat	Partner specific conditions	False		
Allergy	allergy	Allergies and hypersensitivities	False	Local copy	
Altered sense of smell	changeOfSmell	Ears, nose, and throat	False		
Anxiety	anxiety	Psychological problems	False		
Arm problems	arm	Locomotor	False	Local copy	
Asthma	asthma	Breathing	False	Local copy	
Back injury	backTrauma	Injuries and accidents	False		
Back problems	backPain	Locomotor	False	Local copy	
Birthmark	nevus	Skin and hair	False		
Birthmark	nevus	Skin and hair	False	Local copy	

New questionnaire

* Mode: Replace

* Title:

* Category:

Hidden:

ageRestrictionTest

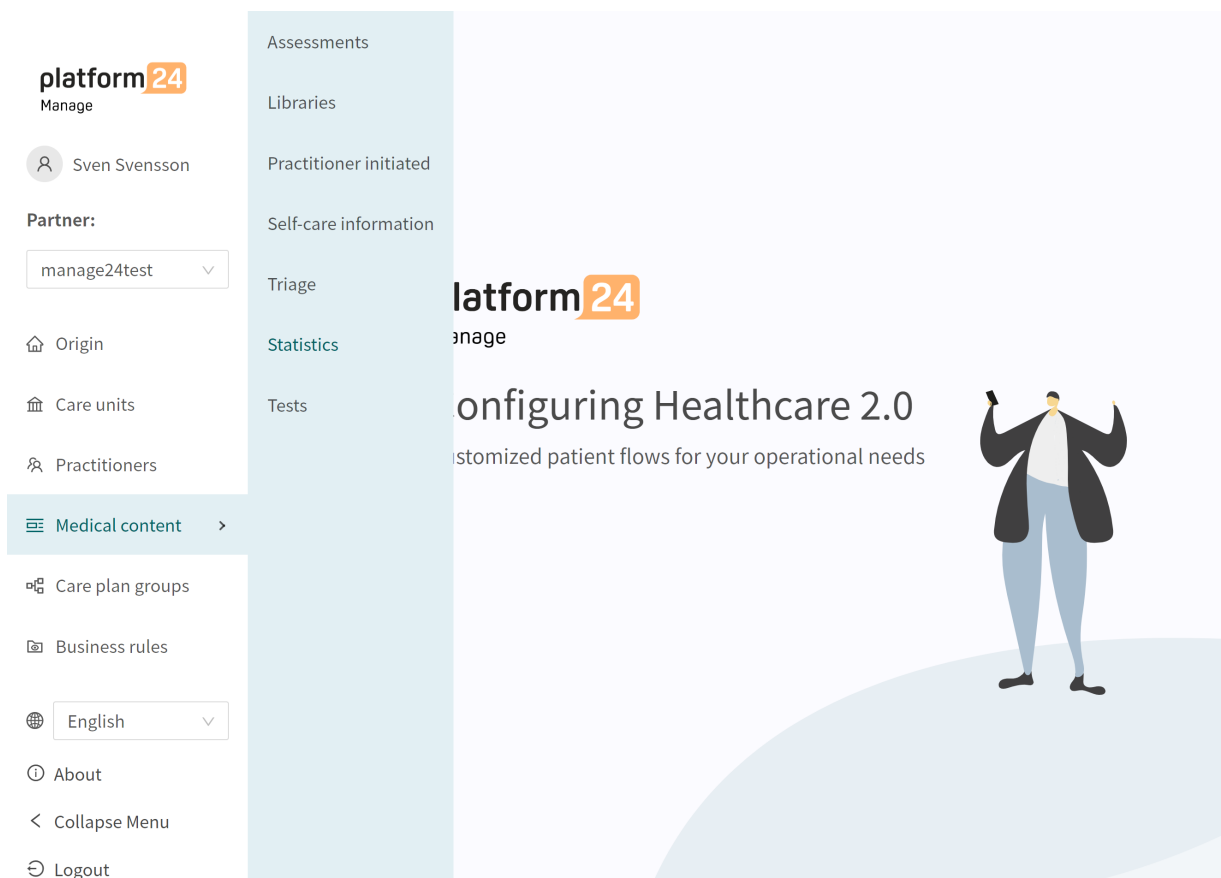
- Acne problems
- Altered sense of smell
- Animal bite/scratch
- Back injury
- Back problems
- Belly button problems, new-born
- Birth control

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, it’s **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 \[53\]](#).

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.

Last update by Sven Svensson | January 26, 2023 01:44 PM [Changes](#) [Log History](#) [Changes](#) 54

Statistics

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).

2022-11-28 14:30 Complete [Filter](#) [Export to CSV](#)

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

Library - Local

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.

Last update by Sven Svensson | January 26, 2023 01:44 PM [Changes](#) [Log History](#) [Changes](#) 54

Statistics

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).

2022-11-28 14:30 Complete [Filter](#) [Export to CSV](#)

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

Library - Local

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:

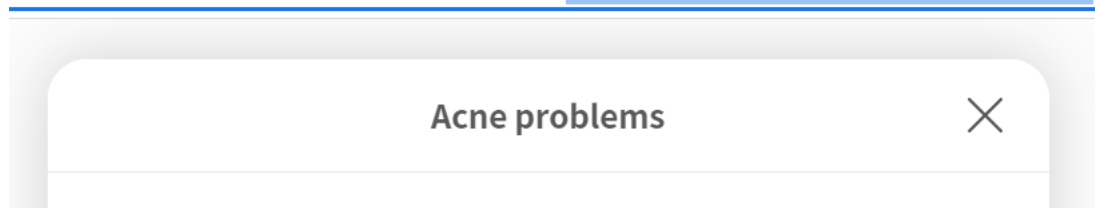
`...triageinterviewid=...` followed by a text string containing letters, numbers and hyphens.

Example:

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

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

`.platform24.se/chat/triage?triageInterviewId=a8bc7071-e323-41c2-8585-b77613818cd4`



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.

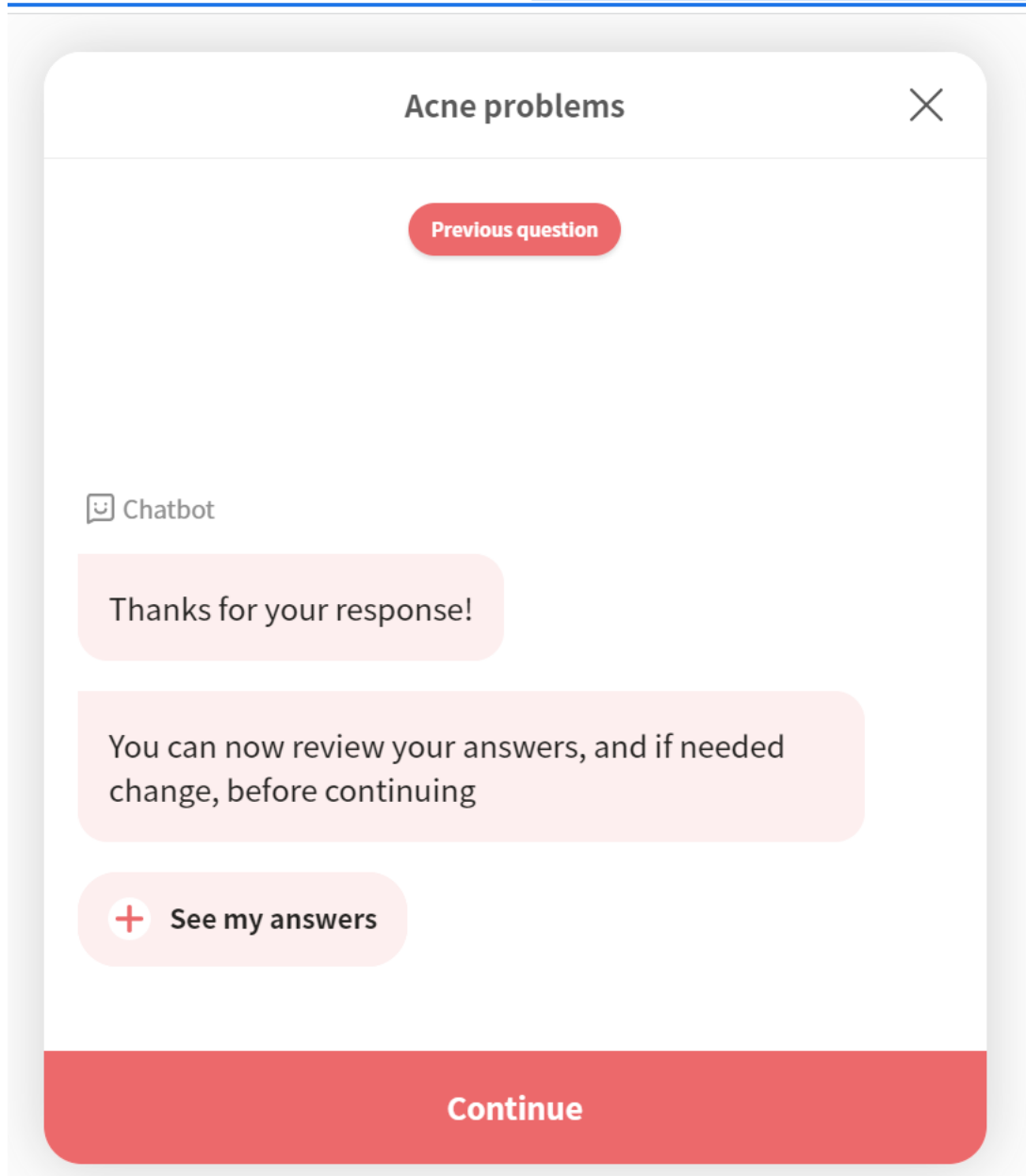
8.7.2. Conducting unit tests

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.

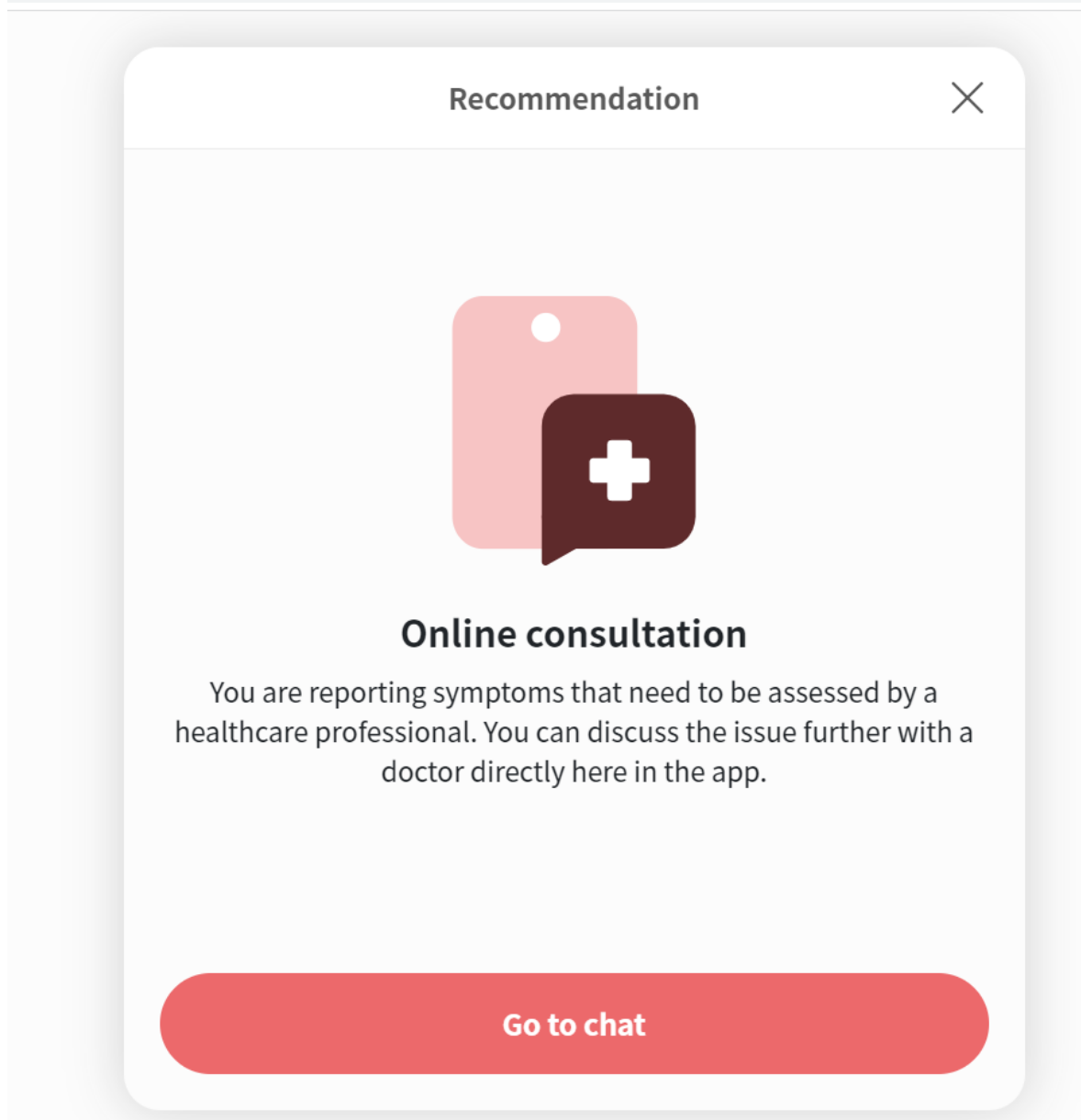
1. Go to the demo environment.
2. Start the Patient app and step through the patient flow that you wish to test, but without clicking the **Continue** button (clicking the **Continue** button will lock the interview and the **interview ID** will no longer be displayed).
3. Before clicking the **Continue**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

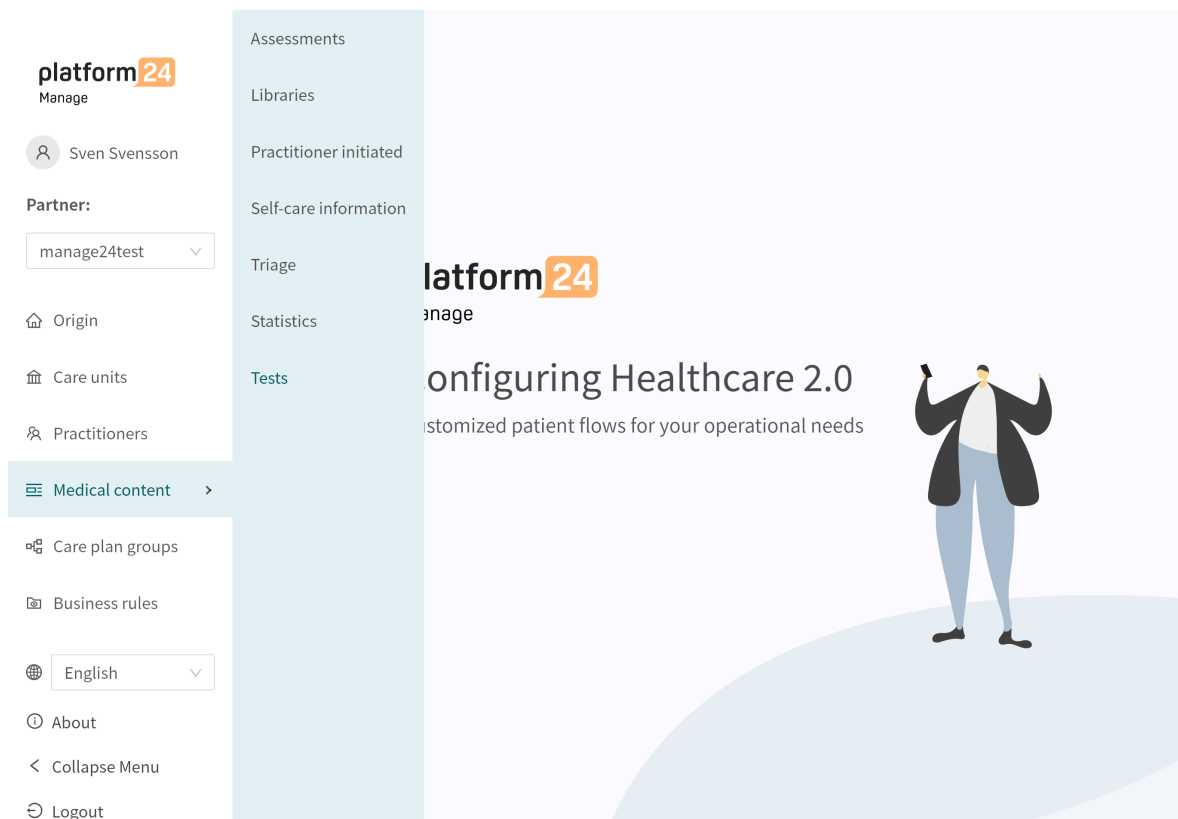


4. Click the **Continue** button. This will lock the interview and exit in a **Recommendation**.

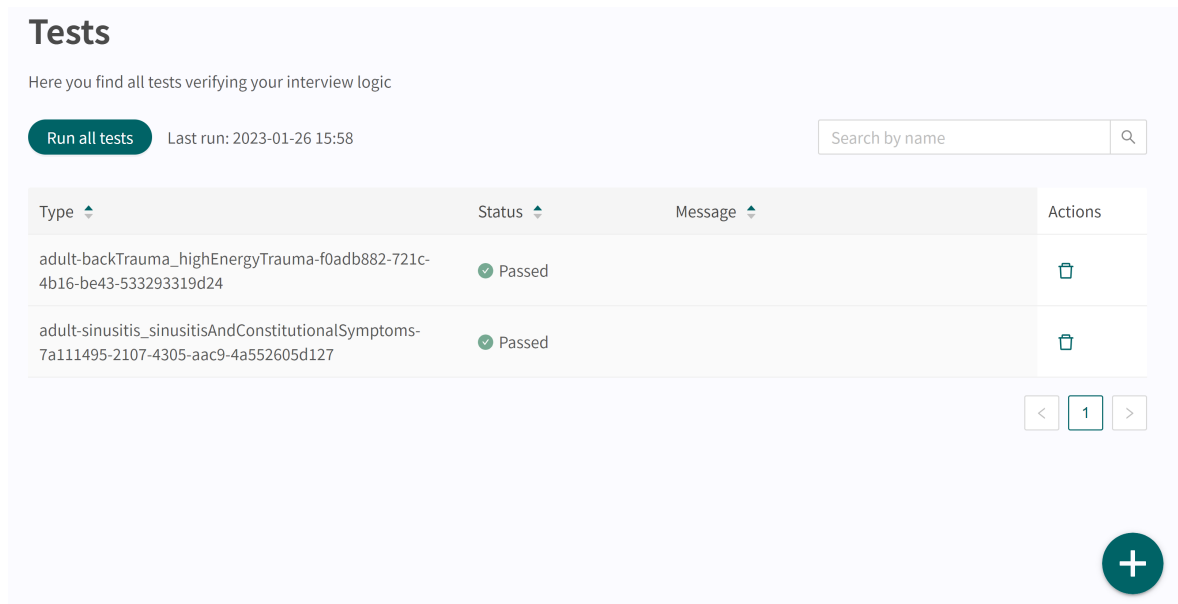
platform24.se/exitActions/453c8230-c2ea-48b1-9519-856c4cd13784



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



6. Click on the large green plus  button in the lower right corner.



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

Add test link
✕

Interview ID

a8bc7071-e323-41c2-8585-b77613818cd4

Save test

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

Tests

Here you find all tests verifying your interview logic

Run all tests
Last run: 2023-01-26 15:58

Search by name

Type	Status	Message	Actions
adult-acne_null-a8bc7071-e323-41c2-8585-b77613818cd4			
adult-backTrauma_highEnergyTrauma-f0adb882-721c-4b16-be43-533293319d24	Passed		
adult-sinusitis_sinusitisAndConstitutionalSymptoms-7a111495-2107-4305-aac9-4a552605d127	Passed		

< 1 >

+

9. When the tests are running the **Run all tests** button will be blocked and a text **Validation in progress** will be visible.
10. 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.

Tests

Here you find all tests verifying your interview logic

Run all tests
Last run: 2022-05-24 15:08

Search by name

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-fc49bcdcd-140d-400f-bc46-ff4e66637139	Passed		

11. 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-fc49bcd-c-140d-400f-bc46-ff4e66637139	Passed		

12. 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-fc49bcd-c-140d-400f-bc46-ff4e66637139	Passed		
child-OvrigaBesvarRG_haveConstitutionalSymptomsC-270788f0-6a00-4ac3-8e9d-0a7ed7173157	Passed		

8.7.4. Deleting tests

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

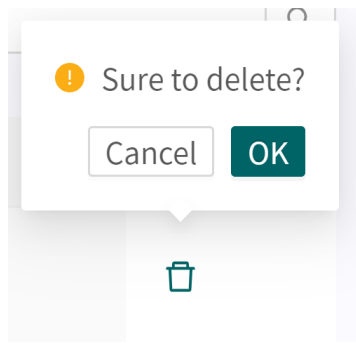
Tests

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-fc49bcd-c-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 'Test3' questionnaire metadata form. At the top, there's a 'Visualize' button. Below it, a 'Hidden' toggle is set to 'off'. The breadcrumb trail is 'Medical content / Questionnaires / Triage / Test3'. A language dropdown is set to 'Swedish', with a search bar next to it. Below this, the form has several fields: 'Id' (containing 'Test3'), '* Title' (containing 'Test3'), and 'Category' (a dropdown menu currently showing 'Administrative'). There are also five toggle switches: 'Description of questionnaire (care personnel)' (off), 'Hide intro questions' (off), 'Hide final questions' (off), 'Hide in patient app' (off), and 'Title searchable' (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.

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 *Natural language processing* 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

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

Asthma Visualize

Hidden: ☐

Medical content / Questionnaires / Triage / Asthma Swedish Q

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			+
Search term	asthma		✎ ✕
Search term	Could be asthmatic		✎ ✕

2. Click the plus + sign in the **Actions** column to add new terms to the questionnaire.
3. Select which language the search term should be added to and specify the search term in the **Search term** field.

New item English

* Search term: Properties:

☐ Display

Cancel Save

4. If desired, it is possible to add properties to the search term in the **Properties** field. Properties can be, for example, that the patient already has indicated the localization of the pain via the search term and should not receive a question about the localization of the pain in the questionnaire.
The added properties in a search term can be used 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.
5. Click **Save**. The search term will now be displayed in the search term list.

Asthma

Convert to local version

Visualize

Hidden:

Medical content / Questionnaires / Triage / Asthma

Swedish

Search

Id

asthma

* Title

Asthma

* Category

Breathing

Description of questionnaire (care personnel)

Hide intro questions

Hide final questions

Hide in patient app

Title searchable

Save

Example:

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

Search term

English

* Search term

Got a pounding headache

Properties

severe

suddenly

suddenlySevere

☐ Display

Cancel

Save

In the question "headacheInfection" there is a condition (`properties.suddenlySevere == null`), 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 and usability perspective.

The 'Question' form in Content Studio+ includes the following fields:

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

Buttons at the bottom right: Cancel, Save.

9.3.3. Unique search terms and the Display option

A search term is unique if it has a unique set of properties compared to other search terms. If several search terms share the exact same properties, the search term that is first (at the top) of the list, will be the one displayed in the Patient app in a free text search that matches the search term according to NLP.

To organize and select which search term to display when searching in the Patient app, it is also possible to select the **Display** option to determine which search term to display.

The 'Search term' form in Content Studio+ includes the following fields:

- * Search term:** Text input with value 'Allergy cold'.
- Properties:** Text input with values 'coldAllergy x' and 'knownAllergy x'.
- Display:** Checkmark icon.

Buttons at the bottom right: Cancel, Save.

If two or more search terms with the same properties are marked with **Display**, an error message will be shown as it is not possible to use the **Display** option on multiple search terms with the same properties.

The 'Search term' form in Content Studio+ includes the following fields:

- * Search term:** Text input with value 'Allergy cold'.
- Properties:** Text input with values 'coldAllergy x' and 'knownAllergy x'.
- Display:** Checkmark icon.

Buttons at the bottom right: Cancel, Save.

Error message (red box): Search term id 'allergy-coldAllergy-knownAllergy' is already set to display in other search term.

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

* Id: facialInjurySymptoms1 * Type: Multiple choice Category: Symptom Build time if: Condition:

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

Explanation title: Explanation text: Show negative answer in Clinic (none/nope): ☐

*** Response options**

▼ Response breathing 🗑️

* Type: Response * Id: breathing Condition:

Build time if: * Patient text: Breathing problems Practitioner text: breathing problems

Choose first [] alternative if: Negate to show response in Clinic: ☐ Points:

> 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.

The screenshot shows the 'New item' form in Content Studio+. The 'Type' dropdown is set to 'Question'. Below this, there are several input fields and dropdowns for configuring a 'Range' question:

- * Id**: A text input field.
- * Type**: A dropdown menu currently showing 'Range'.
- Category**: A dropdown menu.
- Build time if**: A text input field.
- Condition**: A text input field.
- * Question**: A text input field.
- Medical term**: A text input field.
- * Min**: A text input field.
- * Max**: A text input field.
- Step**: A text input field with the value '1' and a spinner control below it.
- Unit**: A text input field.
- Min label**: A text input field.
- Max label**: A text input field.
- Choose first [] alternative if**: A text input field.
- Explanation title**: A text input field.
- Explanation text**: A text input field.

At the bottom right of the form are 'Cancel' and 'Save' buttons.

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 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)`).

Dates should have format 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.

Medical term

The text that will be used in the medical history summary of the interview and displayed in Clinic. Refer to the smartText 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, there's a title 'Exit' with a red flag icon and 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 an 'x' icon).
 - Level of care:** (empty dropdown).
 - Resource:** (empty dropdown).
 - Capability:** 'emergency room x' (with an 'x' icon).

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)`).

Dates should have format 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 \[108\]](#) 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.

The screenshot shows the 'Exit' configuration interface. It has a header with a globe icon and 'English' dropdown. The form is organized into several sections:

- * Exit ID:** A text input field containing 'unsuccessfulSelfCare'.
- Type of exit:** A dropdown menu with 'Recommendation' selected.
- * Condition:** A text input field containing 'triedSelfCare.unsuccessful AND (havePain OR haveStiff OR haveReducedMovement)'.
- Patient text:** A text input field containing '[You are/Your child is] in pain, experiencing stiff or a reduced range of motion the [hand/hands], and self-care has not had a good enough effect.'.
- Recommendation:** A text input field.
- Build time if:** A text input field.
- Choose first [] alternative if:** A dropdown menu with 'bothOrSingle.oneHand' selected.

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.

Exit attributes are important input to the rule engine which performs the routing of the patient and generates the recommendation pages. In addition, the exit attributes are also an important input to, for example, what care unit and role the patient is routed to. Therefore, adding, updating or deleting exit attributes must be made with caution and with a good understanding on the effect of the change. It is also very important to test the changes thoroughly before releasing them into production. There are separate test instructions supplied by Platform24. Contact your Customer Success Manager if you wish to receive the test instructions.

The exit attributes listed below are examples.

Urgency	<ul style="list-style-type: none"> • Immediate • Promptly • Acute • Planned • Wait
Visit form	<ul style="list-style-type: none"> • Online recommended – if patient will receive an online recommendation • Online possible – if patient is offered choice to go online as a secondary recommendation • If value is not selected here, the patient is recommended offline care
Level of care	<ul style="list-style-type: none"> • Stop • Online • Hotline • Primary care • Specialist care • Emergency • Previous clinic • Self-care
Resource	<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"> • Occupational therapist • Paediatrician • Midwife

- Biomedical analyst
- Dermatologist
- Dietician
- Pharmacist
- Physiotherapist
- Health scientist
- Counsellor
- Speech therapist
- Doctor
- 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
- youth

Self-care advice

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 your superuser 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.

06 February 2023

You must receive the appointment before you can start the chat

✓ Din sjukvårdshistorik

✓ Din läkemedelslista

Receive

SURVEY

PHRASES

BOOK APPOINTMENT

Type your message here...

APPOINTMENT (SYNC PHASE), MANAGE24TEST

Consult

Overweight

Origin

Manage24 Test Cli...

Triage ⓘ

Results

Non Medical Info

Show

Allergies

—

Diagnosis

—

Medication

—

Surgery

—

Practitioner Exit Care Advice

Follow our internal **routines** (xxx) when taking care of a patient that wants to loose weight. To provide best possible care:

Show more

Notes

Original Text

Anamnesis: 31-year-old male presenting with overweight. The patient has tried losing weight but with no success. Not suffering from being overweight.

Diagnostics: BMI over 25.

See original responses for complete interview.

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	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			

2. 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.	✎ 🗑

3. 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
English

Exit ID
overweightAdultAndTroubling

Type of exit
Recommendation

Condition
overweightAdult AND troubling

Patient text

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.

Recommendation

Build time if

Choose first [] alternative if

Exit Care Advice

B I

Follow internal routines for...

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

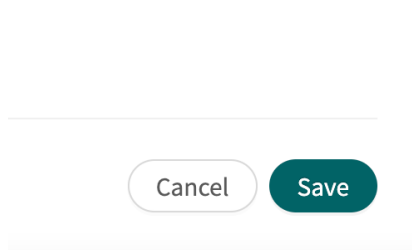
B I

Follow our internal **routines**

- 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). Formulas can also be used to create calculations for assessments.

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)).

Dates should have format 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 ID	* Condition	Build time if
Formula	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 \[108\]](#) 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)`).

Dates should have format 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.

The 'Include' dialog box shows the following configuration:

- Include library:** Library - frequently recurring questions
- Question:** severe
- Condition:** haveSwelling
- Build time if:** (empty field)
- Buttons:** 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:

The 'Include' dialog box shows the following configuration:

- Include library:** Library - flu
- Question:** Select all
- Condition:** patient1orAbove AND (noClearCause OR copdExacerb.)
- Build time if:** (empty field)
- Buttons:** Cancel, Save

libraryFlu has a question with the following conditions:

The 'Question' dialog box shows the following configuration:

- * Id:** fluTriedSelfCare
- * Type:** Single choice
- Category:** Self care
- Build time if:** (empty field)
- Condition:** haveFluSymptoms OR haveHeadache
- * Question:** [Have you/Has your child] during this time tried to drink a lot, use fever-reducing/pain relieving medications or decongestant nasal spray/drops as needed?
- Medical term:** tried self-care
- Choose first [] alternative if:** (empty field)
- Explanation title:** (empty field)
- Explanation text:** (empty field)
- Show negative answer in Clinic (none/nope):** ☐

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 (patientIorAbove 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

The screenshot shows a configuration dialog titled "Go to another questionnaire". In the top right corner, there is a language selector showing "English" with a dropdown arrow. The dialog is divided into three main sections:

- * Condition:** A text input field containing the word "infant".
- * Go to:** A dropdown menu currently showing "Infant problems".
- Build time if:** An empty text input field.

 Below these sections is a "Properties" area containing a tag "notForInfant" with a close button (x). At the bottom right of the dialog are two buttons: "Cancel" and "Save".

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)`).

Dates should have format 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 \[108\]](#) 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.

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.

The screenshot shows a dialog box titled "Export data" with a language selector set to "English". It contains three main sections: "Condition", "* Integer or variable (eg. 2 or age)", and "* Destination". The "Condition" field is empty. The "* Integer or variable" field contains "madrss_score". The "* Destination" field contains "healthdata". Below these, there is a "* Type" dropdown menu set to "Total score MADRS-S" and a "Mandatory" checkbox which is unchecked. At the bottom right, there are "Cancel" and "Save" buttons.

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

Condition	Conditions for when exporting data to the health database.
Local name	The formula or value that is given in the questionnaire and which is exported to the database. The Local name 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.
Destination	The database to which values are exported. Only one database can be currently selected.
Type	Drop-down list with selectable values to export to the database.
Mandatory	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

Call library	Drop-down list with libraries that can be used.
Parameters	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.
Condition	Conditions for when a library is included with the specified parameters.
Build time if	<p>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 [108] section for a longer description of Build time if:</p> <ul style="list-style-type: none"> • Include • Exits • Answer (in questions) • Formulas • Questions • Go to another questionnaire • Call questionnaire

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)`).

Dates should have format 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.

Medical term	Flag text displayed to healthcare practitioners in Clinic for patients who have fulfilled the flag condition (see Condition).
Code	A code that can be specified if apply additional logic to the business rules.
Symptom	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
<input type="text" value="patient18orAbove"/>	<input type="text" value="If the patient is troubling, consider providing suitable advice."/>	<input type="text"/>

Symptoms

[+Add symptom](#)

Flag English ▾

* Condition	Medical term	Code
<input type="text" value="true"/>	<input type="text" value="If the patient has gained weight, remember that this also could affect the mental health of the patient."/>	<input type="text"/>

Symptoms

[+Add symptom](#)

06 February 2023

You must receive the appointment before you can start the chat

Din sjukvårdshistorik

Din läkemedelslista

Receive

APPOINTMENT (SYNC PHASE), MANAGE24TEST

Overweight

Consult

Origin

Triage

Non Medical Info

Manage24 Test Chat

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`

The screenshot shows the 'Formula' configuration window. At the top right, there is a language selector set to 'English'. Below this, there are three input fields: '* Formula ID' containing 'suspectFever', '* Condition' containing 'true', and 'Build time if' which is empty. At the bottom right, there are 'Cancel' and 'Save' buttons.

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"

The screenshot shows the 'Question' configuration window. At the top right, there is a language selector set to 'English'. Below this, there are several fields: '* Id' (feverOrChills), '* Type' (Multiple choice), 'Category' (Symptom), 'Build time if' (NOT suspectFever), and 'Condition' (empty). Below these are 'Medical term' (fever/chills) and 'Choose first [] alternative if' (empty). The 'Question' field contains the text: "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." Below this are 'Explanation title' (Information for fever-reducing medicines) and 'Explanation text' (Fever-reducing or anti-inflammatory medicines, such as paracetamol (e.g. Alvedon) or ibuprofen (e.g. Ipreen) may temporarily reduce body temperature. If you think that you or the person you are seeking medical care for have/had taken any of these medicines and would have had a fever without them, then answer "Fever"). There is also a 'Show negative answer in Clinic (none/nope)' toggle switch. At the bottom, there is a section for '* Response options' with three items: 'Response fever', 'Response chills', and 'Response none', each with a trash icon. Below this is a '+Add more' link. At the bottom right, there are 'Cancel' and 'Save' buttons.

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)`

Call questionnaire

English

* Call library

libraryLateralityInjury

* Parameters

arm x

Condition

Build time if

Cancel

Save

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

Question

English

* Id

armInjurySymptoms1

* Type

Multiple choice

Category

Symptom

Build time if

arm

Condition

* Question

Does any of this apply to [you/your child]? (Select all that apply.)

Medical term

symptoms

Choose first [] alternative if

Explanation title

Explanation text

Show negative answer in Clinic (none/nope)

* Response options

> Response malalignment

> Response swelling

> Response numbness

> Response coldArmHand

> Response reducedMovement

> Response none

+Add more

Cancel

Save

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)`).

Dates should have format 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

* Id	* Type	Category	Build time if	Condition
coldAllergy	Yes or no	Other		(doesHaveRash OR havelitching) AND notPossibleCrossReactivity AND NOT medicine AND (vars.severeAllergySymptoms.wantsToContinueOnline == null OR vars.severeAllergySymptoms.wantsToContinueOnline == false)

* Question	Medical term	Practitioner text (if answer no)
[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	

Point (if answer yes)	Choose first [] alternative if	Explanation title

Explanation text

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

* Search term	Properties	
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.

11. Versions

Versions of the Content Studio+ User Manual.

#	Date	Description
0.1	2020-11-02	First draft
0.2	2020-11-27	Updated after assessment
0.3	2021-02-16	Updating and addition of function descriptions
1.0	2021-02-16	1st version of Content24 User guide
2.0	2021-03-29	2nd version of Content24 User guide including updating of function descriptions.
3.0	2021-09-06	Format updates. Cover, color-scheme, format of warnings.
4.0	2021-10-04	Addition of descriptions on how to edit search terms.
5.0	2021-11-02	Update based on release-notes.
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.
8.0	Not released to end users. Transitional version.	<p>Transition to version 8 for synchronisation with the SE-sv manual. Updates made in the SE-sv in v6, v7 and v8 are included.</p> <p>from v6 SE-sv - Update of contact information, unit tests and exit care advice.</p> <p>from v7 SE-sv - Links in exit care advice.</p> <p>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</p>
9.0	2022-03-17	Rewrite and update of Unit tests
9.1	2022-03-29	Structural updates with no effect on content
9.2	2022-05-25	<p>Correction of texts for Unit tests. Not officially published.</p> <p>Added clarification to Free text question types.</p>
10.0	2022-10-31	<p>Updated publication after Triage24 MDR certification.</p> <p>Changed manual name from User Guide to User Manual.</p> <p>Changed name from decision support to flags.</p> <p>Updated sections regarding exit care advice, conditions and flags.</p>

#	Date	Description
11.0	2023-04-17	<p>Main updates are:</p> <ul style="list-style-type: none"> • Changed Content24 to Content Studio, Manage24 to Manage and Clinic24 to Clinic • Almost all images replaced (due to new logotype and UI changes) • <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. • <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. • Self-care information updates (UI changes, and information on Medi-Bas removed) • Question type • Questionnaire description • Metadata (new and changed fields) • Export data in Local name component • More supported file formats for questions • "Replace staff response on question" field deleted as it is no longer in use • Name/Title/Description/Questionnaire aligned to title • Date questions possible to add as as skippable • Information about automatic added none responses removed • Text from Abstract moved into an Introduction chapter. Clarifying note added to the Introduction chapter regarding updates in the manuals.
12.0	2023-09-22	<p>Main updates are:</p> <ul style="list-style-type: none"> • Product name changed to Content Studio⁺. • Information about point of contact in case of serious incidents moved from Intended use chapter to page 2. • Updated intended use according to document <i>Triage24 - Definitions of intended use, user profiles and use environments SE-en D490</i>. • Technical support section updated. • Symbols Chapter updated with admonitions description. • "Modified" status removed from questionnaires. • Maximum limit for changes to questionnaires removed as only local copy or unchanged questionnaires from Platform24 now exist. • Format for dates clarified in conditions.

#	Date	Description
13.0	2024-01-11	<p>Main updates are:</p> <ul style="list-style-type: none"> • Section 8.4.2 updated with the possibility to include images in self-care information. • Section 9.3.2 restructured and clarified. • New section <i>9.3.3 Unique search terms and the Display option</i> added. • Section 10.8 updated and information added that points can be both integers and decimals. • Intended use for Triage24 updated to include business rules, a clarifying note and some other minor clarifications. • Support email for user manuals updated.
14.0	2024-05-20	<ul style="list-style-type: none"> • Manage version added on the first page. • Date of manufacture symbol has been added on page 2 and in <i>Section 3.1 Symbols definition</i>. • Information added in <i>Section 2.3.1</i> about that a paper version of the user manual will be provided at the latest within 7 calendar days of receiving a request from the user. • In <i>Section 3.1. Symbols definition</i>, the previous warning symbol has been replaced with a caution symbol indicating to the users to consult the instructions for use for relevant warnings and cautions. • Sentence removed from <i>Section 5.1 Triage24</i> about that the triage algorithm is based on the Swedish standard of Telephone triage protocol RGS (Rådgivningsstödet). This only applies for customers that have purchased the medical content from Platform24, and not for customers that creates their own medical content.
15.0	2024-06-17	<p>Added clarification in section <i>9.5.1. Attributes and values in Exits</i> about the need to perform thorough testing and have a good understanding of the effect when adding, editing or deleting exit attributes.</p>

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.