Global Point Prevalence Survey of
Antimicrobial Consumption and Resistance

2019 IT Manual

Supported browsers for the Global-PPS program

The Global-PPS program supports the **latest versions** of the following browsers and platforms. On Windows, **we support Internet Explorer 8-11**. More specific support information is provided below.

	Chrome	Firefox	Internet Explorer	Opera	Safari
Android	Supported	Supported	N/A	Not Supported	N/A
iOS	Supported	N/A		Not Supported	Supported
Mac OS X	Supported	Supported		Supported	Supported
Windows	Supported	Supported	Supported	Supported	Not Supported

Unofficially, Bootstrap should look and behave well enough in Chromium and Chrome for Linux, Firefox for Linux, and Internet Explorer 7, though they are not officially supported. Internet Explorer 8 and 9 are also supported, however, please be aware that some CSS3 properties and HTML5 elements are not fully supported by these browsers!

Important! Use Google Chrome. This browser supports the Global-PPS very well. Chrome is freely available and easily downloadable at: https://support.google.com/chrome/answer/95346?hl=en

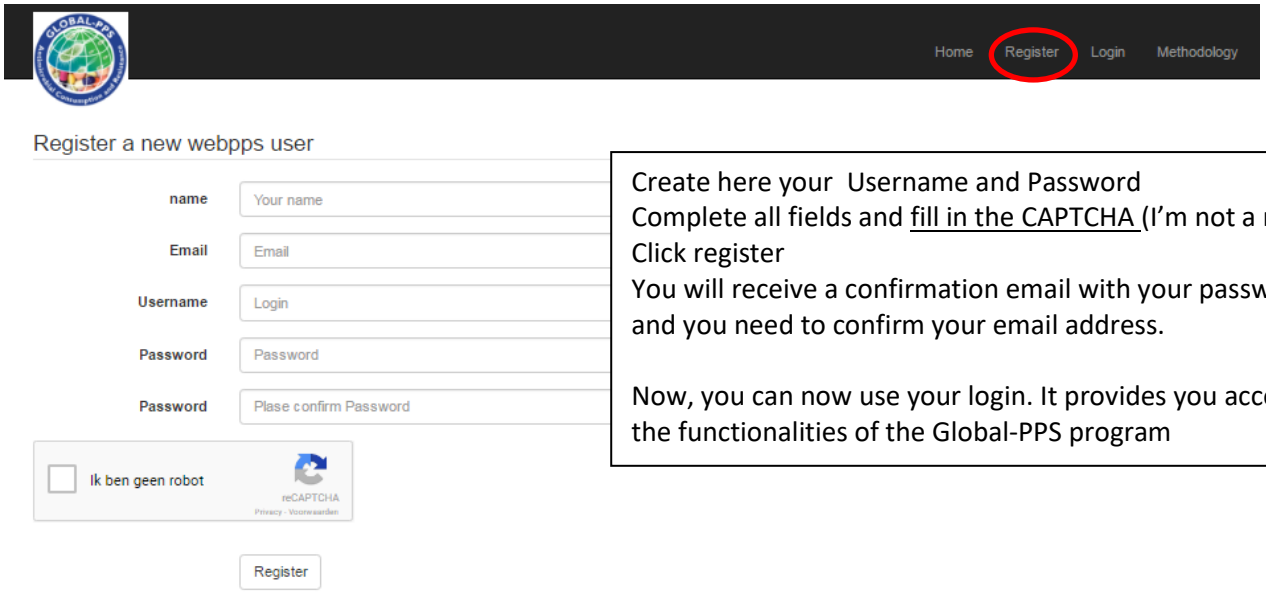
Hospitals who have participated to the pilot, the 2015, 2017 and/or the 2018 Global-PPS need to login with their existing password ! As such, you can activate a new survey using the same hospital number as the one which was attributed to you in 2014-2015-2017-2018. Only then, you will be able to download a longitudinal feedback including results on the 2014/2015/2017 and 2018 survey.

If you lost your login, please contact Ann and Ines at global-pps@uantwerpen.be

Applicable for hospitals who participate for the very first time:

Register yourself - Create your login

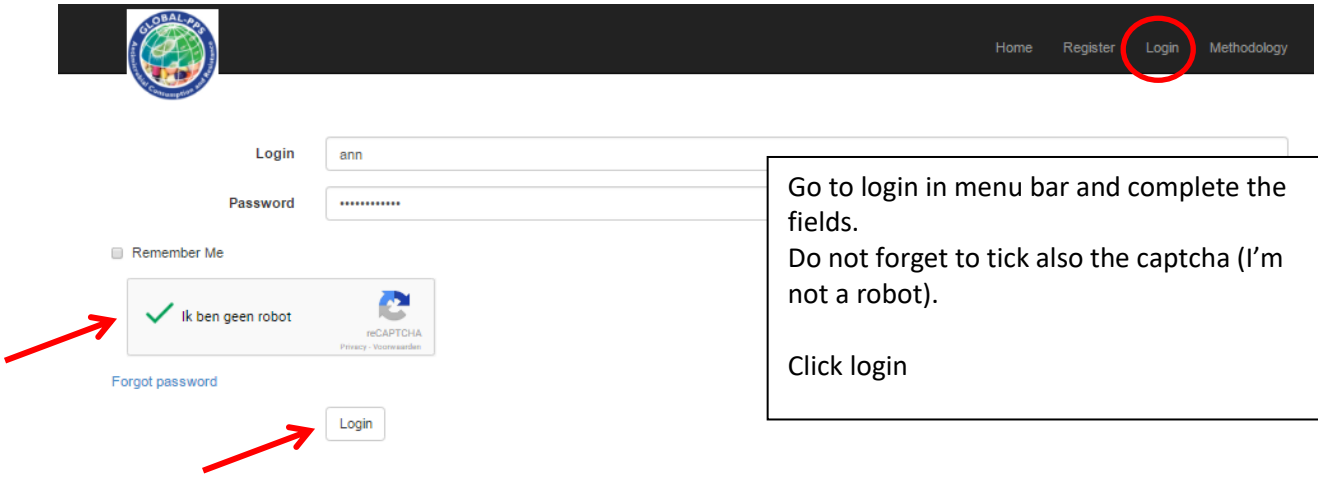
To access the Global-PPS program, go to: http://app.globalpps.uantwerpen.be/globalpps_webpps/
Go to 'Register' in the menu bar, complete all fields and click Register.



Create here your Username and Password
Complete all fields and fill in the CAPTCHA (I'm not a robot)
Click register
You will receive a confirmation email with your password and you need to confirm your email address.

Now, you can now use your login. It provides you access to the functionalities of the Global-PPS program

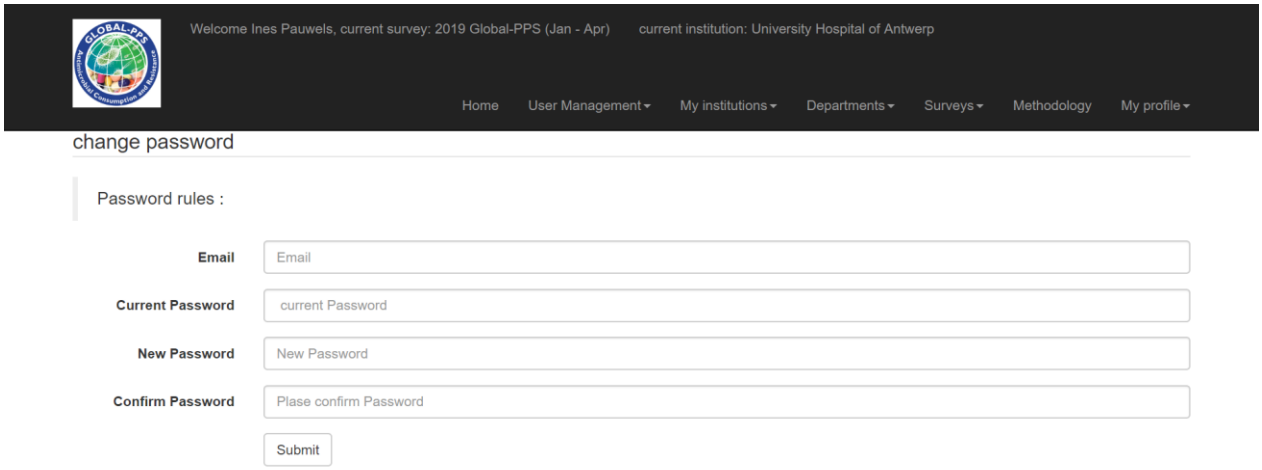
Please, do not create more than one login.
If you lost your login, please contact Global-PPS@uantwerpen.be
If you lost your password, click 'forgot password'



Go to login in menu bar and complete the fields.
Do not forget to tick also the captcha (I'm not a robot).

Click login

If you want to change your password, go, after login, to "***My profile/Change password***"



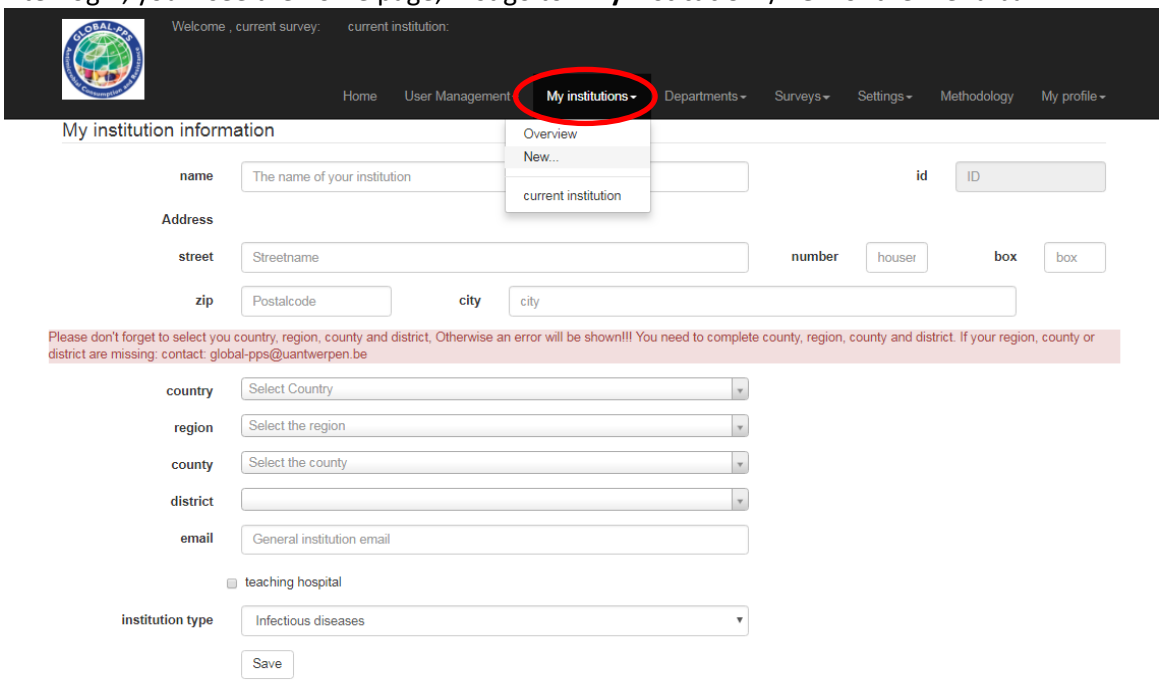
Data entry – STEP BY STEP !!

Table of Contents

1. Register the hospital on the Global-PPS website 4
   1.1 You want to enter data for multiple hospitals 4
   1.2 Add supplementary hospital users 5
2. Prepare the hospital department list 6
3. Select the appropriate survey 8
4. Complete the denominators for the departments surveyed 9
5. Complete the PATIENT DATA 10
   5.1 Enter patient data 10
   5.2 Patient data overview – Edit and delete 12
6. Export your data 13
7. Validate your data 13
8. Download the feedback report for your hospital 15
9. Logout 16

1. Register the hospital on the Global-PPS website

After login, you'll see the home page; first go to "**My Institution**"/**New** of the menu bar.

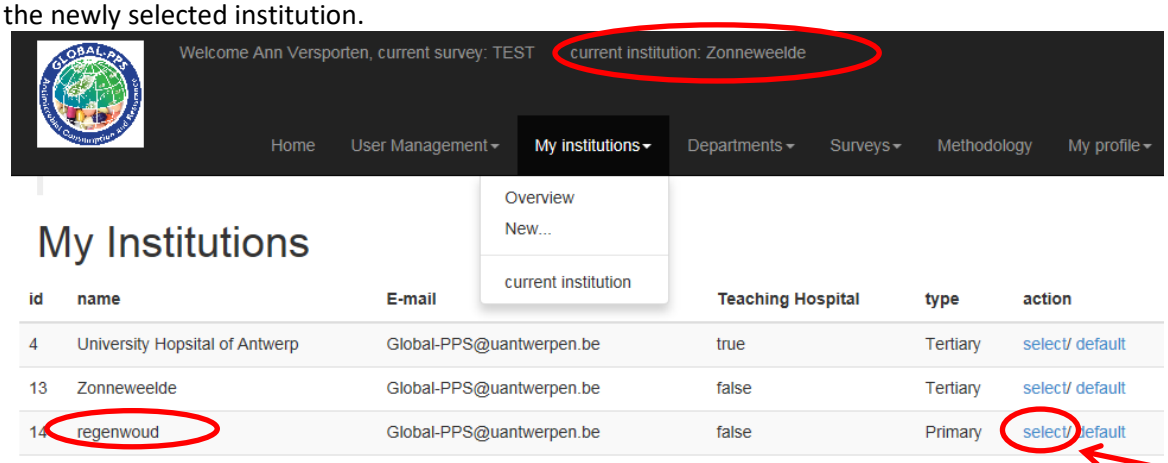


Complete ALL fields (**with exception of ID number**) and click Save. Now, an ID number for your institution has been created. This ID number is your anonymized unique hospital code.

!! If you are unable to select "region, county and district" information for your hospital, you'll need to contact Ann and Ines at Global-PPS@uantwerpen.be providing the details for these fields. For example:
Country=Canada
Region= Ontario
County= Toronto region
District=Toronto
The Global-PPS program uses the NUTS coding of classification of countries, regions, counties and districts. Information for countries outside Europe is sometimes lacking in the Global-PPS program and will be entered manually by Ann or Ines to ensure unified coding.

1.1 You want to enter data for multiple hospitals

You can complete data for as much hospitals as you like. Therefore, go to "**My institution**" and click "**New**". Complete ALL fields and click save (same procedure as above).
If you go now to **"My institution/Overview"**, you will see the new institution listed. To activate another institution click "select" under the button "action". You will than see that the current institution has changed to the newly selected institution.



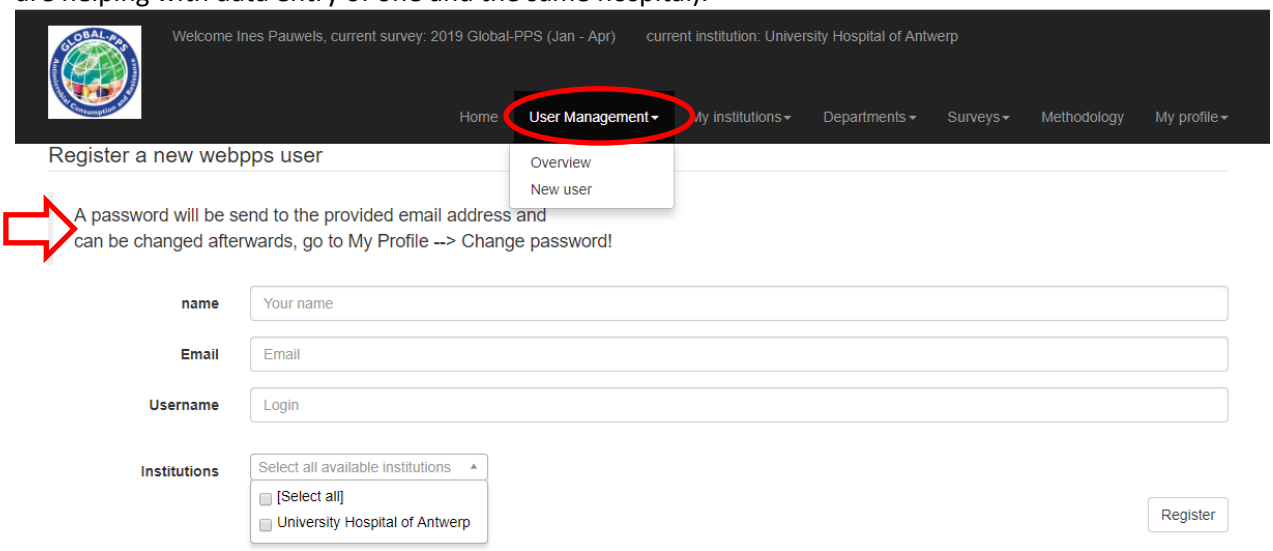
For each of the selected institutions, you are able to perform the steps as described below.

1.2 Add supplementary hospital users

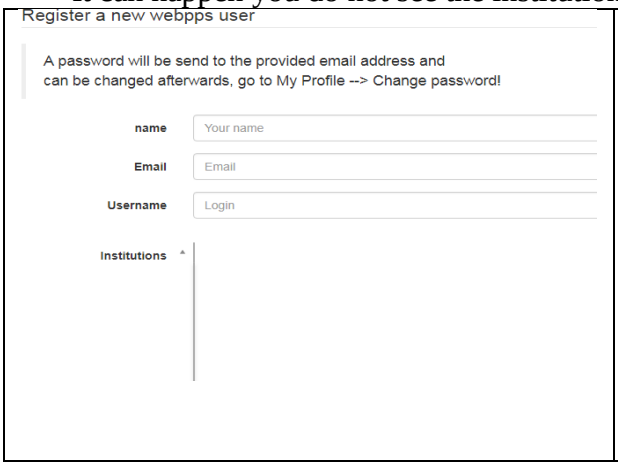
The local main administrator can assign supplementary hospital users to help him/her with data-entry and management. This feature **can only be activated by the main local administrator**; this is the first person who created the first and subsequent hospitals.
The main local administrator can e.g. be responsible for a fusion or network of several hospitals and he/she can assign supplementary users for data-entry for each or several hospitals. This aspect is particular helpful for bigger hospitals, but can serve any local administrator.

To activate this tool go to: "***User Management"/New user*** and provide the name of the new user, his/her email address and a username. Select thereafter for which institutions you wish to provide this person access to. You can e.g. provide him/her access to only one hospital or all hospitals as you like. An email will subsequently be send to this person's email address (the one you have provided) with an automatic generated password.
This supplementary user can now login with the automatic generated password and has access to all facilities of data entry of the attributed hospital (create departments, enter wards information=denominators, and enter patient data). He/she can also change his/her password. The supplementary user however is not able to create a new institution; this can only be done by the local administrator. The supplementary user will also not be able to see the institutional specifications and will subsequently not be able to change these.

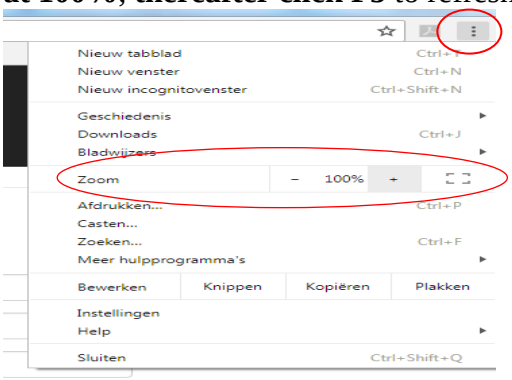
The local administrator can provide access to an unlimited number of people (e.g. three different or more people are helping with data entry of one and the same hospital).



It can happen you do not see the institutions listed:



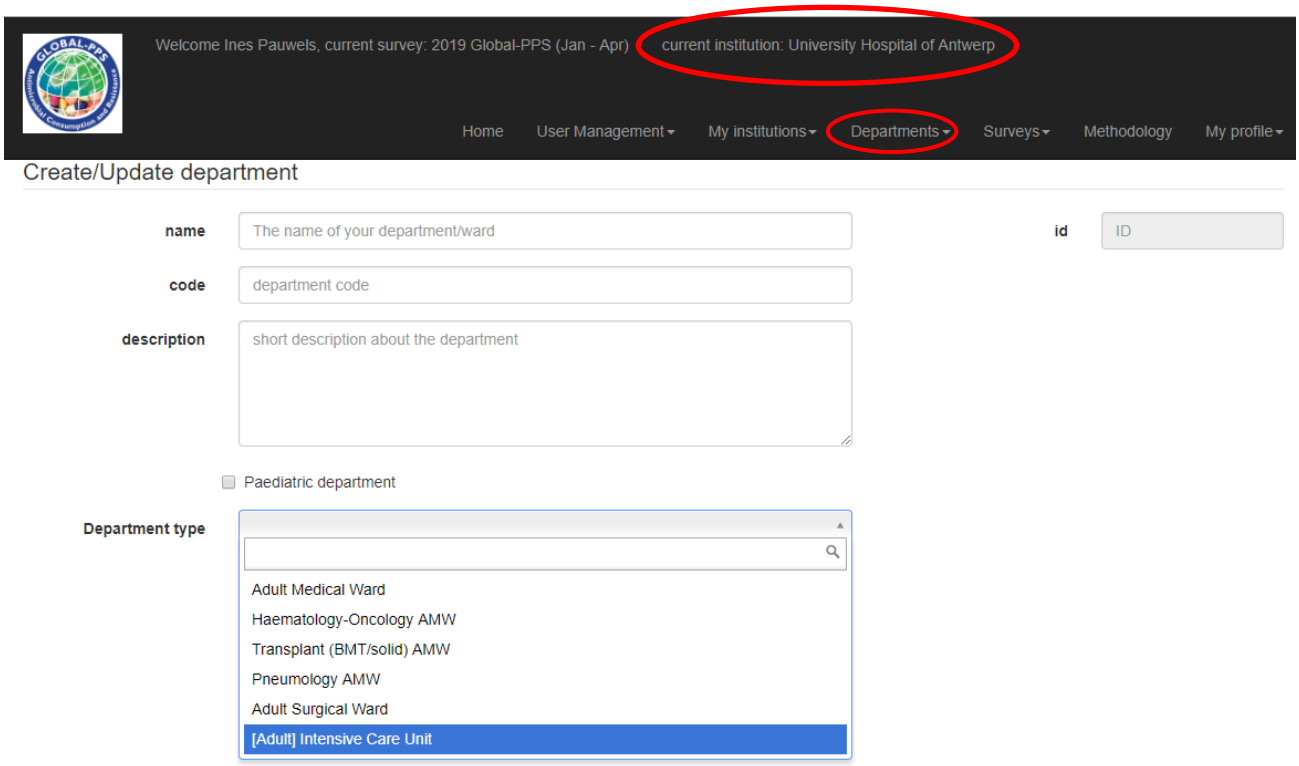
Go then to the top right of your screen and **set the zoom at 100%, thereafter click F5** to refresh the page:



2. Prepare the hospital department list.

After defining your institution(s), you are able to Create/Update departments. You first need to **define ALL eligible (! exclude day care, recovery, emergency) hospital's wards (units/departments) at institutional level!** These ward names will afterwards appear in the drop down lists when entering ward (denominators) and patient information.

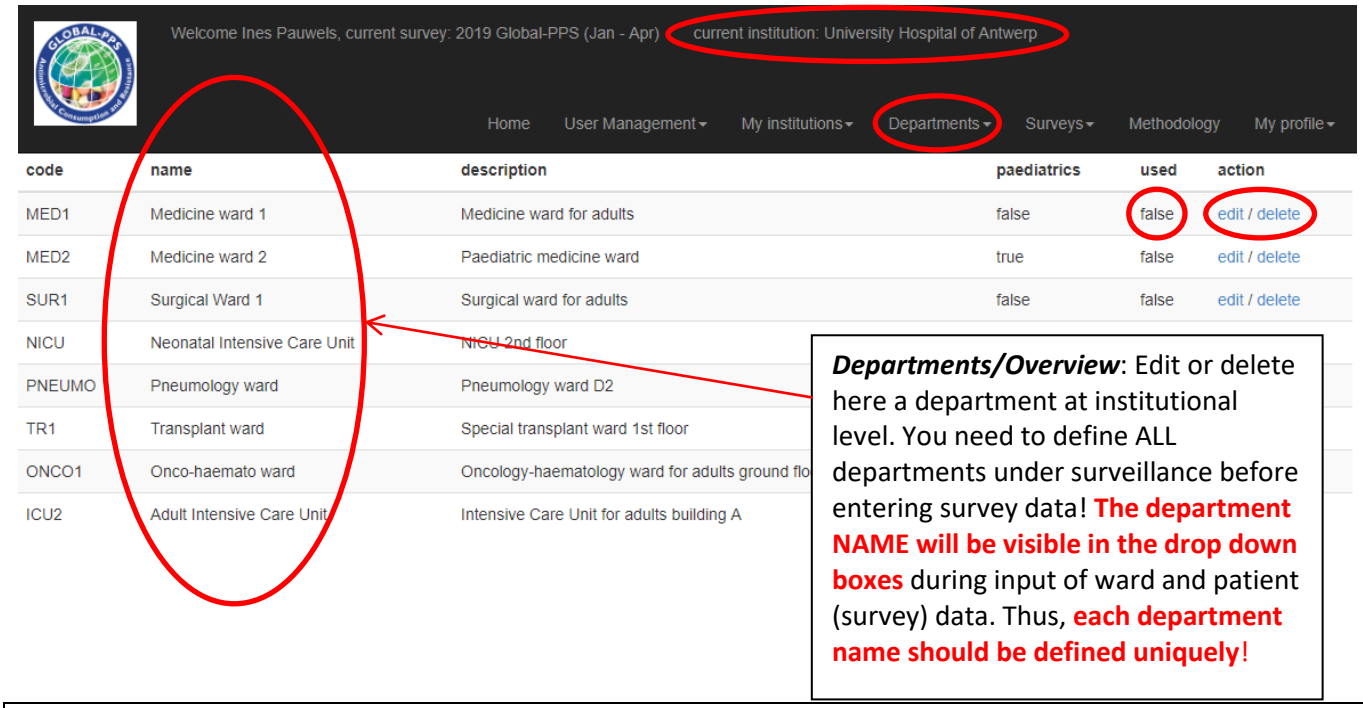
First make sure the correct institution is selected/activated (if not yet automatically done). If needed, go to ***My institutions/Overview*** and click ***select*** on the appropriate institution! **You need to see the correct institution in the black bar on top of the page, any time you want to enter data for the particular institution** (see below in a red circle).
Go now to **Departments/New**. Identify here **ALL** departments of your hospital.



The following information is needed:

- The **NAME** of the department. This field is mandatory; it will be used in the department (=ward) drop down lists in the *Global-PPS* program. Provide a recognizable ward name been used in your hospital. For example, for the category "GMW" various different wards may exist. If these wards have particular/appropriate names, write them down accordingly (e.g. Medical Ward 1 or neuro). **All** inpatient adult, paediatric and neonatal departments must be included (i.e., no hospital sampling). **Each department name need to be defined uniquely!!**
- Code and description (optional fields)
- The **TYPE** of department. Mandatory field, provided by the *Global-PPS* program. When you click paediatric department, only the paediatric and neonatal departments' types will be visible; if you do not click this field, only adult departments type will be shown in the drop down box (see above).
- After completing all fields (except ID number), click save.

To create new departments, go again to "Departments" in the menu bar and click **"New"**
You can **edit or delete a defined department** by going to **"Departments/Overview"**. Whenever you have entered survey data for these wards (you have used the department, which means you have completed denominators and patient data), you will not be able to delete this department anymore and the **field "used"** will be marked as 'true' (=before last column).



Departments/Overview: Edit or delete here a department at institutional level. You need to define ALL departments under surveillance before entering survey data! **The department NAME will be visible in the drop down boxes** during input of ward and patient (survey) data. Thus, **each department name should be defined uniquely**!

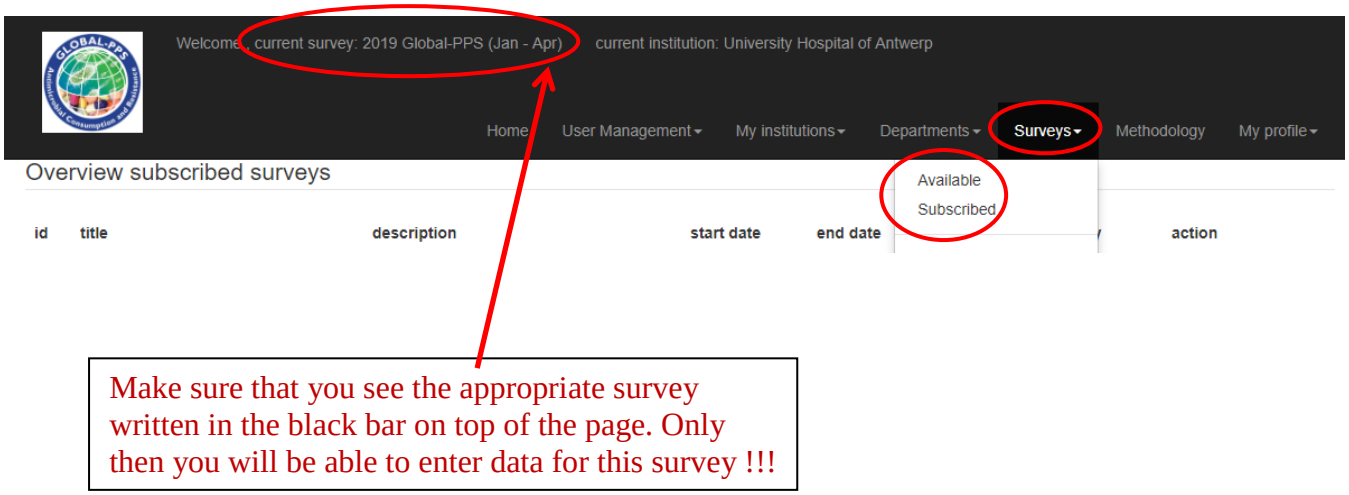
IMPORTANT: Make sure you have correctly defined your departments (correct name, code, paediatric department or not). It will not be possible again to edit your department yourself whenever you have saved your first ward and patient "survey data" for this department.

3. Select the appropriate survey

Select the appropriate survey to enable entry of survey data : there are two steps to activate the survey:

1. first go to ***Surveys/Available*** and select the appropriate survey with the name **«2019 Global-PPS (Jan-Apr) or 2019 Global-PPS (May-Aug), etc »** and ***click subscribe***.
2. ***Go thereafter to Surveys/Subscribed***, click ***select*** on **"2019 Global-PPS (Jan-Apr)"** to activate the appropriate survey for subsequent data-entry (see screenshot below). Important, do not select any other survey here, for example a test survey, otherwise your data could be entered into the wrong survey.

When the appropriate survey is activated, you will see the '**2019 Global-PPS (Jan-Apr)**' survey appearing on top of the page.



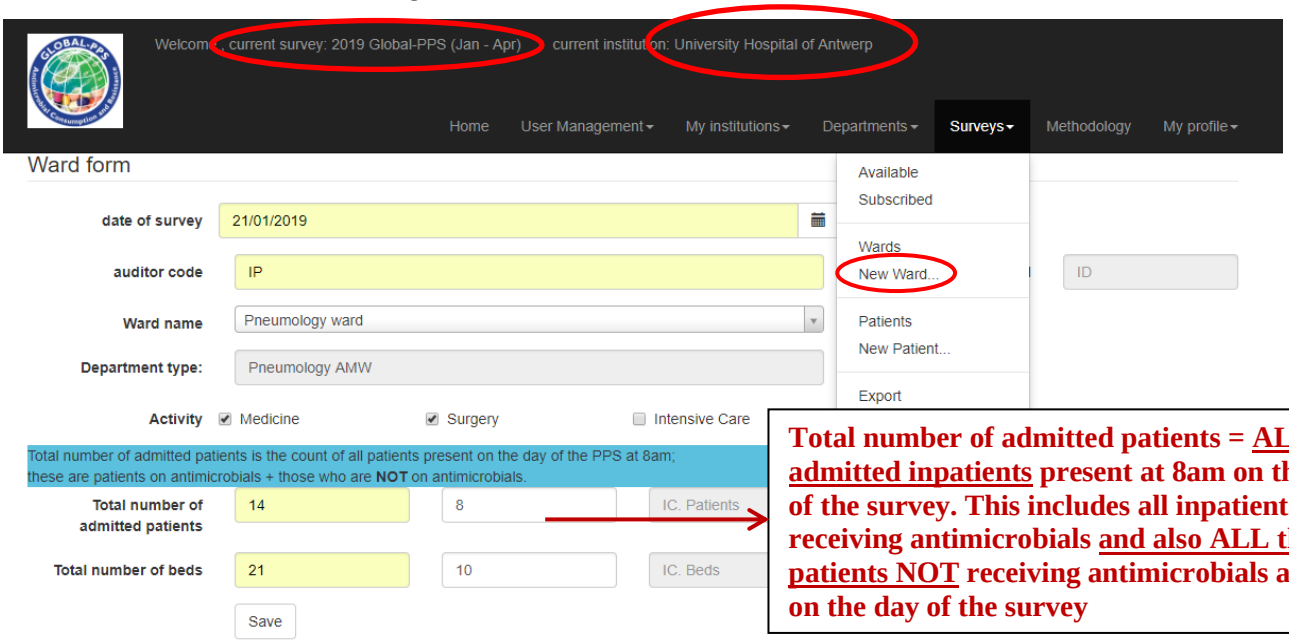
Make sure that you see the appropriate survey written in the black bar on top of the page. Only then you will be able to enter data for this survey !!!

4. Complete the denominators for the departments surveyed

First of all, make sure you enter data for the correct Institution: see '**current institution' in black bar** !!
Select the appropriate institution if you do not see the appropriate institution you want to complete data for: go to "***My institutions/overview***" and click ***select*** to activate the appropriate institution.

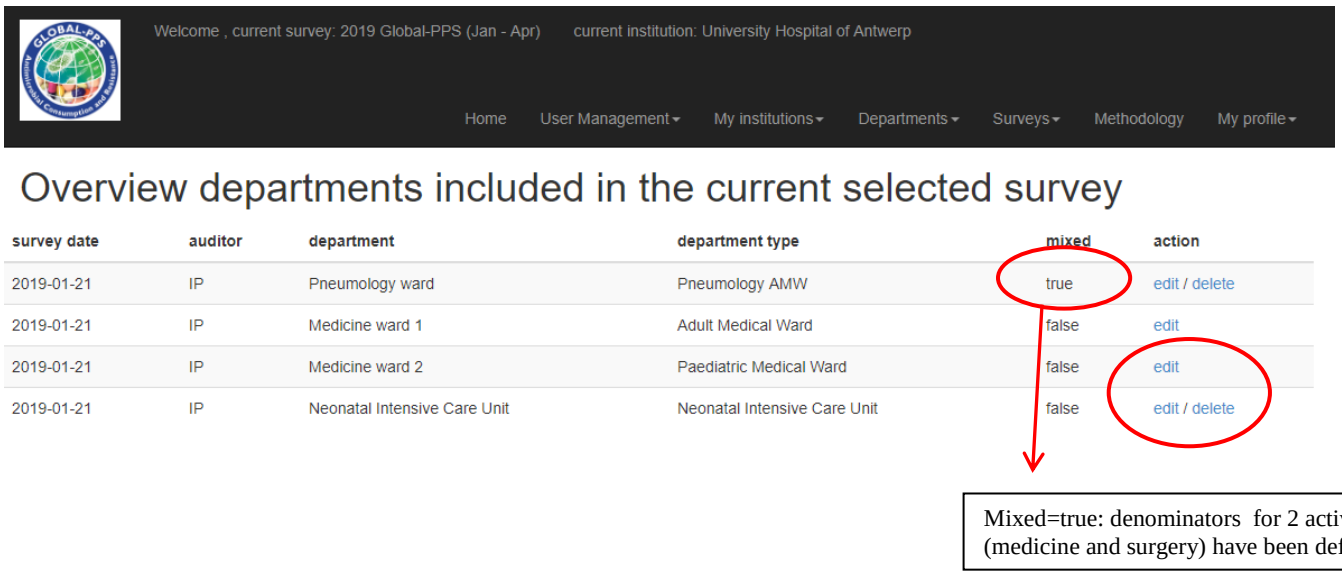
Whenever you want to enter survey data: Your "current institution" and the "appropriate survey" should both be visible in the black bar on top of the page; otherwise, you will not be able to start entering data for the appropriate institution and 2018 survey.

Start now data-entry by **first** completing the **denominators** for the departments/wards under surveillance. Therefore, go to ***Surveys/New Ward*** and complete the form for your first ward. An unique Id number will be attributed to this ward after clicking SAVE.



Total number of admitted patients = ALL admitted inpatients present at 8am on the day of the survey. This includes all inpatients receiving antimicrobials and also ALL those patients NOT receiving antimicrobials at 8am on the day of the survey

These denominators can be modified afterwards. Go to ***Surveys/Wards*** to ***edit*** denominators. You can also ***delete*** the whole ward with its denominators specified for the survey; but this is only possible if no patient information has been entered for this ward.



Mixed=true: denominators for 2 activities (medicine and surgery) have been defined

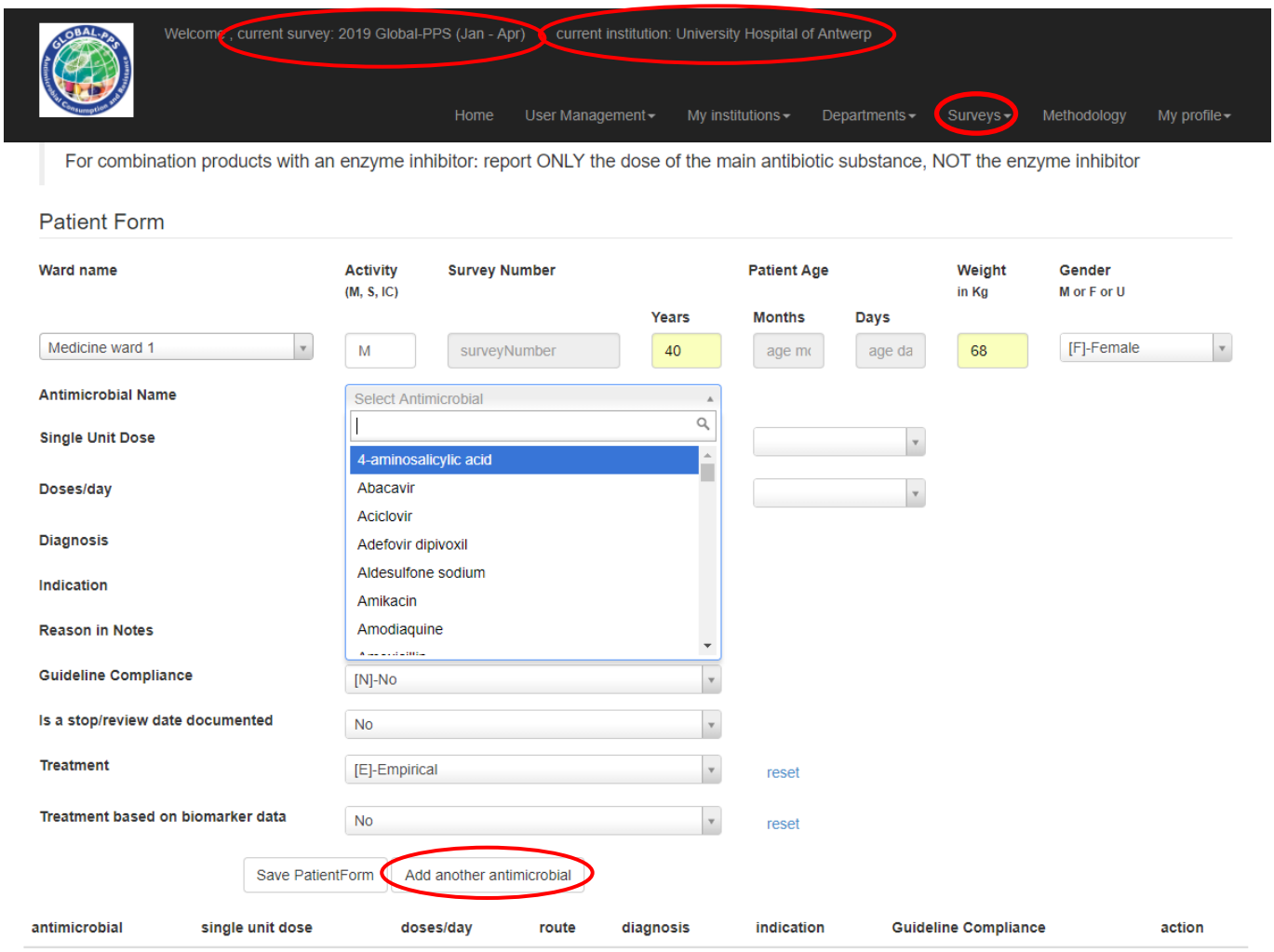
You need to complete the denominator data (=N admitted inpatients and N beds) for the wards surveyed "before" you will be able to enter patient data for the wards concerned !!

5. Complete the PATIENT DATA

5.1 Enter patient data

After data-entry of the denominators, you can start entering patient data. Go to ***Surveys/New Patient*** and start completing all fields of the form.
Several fields provide drop down boxes: click here on the arrow on the right. *Type key information in the box* to search and *select faster a certain code;* (e.g. 'amox' in the antimicrobial Name box, or 'proph' when you want to select the code concerning prophylactic use in the indication box (see below).

Data entry can be entered by clicking on the subsequent fields; but goes much faster if you use the **tab and arrow buttons**. Each time you use the tab, the next 'field you want to complete' will be selected, and with the arrow you can select the appropriate choice for your patient.



After completing ALL fields, click "***Add another antimicrobial***" to complete information for the 2de and subsequent antimicrobials the patient has been prescribed on the day of the PPS. Added information for the first and subsequent antimicrobials appears on the bottom of the page. After completing all info, click "***Save PatientForm***".

After saving the patient information, you will be given a **Surveynumber** for this particular patient.

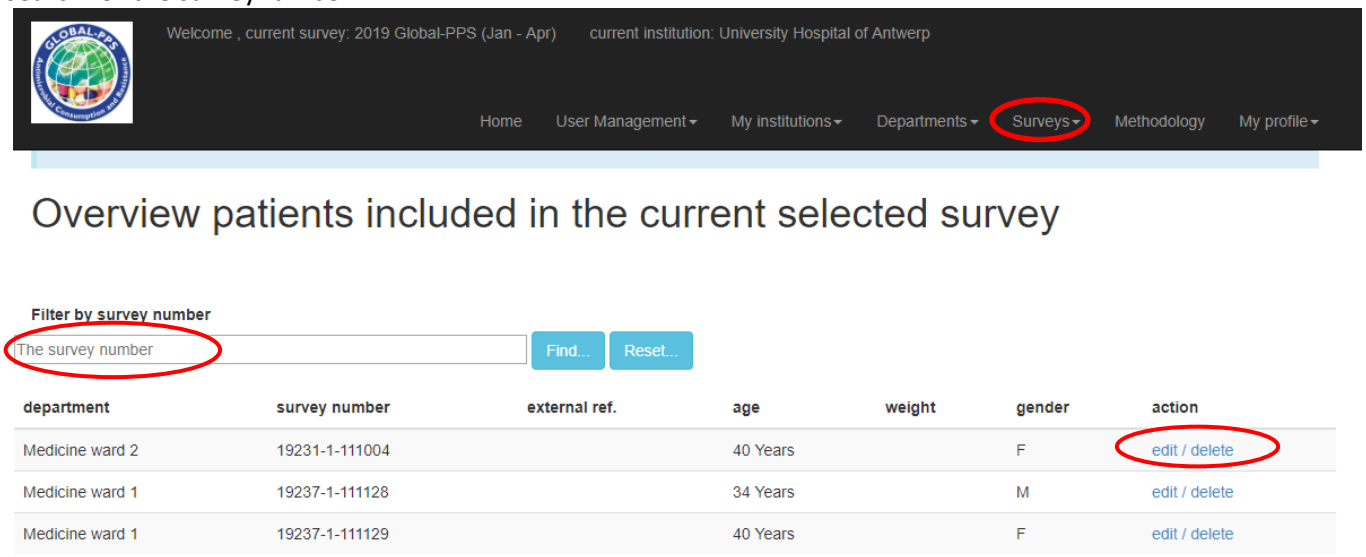
Important: Write down the Surveynumber in the appropriate field on the patient paper form (=next to patient identifier).
Click thereafter "continue" to enter data for the next patient

It is possible to enter data immediately online, without using the paper data collection forms.
This is perfectly possible on a labtop, a tablet and I-Pad. The screen of a smartphone or I-phone is a bit too small for smooth data-entry. Proceeding in this way has the advantage that one can move on faster. People entering data for the same hospital can even proceed at the same time.
BUT, you need to be aware that nearly all variables are mandatory to be entered online otherwise you can't save, first denominator and then the necessary patient data. Only the variable patient weight and those concerning biomarker data are optional.
Also, make sure you write down the patient survey number, (automatically generated by the system after saving your patient) together with the local patient identifier on any paper or file for later reference if needed. Only with the survey number, you will be able to trace you patient in your dataset ! You might need this link during the validation procedure or whenever you notice a mistake has been made and you need to go back to the patient file. Mistakes are easily made and we want to get your data correct and valid. So please do not forget to write down the link between your local patient identifier and the survey number.

Some IT-particularities you should know during patient data-entry:
It is never advised to use the **back button of the internet browser**. When using this button during data-entry, this could cause problems, instead **use the menu bottoms or the F5 button** to refresh the page. Alternatively, one can also empty the cache. When using for example Chrome, go to https://support.google.com/chrome/answer/95582?hl=en for instructions.

5.2 Patient data overview – Edit and delete

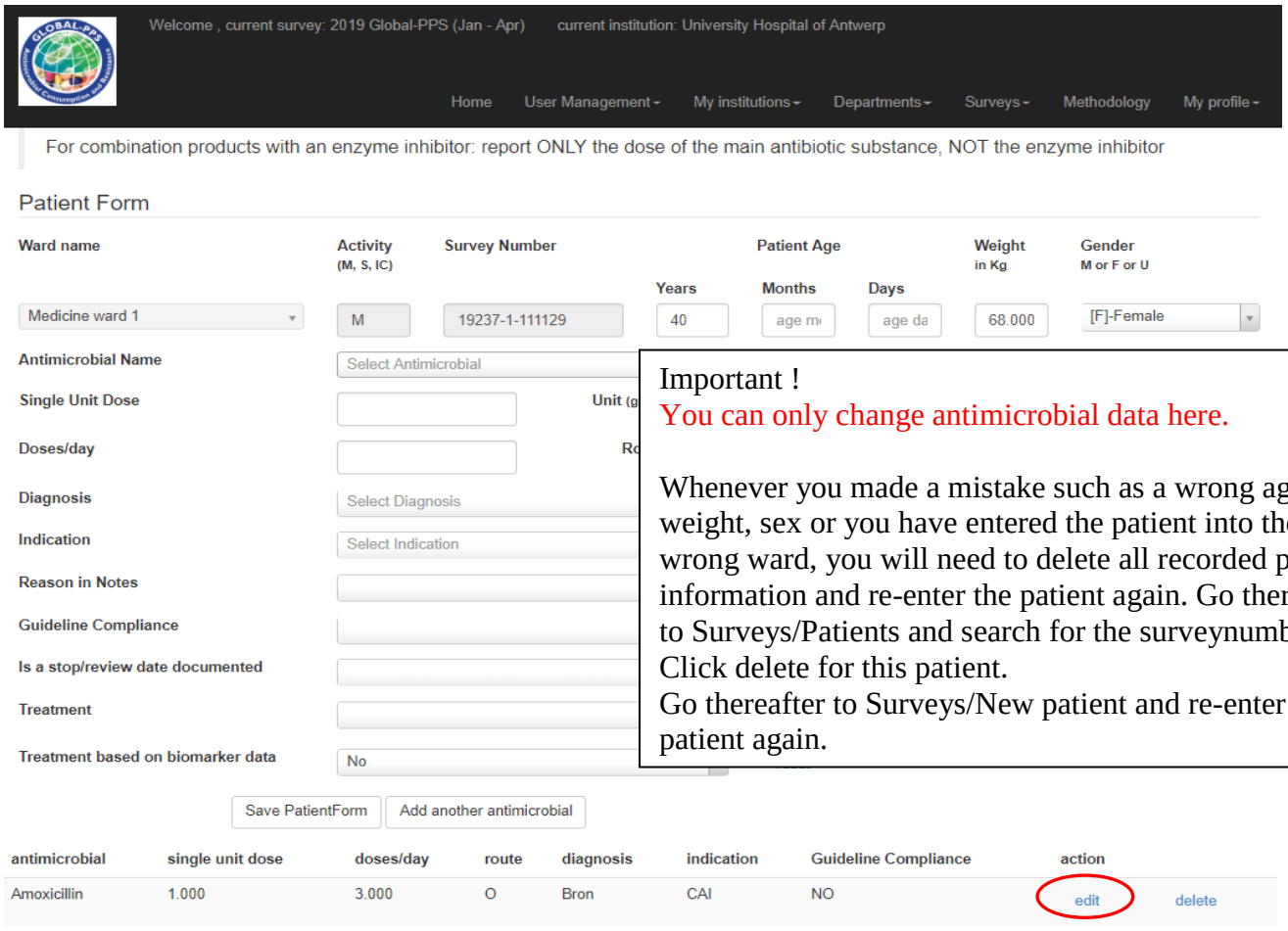
Whenever one made a mistake during data-entry, it is possible to edit the online entered patient information. Therefore, go to ***Surveys/ Patients*** to display an overview of the patients you have entered onto the database and search for the surveynumber.



You want to edit antimicrobial information:

Go to Surveys/Patients and click **edit**:

Below on the next page which is showing you all patient and antimicrobial data, **click edit again**. Change now the antimicrobial information as needed and click **"update treatment"**



Important !
You can only change antimicrobial data here.

Whenever you made a mistake such as a wrong age, weight, sex or you have entered the patient into the wrong ward, you will need to delete all recorded patient information and re-enter the patient again. Go therefore to Surveys/Patients and search for the surveynumber. Click delete for this patient.
Go thereafter to Surveys/New patient and re-enter the patient again.

You want to modify patient information

- Patient information is listed on top of the patient form (ward name, activity, patient age, weight, gender.
- If you want to change this information you will need to delete the whole patient. Go to Surveys/patients sand click on the action **"delete".**
- Re-enter the new patient: go to Surveys/New patient and re-enter the information. A **new survey number** will be displayed, write this number on your patient form instead.

You want to modify denominators of a ward

- Go to Surveys/Wards and click on the action "edit". Modify your denominators and **click Save**

6. Export your data

At any time, you can export your own data which you have completed online. This export in excel provides you an overview of all data entered. Go to "***Surveys/Export".***

The excel output provides you four worksheets:

- Survey information
- Institutional information: provides an overview of the institutions in the survey
- Overview departments: provides denominator data by ward (N admitted patients and N available beds) and also the total number of recorded patients who have received at least one antimicrobial on the day of the PPS (= treated patients)
- Patient forms: provides you detailed antimicrobial information by patient
    - **Each line(row) is one antimicrobial** ! Be aware; if two or more antimicrobials have been recorded for one single patient, you will see that all patient information (ward name, age, gender, weight, etc) is repeated for each recorded antimicrobial. This enables you to make your own pivot tables and subsequently analyse your own data.

Please **use this output to double check the data you have entered online**. Take your time to verify whether all denominators and patient data are complete and correctly entered!

7. Validate your data

To validate your survey, go to "***Surveys/Subscribed"*** and click for the appropriate survey under action "***validate***".

If there are **no issues found** you will immediately be able to validate your survey and get following message:
Your survey is validated, please complete this one question and click on 'Save as validated and completed
But, before clicking "**Save as validated and completed**", please FIRST answer the mandatory question "**did you survey all wards of the hospital"** (yes-no).

If **issues are found** the following message will be shown:
You have one or more validation issues! Please correct the issues and try again.

These issues will be displayed to you at three levels: 1) by department (number and name) providing you an overview of the issues by 2) patients (survey numbers) and their 3) recorded antimicrobials.
At antimicrobial level, two different results can be shown:

1) ERROR = you need to go back to your data and change online the recorded information before you will be able to validate the survey. These are mandatory issues which need to be solved !

For example, **errors** might concern ***missing antimicrobials***. The current validation procedure filters these patients for you, there where the antimicrobial was not saved properly. You can easily add this information online again. Proceed as follow:

- **Copy the survey number** of the patient for which an error was shown.
- **Go to "Surveys/patients"**; paste the surveynumber in the search field of your browser to search a bit faster for the patient concerned (in Google Chrome: go to 'search', paste the surveynumber and click enter)
- **Click "edit" on the patient concerned.** If you scroll down on this online patient form, you will see that no antimicrobials are listed. Complete now again all fields (=the antimicrobial information which you find on the paper data collection form) and
- Click "**save patient form"**.

2) WARNING = this information warns you that we found some 'potential' inconsistencies. Please go back to your data (excel export) to verify the recorded antimicrobial(s) for a certain patient (lookup by survey number). You can still, because of several reasons, accept the data as such, and continue to validate the survey.

Most frequent **warnings** concern ***inconsistencies between diagnostic code*** (appendix II) ***and indication code*** (appendix III). A warning will for example be given IF for a certain patient diagnostic code was recorded as "Cys", but the indication code was recorded as "SP3". The diagnostic code refers to a therapeutic treatment for an infection, while the indication SP3 refers to surgical prophylaxis. As you see, the indication does not sort with (or is not consistent with) the recorded reason to treat (diagnosis). We ask you to review these patients again. Depending on the day (and hour!) of inclusion of the patient into the survey, the indication could rather be HAI2 (or maybe the diagnostic code should be adapted to Proph UTI). Be aware, time of reference is 8am on the day of the survey!

If you want to correct this kind of information online, please follow the same procedure as described above under "errors".

Implemented validation checks include:

An **ERROR message** will be shown on following issues = which need to be corrected online:

- Count on number of treated patients should =< then count on number of admitted patient
- Double antimicrobial data entry is not allowed (check on ATC5 code)
- Patient information with missing antimicrobials
- Impossible combinations between single unit dose and unit defined as: "if "unit" = g and "single unit dose" >=8" (for example 500 g (which should be 500 mg))

A **WARNING message** will be shown for following issues = which need to be checked and eventual corrected online, though not mandatory:

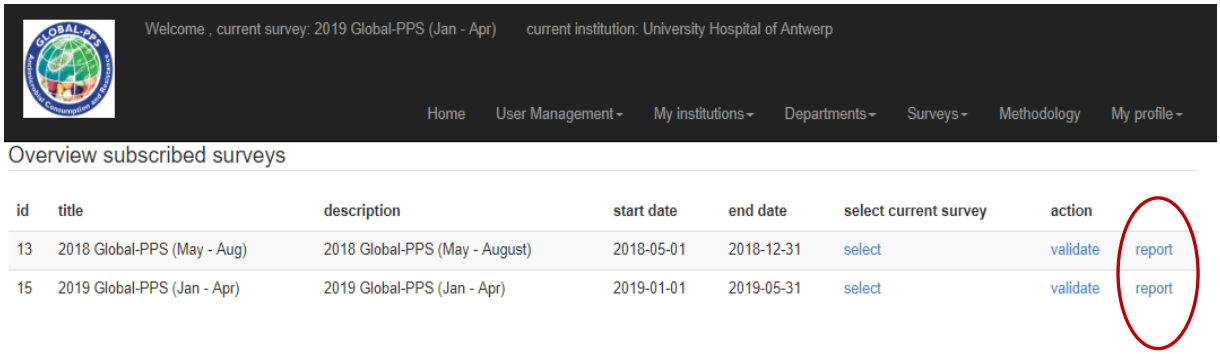
- Inconsistencies between diagnosis code and indication:
  - IF indication = prophylaxe (MP or SP1, SP2, SP2) then diagnostic code preferably should also be proph
  - IF indication= therapeutic (CAI or HAI), then diagnostic code should preferably be different from proph (for example diagnosis=Pneu and indication=SP2, MP: verify whether Proph RESP is indicated or otherwise CAI or HAI)

Other validation checks to avoid erroneously data entry are implemented online during the process of data-entry. These are checks to reassure:

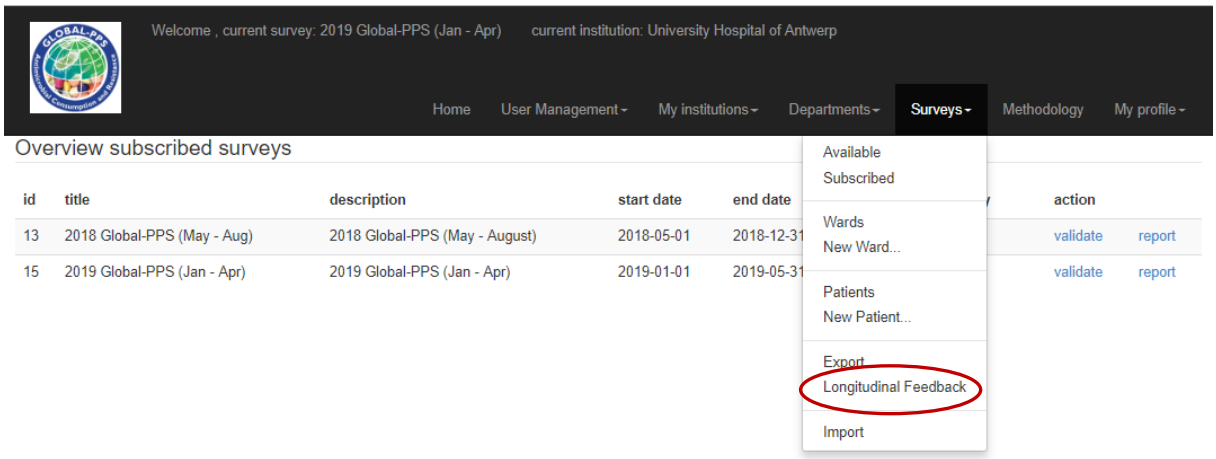
- that all mandatory data are recorded;
- that the age-field is correctly recorded as these are split up by year, month and days
- that wards are only recorded once (unique ward);
- that the number of patients admitted =< then beds available on a ward (and its activity);
- that the number of patients on antimicrobials =< as the number of patients admitted on a ward (and its activity);
- that antimicrobials (at ATC5 level) are uniquely recorded by patient.

8. Download the feedback report for your hospital

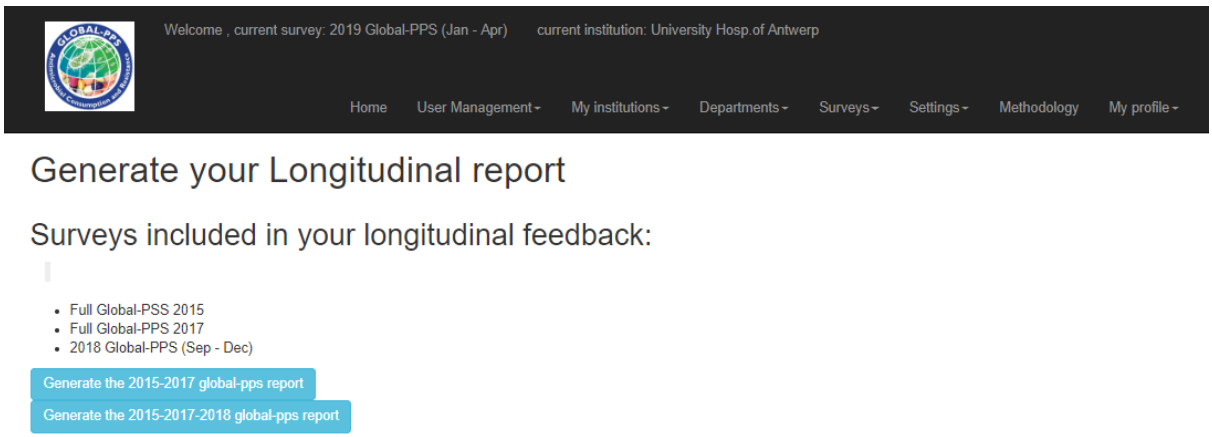
Only the local administrator can download the feedback report.
To download the year feedback, go to ***Surveys/Subscribed*** and click on ***"report"*** for the appropriate survey**.**



To download the longitudinal feedback, go to ***Surveys and click Longitudinal Feedback***



Select thereafter the surveys you wish to include into the longitudinal report



Downloading of the feedback report takes time !! The R project is used to calculate the figures for you (https://www.r-project.org/). Integrating all data of your country as well as international data takes time. So, please do not click several times on the button "report", this will decrease the capacity of the system for all of us. After a few minutes, you'll find the feedback report in your email box.

9. Logout

When finishing data-entry go to ***My profile*** and click ***Log Out***

- **Do not forget to logout** ! It is important to correctly close your session as it increases the capacity and efficiency of data-entry for all of us using the Global-PPS programme. Thank you!

Success!

For any question, remark or assistance; please contact global-PPS@uantwerpen.be