USER'S MANUAL

The **Indivo** Personally Controlled **Health** Record

FORTH
Institute of Computer Science

Contents

General information 4
Getting started 6
Register 6
How to use Indivo 15
Login 15
Apps 18
Problems app 20
Add problem 21
Select problem 22
Edit problem 23
Deleted problems list 24
Procedures app 25
Add procedure 26
Select procedure 27
Edit procedure 28
Deleted procedures list 30
Allergies app 31
Add allergy 32
Select allergy 33
Edit allergy 34
Deleted allergies list 35
Medications app 36
Add medication 37
Select medication 39
Edit medication 40
Deleted medications list 41
Interacting medications 42
Labs app 44
Add lab 45
Select lab 47
Edit lab 48
Deleted labs list 49
Share information 50
Add carenet 52

Add account to share information 53
Share apps 54
Share documents 56
Stop sharing documents 60
Calendar – Timeline 62
Personal Medical Information recommender 65
Recommended links 65
Semantic search – Recommender app 66
Disclaimer 68
Introduction 68
How your data will be processed 68
Collection of your personal information and control 68
Deleting entire record 69
Deleting health information 69
Sharing your health information 69
Security of your personal information 70
Use of cookies 70
Changes to this privacy statement 70
Contact information 70

1. General information

General information

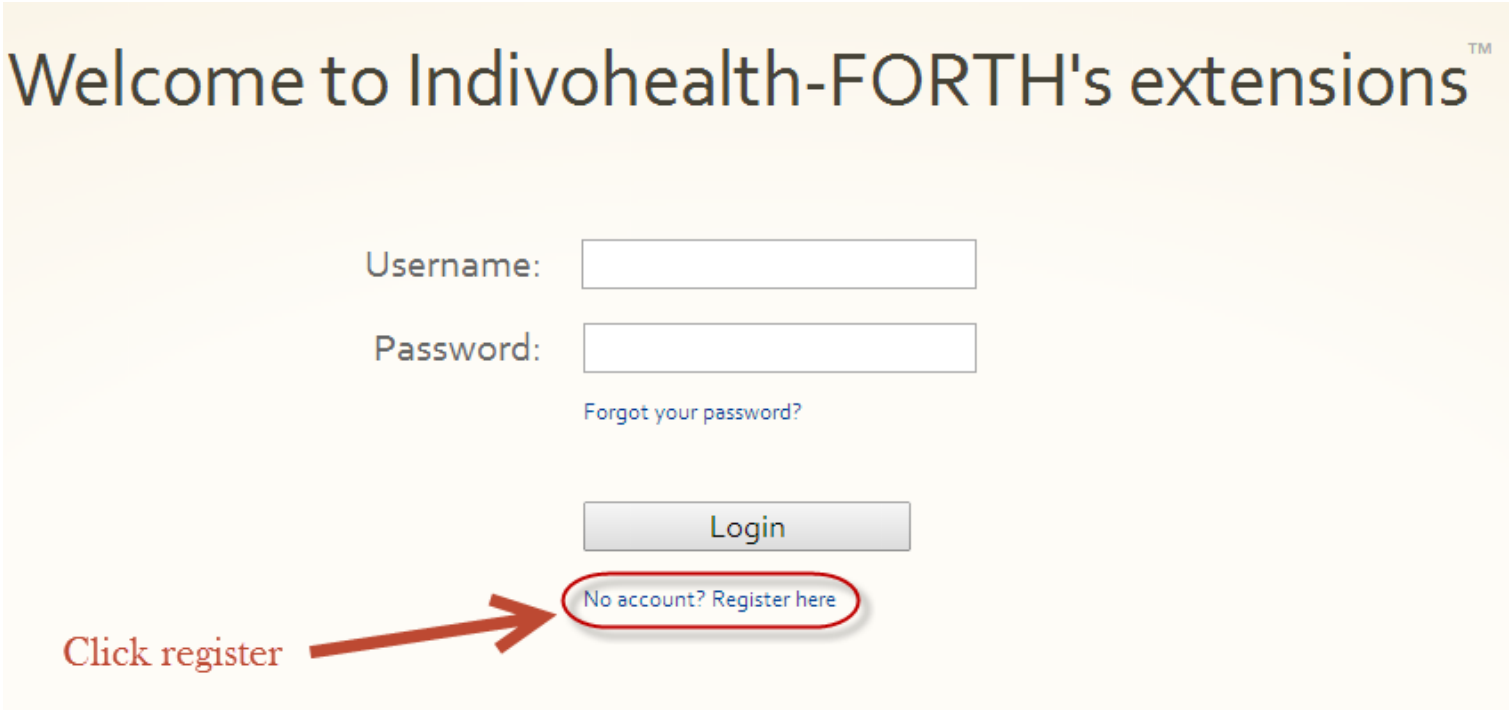
Indivo is the original personal health platform, enabling an individual to own and manage a complete, secure, digital copy of her health and wellness information. Indivo integrates health information across sites of care and over time. The Indivo system is essentially an inversion of the current approach to medical records, in that the record resides with the patients and the patients grant permissions to institutions, clinicians, researchers, and other users of medical information. Indivo is a distributed, web-based, personally controlled electronic medical record system that is ubiquitously accessible to the nomadic user, built to public standards, and available under an open-source license.

2. Getting Started

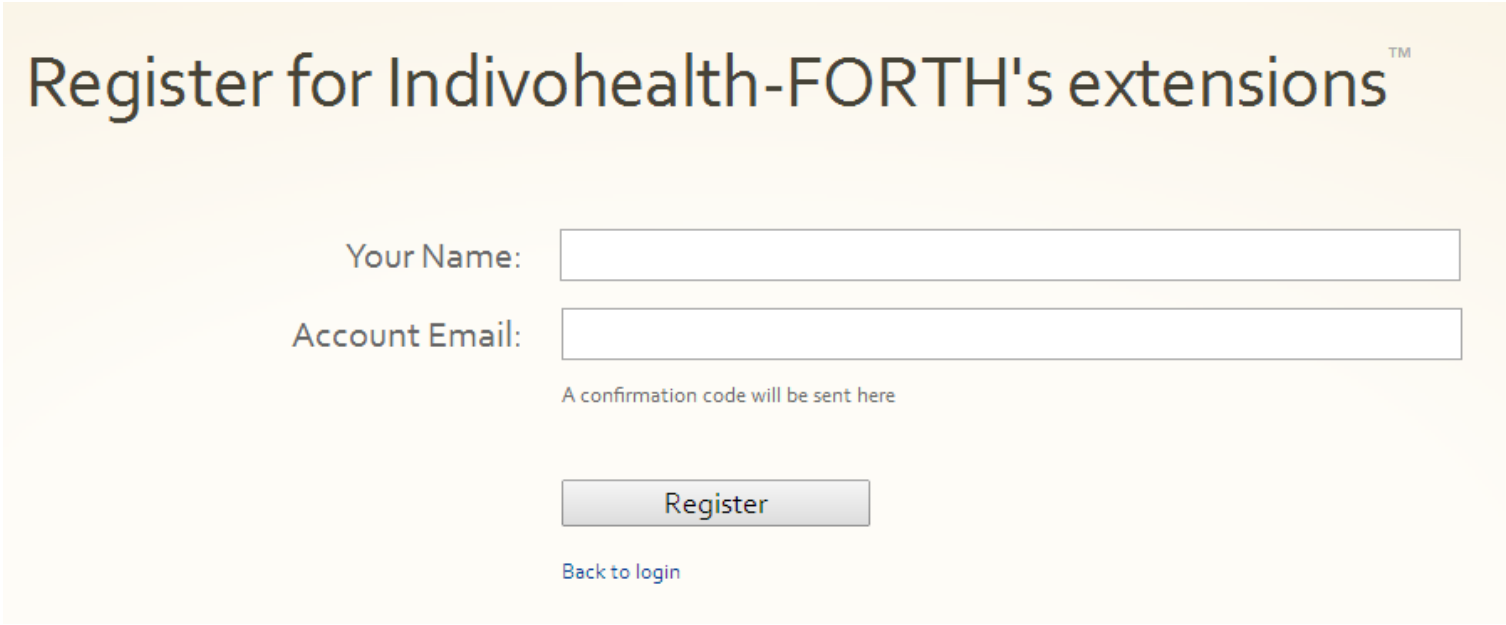
Getting started

Register

First step is to create a new user account in order to access the Indivo Health System. Registration link should be clicked to navigate to registration page.

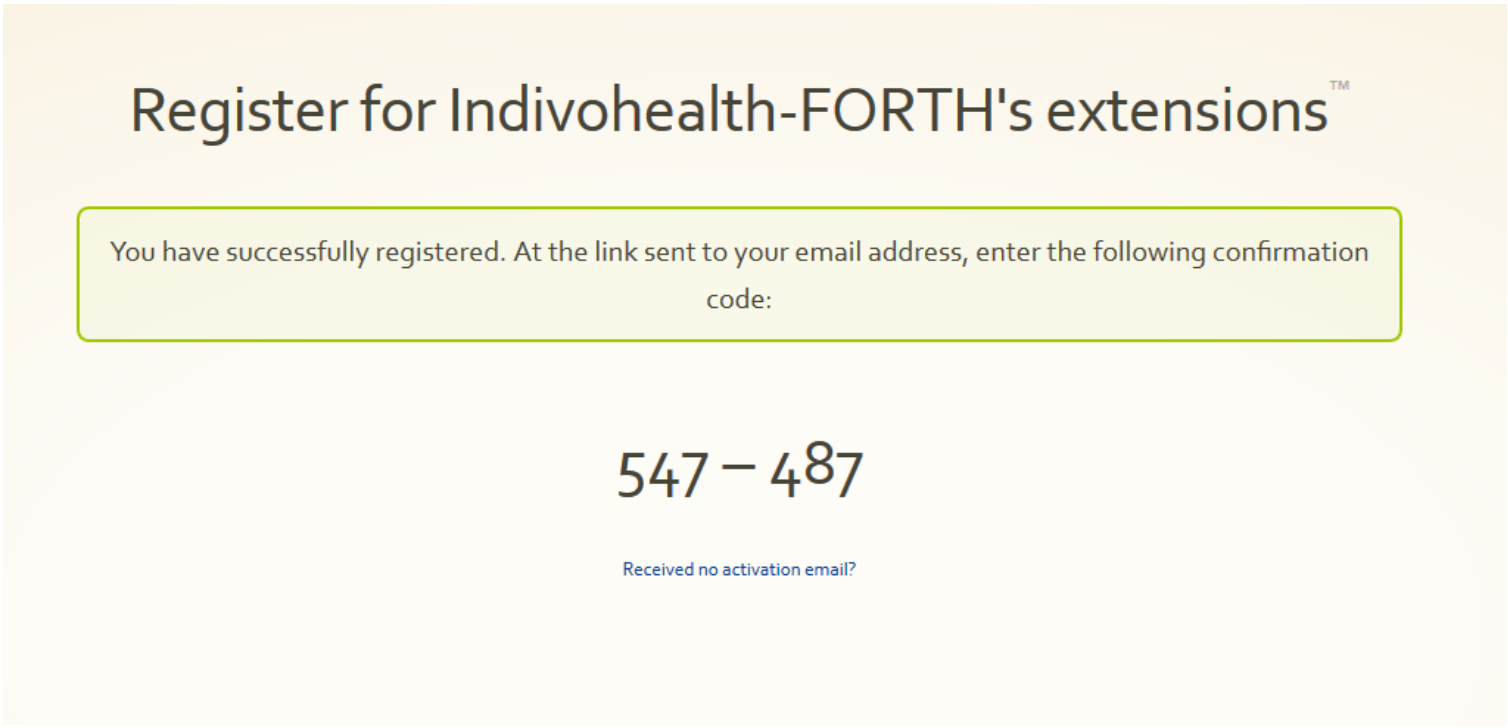


In registration page there is a form in which name and email of the new user should be added.



Complete name and email field and press register button.

After register button is pressed a registration email is send in user's email and a new page is displayed with the registration code that will be used in the link send in registration email.



Hello Name

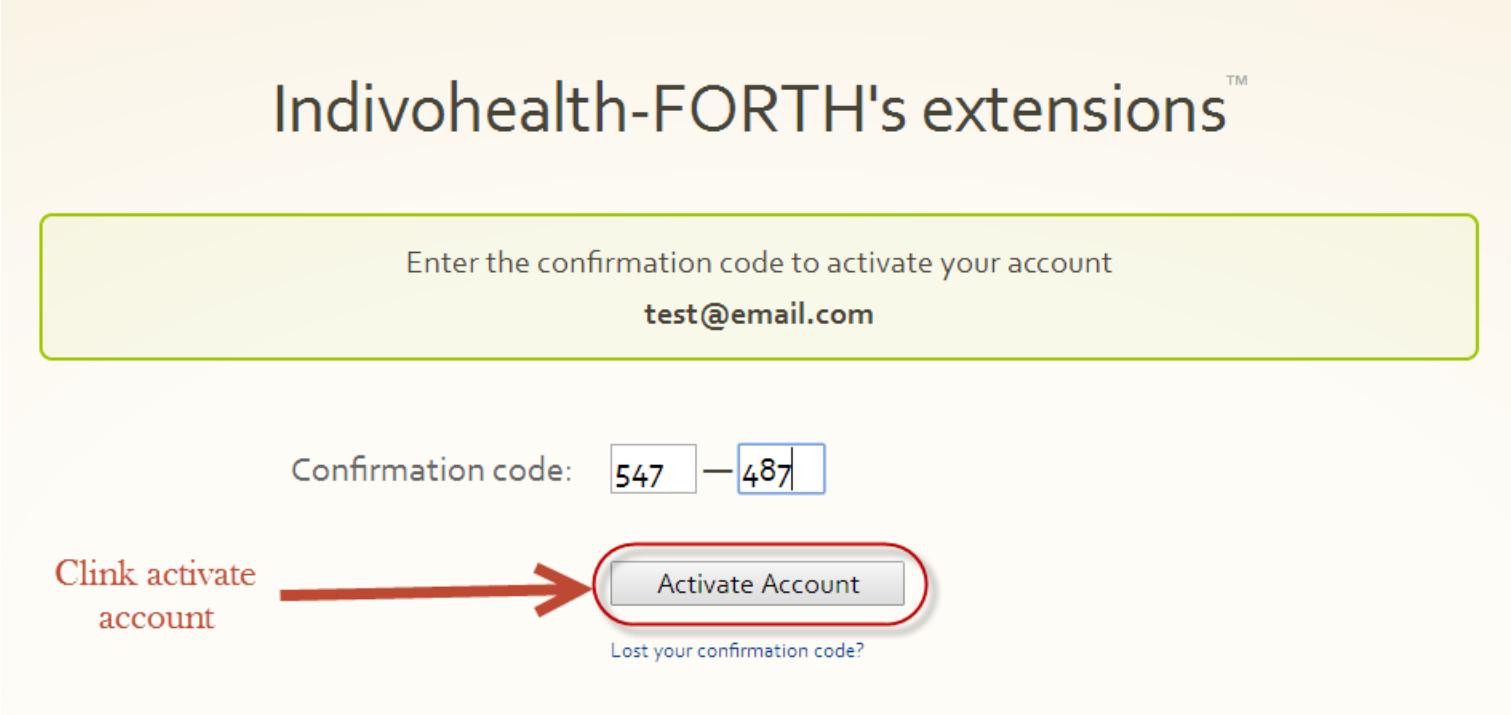
To activate your account, please visit the following link:
http://139.91.190.94/accounts/test@email.com/init/JBWRIAoOxexMQIcy

There you will be asked to enter the confirmation code displayed on the website. If you have lost your confirmation code, you can retrieve it here:
http://139.91.190.94/accounts/test@email.com/send_secret/JBWRIAoOxexMQIcy

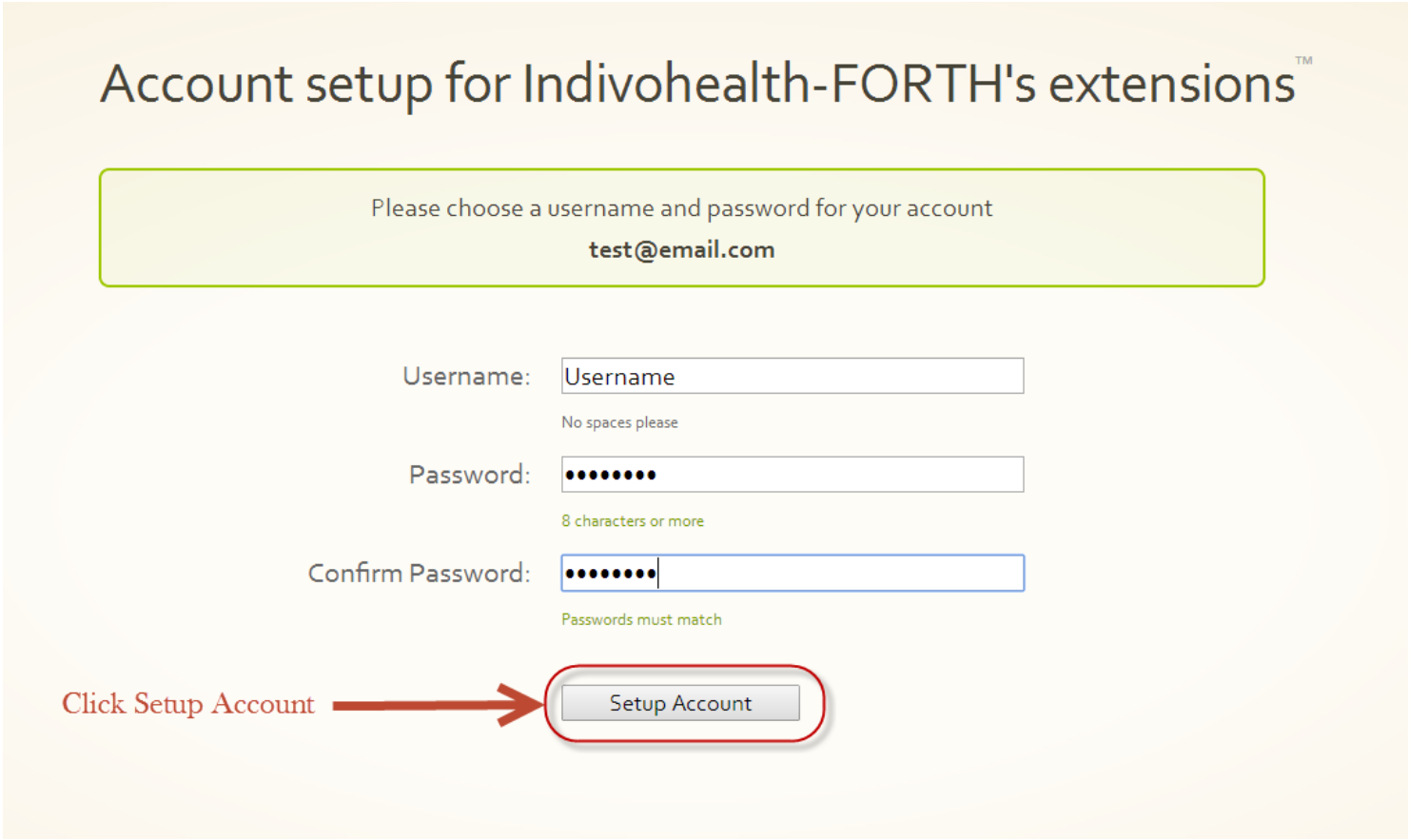
If you are having trouble activating your account, you can contact us via email:
Indivo Support <support@indivo.localhost>

Navigate to registration link.

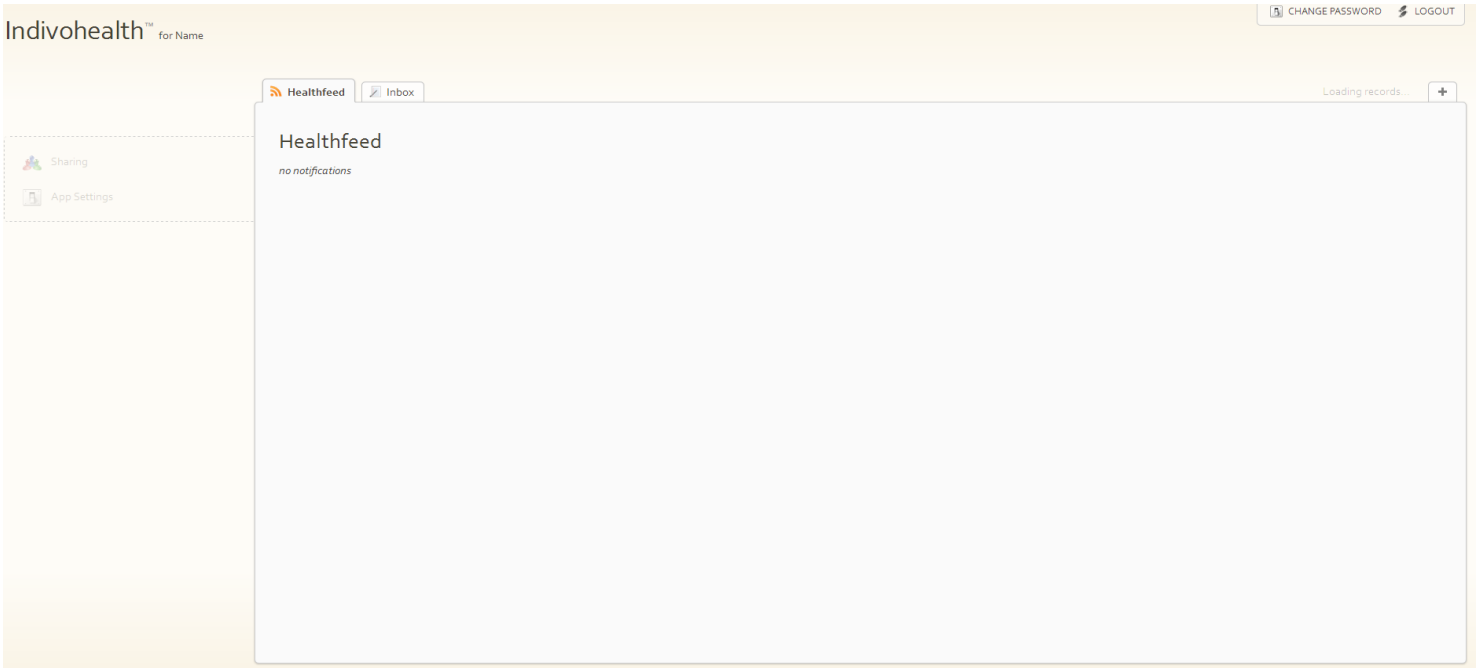
In registration link add the code printed in previous step and press activate account.



In next page add username and password and complete the registration.

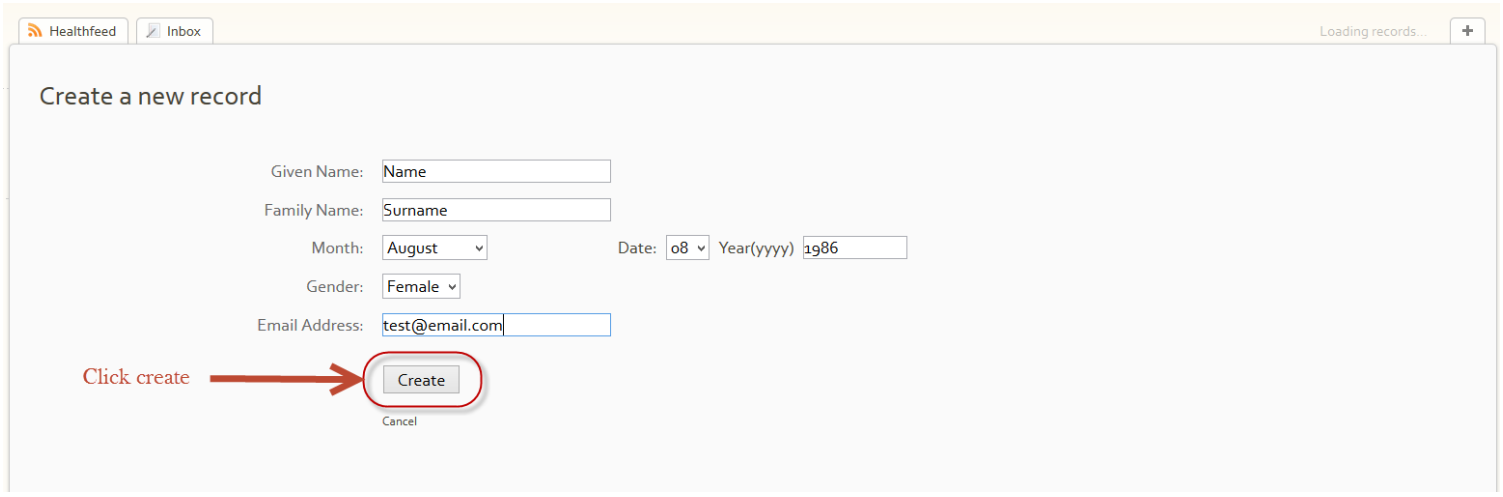


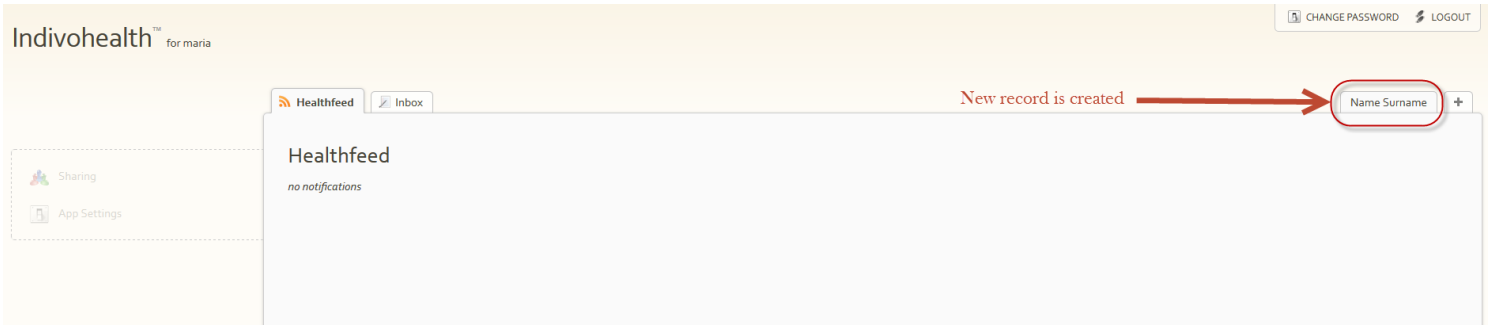
After the final step of registration, the home page of indivo appears.



Next step is to create a new record. Record will contain basic information as name, surname, date of birth and email. In order to create a record we press the symbol "+" in top right of the page as the picture below shows.

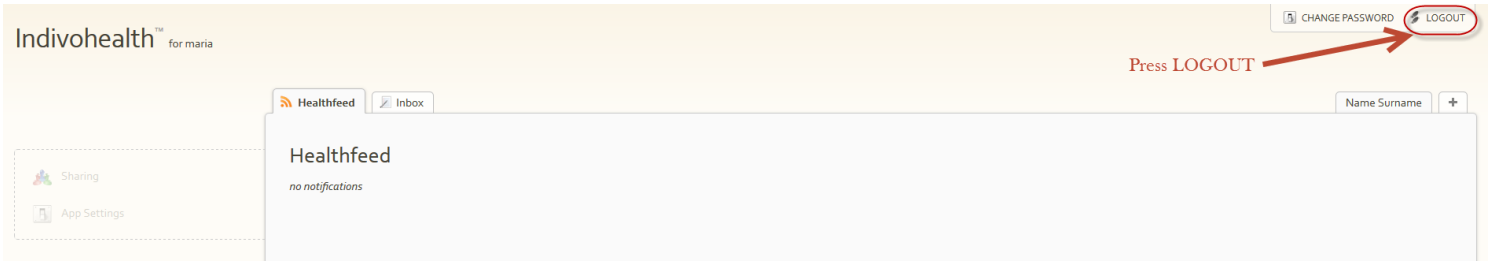
In the next page we add necessary information and press the create button as shown in next picture





After the creation of a record a new tab will appear with the name and surname of the new record. User in ready to use indivo system. It is possible for a user to create more than one records.

Final step is to logout from the system by pressing top right link "LOGOUT" as shown in picture below.

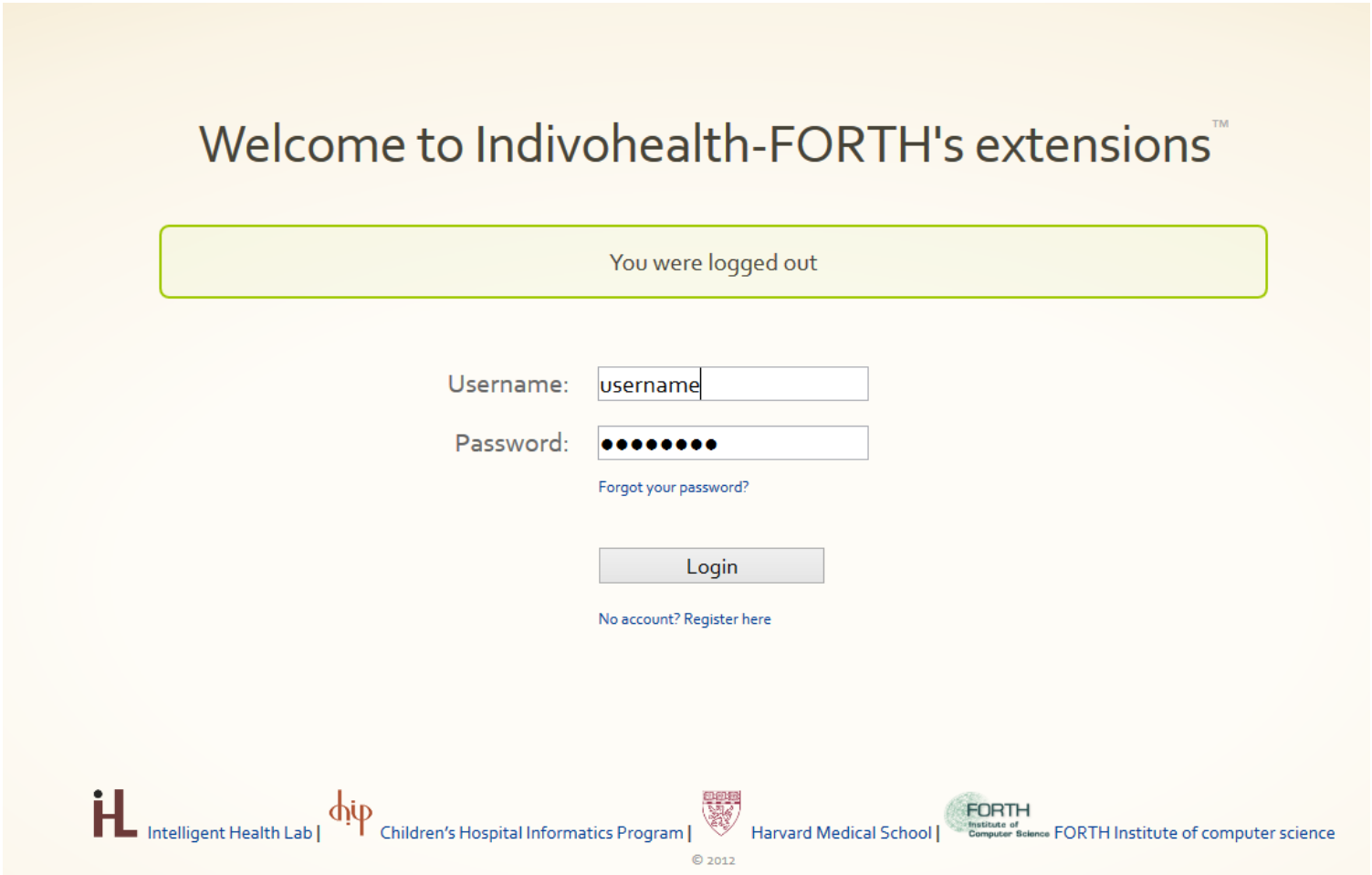


3. How to use Indivo

How to use Indivo

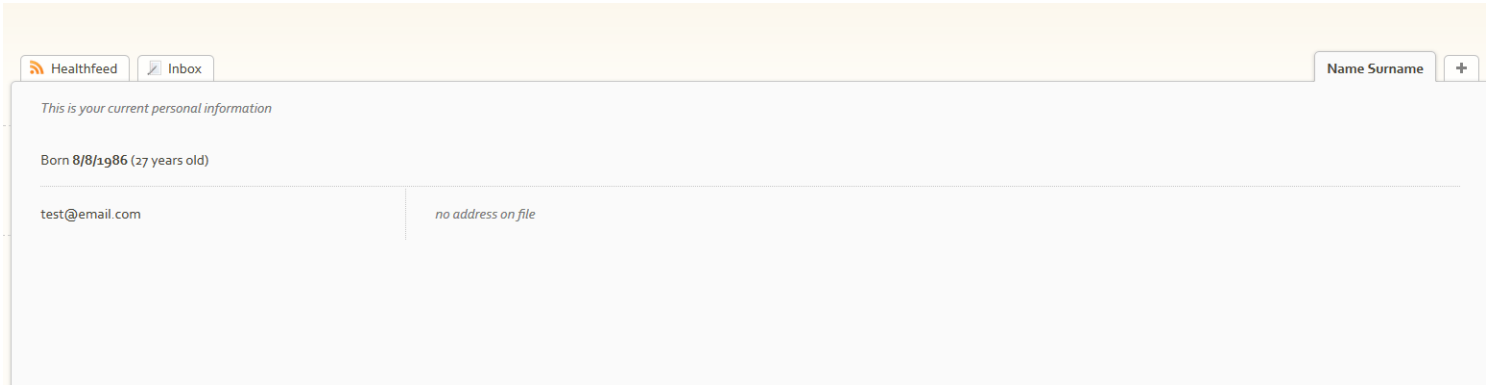
Login

First step is to login to the system.

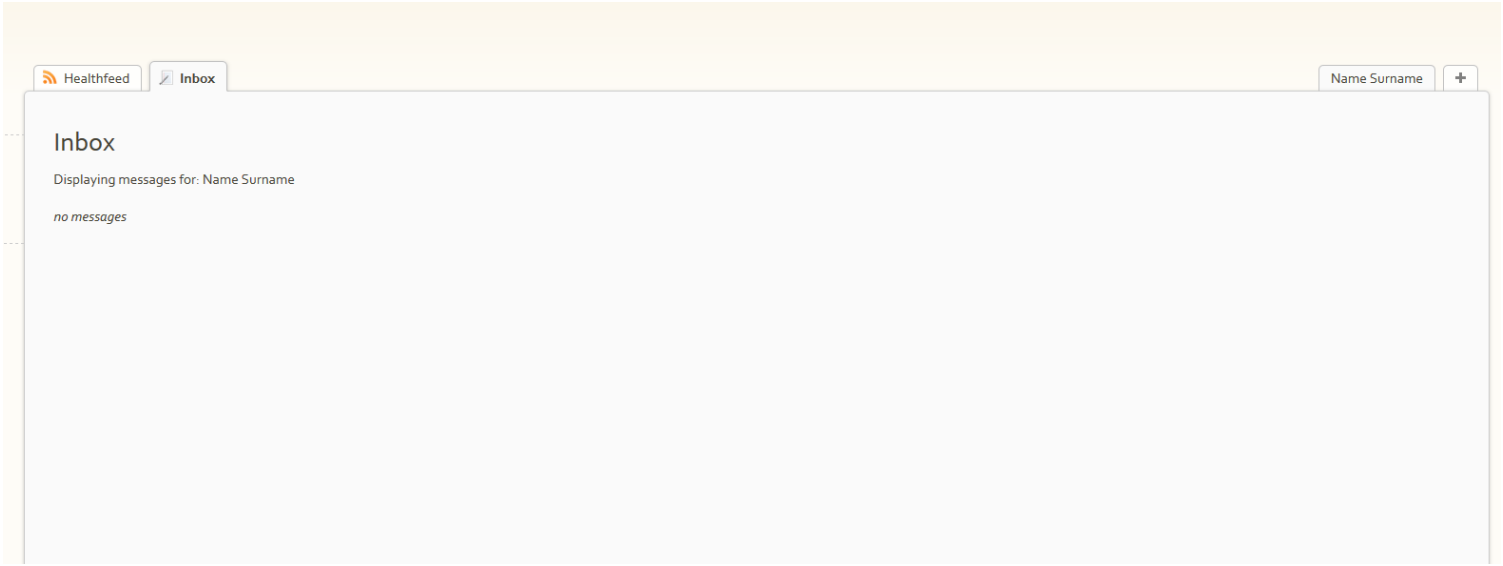


After login user will see the Healthfeed tab.

If user selects a record, for example here Name Surname tab, the information of record is appeared.

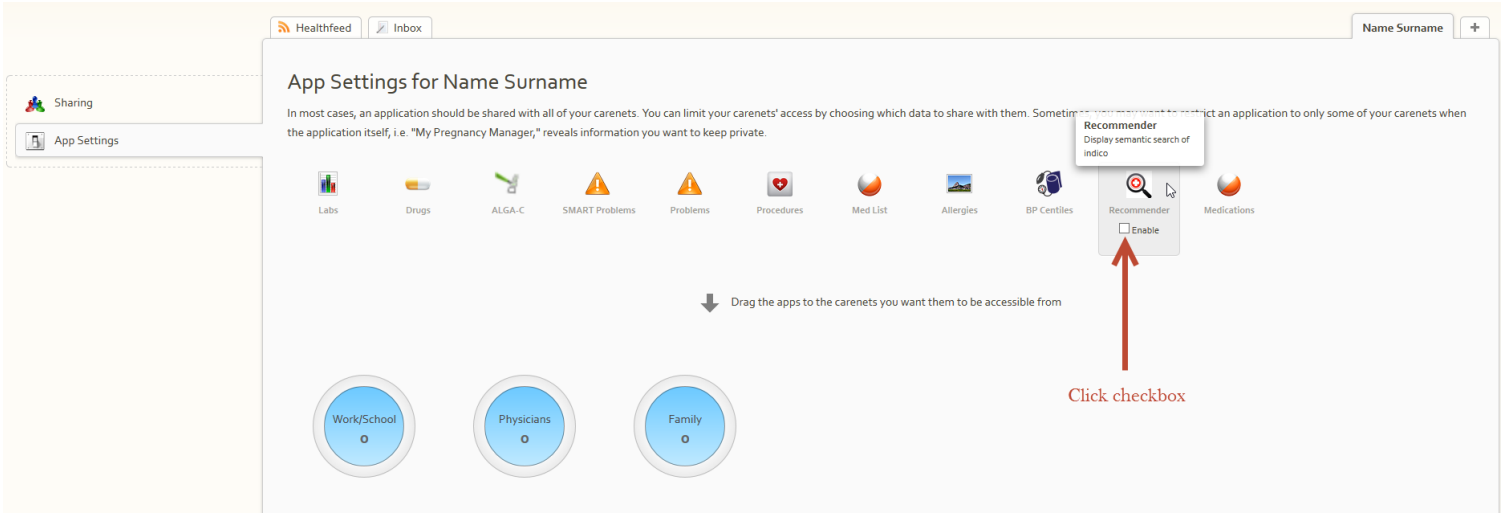


User can also select inbox tab which show the email received.

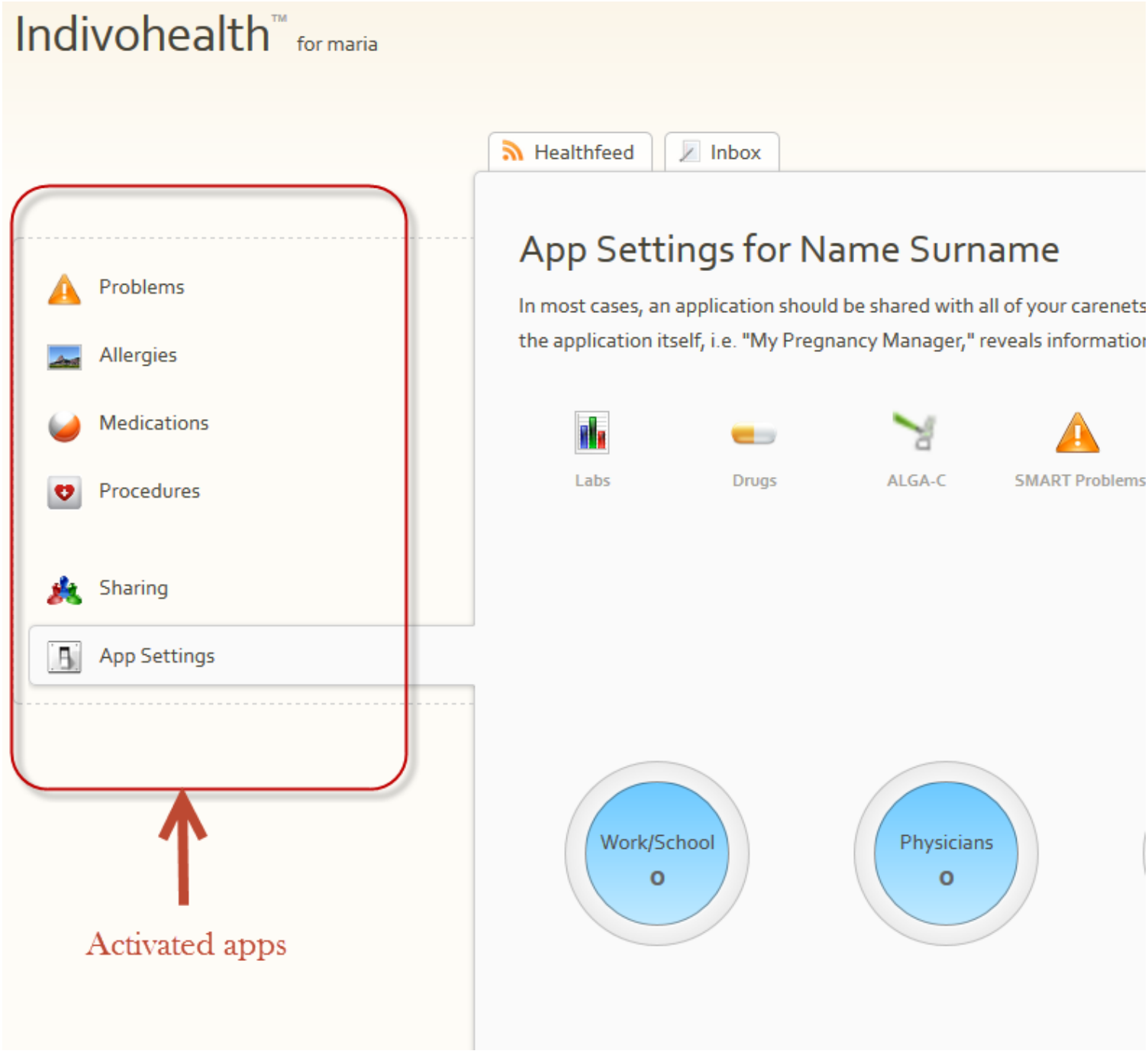


Apps

Indivo offers a number of different apps for the user. In order to use them they must first be activated. When the user logins, he can select from menu in the left ''App settings''. In app settings there are all the available apps and the user can activate them by clicking their check box. An example is shown in the picture below.

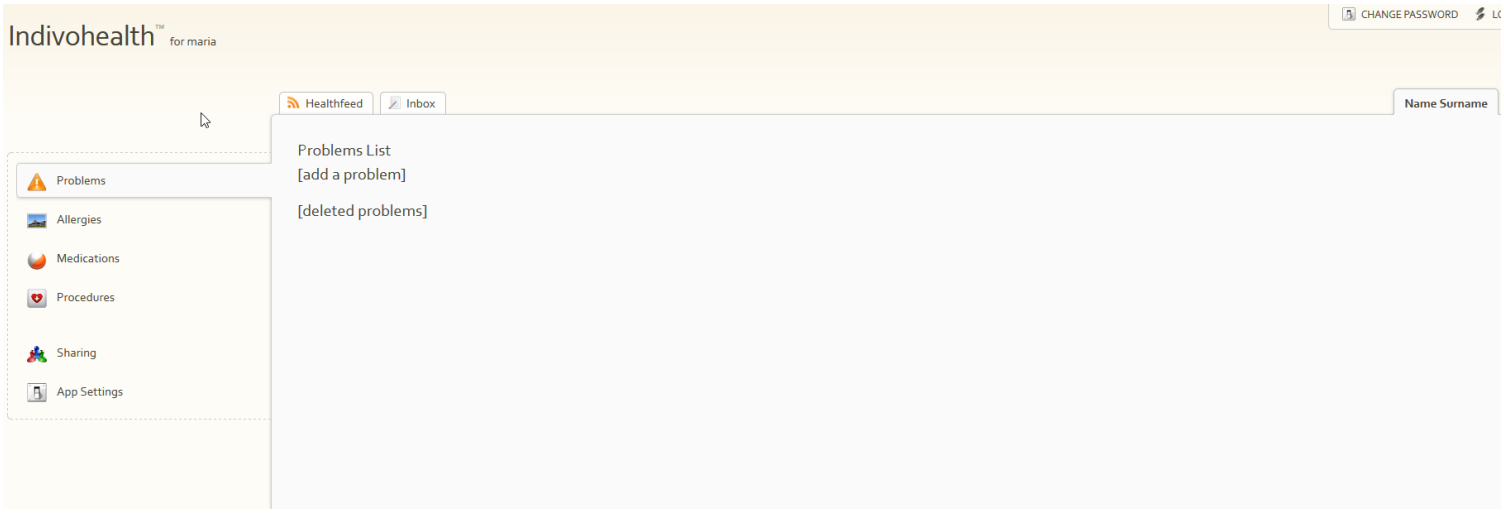


After the user enables the desired apps, apps became part of the menu in the left. An example is show in picture below.

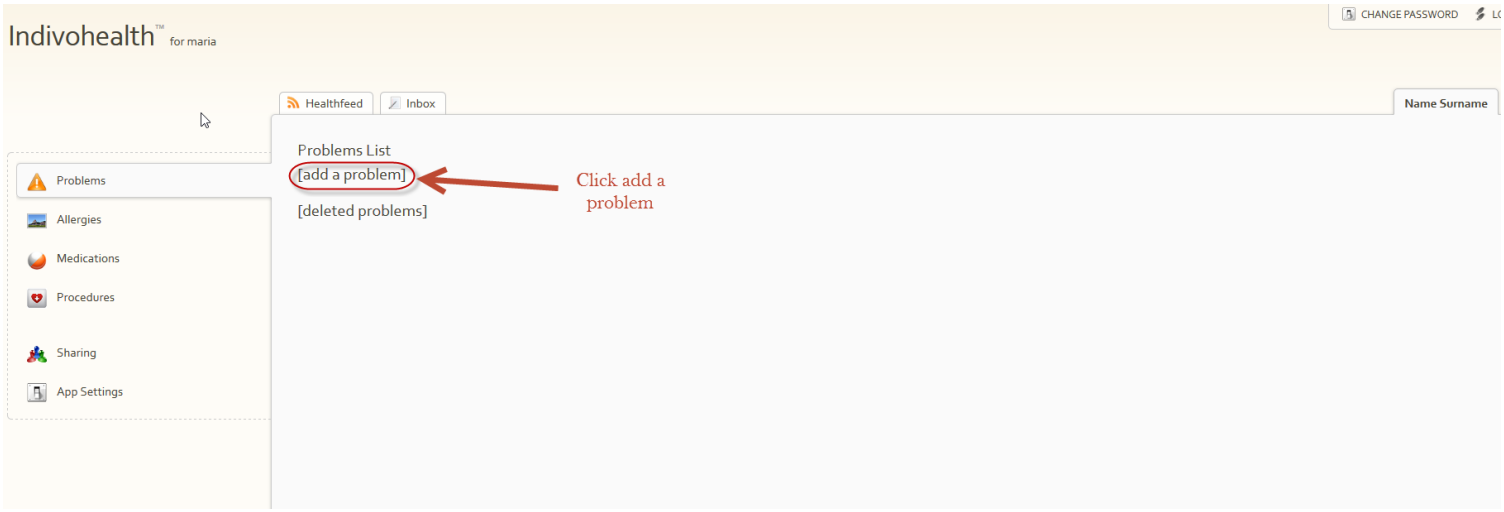

Indivohealth™ for maria
Healthfeed
Inbox
Problems
Allergies
Medications
Procedures
Sharing
App Settings
App Settings for Name Surname
In most cases, an application should be shared with all of your carenets
the application itself, i.e. "My Pregnancy Manager," reveals informatio
Labs
Drugs
ALGA-C
SMART Problems
Work/School
0
Physicians
0
Activated apps

Problems app

As we can see in the picture below, user has selected problems app. In problems app contains the problems of the patient. Each patient can add a problem by selecting ''add a problem''.



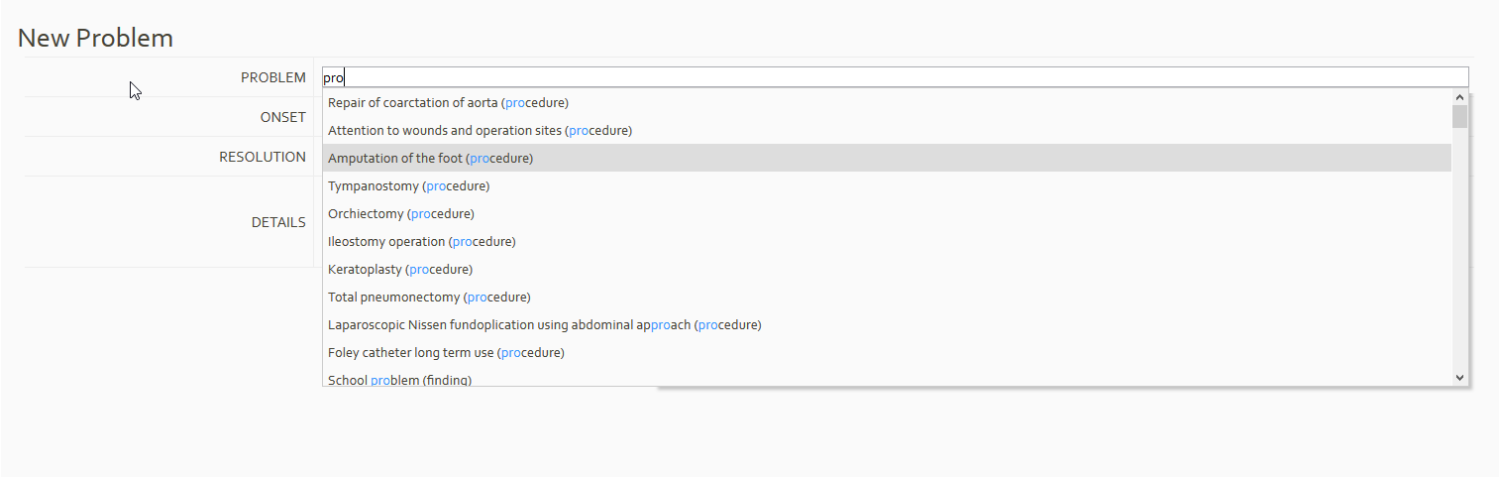
Each patient can add a problem by selecting ''add a problem''.

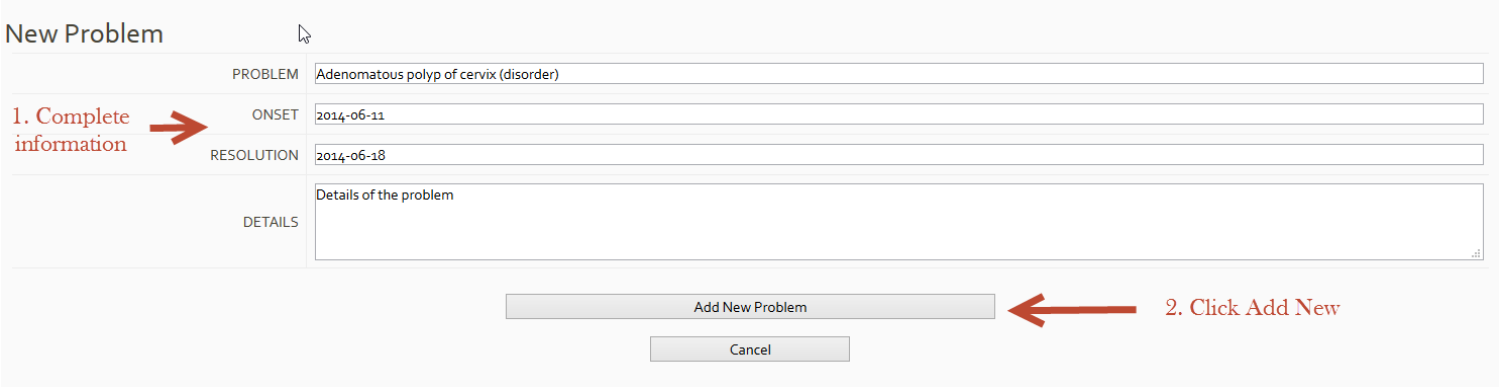


After this step a form will appear. In this form the user should add the necessary information of the problem. He can click add problem to confirm the new problem or cancel.

As we can see in picture below there is auto-complete with medical terms.

Add problem

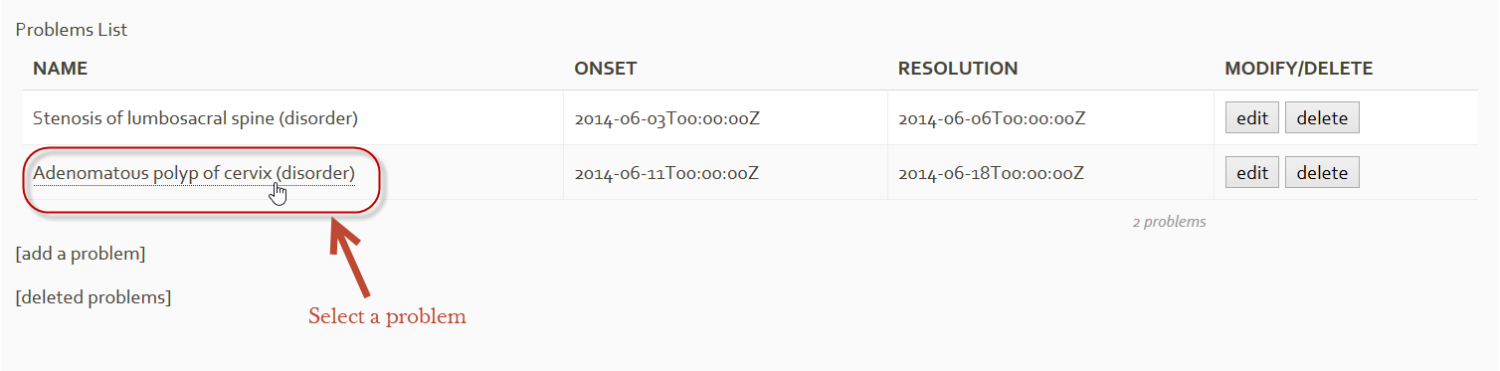




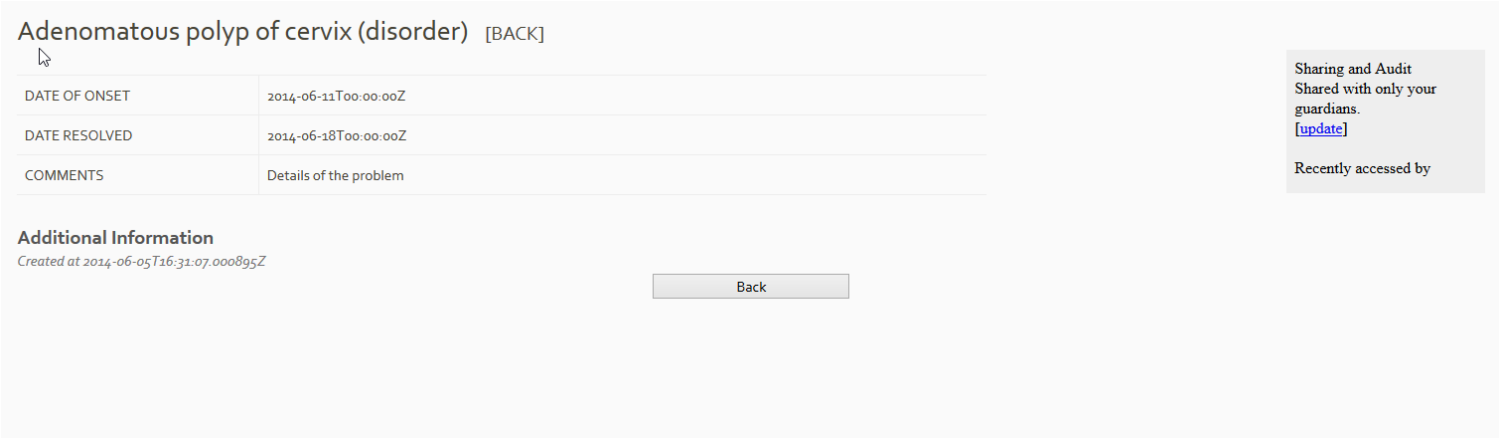
New problem will be appear in problems list :

For each problem user has the capability to edit, delete and select it to read more information.

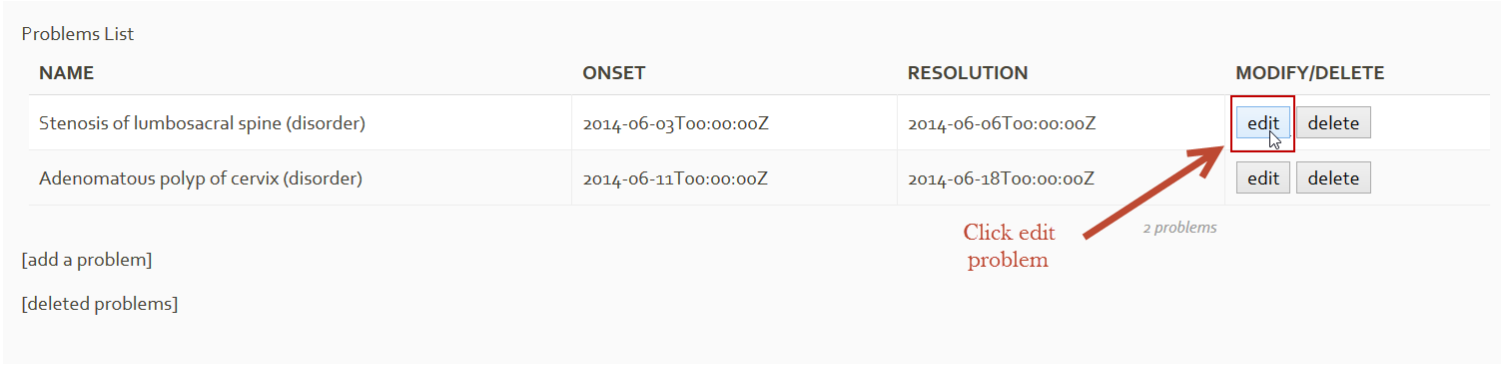
Select problem



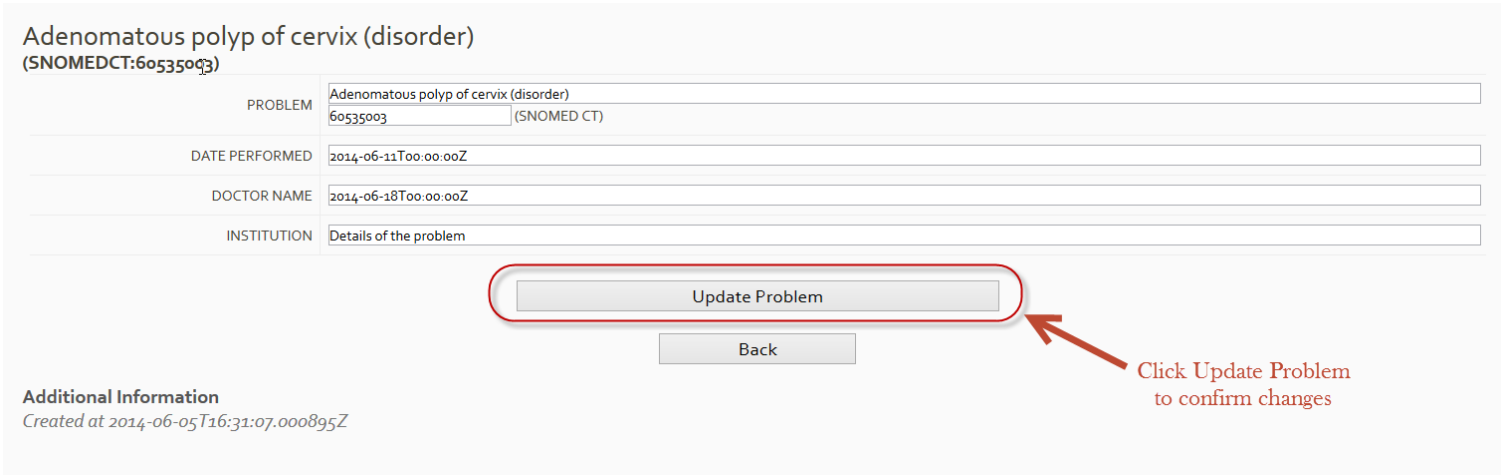
Selected problem information :



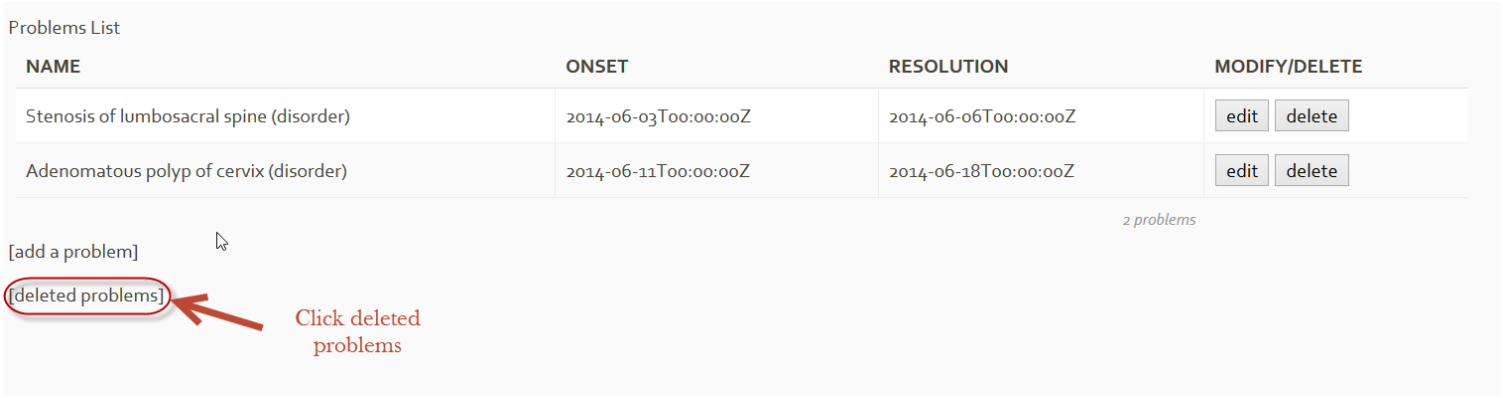
Edit problem



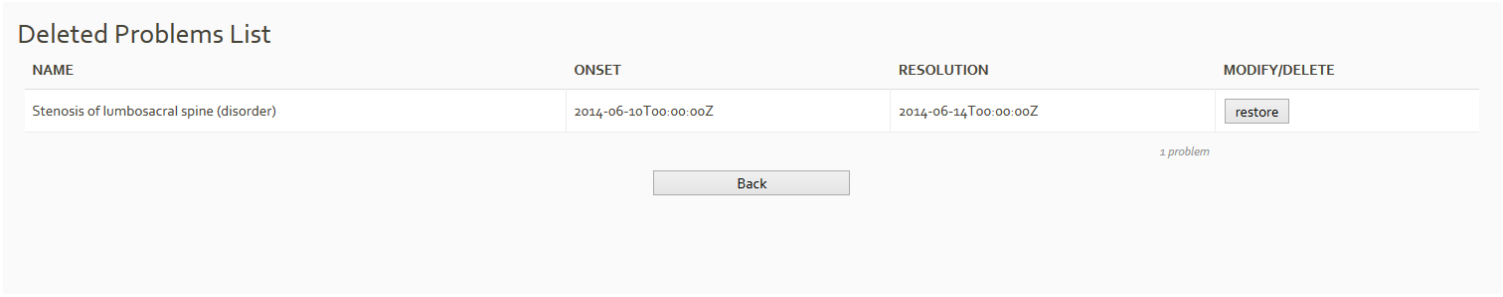
Change desired information and click update problem or cancel if you don't want to change the information.



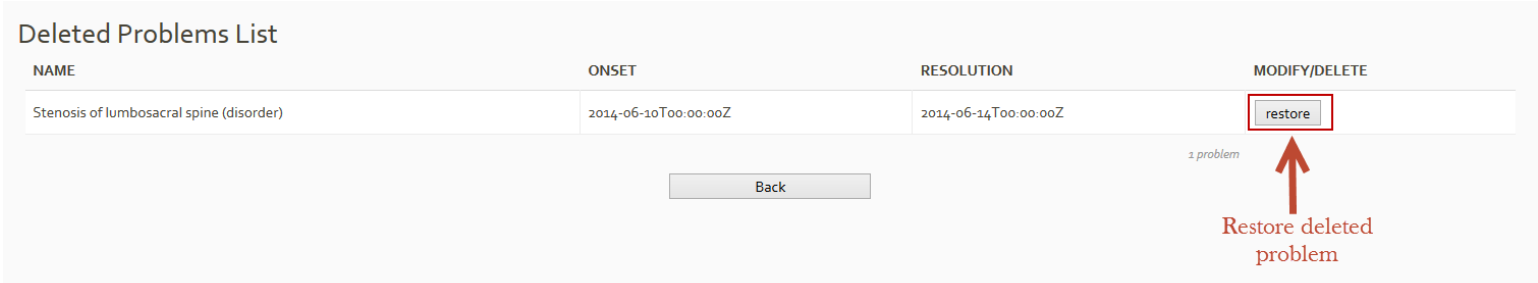
User also can access the deleted problems and restore them by clicking deleted problems in problems app and by clicking restore in deleted problems list.



Deleted problems list

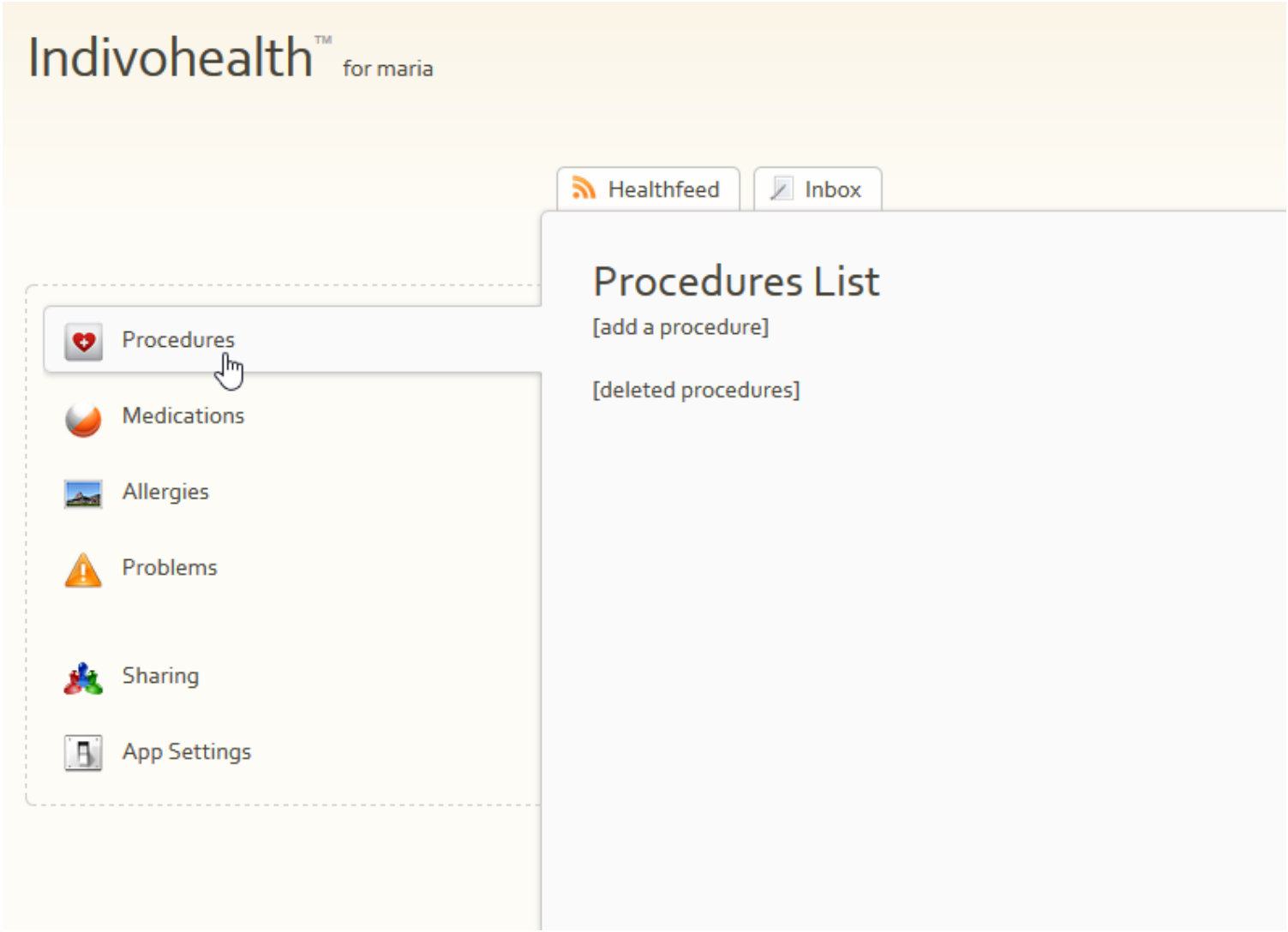


Restore deleted problem :



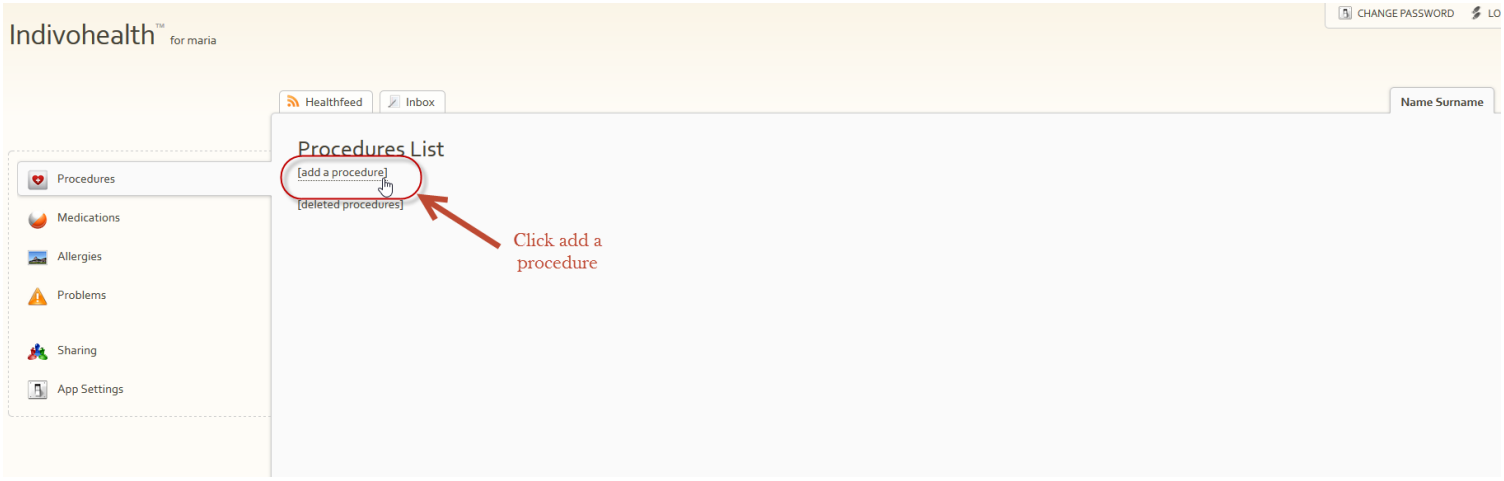
Procedures app

As we can see in the picture below, user has selected procedures app. In procedures app contains the procedures of the patient. Each patient can add a procedure by selecting ‘’add a procedure’’.



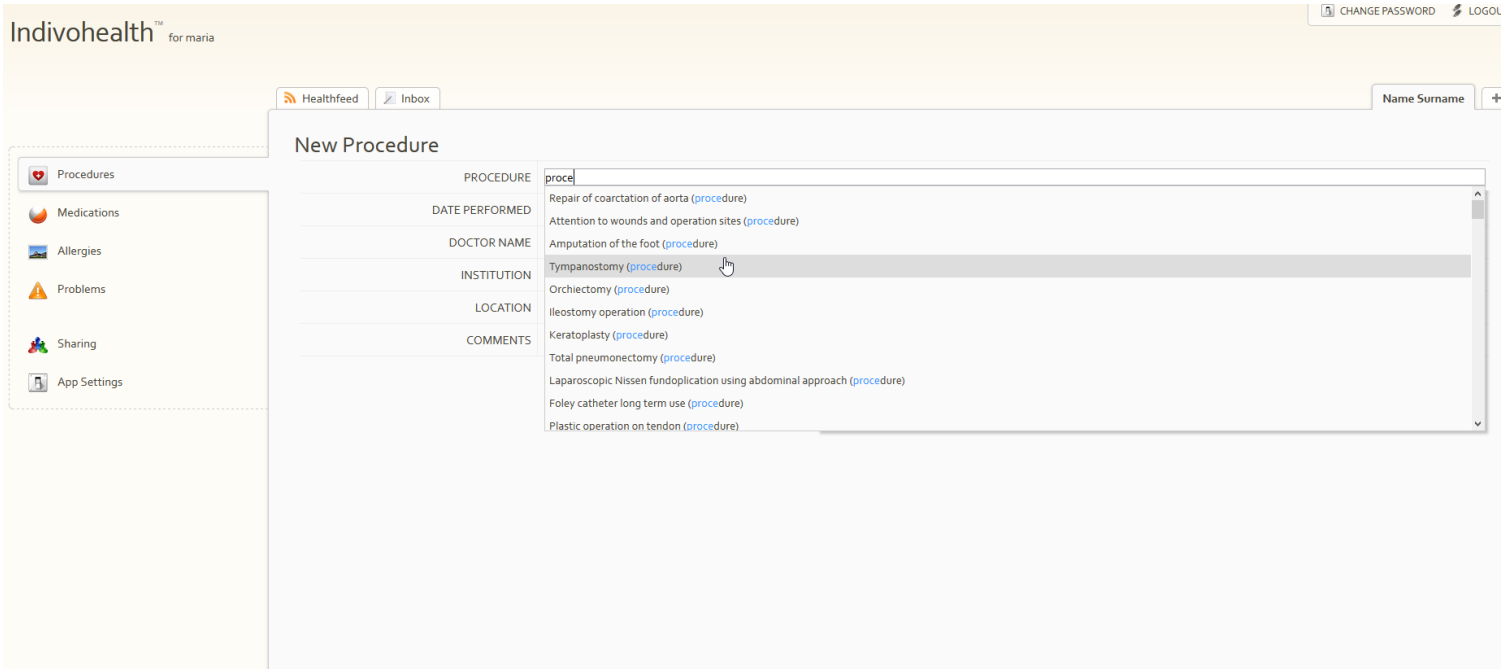
Add procedure

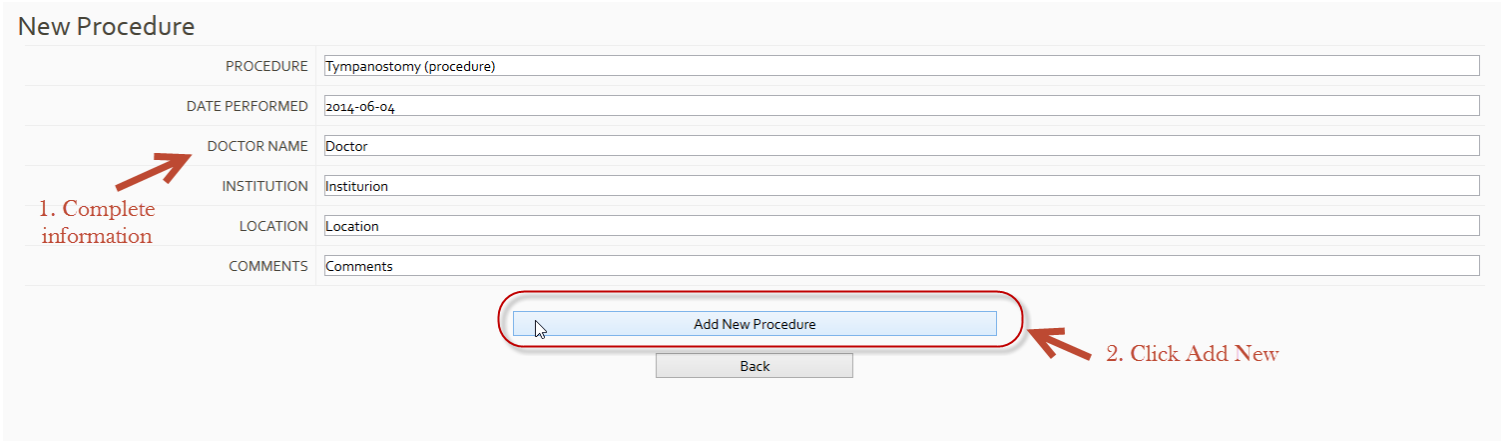
Each patient can add a procedure by selecting ''add a procedure''.



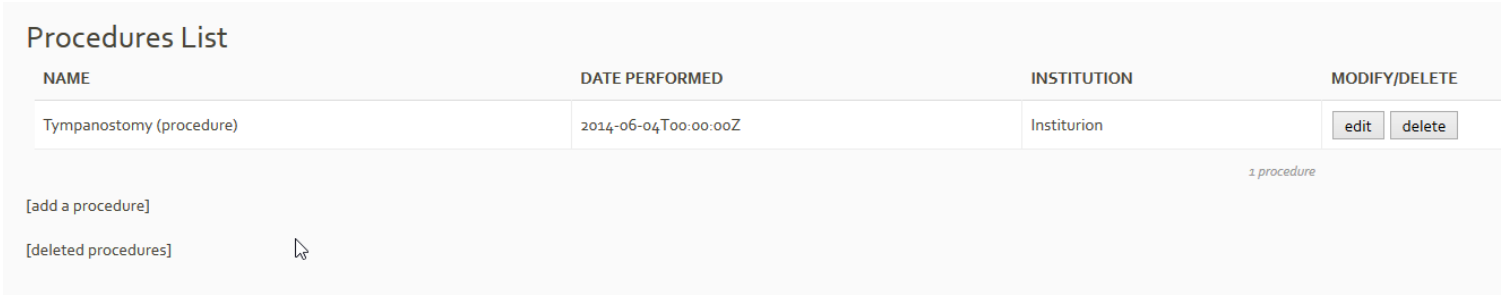
After this step a form will appear. In this form the user should add the necessary information of the procedure. He can click ''add procedure'' to confirm the new procedure or cancel.

As we can see in picture below there is auto-complete with medical terms.



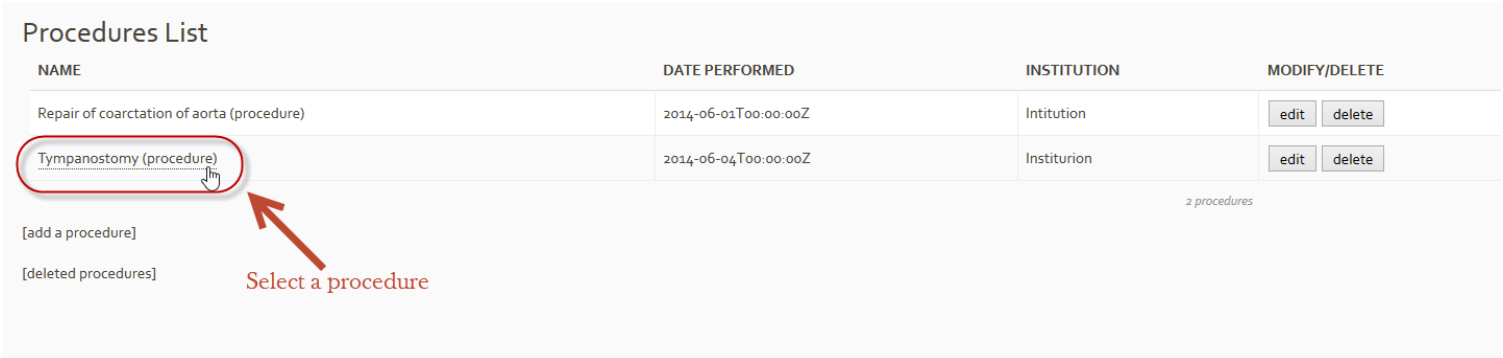


New procedure will be appear in procedures list :

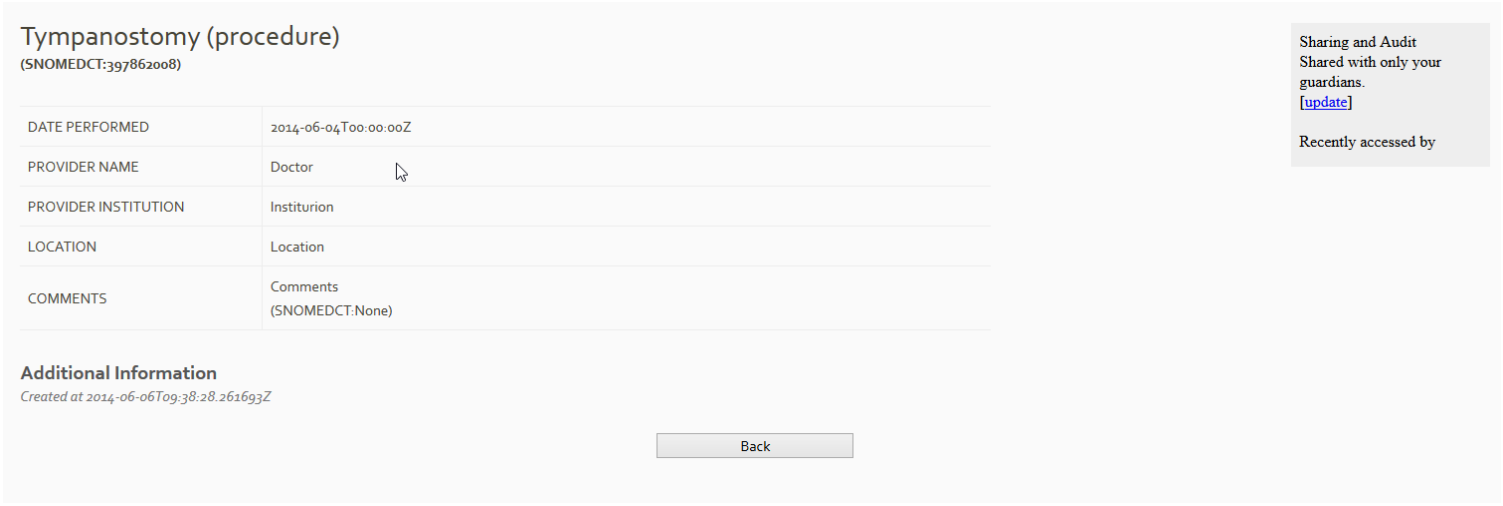


For each procedure user has the capability to edit, delete and select it to read more information.

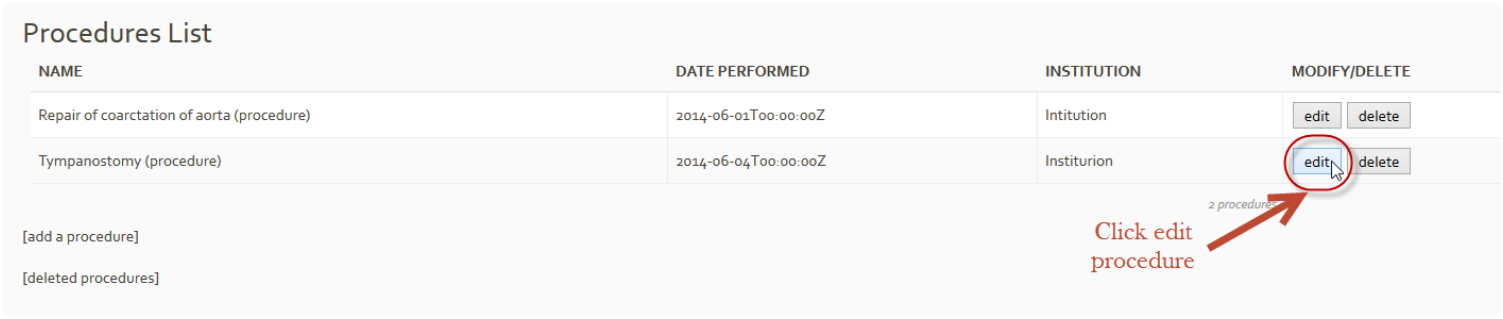
Select procedure



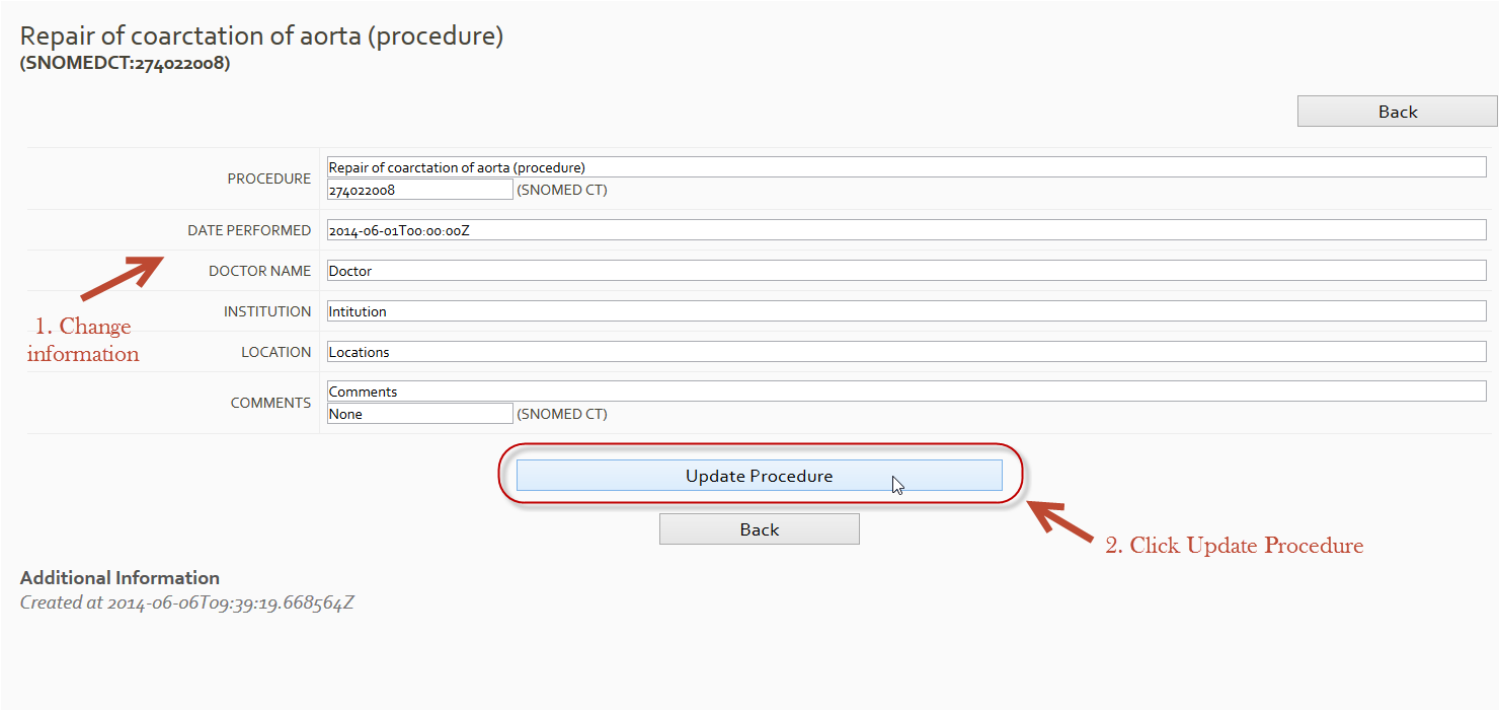
Selected procedure information :



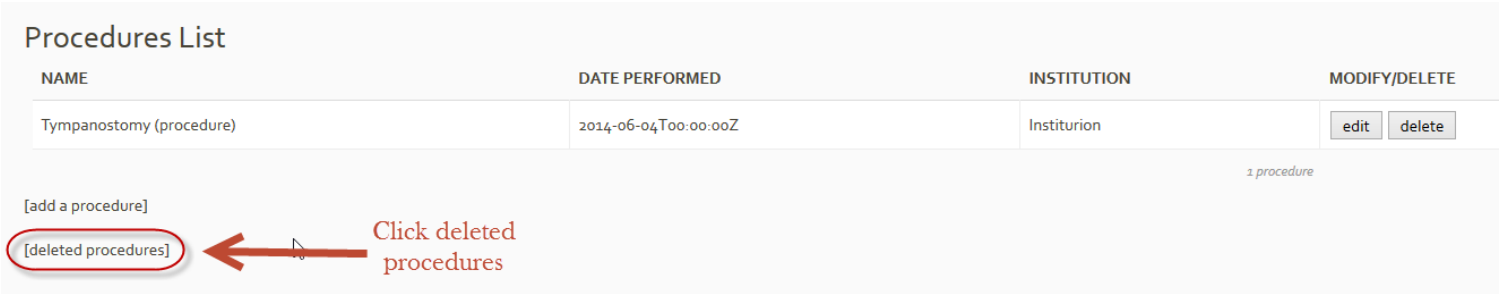
Edit procedure



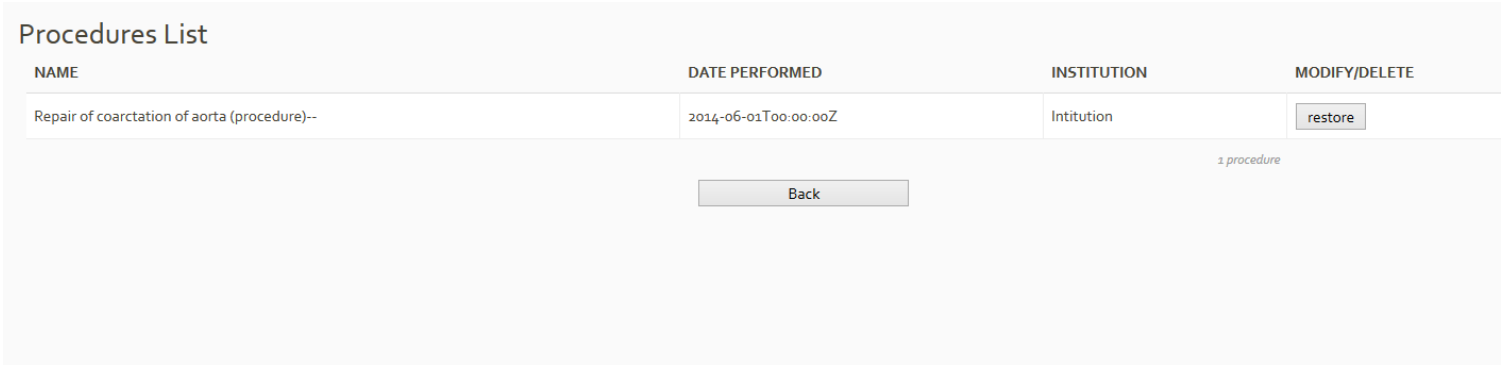
Change desired information and click update procedure or cancel if you don't want to change the information.



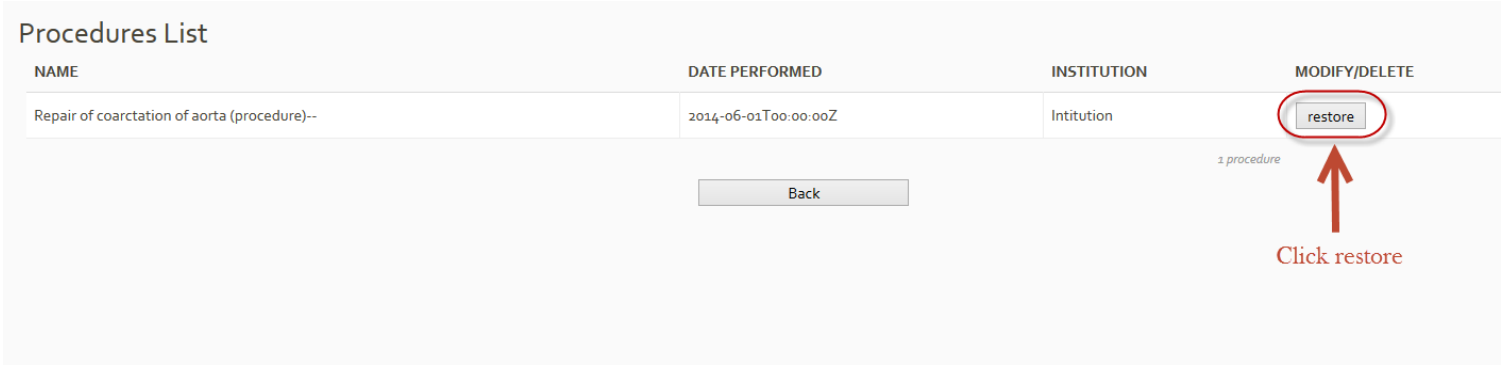
User also can access the deleted procedures and restore them by clicking ''deleted procedures'' in procedures app and by clicking restore in deleted procedures list.



Deleted procedures list

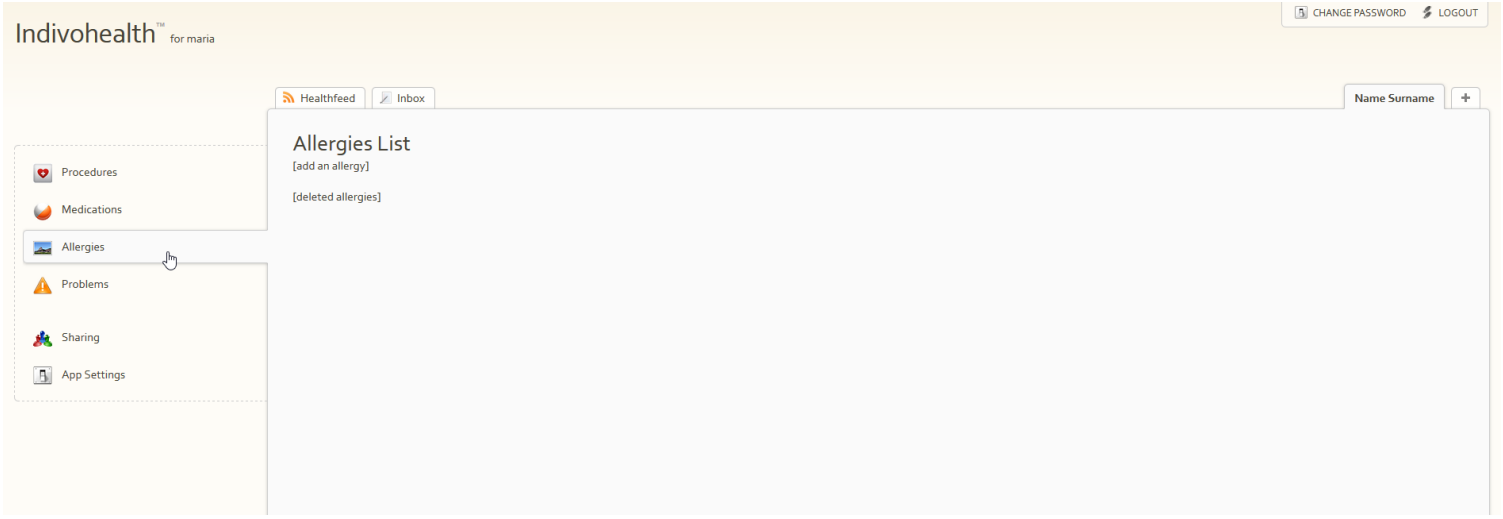


Restore deleted procedure :

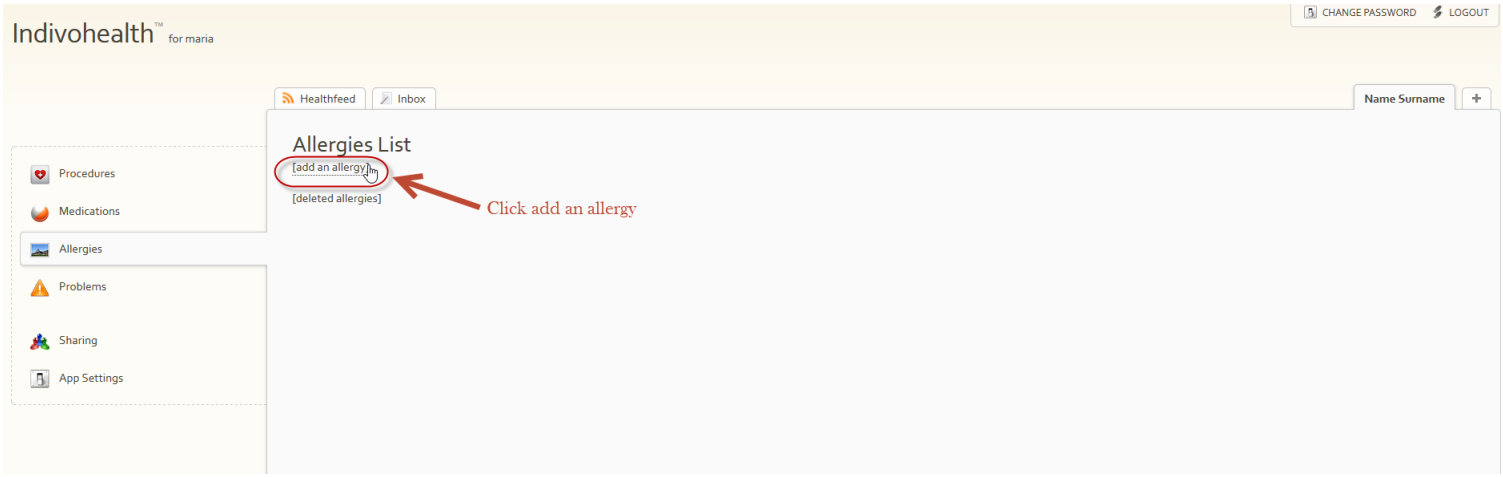


Allergies app

As we can see in the picture below, user has selected allergies app. In problems app contains the allergies of the patient. Each patient can add an allergy by selecting ''add a allergy''.



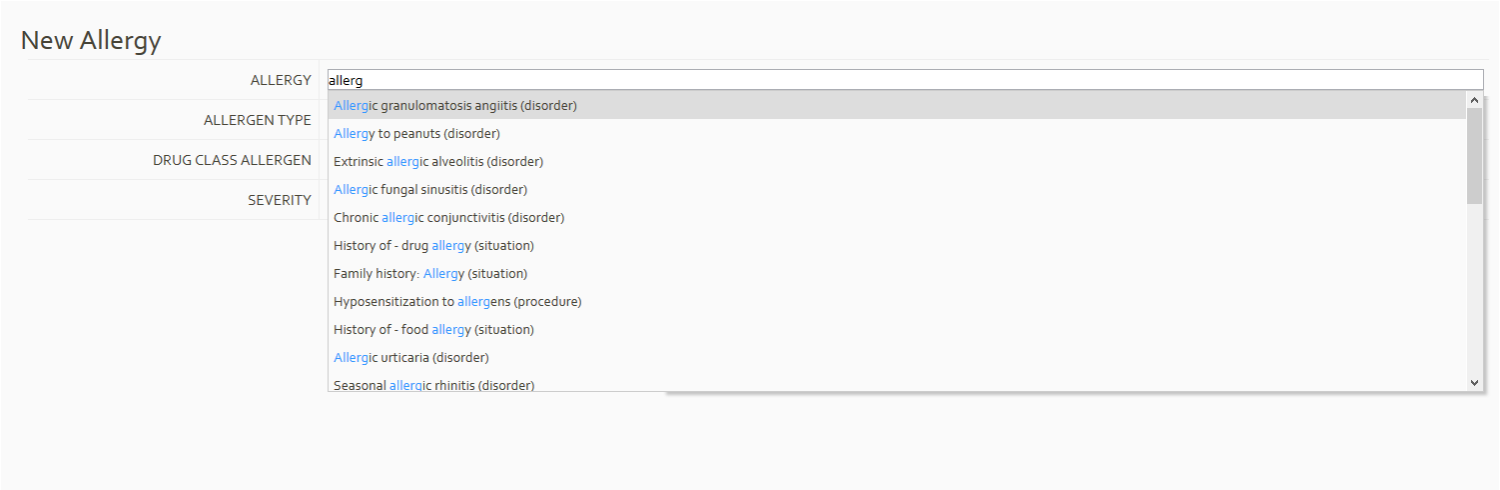
Each patient can add an allergy by selecting ''add an allergy.

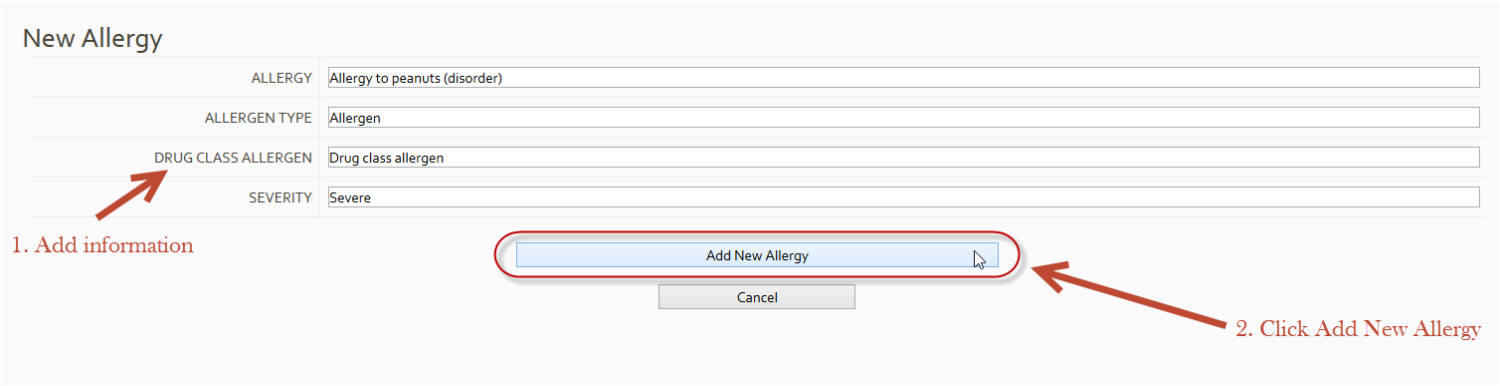


After this step a form will appear. In this form the user should add the necessary information of the allergy. He can click ''add allergy '' to confirm the new allergy or cancel.

As we can see in picture below there is auto-complete with medical terms.

Add allergy



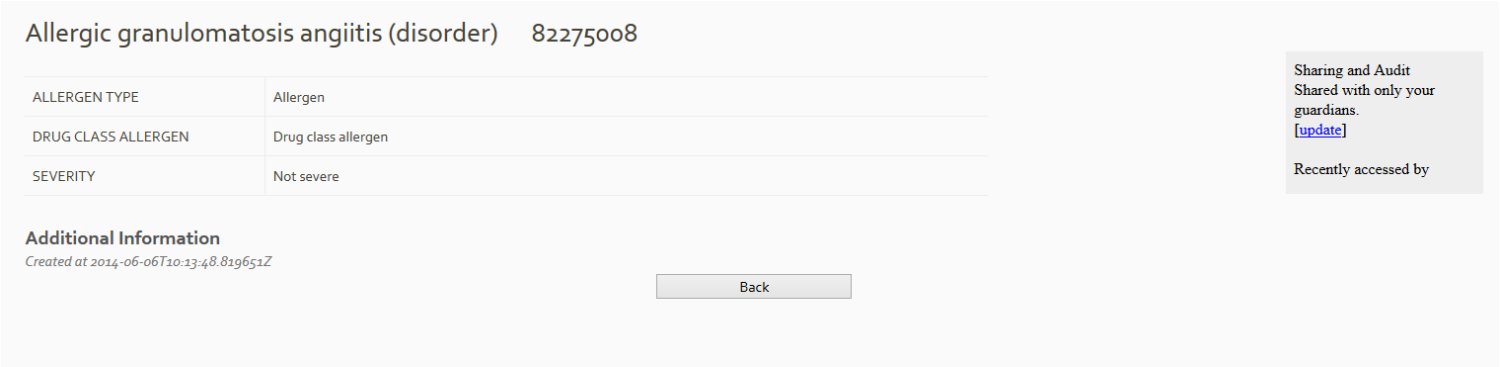


New allergy will be appear in allergies list :

For each allergy user has the capability to edit, delete and select it to read more information.

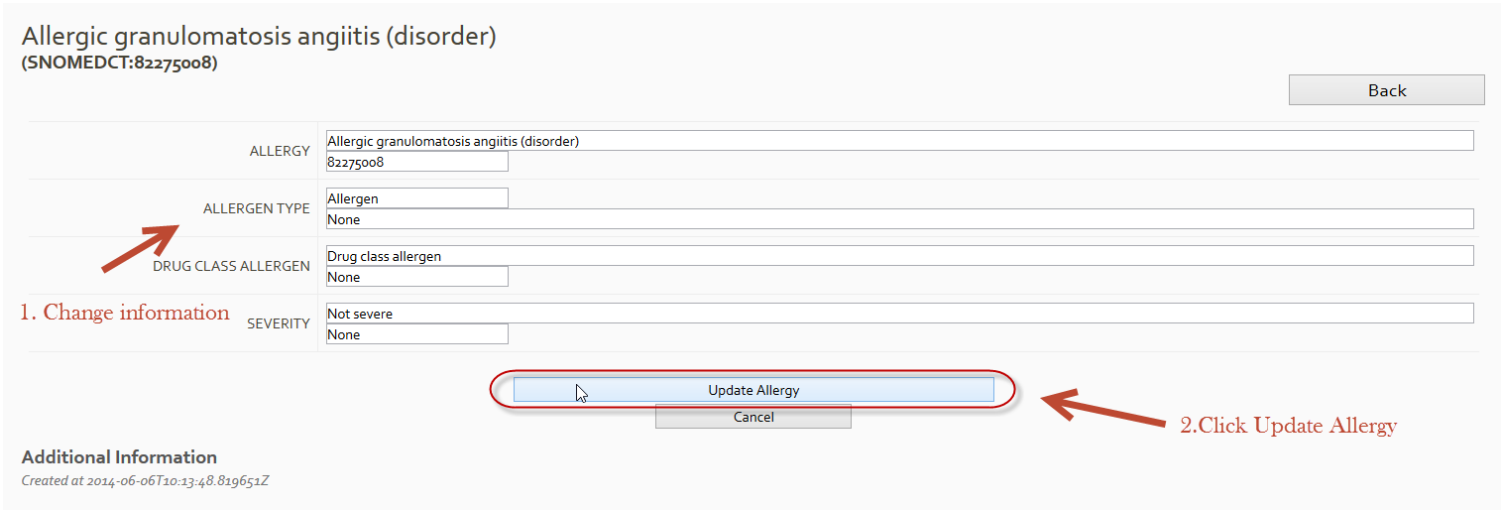
Select allergy

Selected allergy information :



Edit allergy

Change desired information and click update allergy or cancel if you don't want to change the information.



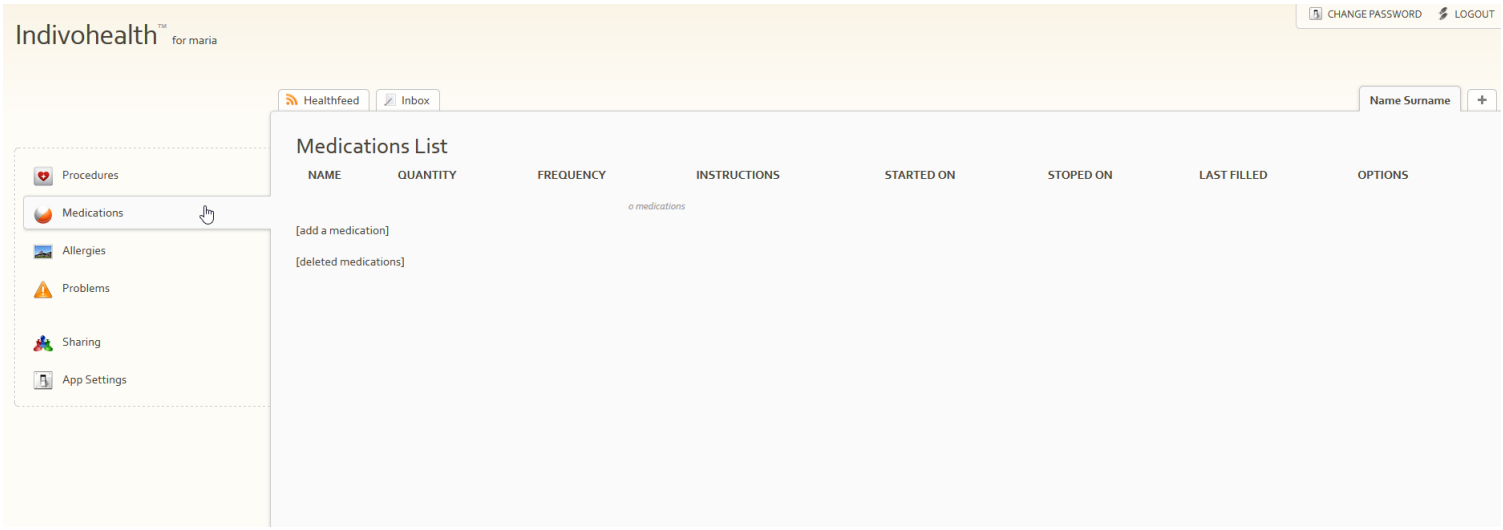
User also can access the deleted allergies and restore them by clicking ''deleted allergies'' in problems app and by clicking restore in deleted allergy list.

Deleted allergies list

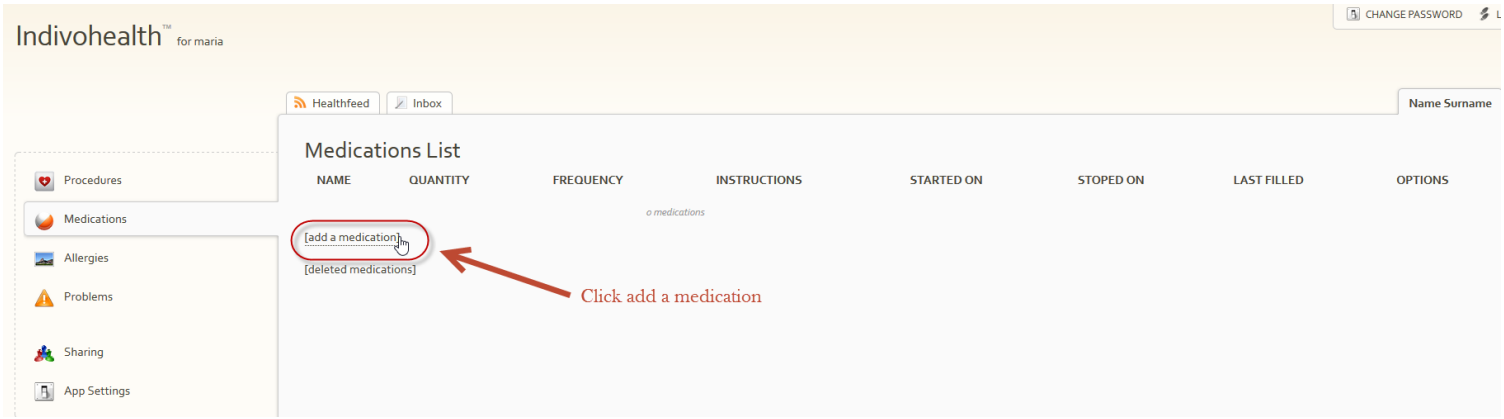
Restore deleted allergy:

Medications app

As we can see in the picture below, user has selected medications app. Medications app contains the medications the patient receive or had received. Each patient can add a medication by selecting ''add a medication''.



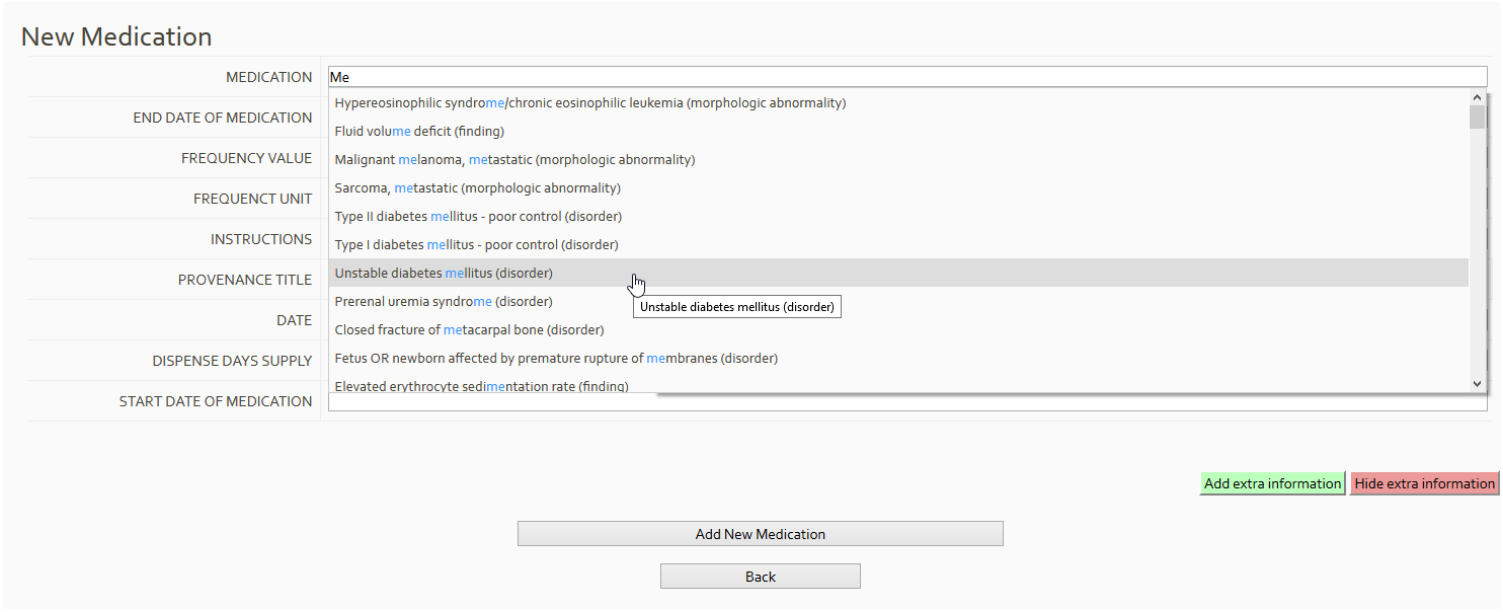
Each patient can add a medication by selecting ''add a medication''.

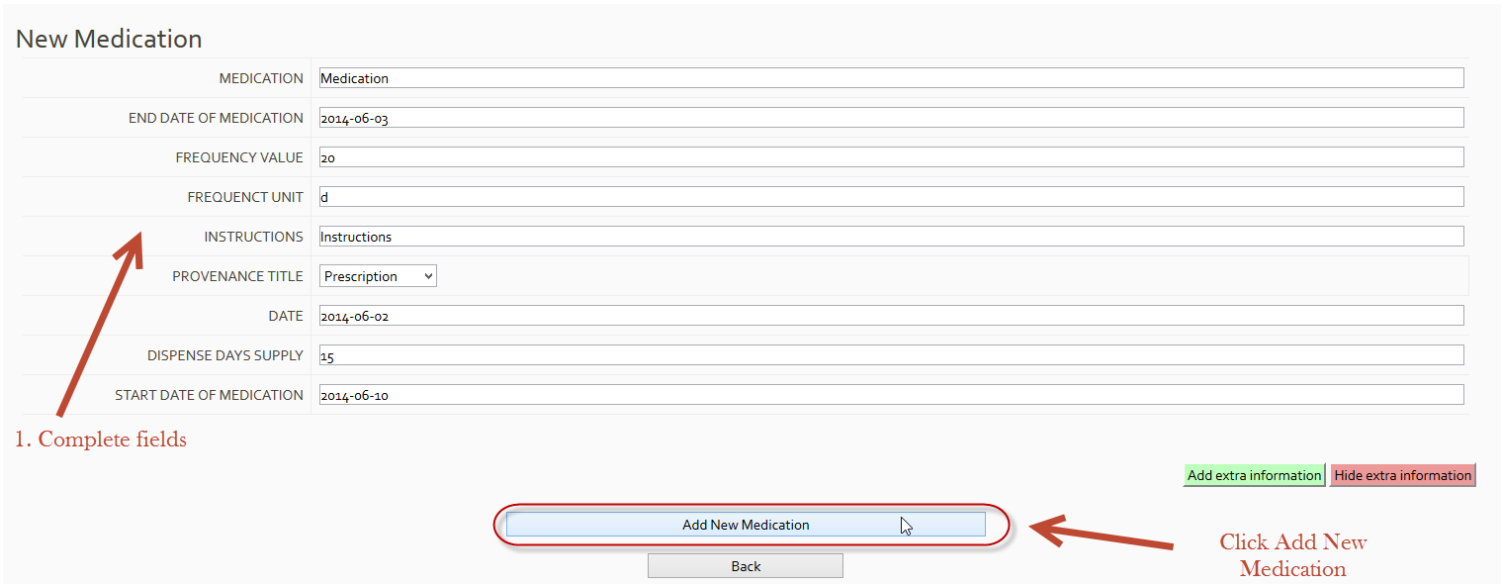


After this step a form will appear. In this form the user should add the necessary information of the medication. He can click ''add medication'' to confirm the new medication or cancel.

As we can see in picture below there is auto-complete with medical terms.

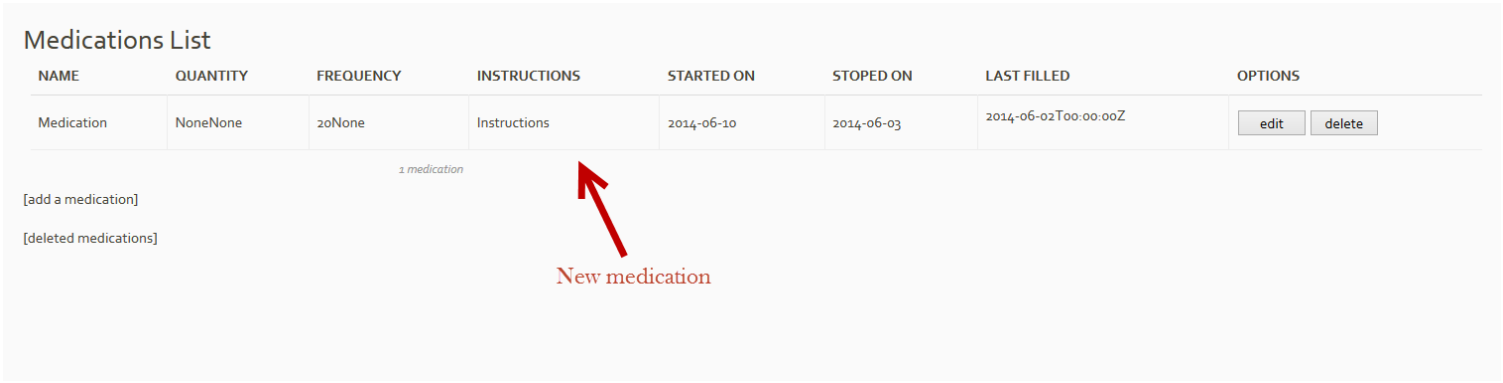
Add medication





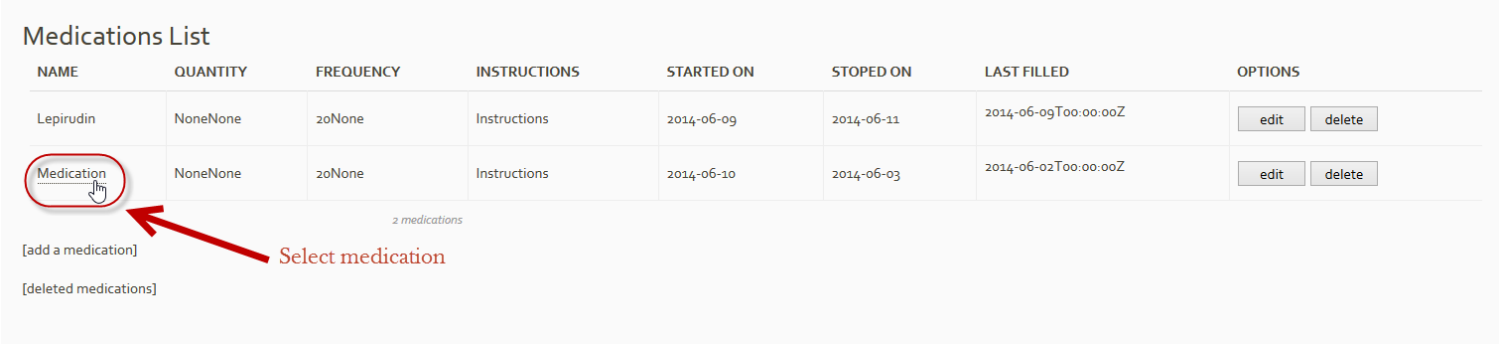
It is possible to add more specific information for a medication by clicking ''Add extra information'', which will show some extra fields as we can see in picture above:

New medication will be appear in medications list :

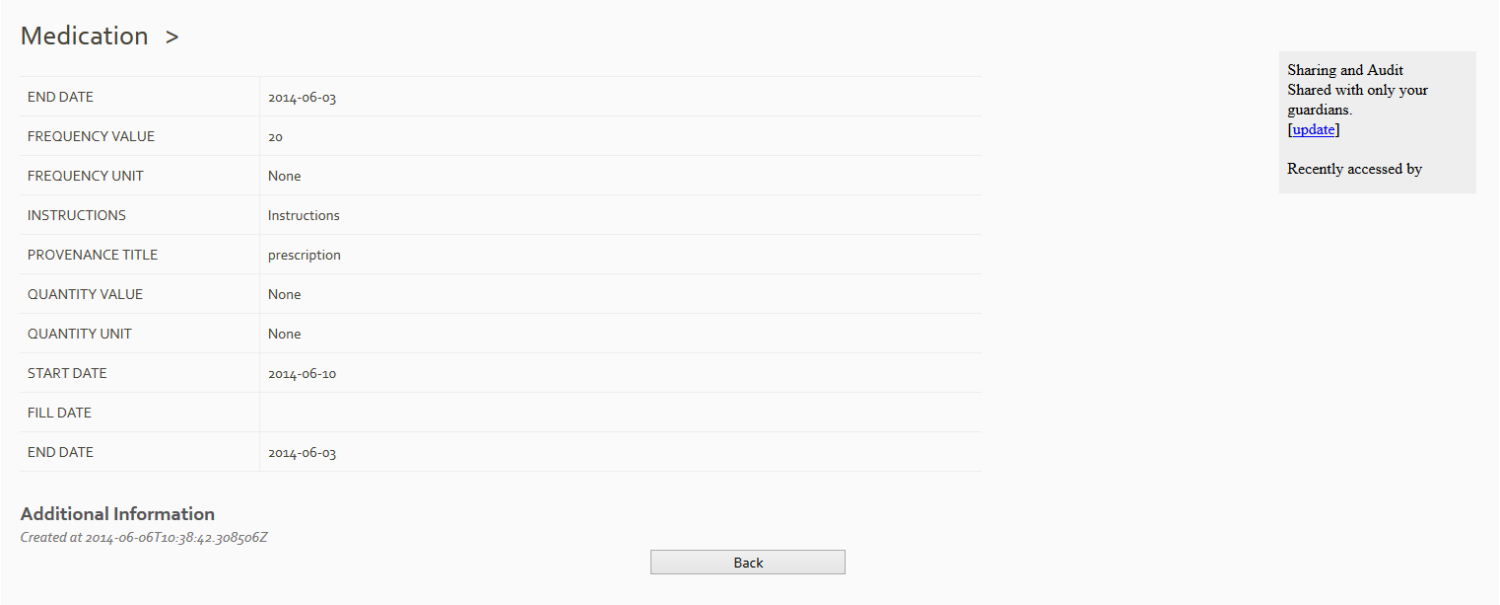


For each medication user has the capability to edit, delete and select it to read more information.

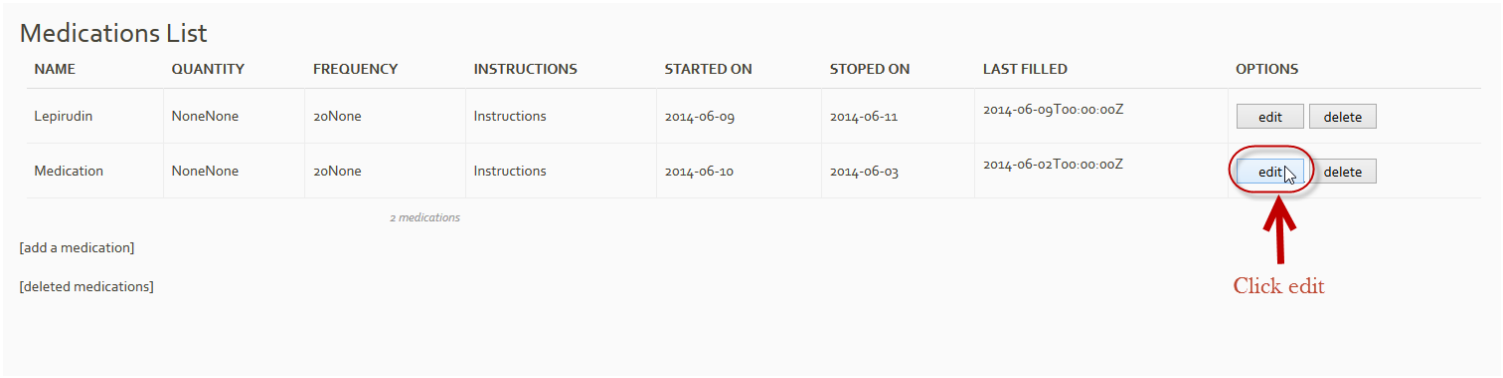
Select medication



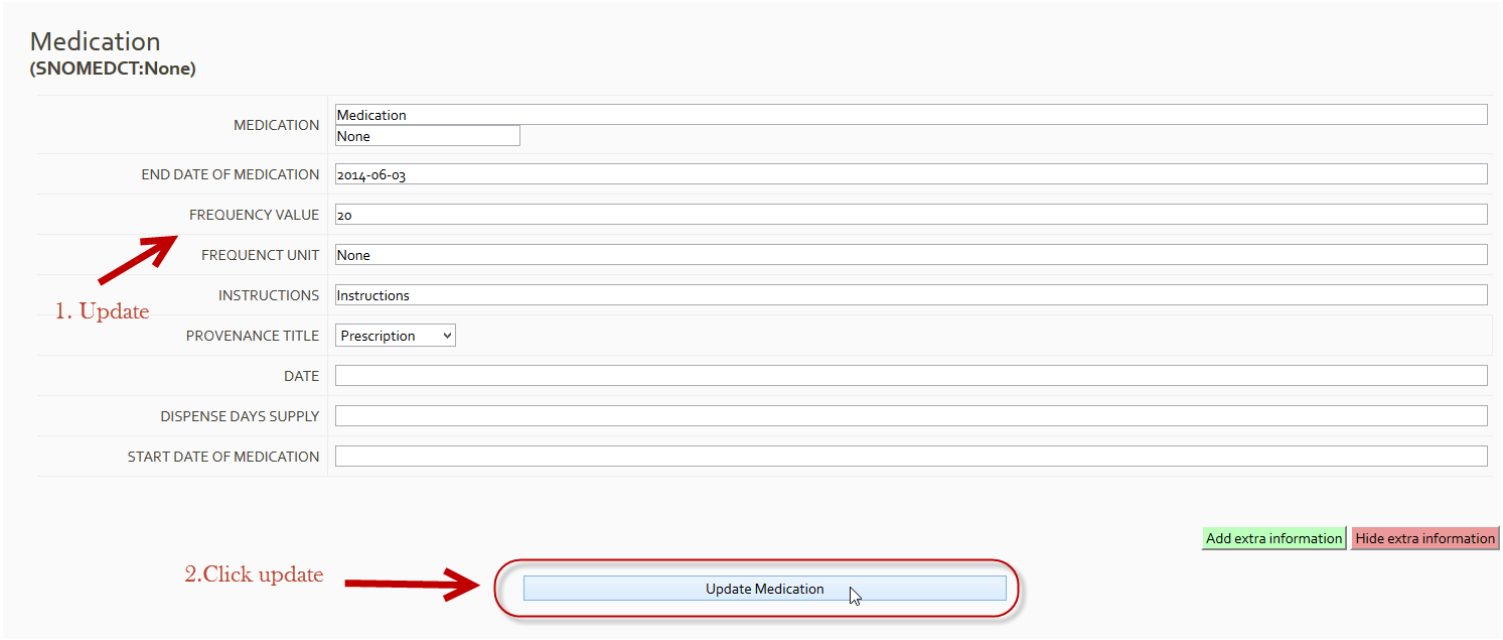
Selected medication information :



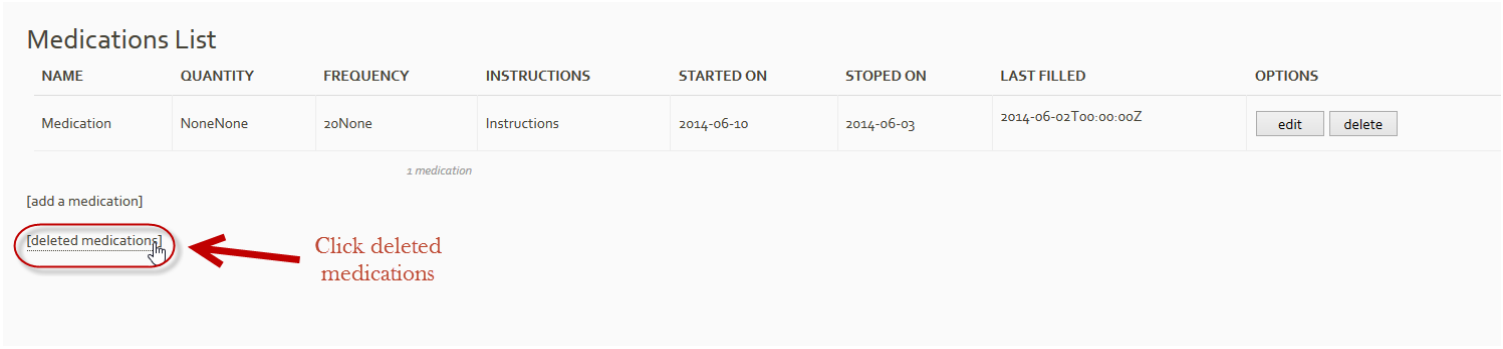
Edit medication



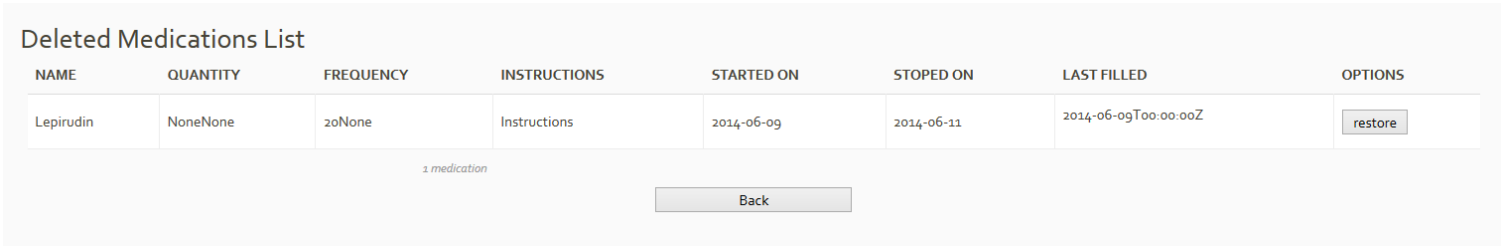
Change desired information and click ''update medication'' or cancel if you don't want to change the information.



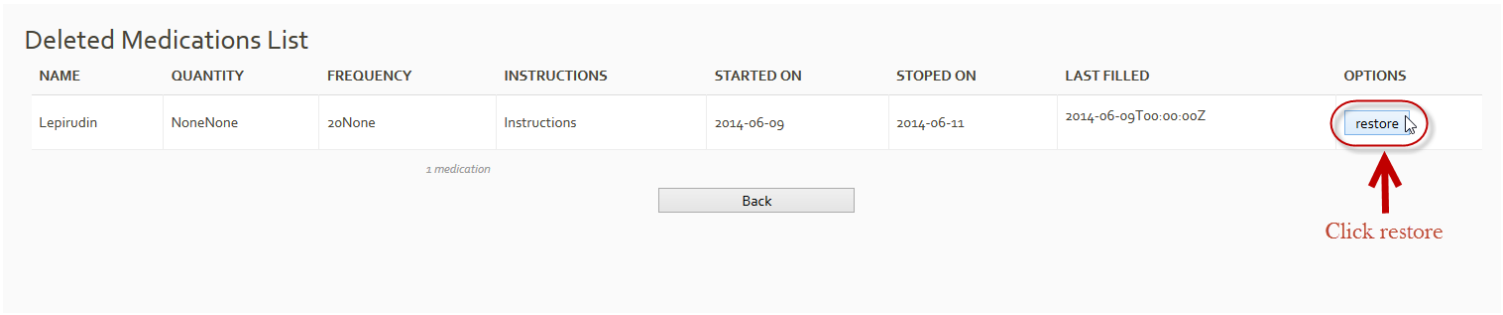
User also can access the deleted medications and restore them by clicking ''deleted medications'' in medications app and by clicking restore in deleted medications list.



Deleted medications list



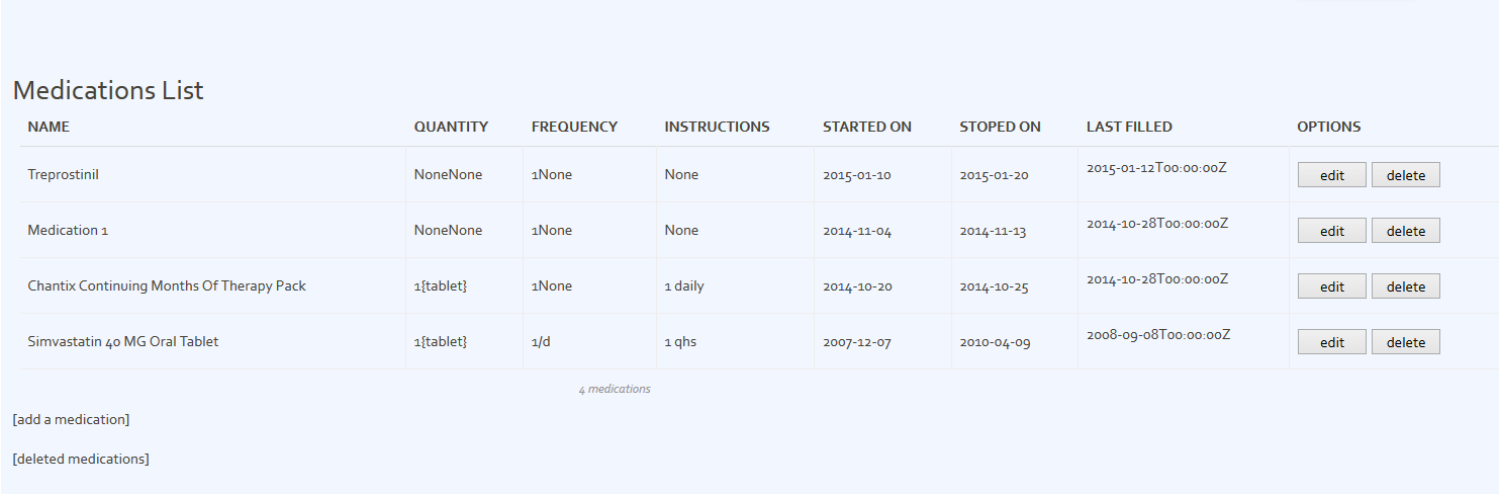
Restore deleted medication:



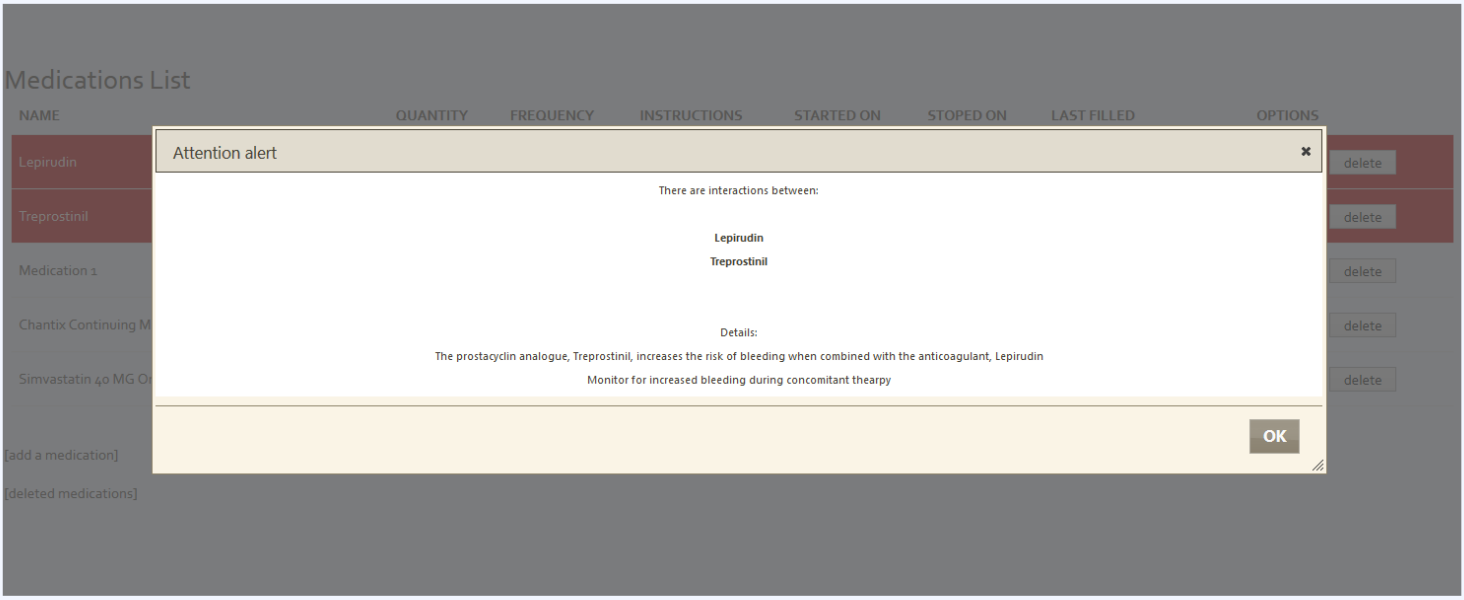
Interacting medications

Medications app provides the ability to check if medications interact with each other. Based on a web service checking a database containing drugs, each time the patient adds a medication system checks whether drug interactions occur among medications. Drug interactions are provided to the patient with an alert window and also medications that interact are highlighted with red color. For example:

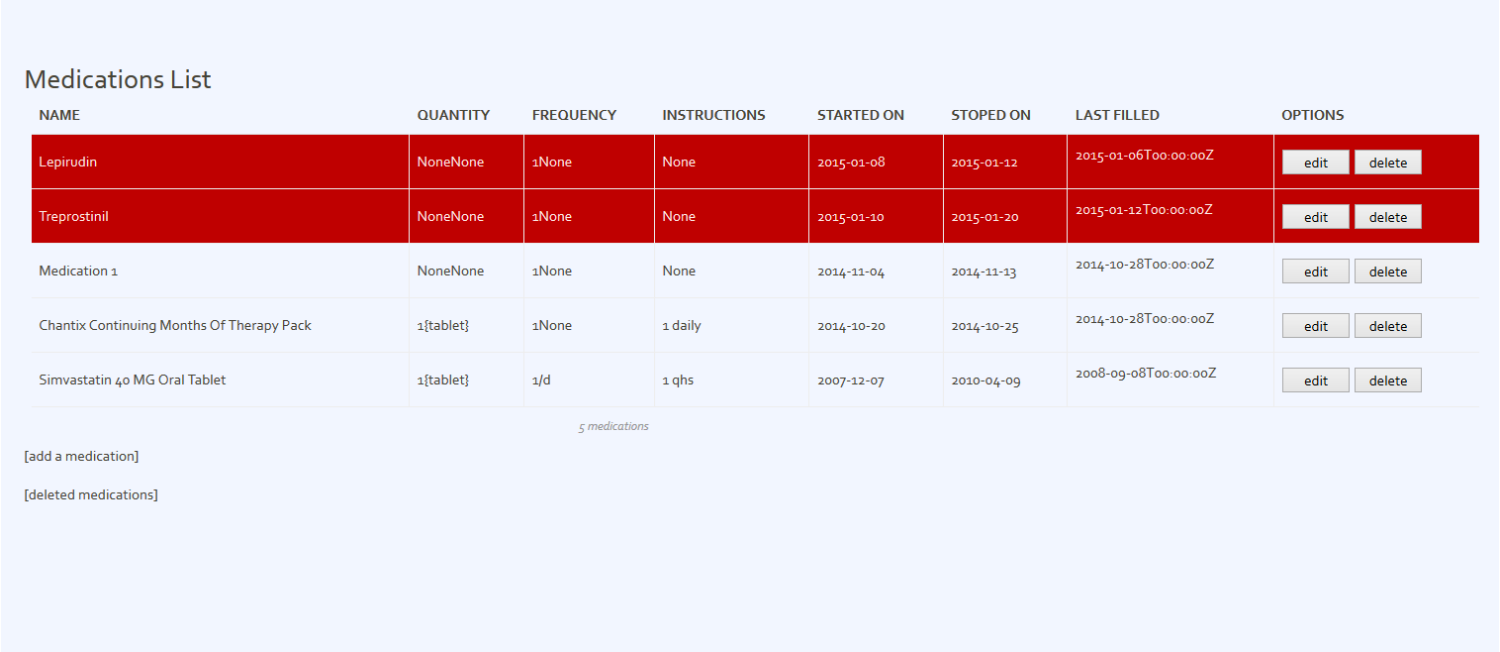
In picture below medications are not interacting with each other.



A new drug is inserted that interacts with drug "Treprostinil". System informs patient about the interaction by providing the names of the drugs that interact and their interaction as we can see in picture below.



Finally, in medications list drugs that interact are highlighted with color red in order to help the patient locate the drugs. An example is shown in picture below.



Medications List

NAME	QUANTITY	FREQUENCY	INSTRUCTIONS	STARTED ON	STOPED ON	LAST FILLED	OPTIONS
Lepirudin	NoneNone	1None	None	2015-01-08	2015-01-12	2015-01-06T00:00:00Z	edit delete
Treprostinil	NoneNone	1None	None	2015-01-10	2015-01-20	2015-01-12T00:00:00Z	edit delete
Medication 1	NoneNone	1None	None	2014-11-04	2014-11-13	2014-10-28T00:00:00Z	edit delete
Chantix Continuing Months Of Therapy Pack	1{tablet}	1None	1 daily	2014-10-20	2014-10-25	2014-10-28T00:00:00Z	edit delete
Simvastatin 40 MG Oral Tablet	1{tablet}	1/d	1 qhs	2007-12-07	2010-04-09	2008-09-08T00:00:00Z	edit delete

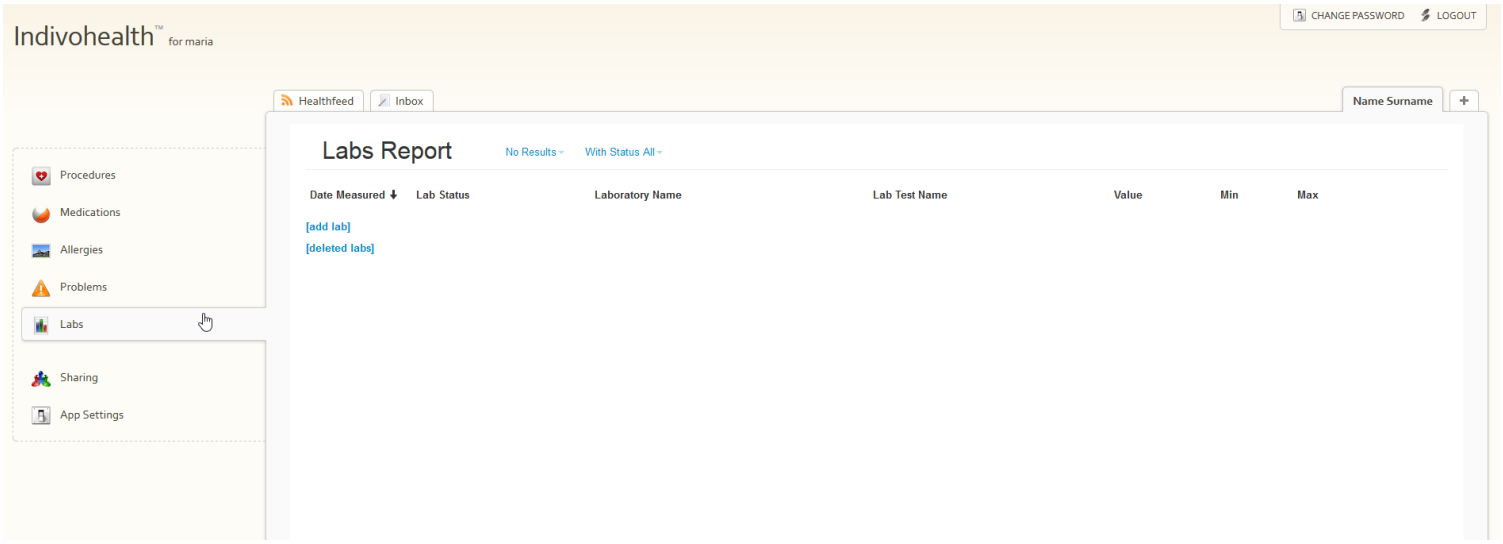
5 medications

[add a medication]

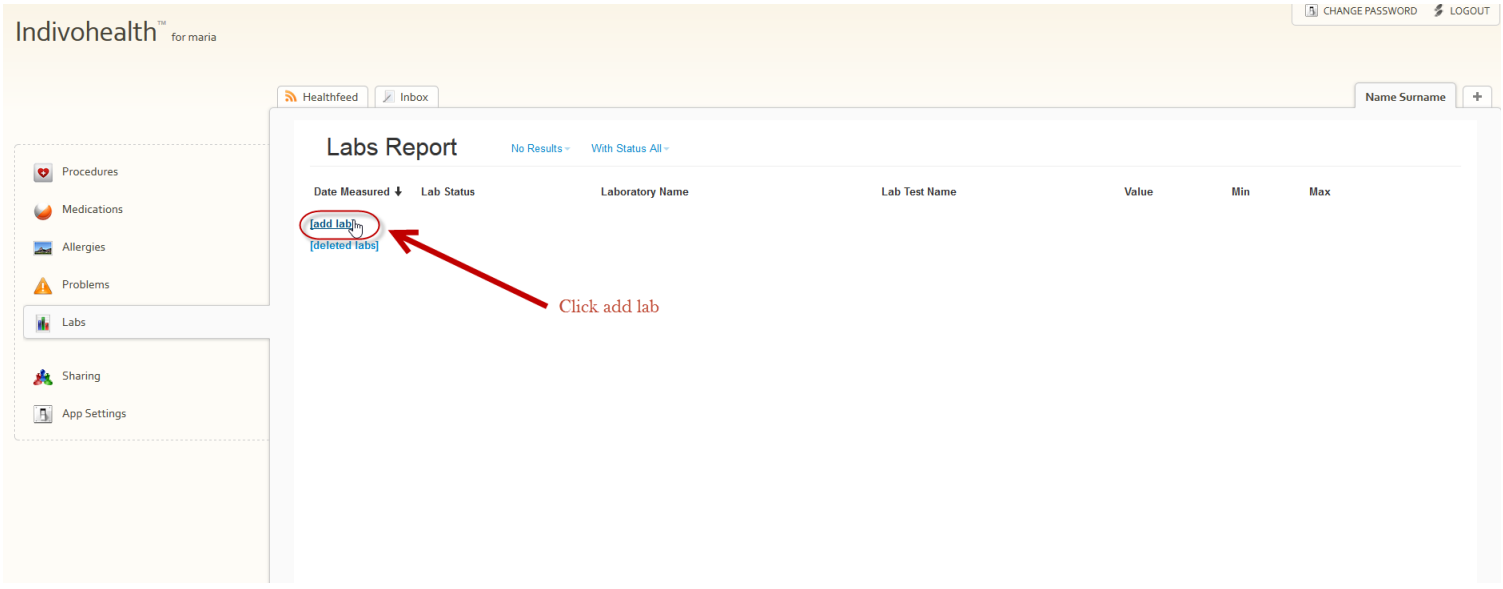
[deleted medications]

Labs app

As we can see in the picture below, user has selected labs app. Labs reports of labs tests of the patient. Each patient can add a lab by selecting ''add a lab''.

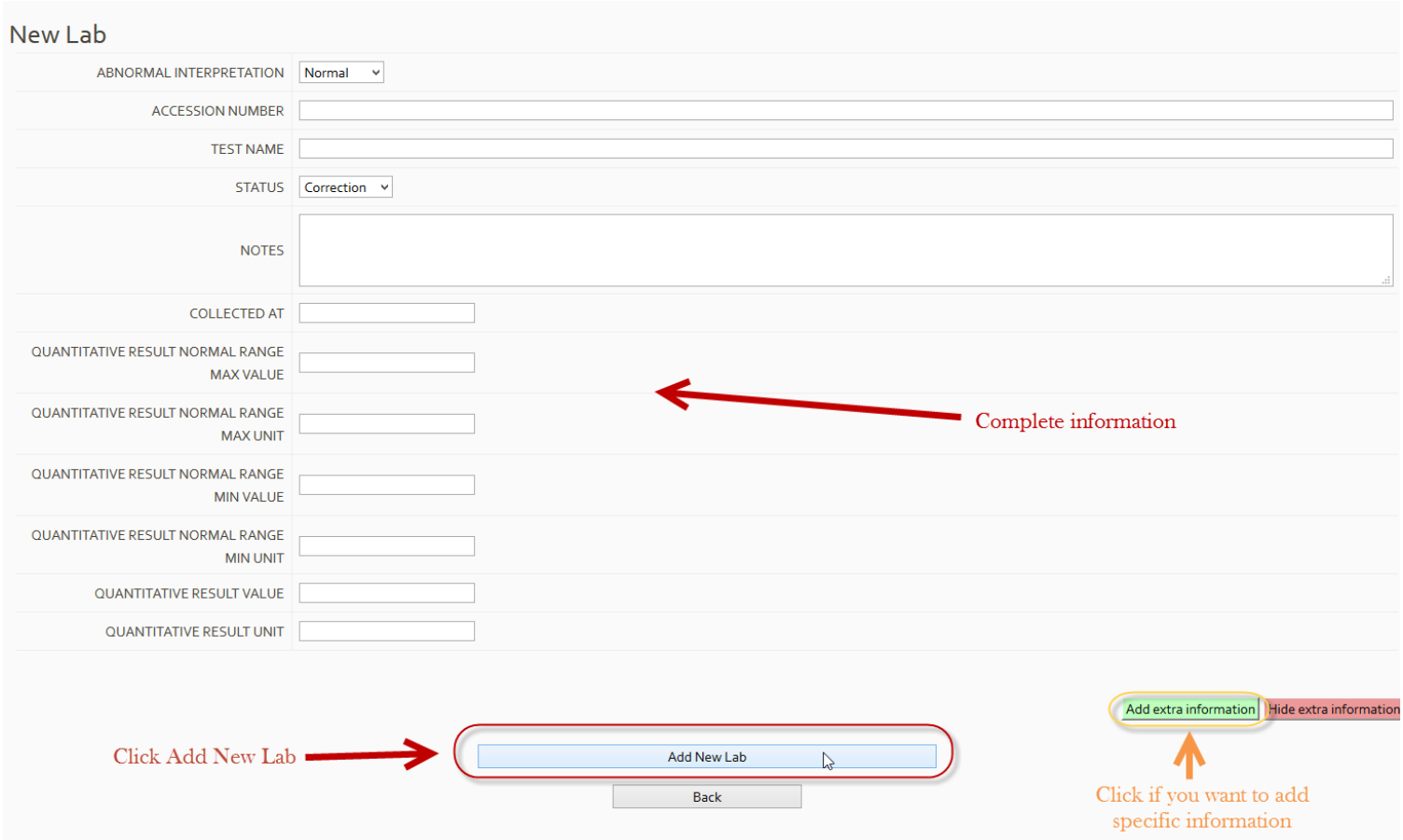


Each patient can add a lab by selecting ''add lab''.



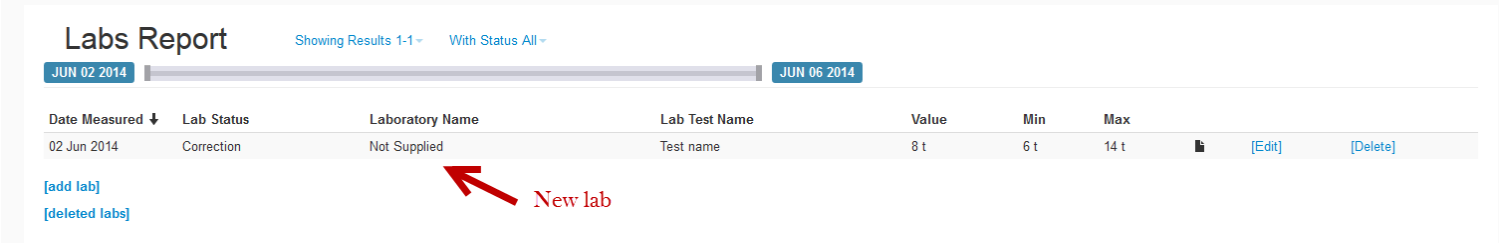
After this step a form will appear. In this form the user should add the necessary information of the lab. He can click ''add lab'' to confirm the new lab or cancel.

Add lab

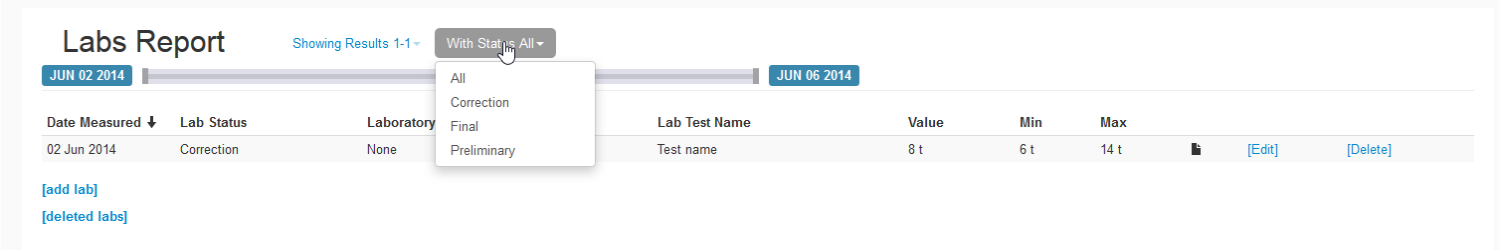


It is possible to add more specific information for a lab by clicking ''Add extra information'', which will show some extra fields as we can see in picture above:

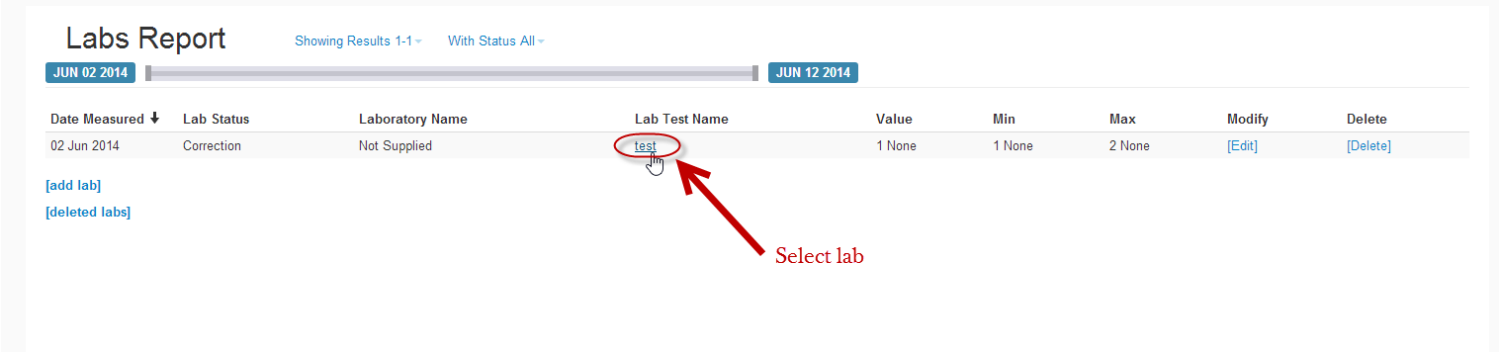
New lab will be appear in medications list :



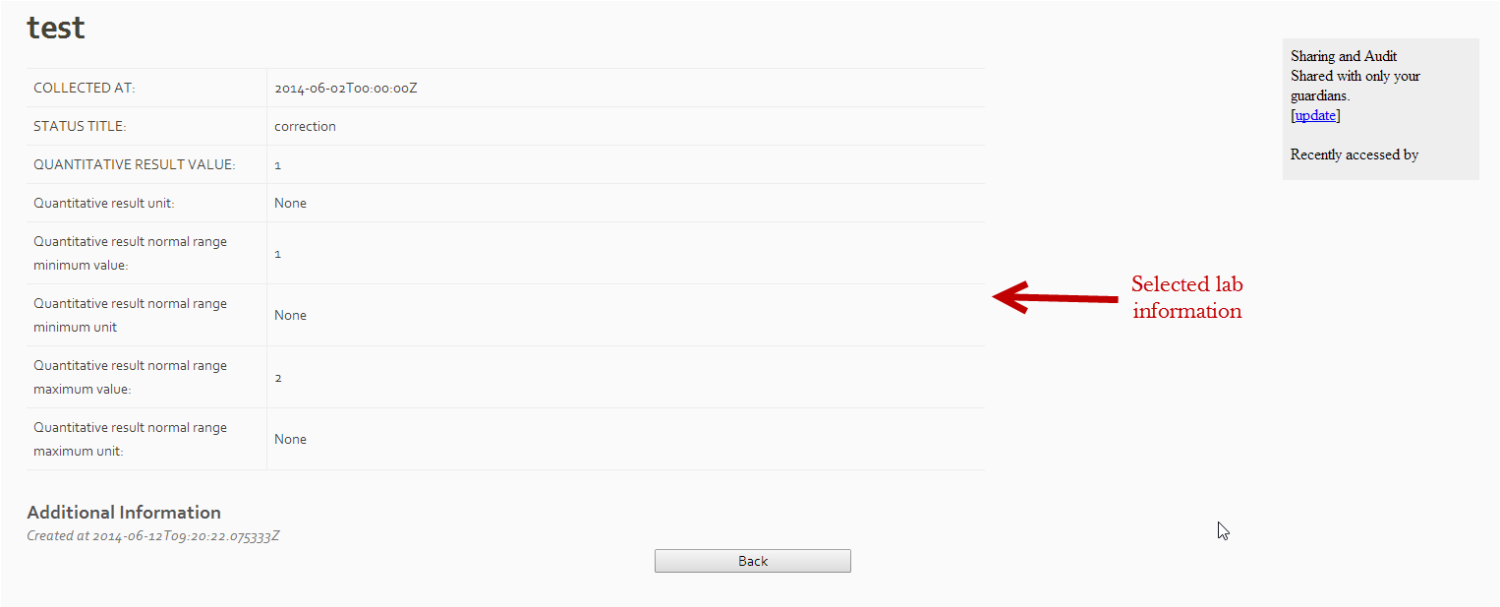
For each lab user has the capability to select,edit and delete lab, also select which labs to show based on their status and how many results to show per page. And finally to sort labs list based on date, status, laboratory name etc.



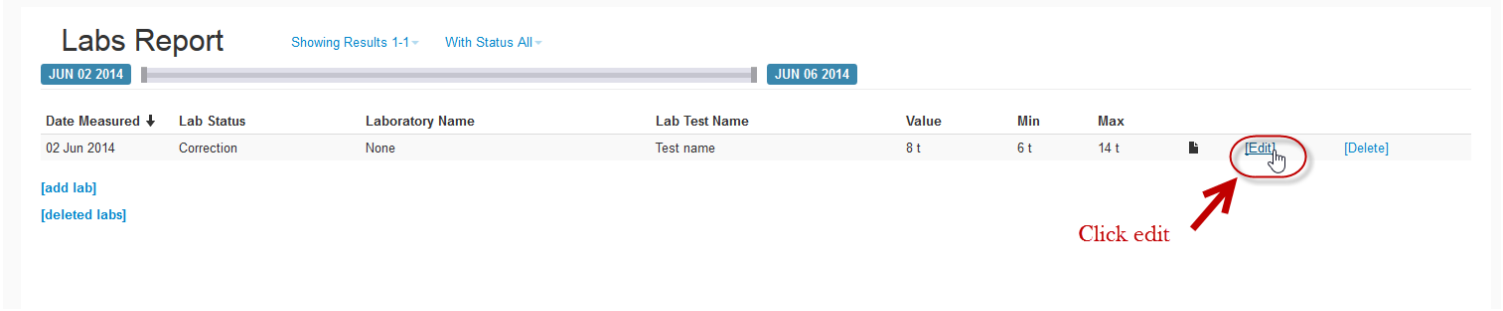
Select lab



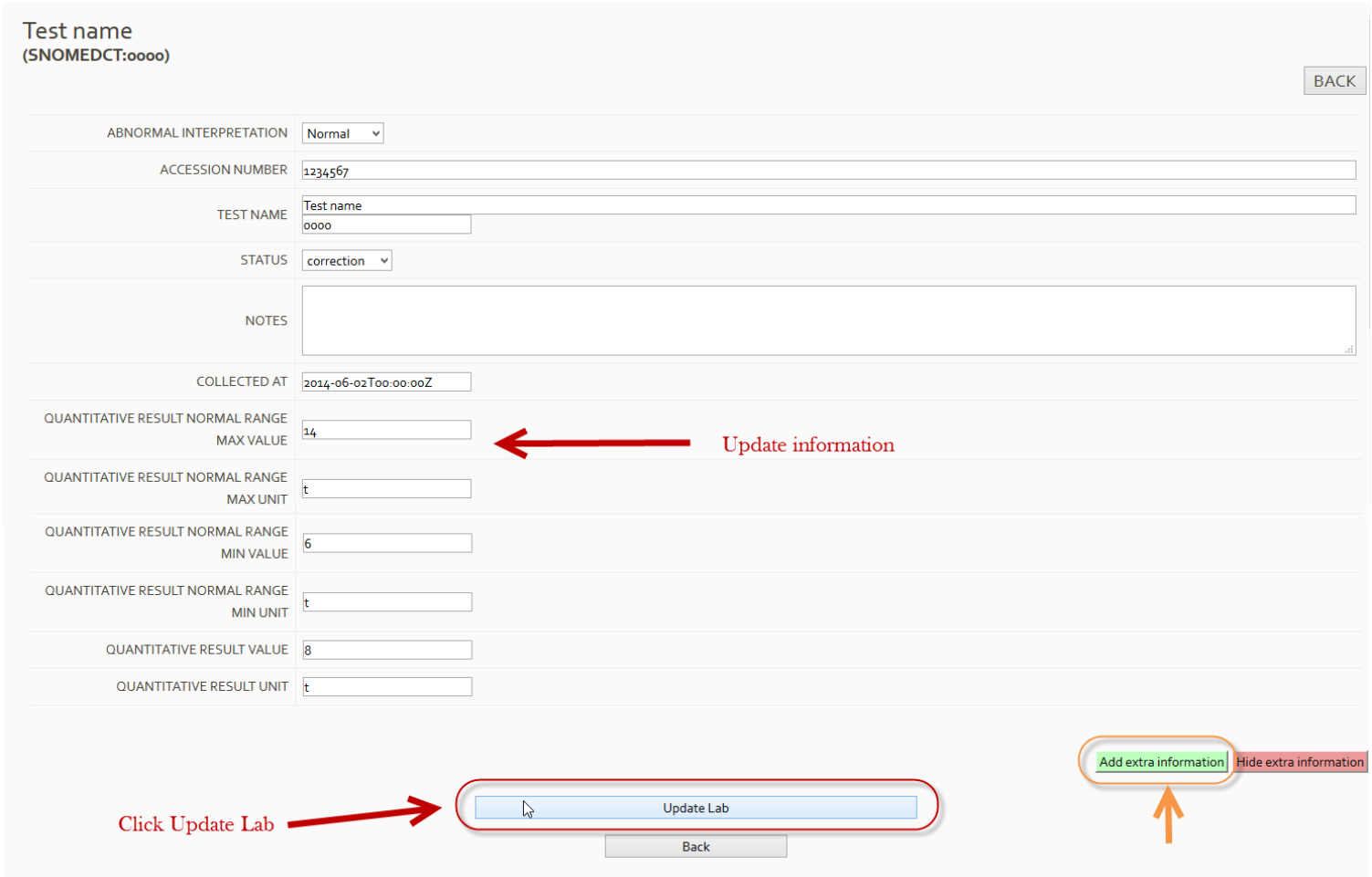
Selected medication information :



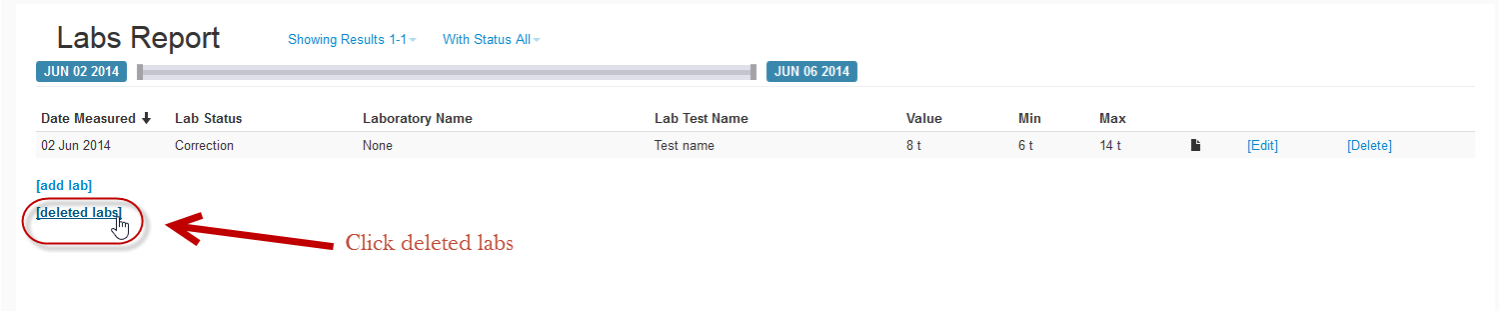
Edit lab



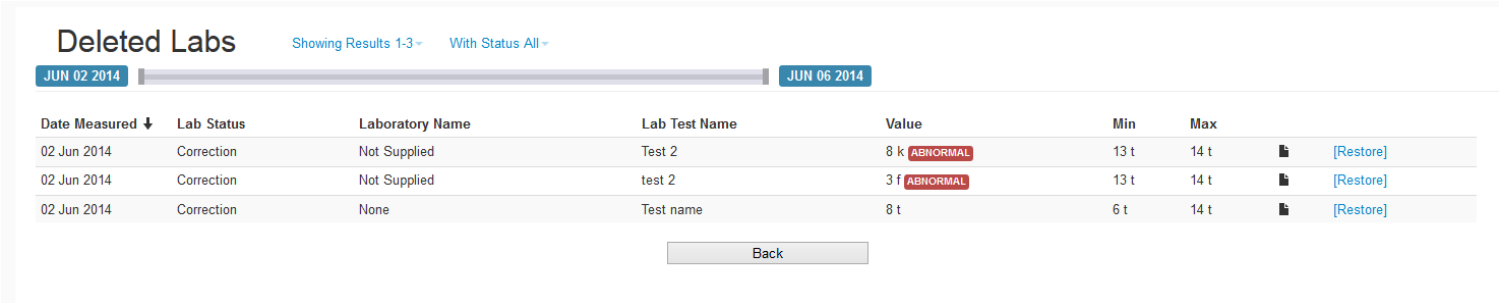
Change desired information and click ''update lab'' or cancel if you don't want to change the information.



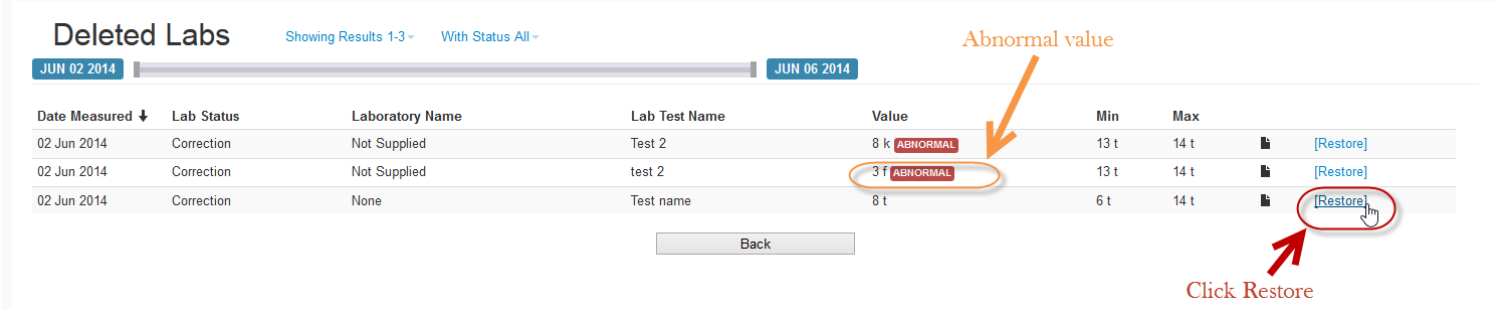
User also can access the deleted labs and restore them by clicking ''deleted labs'' in labs app and by clicking restore in deleted labs list.



Deleted labs list



Restore deleted lab:

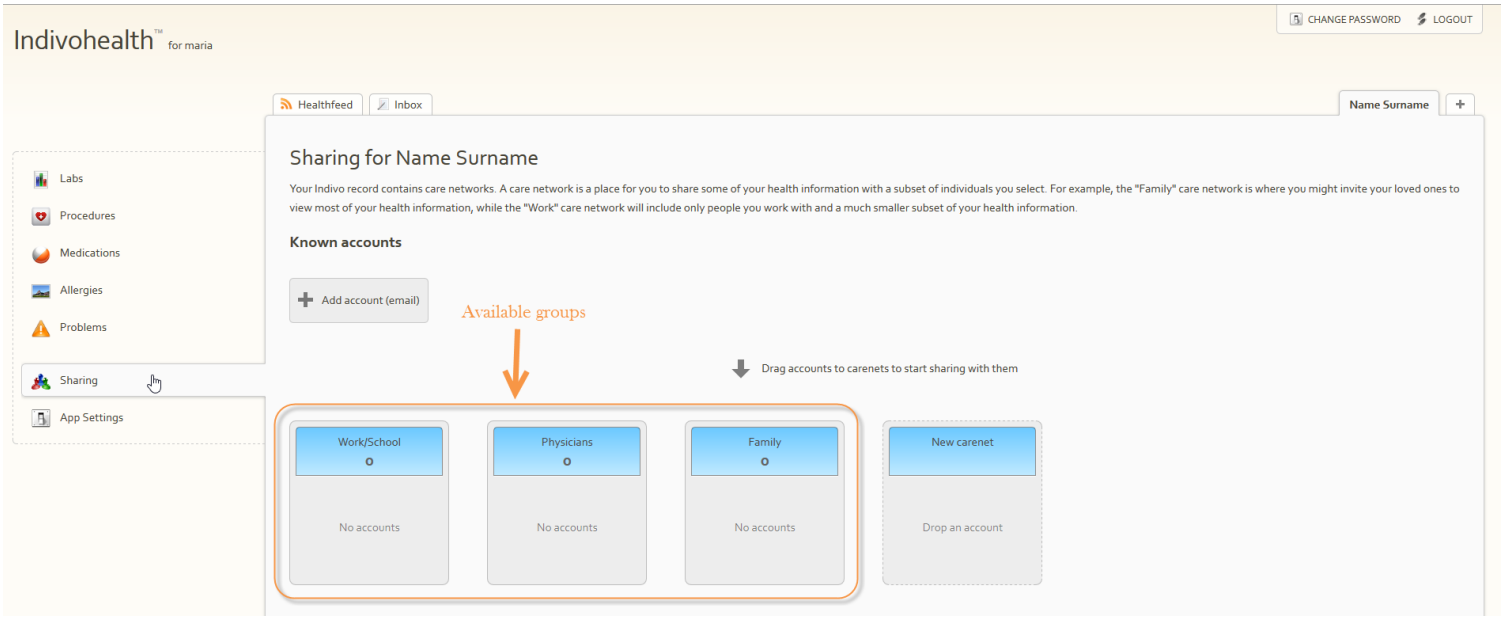


As we can see in above picture if a value of a lab report is abnormal (based on the maximum and minimum values added when creating lab) an "abnormal" message appears. The same applies in labs list.

Share information

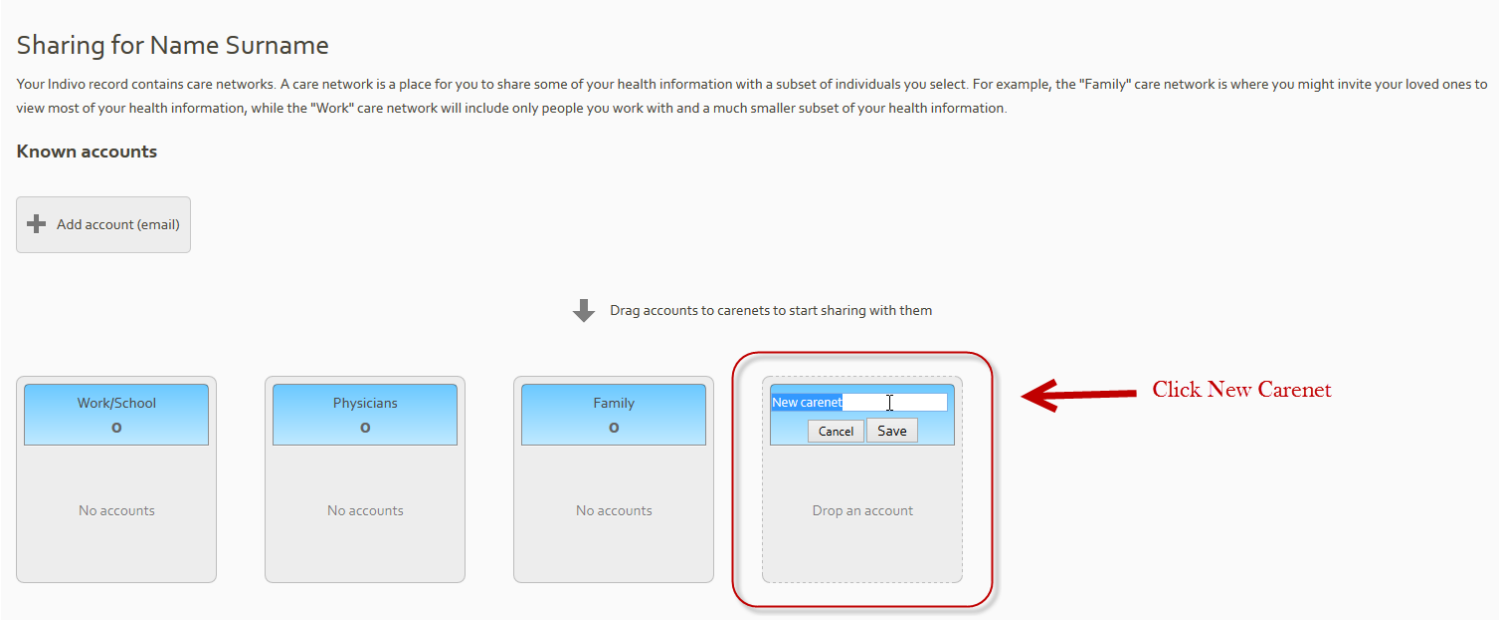
A user can share some of his apps or all his apps with other users or groups (called carenets). There are three default groups (carenets) called : Work/Schooll, Physicians and Family. In each of these groups user can add as many users as he desires and also the apps he wants. User can also create new groups except the default.

As we can see in picture below a user should select sharing from menu in order to see the available groups.


Indivohealth™ for maria
CHANGE PASSWORD
LOGOUT
Healthfeed
Inbox
Name Surname
Labs
Procedures
Medications
Allergies
Problems
Sharing
App Settings
Sharing for Name Surname
Your Indivo record contains care networks. A care network is a place for you to share some of your health information with a subset of individuals you select. For example, the "Family" care network is where you might invite your loved ones to view most of your health information, while the "Work" care network will include only people you work with and a much smaller subset of your health information.
Known accounts
Add account (email)
Available groups
Drag accounts to carenets to start sharing with them
Work/School
0
No accounts
Physicians
0
No accounts
Family
0
No accounts
New carenet
Drop an account

Add carenet

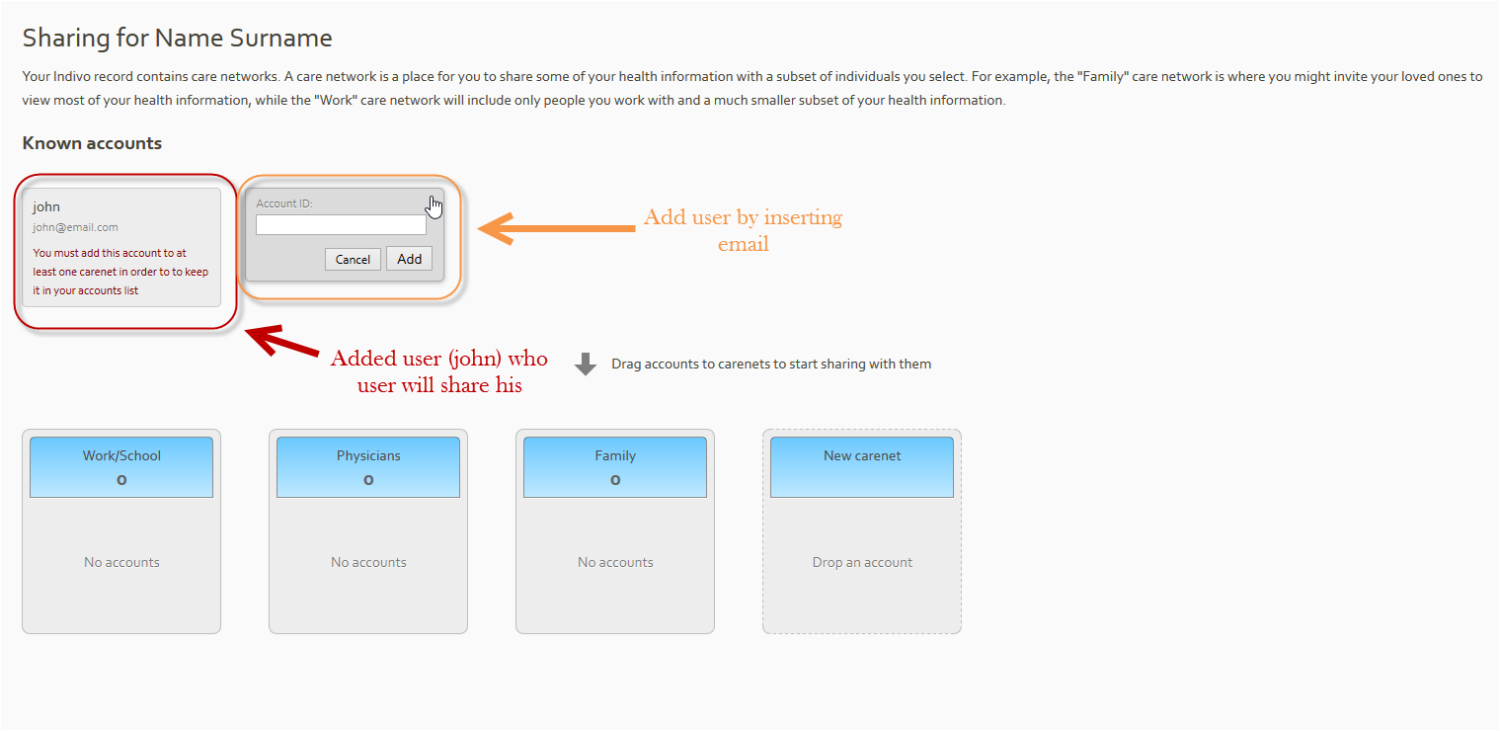
If a user wants to create a new group (carenet), clicks ''New carenet'' and adds a name for the group.

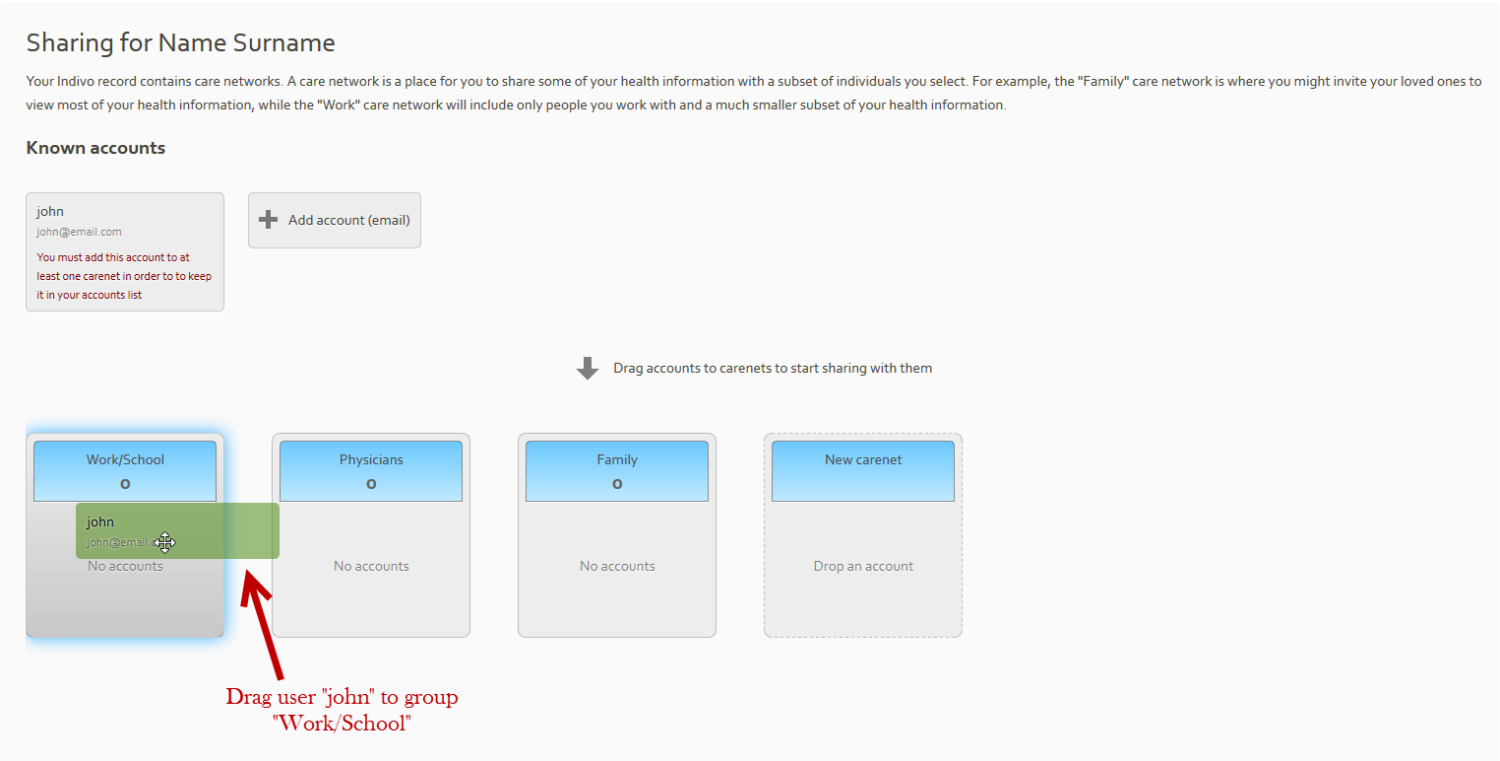


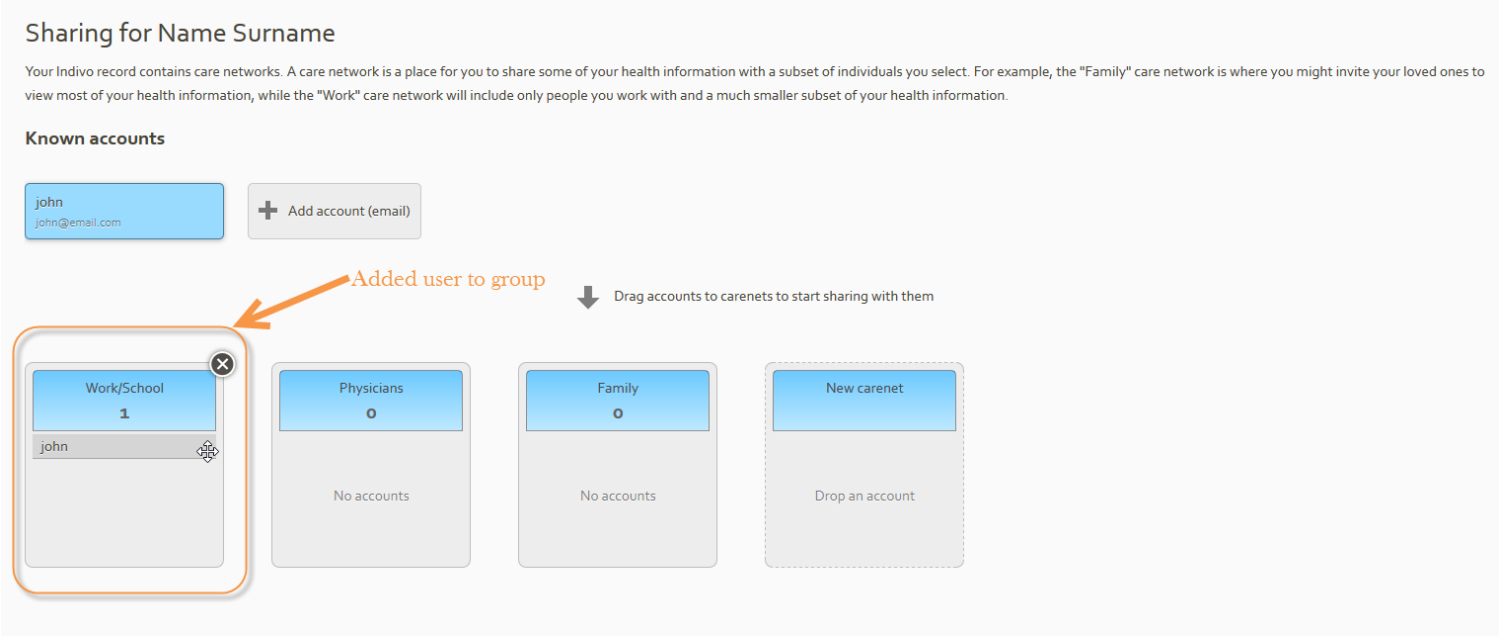
In order to share his documents and apps with other users, user should add accounts by clicking ''Add account'' and adding an email of an existing user. An example is shown in picture below.

Next step is to drag new user into the groups as we can see in picture above.

Add account to share information

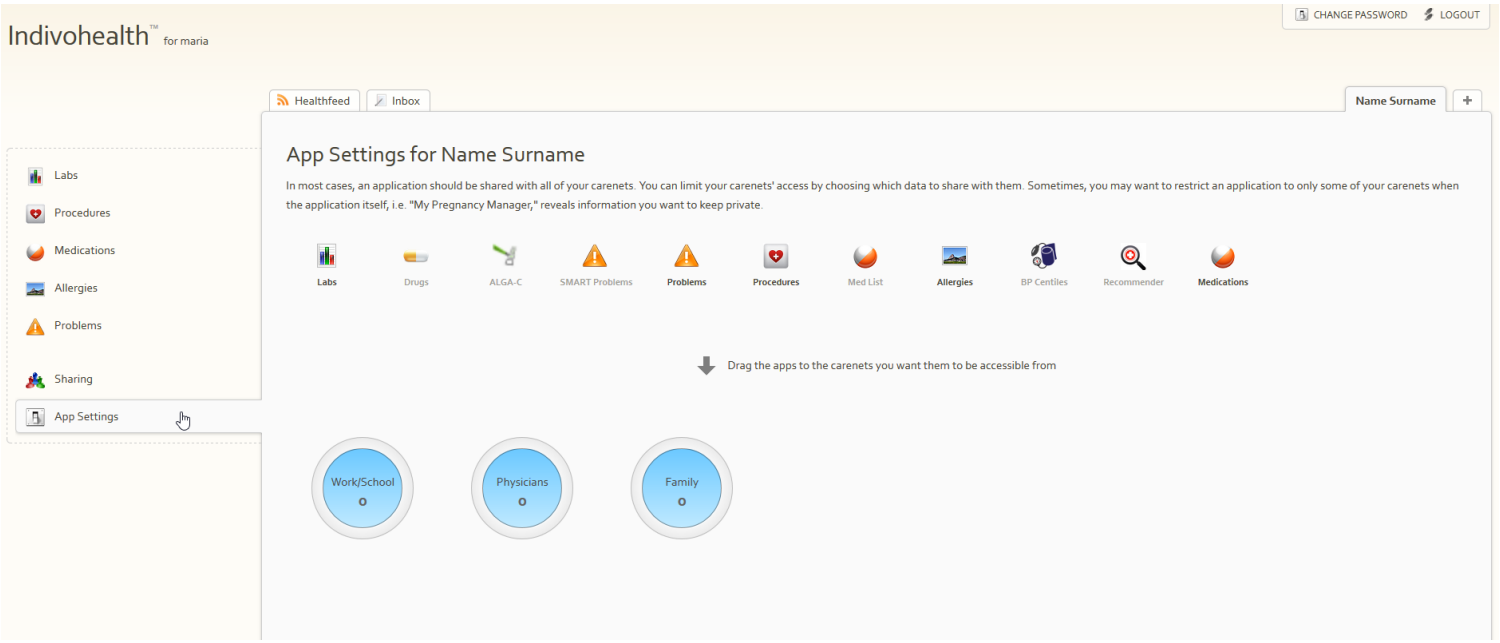




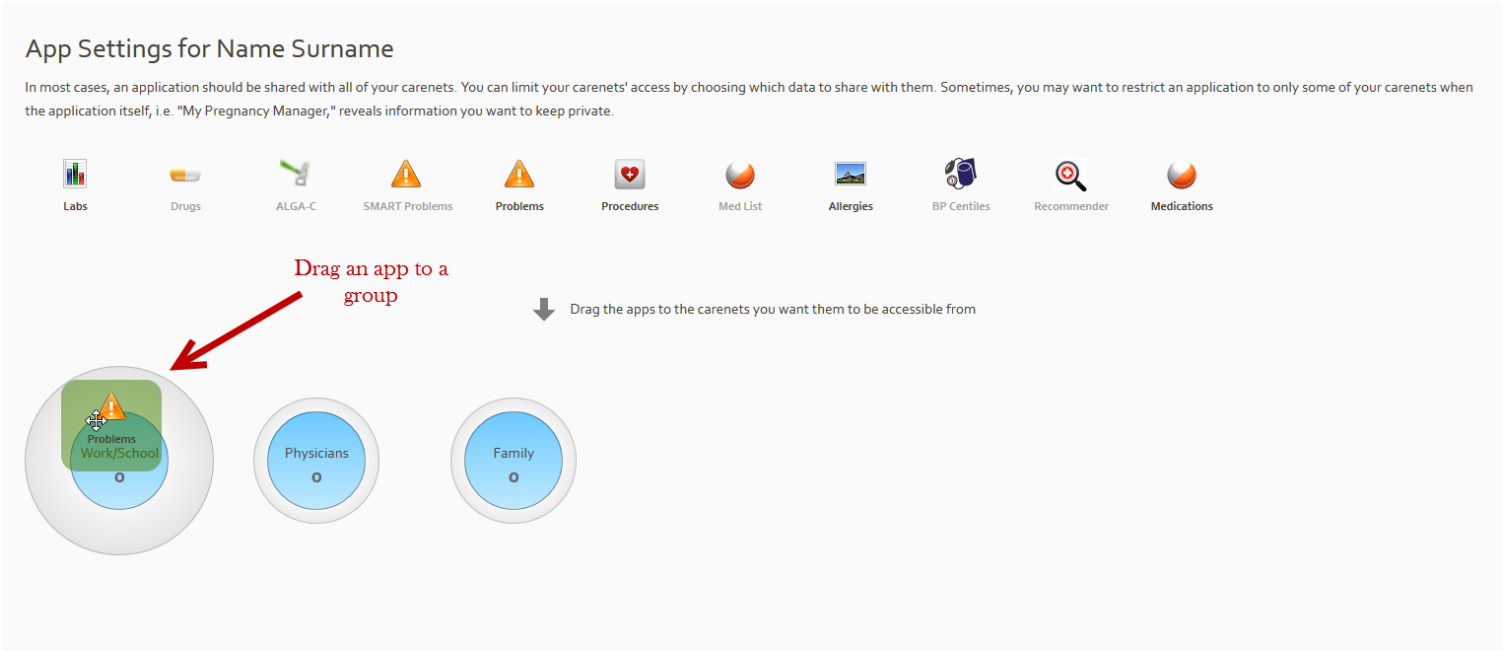


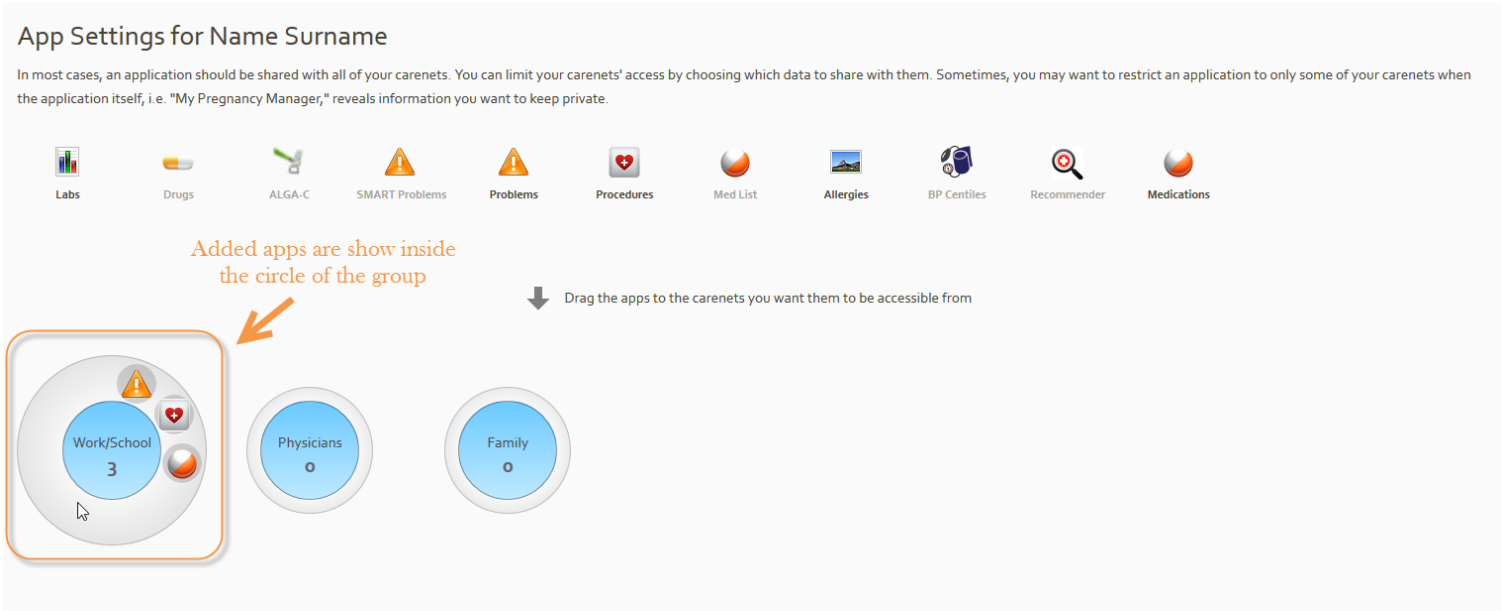
Share apps

After this step access have been granted to user "john" . Next step is to add which apps the "john" can access. In order to do that user must select ''app settings'' from menu :



In this page user can drag apps to groups. In example below ''problems'' app will be dragged in group ''Work/School'' (in the group we added user ''john'').

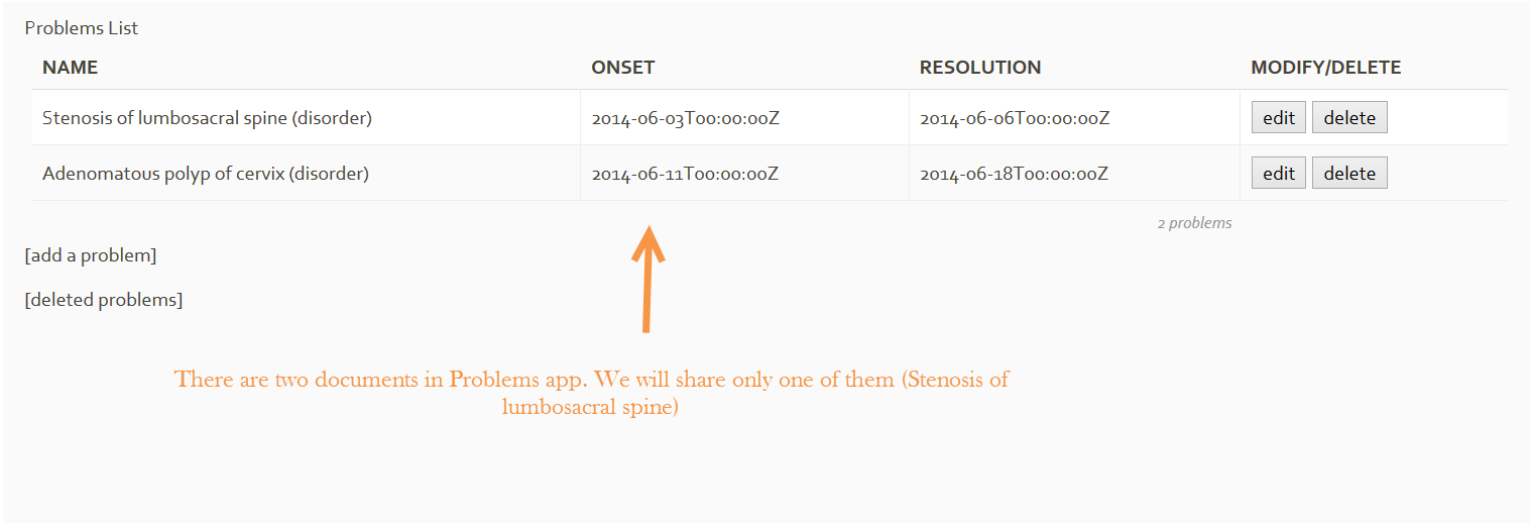




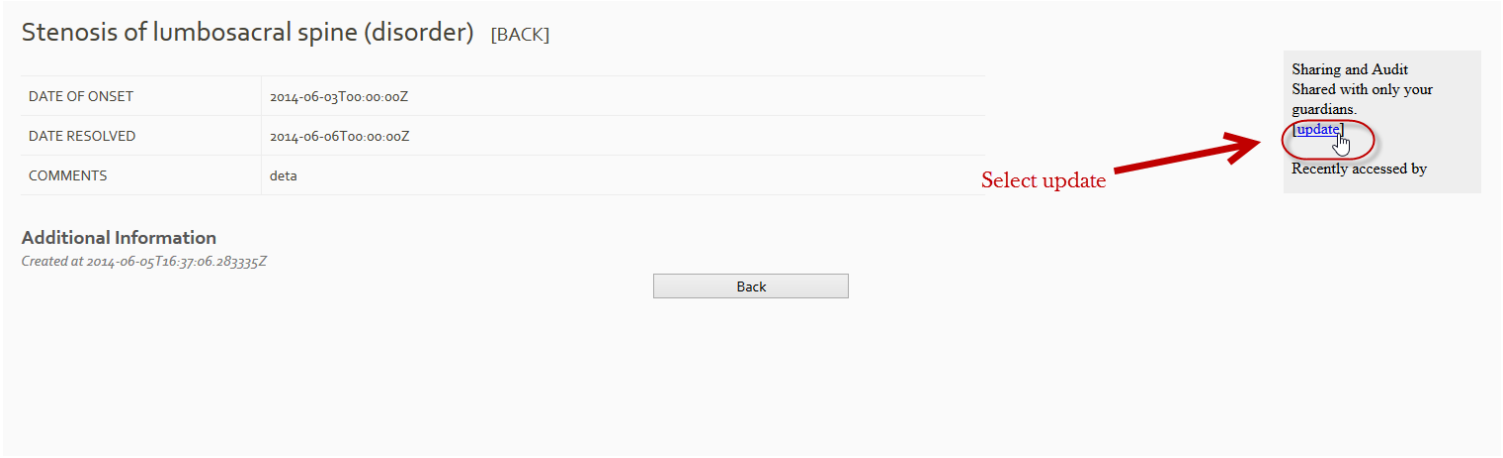
As we can see in above image, each app that have been added in group is shown inside the circle of the group and also there is the number three in our example indicating that there are three apps in this sharing group.

Share documents

Final step is to share with the external user (john in our example) the documents the user wants. John in order to see documents from these apps our user should first share each document separately with the group. User can share apps with any user he wants but he has the advantage not to share every document of these apps with the external users. For example from ''Problems'' app we want to share only one document. Step will be shown in next pictures.

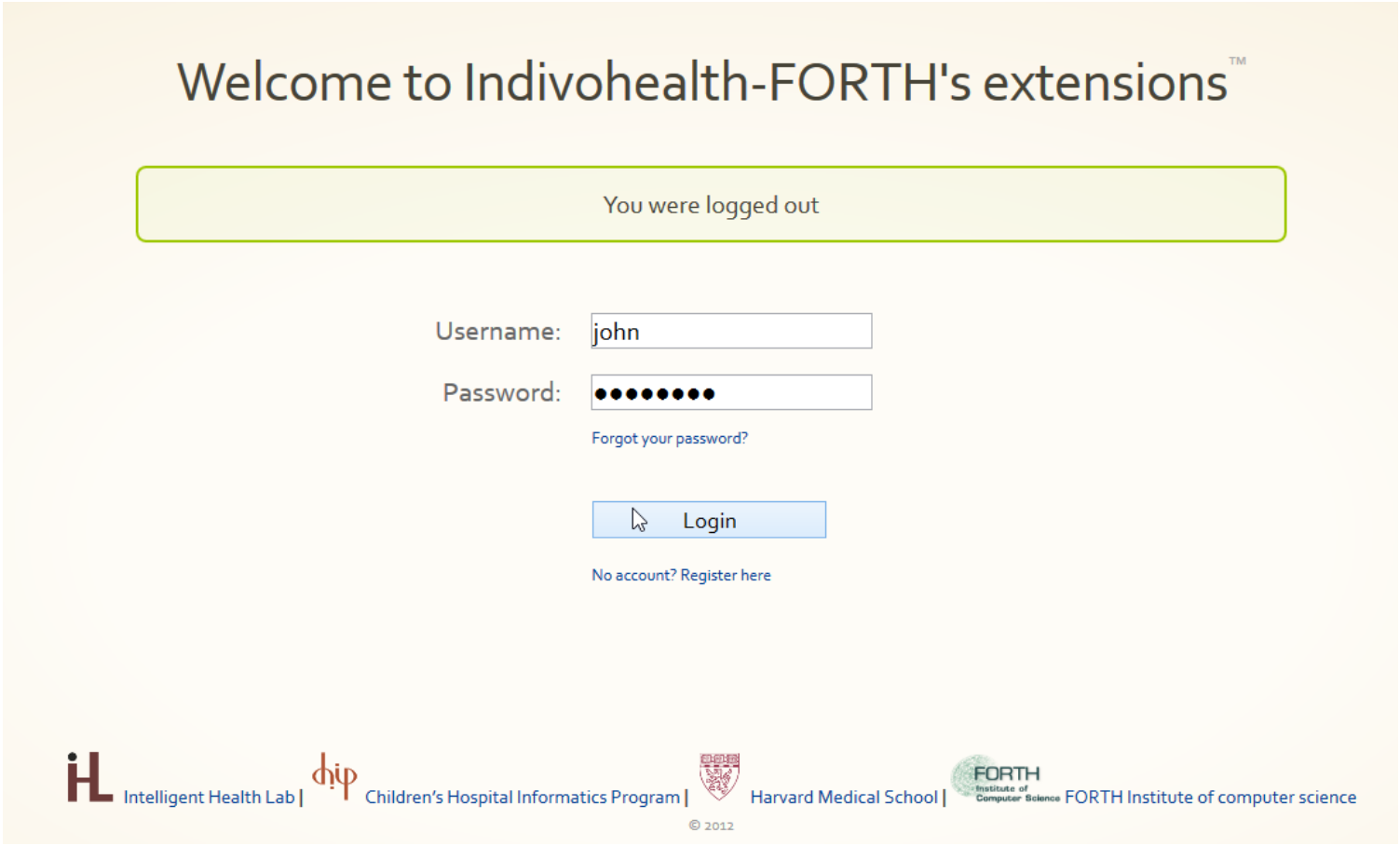


Select the problem to be shared and in problem's information page click on update link.

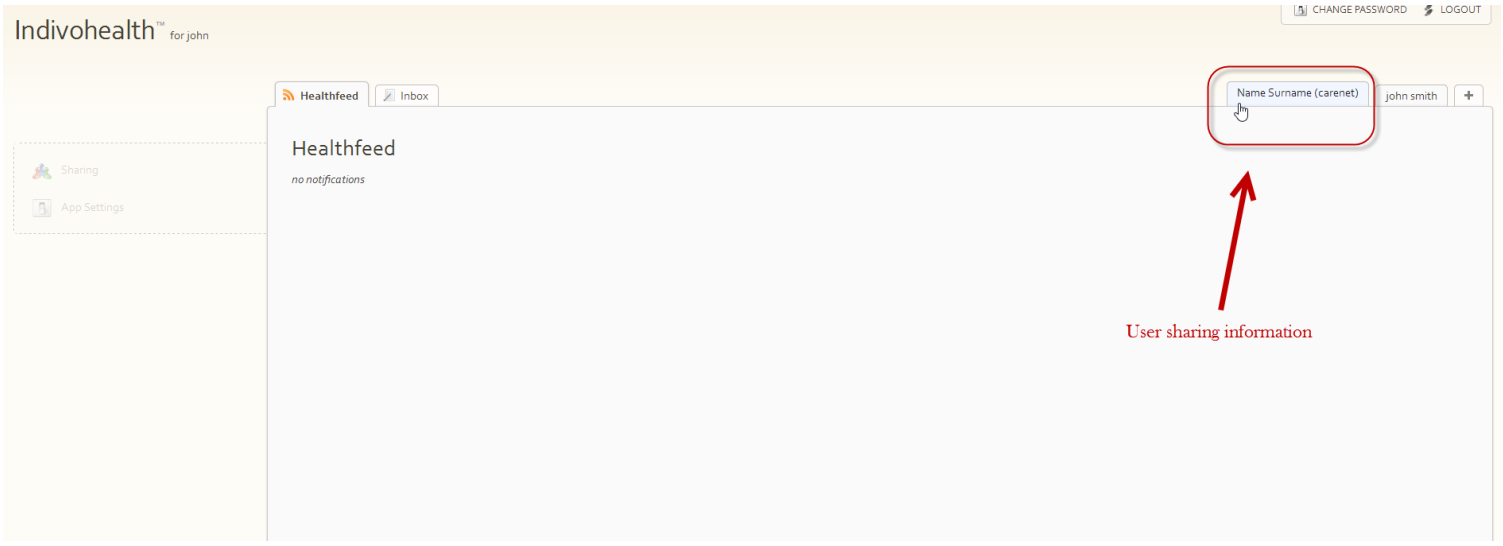


After clicking update a form will appear with the available groups. Select in which groups the document should be shared. And click ''Update''.

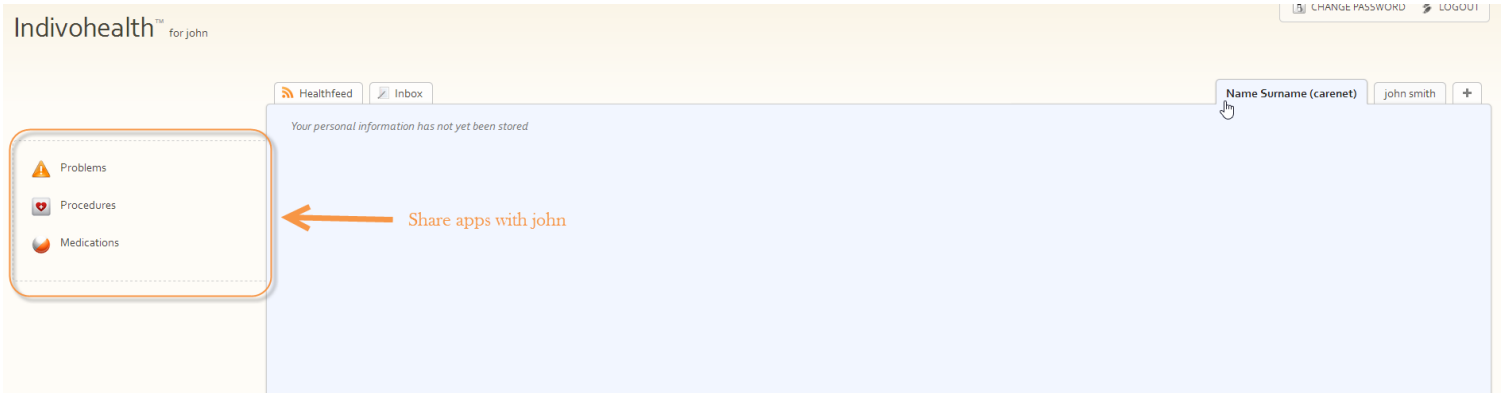
If we login as user john, that we have granted access in group work and granted access to document "Stenosis of lumbosacral spine(disorder)''.



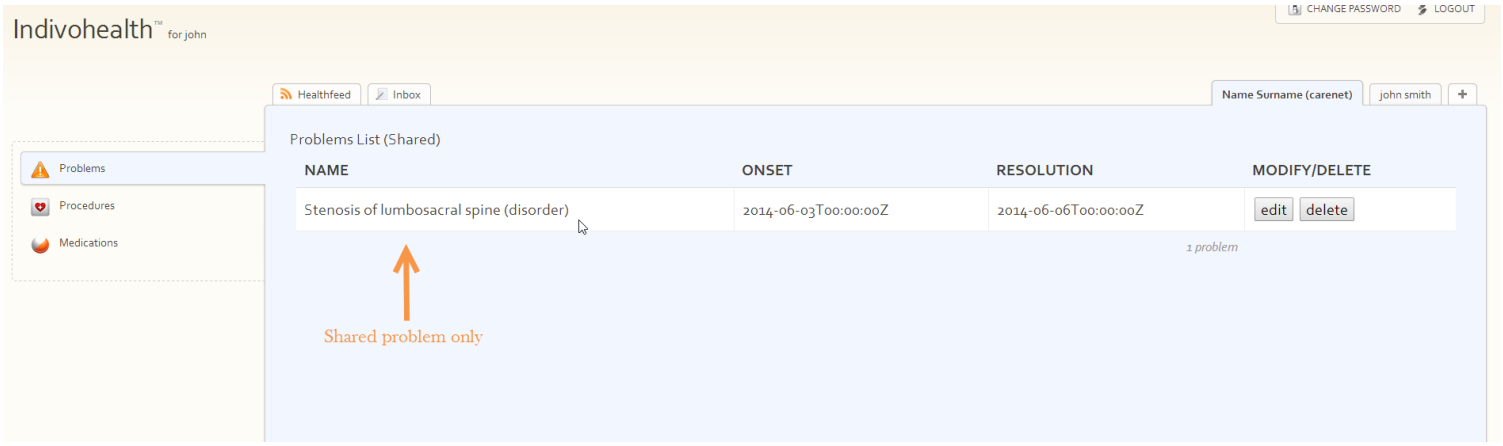
We can see that there is an extra tab in the right with the name and surname of the previous user and in parenthesis the word "carenet", which means that this is a user who shares information with john.



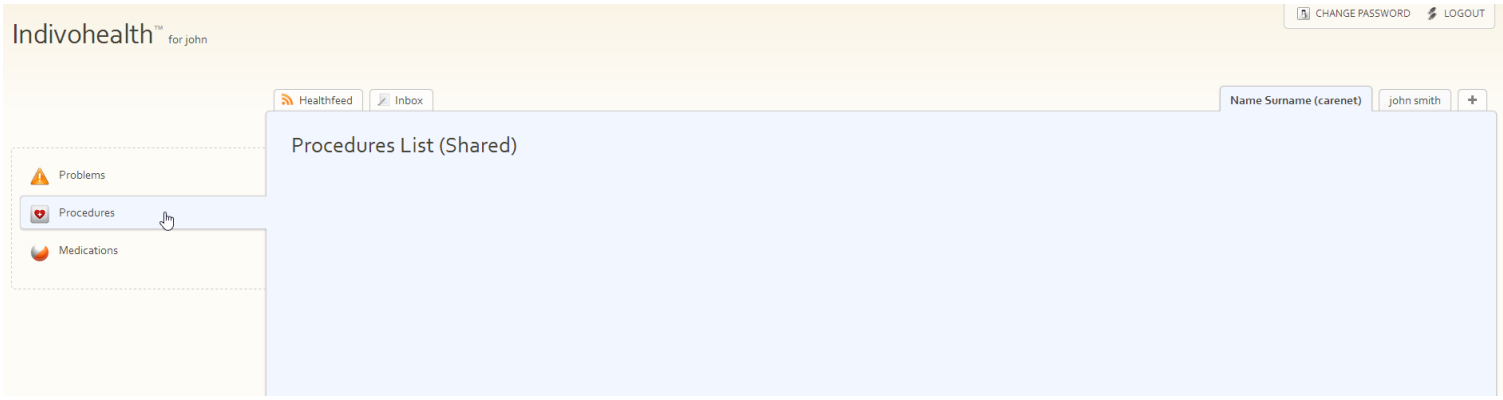
If we select tab of user we can see the apps that have been shared with john.



If we select ''Problems'' app we will see only the one problem that has been shared, not all the problems available in this app.

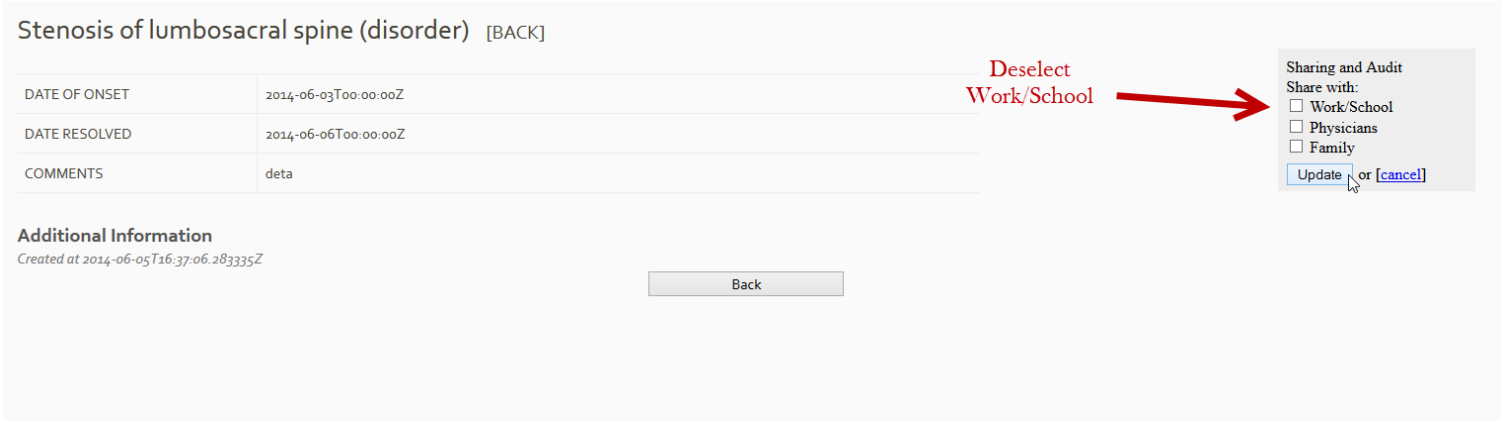


Final if we select each of the other apps , in which we haven't shared any documents we will see that the list is blank as we can see in picture below.

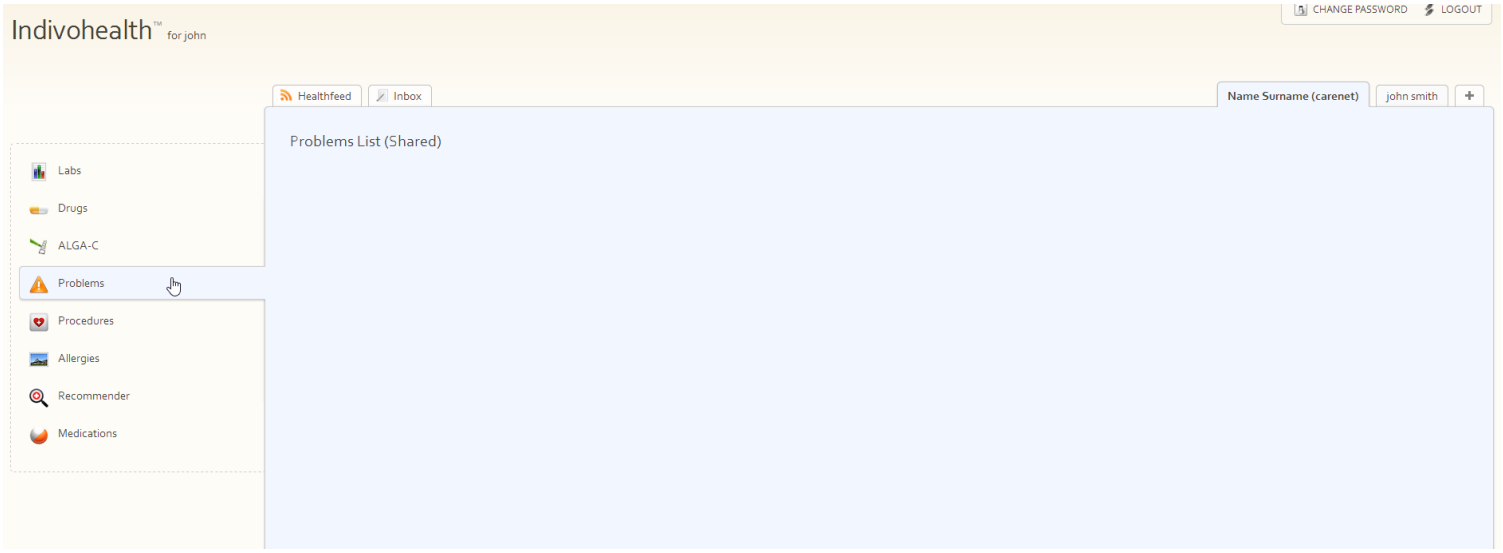


Stop sharing documents

Also if a user wants to stop sharing a document he can click ''update'' link in document and deselect group that was sharing until now this information. For example:

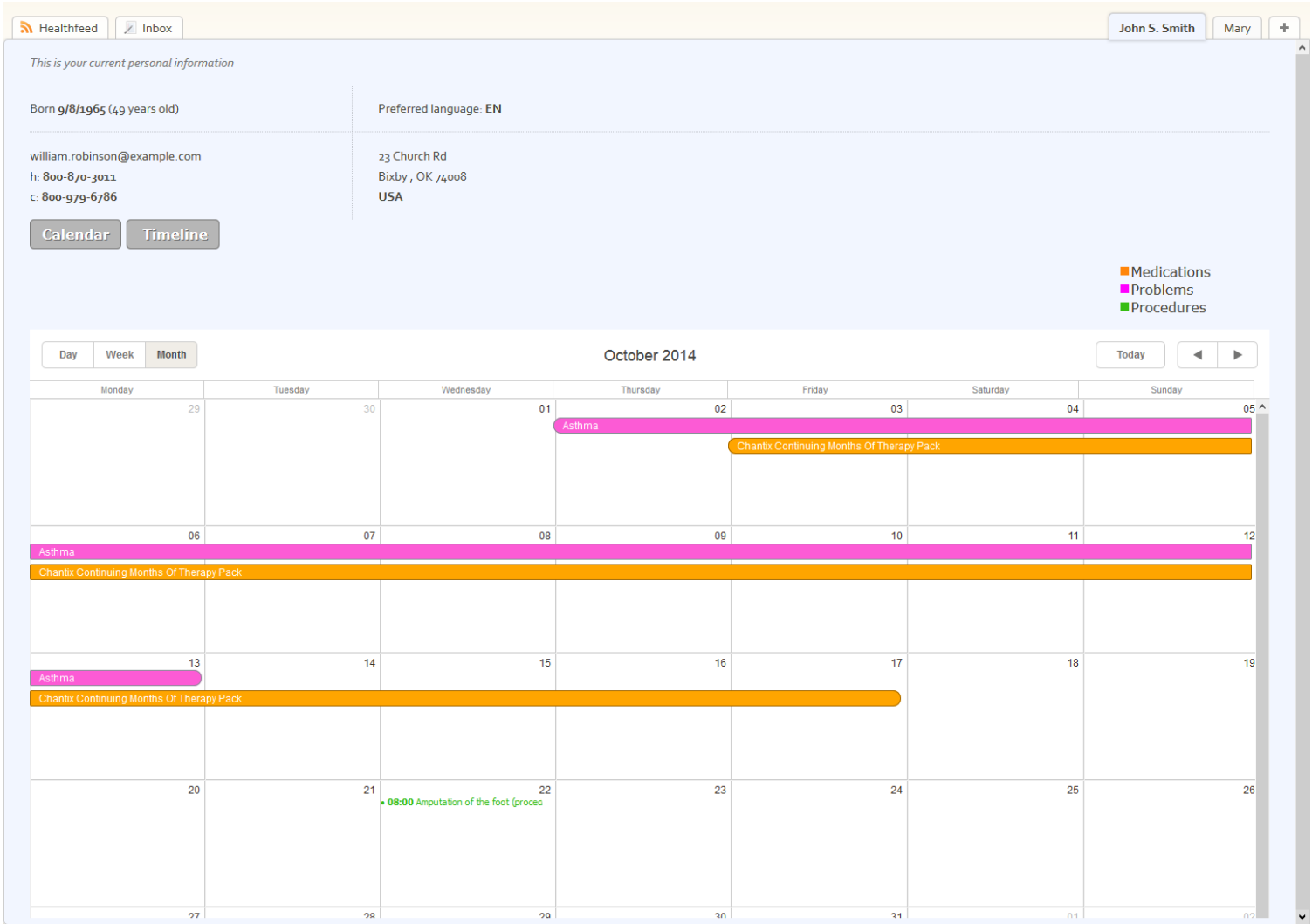


After this step if user "john" navigates to ''Problems'' app of our user he will see a blank list as we can see in image below:

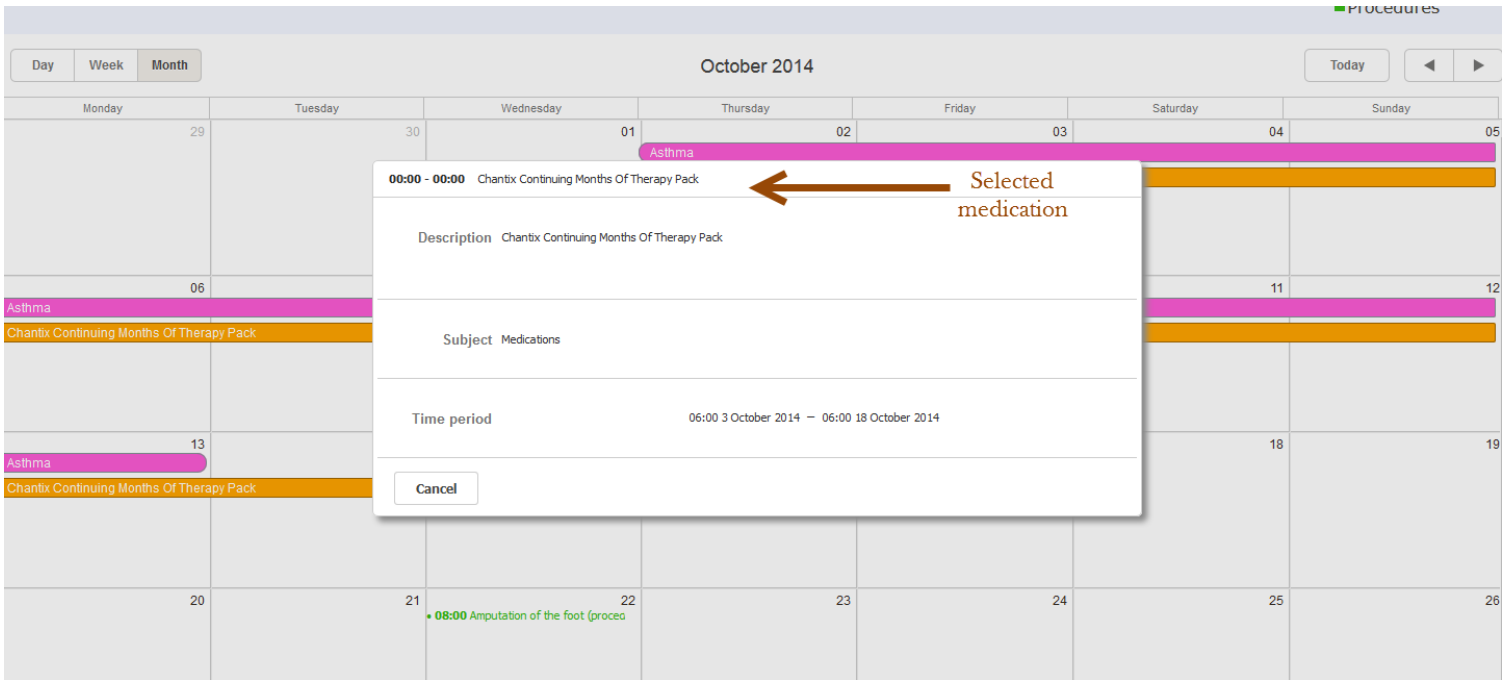


Calendar – Timeline

Home page of the patient provides a calendar and a timeline containing all medications, procedures and problems of the patient. Based on inserted data of the patient system retrieves from the database the titles and dates of each category and posts it both in calendar and timeline view. An example of month October is provided in picture below. As we can see medications are identified by color orange, problems by color pink and procedures by color green. Same colors are used in timeline view in order to make it easier for the patient.

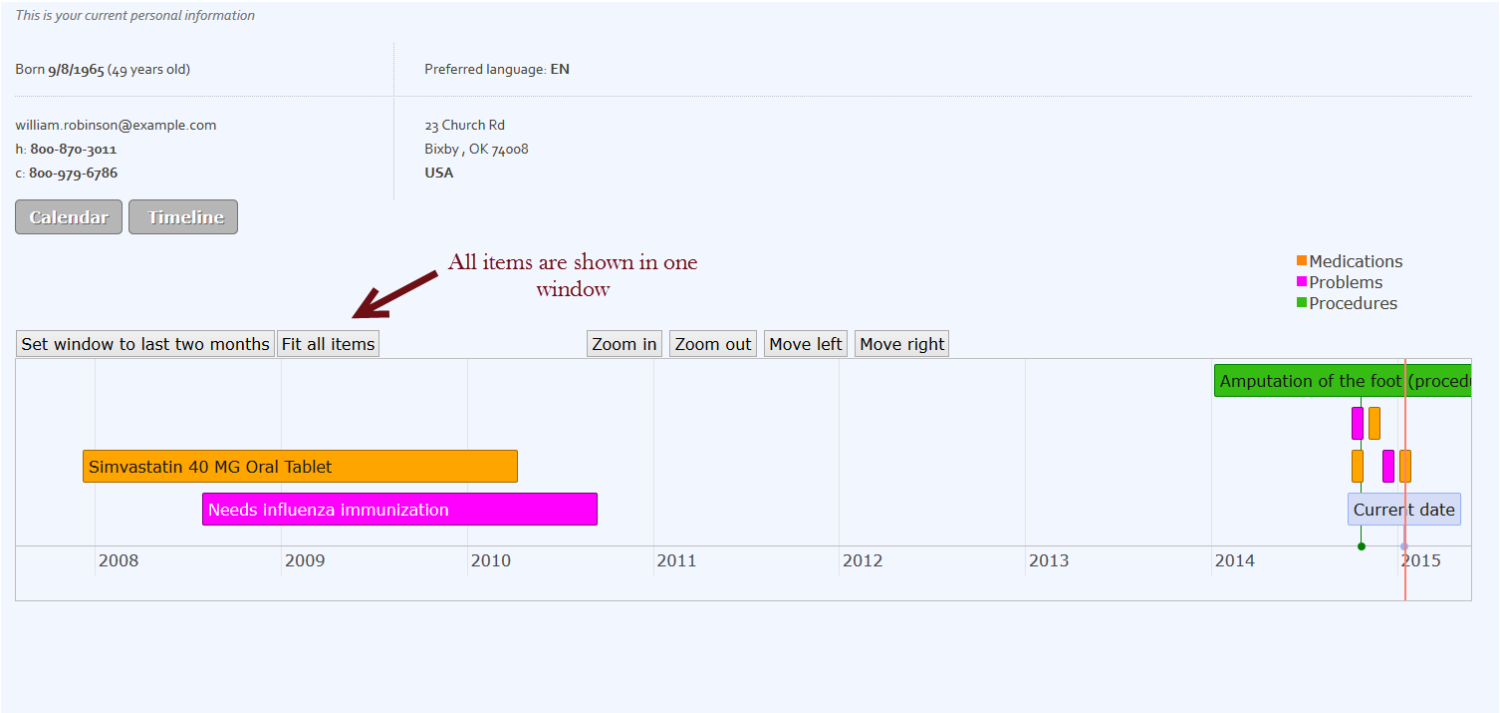


Patient can also check information of a specific category by clicking them. Example in picture below

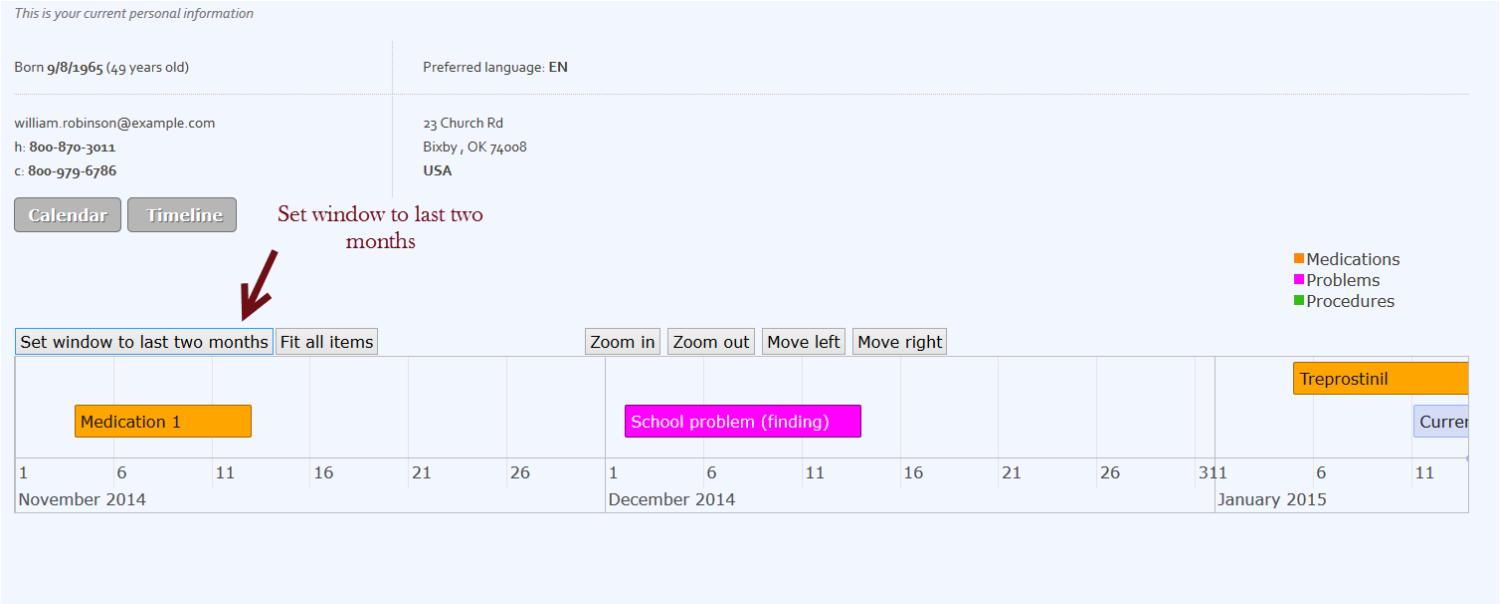


Timeline view provides same colors for each category as calendar, an identifier for current date, zoom in and out and the ability to move among dates.

Finally, as shown in picture below patient can select to fit all medications, procedures and problems in one window by selecting button ''fit all items'' and to select last two months of data.



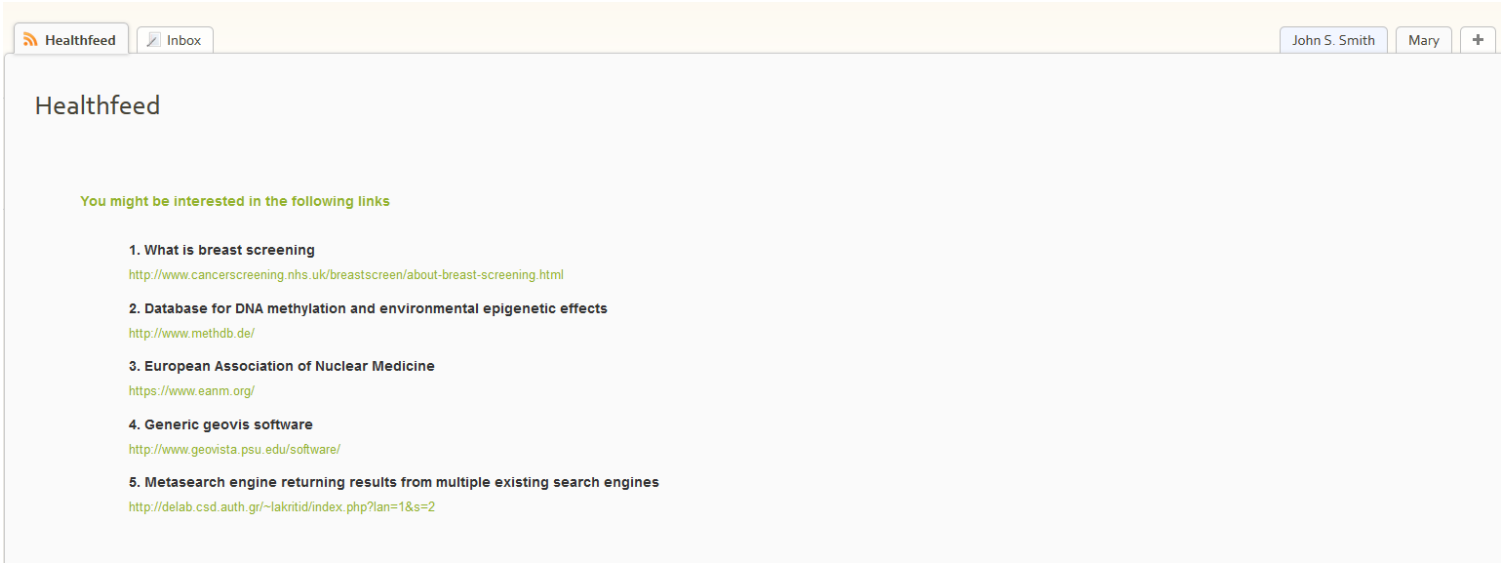
Example of selecting last two months of data is shown in picture below:



Personal Medical Information recommender

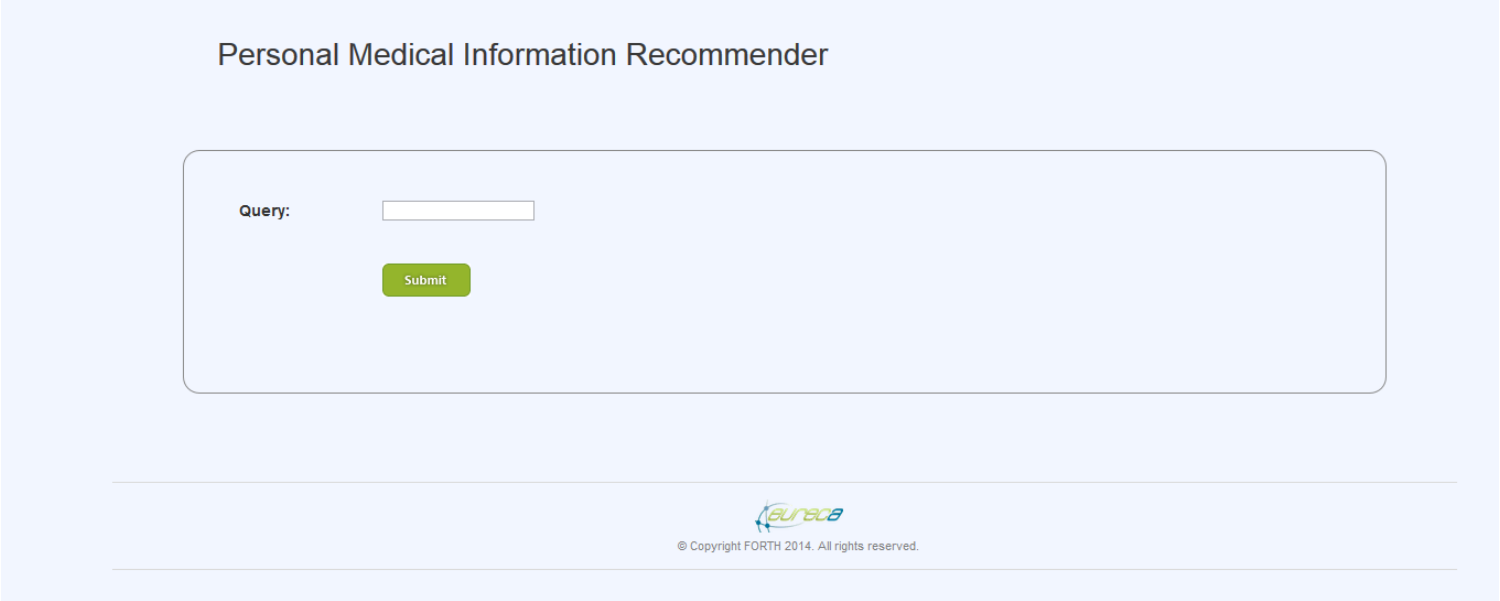
Recommended links

Healthfeed page of each patient provides five links that patient may be interested in. These are the top five links based on patient's information and patient's selection of links in semantic search. Picture below shows an example of recommended links for our sample patient.

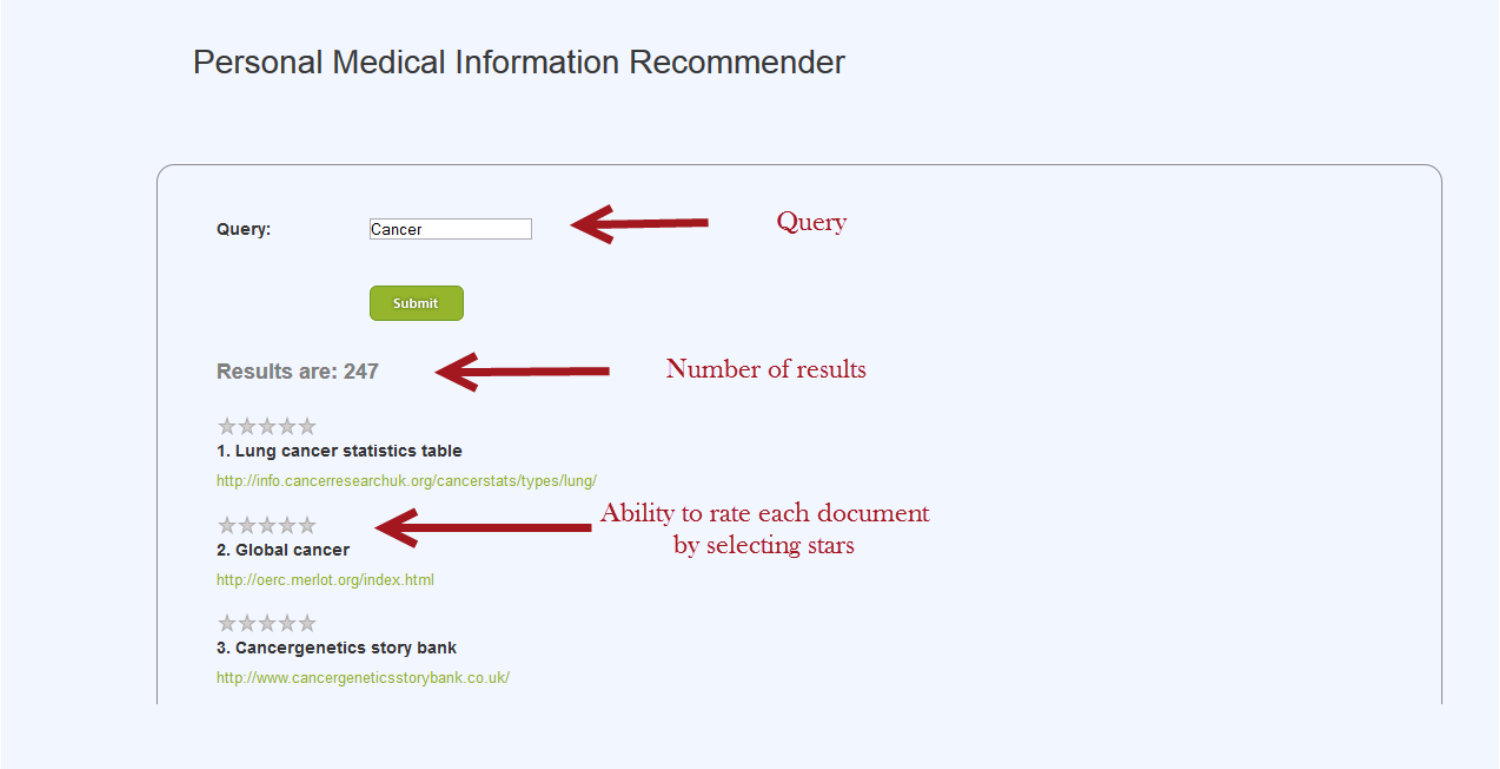


Semantic search – Recommender app

In recommender app patient can add a query and get personalized results. These results are based on patient's record information, also on links that patient had previously selected and on rankings of links of previous searches.



Patient can add a query and based on the query and previous selections of the patient a list of links is returned as result.



As shown in picture above after submitting a query patient can rank the results by selecting number of stars and can also navigate to the document by clicking the corresponding link.

Disclaimer

Indivo X Personally Controlled Health Record Privacy Statement

Introduction

The Indivo-X platform is an online system that offers users the opportunity to record, gather, edit, add to, store and share their personal health information. With the Indivo-X tools, users can control their own personal health record, including how to share their health information with third persons they choose such as their health care provider, family members or friends. More information on all the features of the Indivo-X and the service it renders can be found in the user's manual.[1] This privacy statement will inform you about the processing of your personal data within the Indivo-X system and the security measures that have been taken to protect your privacy. In addition to this privacy statement, you can also find special education tools[2] that inform you about the sensitive nature of health data and important points to consider carefully before sharing such data.

How your data will be processed

Your personal information collected through the service will be processed only to the extent that it is necessary to provide the service, and as described in this privacy statement. Your data will not be used or disclosed except as described in this privacy statement.

The location of data processing is at FORTH premises, N. Plastira 100, Heraklion, Crete, Greece.

Collection of your personal information and control

Creating an Indivo-X account is required before using the platform. To create an account, a first time user will be required to provider personal information such as your name, surname, date of birth, gender and e-mail address. Your e-mail address will be used only for the verification of your account, notification in case of change to this privacy statement and for generating a new password in case you forget the one you currently have. If you lose your account credentials you can follow the *lost password* procedure and a new password will be sent to your email. Note that this password is temporary and should be then updated at your next login to the system

You might be asked for other optional information, but it will be clearly indicated that such information is optional. You can review and update your account information at any time you choose.

[1] http://139.91.210.42/apps/procedures/static/Tutorial.pdf
[2] See the p-medicine portal, www.p-medicine.eu

You can close your Indivo-X account at any time by signing in to the service and editing your account profile. When you close your account all your personal data will be deleted according to the conditions set under "Deleting Records"

You will choose what kind of health information to put in your record. Examples of the types of information you can enter include information on:

- allergies
- lab results
- drugs
- medications,
- health history,
- health procedures or
- health problems.

For a complete overview please check the user manual where you can see all the apps provided by Indivo X, and the kind of data you can put in your record.

Other information that will be collected to help operate and improve the service refers to how you interact with our services, including the browser that you're using, your IP address, location, cookies or other unique IDs, the pages that you visit and features that you use. We combine this with other users' information to get an overall view of how the service is used.

Deleting entire record

You can delete your personal health record by signing in to your Indivo-X account and editing your record's profile. Other users that you have given any level of viewing access to your health information, will not be able to see your record any longer. After deleting your account, your information is not erased until a period of … days has passed in order to help avoid accidental or malicious removal of your health information. Afterwards, your record and the stored information will be permanently deleted.

Deleting health information

When the user moves a piece of health information to the trash, the user can either restore it or delete it permanently from there at any time. Other users with whom the deleted health information has been shared will not able to see or restore items in the recycle bin, nor can they permanently delete your health information.

Permanently deleting health information removes it from the recycle bin. Once an item has been permanently deleted, it cannot be restored. The service adds an entry in your record indicating the date and time that the deletion occurred.

Sharing your health information

The user can share health information with other users or groups called "carenets". There are three default groups (carenets): Work/School, Physicians and Family. In each of these groups, the user can add as many users as he/she desires. The user will be able to specifically pick those apps and documents stored in those apps that he/she wants to share.

When authorized by you, those persons mentioned in your carenets will only be able to view your data. They cannot change or delete information in your record.

Because of the risk to your privacy when inappropriate access is grated to your information, please consider all the consequences carefully before you grant access to any third parties.

Particularly sensitive data can be kept under special restrictions for access. The user can block his account simultaneously blocking all data access to all his/her information.

Security of your personal information

A variety of up to date security technologies and procedures have been implemented to protect your personal information against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access, in accordance with EU Directive 95/46/EC such as:

- encrypting the communication between the browser and the server;
- authentication procedures using a username and a password to receive access to the personal health record;
- comprehensive logging mechanism that ensures that all processing activities taking place within the system are logged and documented;
- replication mechanisms that ensure integrity of data combined with regular internal checks;
- appropriate backup and recovery mechanisms and
- clear and documented instructions on all authorized personnel on how to avoid security risks and breaches.

Use of cookies

Indivo-X may only use cookies to store the credentials for login purposes

Changes to this privacy statement

This privacy statement may be occasionally updated. In case of material changes to this privacy statement, you will be notified you by placing a prominent notice on the homepage of the p-medicine website and by sending you a notification directly to your email address.

Contact information

In case of any further questions or inquiries concerning this privacy statement, please contact:

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