

QuanTB User's Guide







QuanTB User's Guide

Version 4.1





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The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

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CONTENTS

Introduction	1
The Challenge	1
A Solution	1
Installing QuanTB	3
Installation on a PC	3
Installation on a Macintosh	
Upgrading or Reinstalling QuanTB	
Use the same location as the old version and overwrite existing program files	
Use the same location as the old version and do not overwrite existing program files	
Use a different location for the installation	
Version Compatibility	18
Customizing QuanTB	19
Modifying the medicines list	19
Modifying the treatment regimens list	21
Changing languages	30
Starting a New Quantification	22
Opening a new quantification	
Case information	
Stock information	
Quantification Results	
Parameters tab	
Summary tab	
Medicines report tab	
Cases report tab	
Medicines detailed report tab Order and schedule tab	
Graphs tab	
Saving quantifications	
Opening saved quantifications	
Exiting the system	
Exporting Quantifications to Excel and Printing	
Export to Excel	67
Dividing and Merging a Quantification	69
Dividing a quantification	69
Merging a quantification	71
Using QuanTB as an Early Warning System	75
Regular monitoring	75
Viewing QuanTB files created by others	
Annex 1: Quantifying for Multiple Years	81

Annex 2: Quantifying for Ancillary Medicines	83
Annex 3: Quantifying for Patient Kits	85
Annex 4: Reporting an Error	87

INTRODUCTION

The Challenge

Ensuring that patients have continuous access to tuberculosis (TB) treatment requires complex projections and calculations by TB program staff. These projections are becoming more challenging as new diagnostic tools rapidly increase the number of individuals diagnosed, and thus the quantities of medicines needed. As treatment regimens change, national programs must plan carefully for phasing in and out various medicines in order to manage the risk of stock outs. Frequent quantification, along with management of stock on hand, are vital to ensuring that appropriate types and quantities of medicines are available to meet the changing needs of programs and that TB programs are alerted of potential problems with TB medicines in a timely manner.

A Solution

To promote a systems-strengthening approach to TB medicines management, the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program developed QuanTB—a downloadable, desktop tool that transforms complicated calculations into a userfriendly dashboard displaying key quantification and supply planning information. By alerting users to risks of stock outs, QuanTB operates as an early warning mechanism.

QuanTB allows you to forecast needs of tuberculosis medicines and treatment regimens for any period of time. Quantification can be done by:

- The number of enrolled and expected cases per month or by percentage of use of each medicine
- Either multidrug or single-drug regimens

For cases currently on treatment, QuanTB takes into account the month when treatment was started and the duration of regimen. The system also takes into account the medicines currently in stock (stock on hand), and the medicines on order (stock on order) during the quantification period. This tool also allows you to project your future procurement and budget needs.

You may download the QuanTB software from http://www.msh.org/resources/quantb

We would appreciate your testing of this tool under different scenarios and providing feedback, comments, and suggestions. Please send your comments to <u>quantb@msh.org</u>.

Installation on a PC

- 1. Visit the QuanTB website at http://www.msh.org/resources/quantb to request a copy of QuanTB. You will receive an e-mail with a link to download the software. Use the link in the e-mail to download and **save** the QuanTB software to your computer.
- 2. Double-click on the QuanTB.zip file to unzip it. You will get a folder called QuanTB Download.
- 3. In the QuanTB Download folder, double-click on the **QuanTBforPC.exe** file to run it. The **Language Selection** screen will appear:



Figure 1

4. In this example, English was selected. Click **OK** to continue. The following screen appears:

IzPack - Installation of quantb	
version 4.1.0.1	_
QuantB Tuberculosis Medicines Quantification Tool	
Copyright © 2012 Management Sciences for Health, Inc. All rights reserved. Developed by MSH	
(Made with IzPack - http://izpack.org/)	ext Quit

Figure 2

5. Click **Next** to continue then read the license agreement that appears. You must accept the terms of the agreement to continue the installation, as shown in the screen below.

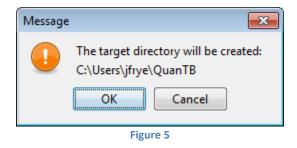
TzPack - Installation of quantb	
Please read the following license agreement carefully:	
End User License Agreement for e-TB Manager	▲ Ⅲ
e-TB Manager [©] SOFTWARE LICENSE	
READ THE TERMS AND CONDITIONS OF THIS e-TB Manager [©] SOFTWARE LICENS AGREEMENT ("EULA") CAREFULLY BEFORE DOWNLOADING, INSTALLING, OR U e-TB Manager [©] SOFTWARE PROGRAM, THE SOURCE CODE, TOOLS, AND RELATE DOCUMENTATION ("PRODUCT"). YOU MAY USE THE PRODUCT ONLY ON THE C THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS EULA. IF YOU DO D AGREE TO THE TERMS AND CONDITIONS OF THIS EULA, DO NOT DOWNLOAD, OR USE THE PRODUCT. BY ACCESSING AND USING ANY PART OF THIS PRODUC AGREE TO BE BOUND BY THE TERMS OF THIS EULA I do not accept the terms of this license agreement. (Made with IzPack - http://izpack.org/)	JSING THE ED CONDITION NOT INSTALL,

Figure 3

6. Enter an installation path for the software, as shown on the screen below and then click **Next**. We recommend accepting the default path that the program suggests.

S IzPack - Installation of quantb	
Select the installation path:	
c:\Users\ifrye\QuanTB	Browse
(Made with IzPack - http://izpack.org/)	Previous Next Quit
	Act Quit
Figure 4	

7. The program will confirm the installation directory it will create. Click **OK** to continue.



8. Select the packs you want to install. We recommend installing all of them. The greyed options are required, so you cannot unselect them. QuanTB comes with pre-populated lists of medicines and regimens standardized by the Global Drug Facility (GDF) and the World Health Organization (WHO) in the dictionary folder. QuanTB also has some "fictitious" quantifications for training/exercise purposes in the documents folder. If you have already installed QuanTB on your computer with customized lists of medicines and regimens or saved quantifications, your information will be overwritten if a new version is installed and the boxes are checked during the installation.

If you are reinstalling the software after customizing the medicines, regimens, or quantifications, please read the Upgrading or Reinstalling QuanTB section of this manual to learn how to protect your existing medicines and regimens lists. If this is the first time you are installing QuanTB, we recommend keeping all of the boxes checked. Click **Next** to continue.

TzPack - Installation of quantb	
Select the packs you want to install: Note: Grayed packs are required.	
Dictionaries	37.48 KB
Documents	165.14 KB
✓ Libraries	28.95 MB
. QuanTB	1.62 MB
Description Dictionaries: regimens, medicines	
Total space Required:	31 MB
Available space:	119.34 GB
(Made with IzPack - http://izpack.org/)	Previous Next Quit
Figure 6	

9. If you already have QuanTB installed in the same location and the dictionary and document boxes are checked, the system will warn you that you will overwrite files. An example for one of the files is shown below. Select No if you want to keep previously modified drug lists and/or treatment regimens. See the section on Upgrading or Reinstalling QuanTB for more information.

File alrea	ady exists - med_dictionary.xml	
?	The following file already exists. Should it be over	written?C:\Users\jfrye\QuanTB\data\med_dictionary.xml
	Yes	No
	Figure 7	

10. The software will display its installation progress, as shown on the screen below. Click **Next** to continue.

IzPack - Installation of quantb	
Pack installation progress:	
[Finished]	
Overall installation progress:	
5/5	
(Made with IzPack - http://izpack.org/)	
	Previous Next Quit
Figure 8	

11. Choose which shortcuts you want the program to create for you, then click **Next**:

IzPack - Installation of quantb	
Setup Shortcuts Create shortcuts in the Start-Menu Create additional shortcuts on the desktop Accessories Administrative Tools Dell Maintenance Management Science for Health MWSnap Startup (Made with IzPack - http://izpack.org/)	create shortcut for:
	Previous Next Quit
Figur	e 9

12. A screen confirming a successful installation will appear next.

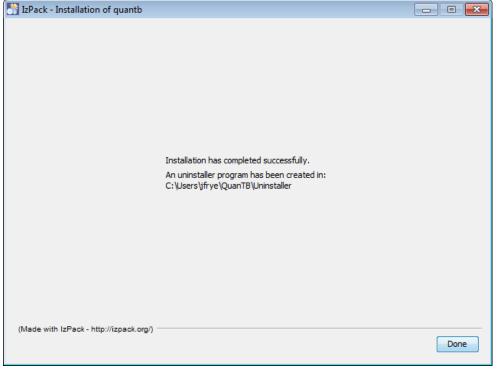
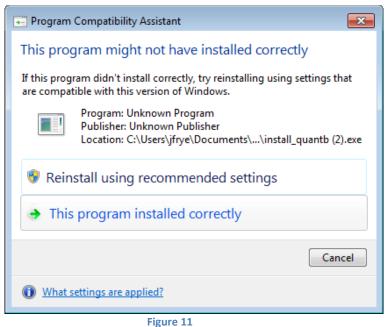


Figure 10

Depending on your version of Windows, you may get a Program Compatibility Assistant message after the installation (shown below). You should click the "This program installed correctly" option.



Note: As with any software, you should back up your data on a regular basis. If you used the default installation options, the medicines and regimens lists are stored in C:\Users\yourname\QuanTB\data. Your quantification files are stored in C:\Users\yourname\QuanTB\data.

This user's guide is available electronically through the **Help** menu option in the software.

Installation on a Macintosh

- 1. Visit the QuanTB website at http://www.msh.org/resources/quantb to request a copy of QuanTB. You will receive an e-mail with a link to download the software. Use the link in the e-mail to download and **save** the QuanTB software to your computer.
- 2. To install QuanTB on a Macintosh, you must have the latest version of Java and the JDK (Java Development Kit) installed on your Mac. Go to <u>www.java.com</u> to download updates if necessary. Your computer will prompt you to install the software if it is necessary.
- 3. Double-click on the QuanTB.zip file to unzip it. You will get a folder called QuanTB Download.
- 4. In the QuanTB Download folder, double-click on the **QuanTBforMacintosh.jar** file to run it.
- 5. If you downloaded the installation file from the Web, you may need to bypass the Mac Gatekeeper software to run the install. Do this by holding down the **Control** key and clicking the **QuanTBforMacintosh.jar** file. Then click **Open** on the menu that appears and **Open** on the popup window to begin the installation.
- 6. The Language Selection screen will appear:

\varTheta 🔿 🔿 Language Selection
Please select your language below
eng 🗘
ОК
Figure 12

7. Select your desired language and click **OK** to continue. The following screen appears:

6		
	🚺 QuanTB	
	Tuberculosis Medicines Quantification 1	Tool
A DEC		/
	FROM THE AMERICAN PEOPLE SIAPS	ci i
Copy	vright © 2012 Management Sciences for Health, Inc. All rights reserve Developed by MSH	d.
	Developed by Mort	
with IzPack - http:	//izpack.org/)	_

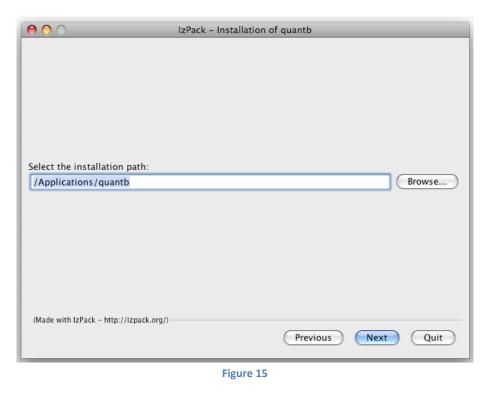
Figure 13

8. Click **Next** to continue then read the license agreement that appears. You must accept the terms of the agreement to continue the installation, as shown in the screen below.

0 0	IzPack – Installation of quantb
Please read the following	license agreement carefully:
	End User License Agreement for QuanTB
QuanTB [®] SOFTWARE LICENSI	E
AGREEMENT ("EULA") THE QuanTB [©] SOFTWA DOCUMENTATION ("PR CONDITION THAT YOU DO NOT AGREE TO TH	CONDITIONS OF THIS QuanTB [©] SOFTWARE LICENSE CAREFULLY BEFORE DOWNLOADING, INSTALLING, OR USING RE PROGRAM, THE SOURCE CODE, TOOLS, AND RELATED ODUCT"). YOU MAY USE THE PRODUCT ONLY ON THE ACCEPT ALL OF THE TERMS CONTAINED IN THIS EULA. IF YOU E TERMS AND CONDITIONS OF THIS EULA, DO NOT DOWNLOAD, PRODUCT. BY ACCESSING AND USING ANY PART OF THIS
• I accept the terms of	f this license agreement.
○ I do not accept the t	erms of this license agreement.
(Made with IzPack - http://izp	Previous Next Quit

Figure 14

9. Enter an installation path for the software, as shown on the screen below and then click **Next**. We recommend accepting the Applications default path that the program suggests.



10. The program will confirm the installation directory it will create. Click **OK** to continue.



11. Select the packs you want to install. We recommend installing all of them. The greyed options are required, so you cannot unselect them. QuanTB comes with pre-populated lists of medicines and regimens standardized by the GDF and WHO (in the dictionary folder) and some "fictitious" quantifications for training/exercise purposes (in the documents folder. If you are reinstalling the software after customizing the medicines, regimens, or quantifications, please read the Upgrading or Reinstalling QuanTB section of this manual to learn how to protect your existing medicines and regimens lists.

If you are reinstalling the software after customizing the medicines, regimens, or quantifications, we recommend that you uncheck the documents and dictionary boxes to preserve your existing files. If this is the first time you are installing QuanTB, we recommend keeping the boxes checked. Click **Next** to continue.

0 0	IzPack – Installation of quantb	
Select the packs you want to inst Note: Grayed packs are required.		
 Dictionaries Documents Libraries QuanTB 		30.28 KB 237.52 KB 5.89 MB 778.86 KB
Description Dictionaries: regimens, medicin	es	
Total space Required: Available space: (Made with IzPack – http://izpack.org/)	Previous Next	7.03 MB 3.26 GB Quit

Figure 17

If you already have QuanTB installed in the same location, the system will warn you that you will overwrite files. Select No if you want to keep previously modified drug lists and/or treatment regimens.

-	O O IzPack - Installation of quantb
00	Warning!
	naring.
\bigcirc	The directory already exists! Are you sure you want to install here and possibly overwrite existing files
	The directory aready exists: Are you sure you want to instail here and possibly overwrite existing mes
	No
	(Made with IzPack - http://izpack.org/)
	(Made with IzPack - http://izpack.org/) Previous Next Quit

12. The software will display its installation progress, as shown on the screen below. Click **Next** to continue.

🔴 🔿 🕥 IzPa	ack – Installation of quantb
Pack installation progress:	
-	[Finished]
	[FINISHED]
Overall installation progress:	5 / 5
(Made with IzPack - http://izpack.org/)	
(made time in the action of the provide states of the stat	Previous Next Quit
	Circeious Cuit
	Figure 19

13. A screen confirming a successful installation will appear next. Click **Done** to complete the installation process.

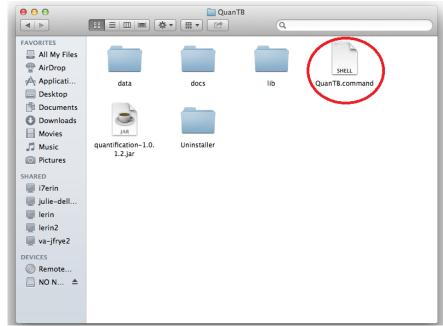


Figure 20

14. To run the program, go to Applications and double click on the QuanTB folder.



15. When the folder opens, double click on the **QuanTB.command** file to launch QuanTB.





Note: As with any software, you should back up your data on a regular basis. If you used the default installation options, the medicines and regimens lists are stored in C:\Users\yourname\QuanTB\data. Your quantification files are stored in C:\Users\yourname \QuanTB\docs.

This user's guide is available electronically through the **Help** menu option in the software.

Upgrading or Reinstalling QuanTB

If you are upgrading or reinstalling QuanTB after modifying the medicines and/or regimens lists, you need to take steps to ensure that you do not overwrite your data and lose your work. As a precaution before reinstallation, go to the location where your QuanTB files are saved and copy the DATA folder and save it in a different location. If you make a mistake during the reinstallation and overwrite your medicines or regimens lists, you can replace the new data files with your old files to restore your customized lists.

When upgrading or reinstalling QuanTB, you have three options during the installation:

- Use the same location as the old version and overwrite existing program files.
- Use the same location as the old version and do not overwrite existing program files.
- Use a different location for the installation and do not affect your original installation at all.

The program files of QuanTB are defined as the medicines and regimens lists, the quantification examples (i.e., the "Fictitia" files), and the software itself.

Use the same location as the old version and overwrite existing program files

If you use all of the default options in the installation program, QuanTB will alert you that files already exist and will ask if it should overwrite the old versions. If you accept, your previous QuanTB medicines lists and treatment regimens files will be replaced with new versions. If you have modified the medicines list or treatment regimens in the old version, your work will be lost once the files are replaced with the new versions.

Note: If you have created and saved quantification files with your own names, these are not overwritten, even if you reinstall in the same location as the old version and allow QuanTB to overwrite all existing files. QuanTB only overwrites the files that are distributed as part of the standard installation, i.e., the quantification examples, the medicines and regimens lists, and, of course, the software itself.

Use the same location as the old version and do not overwrite existing program files When you are running the installation program, uncheck the dictionaries box (Figure 6) to preserve your information. Your medicines list and regimens list will not be changed by reinstalling the software.

If you leave the documents box checked, QuanTB will ask you whether you want to overwrite the quantification examples (i.e., the "Fictitia" files) that were included in your original version of the software. If you have not modified these examples, it is fine to overwrite them. Any quantification files that you have created with your own names are not affected by the reinstallation.

Note: When upgrading from QuanTB version 1.0, you must update your existing medicines and regimens lists if you do not overwrite them with the files provided with the new software.

- For the medicines list, go to each medicine and select the dosage form from the new dropdown list.
- For the regimens list, go to each regimen and click on the Composition link to auto-generate the composition.

Use a different location for the installation

If you change the default installation path (shown in Figure 4) to a different location than you used previously, you are creating a new copy of QuanTB on your computer. You can have multiple copies of QuanTB on your computer in different locations, for example if you want to do quantifications for different countries. In this case, you must leave the document and dictionary boxes checked because the program requires the folders and files to run.

Note: QuanTB must find a data folder with files named med_dictionary.xml and reg_dictionary.xml in it (e.g., C:\Users*yourname*\QuanTB\data) to run with full functionality. If that folder or files are missing, you can open and run quantifications and change the numbers of cases in them, but you can't access the regimens or medicines through the File menu. You can delete medicines and regimens from quantifications, but you can't add or edit them.

Version Compatibility

If you create a treatment regimen with three or more phases in QuanTB version 2.0.0 (or later), then try to open that regimen dictionary file (or a quantification using it) in a previous version of QuanTB, it will NOT work properly because information will be lost. This is because earlier versions of the software only recognize treatment regimens with two phases or fewer. For this reason, we recommend that all current users upgrade to version 4.0 (or later), which recognizes all treatment regimens and quantifications, regardless of which version was used to create them.

CUSTOMIZING QuanTB

Double-click the QuanTB icon or filename on your computer to start the software. Before you start using QuanTB, you need to customize the tool for specific country settings, e.g., adding new medicines or regimens to the system.

The opening screen summarizes the steps you need to take. You can click the option at the bottom of the screen to display or hide this text.

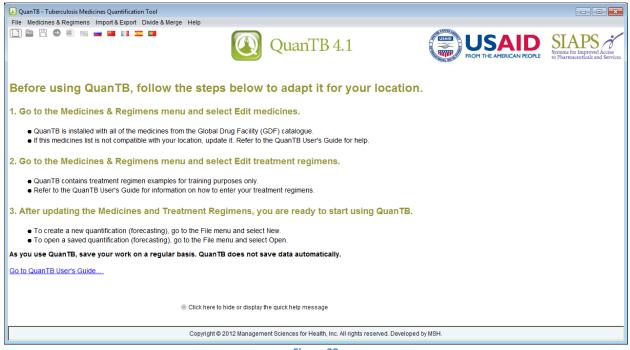


Figure 23

Modifying the medicines list

1. Go to Medicines & Regimens menu and select the Edit medicines menu option.

🕘 Quan	B - Tuberculosis Medicines Quantification Tool		
File M	dicines & Regimens Import & Export Divide & Merge Help		
E	it treadment regimens d from quantification	FROM THE AMERICAN PEOPLE	SIAPS of Improved Access by Pharmaceuticals and Services
Befo	re using QuanTB, follow the steps below to adapt it for your location		
1. Go	to the Medicines & Regimens menu and select Edit medicines.		
	QuanTB is installed with all of the medicines from the Global Drug Facility (GDF) catalogue. I this medicines list is not compatible with your location, update it. Refer to the QuanTB User's Guide for help.		
2. Go	to the Medicines & Regimens menu and select Edit treatment regimens.		
	QuanTB contains treatment regimen examples for training purposes only. Refer to the QuanTB User's Guide for information on how to enter your treatment regimens.		
3. Aft	r updating the Medicines and Treatment Regimens, you are ready to start using QuanTB.		
	To create a new quantification (forecasting), go to the File menu and select New. To open a saved quantification (forecasting), go to the File menu and select Open.		
As you	use QuanTB, save your work on a regular basis. QuanTB does not save data automatically.		
<u>Go to C</u>	anTB User's Guide		
	Click here to hide or display the quick help message		
	Copyright © 2012 Management Sciences for Health, Inc. All rights reserved. Develope	i by MSH.	

Figure 24

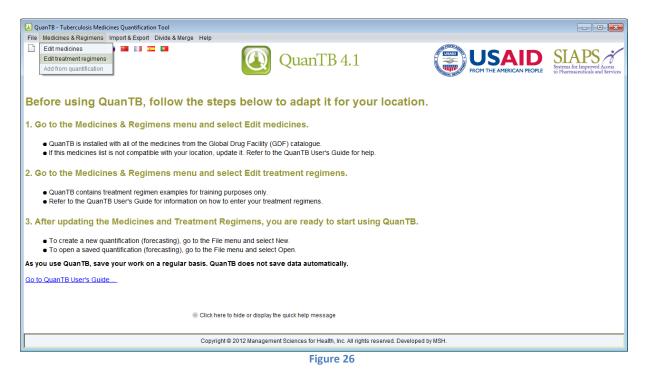
2. QuanTB is installed with all of the medicines from the Global Drug Facility (GDF) catalogue. To add medicines on this list, click on the **New** button. In the **New medicine** dialog box that appears, enter the international nonproprietary name (INN), abbreviated name, strength, and select the dosage form and type from the dropdowns. If you select "Other" you can enter information in the field below the dosage form. The type is "Adult first line," "second line injectable," etc. and is selected from the dropdown window. Click on the **Save** button to confirm your new medicine or click on **Cancel** to undo it.

Medicines						8
	New	Edit Delete T	ype of medicine: -		 ~	
Abbreviated name	International Nonpro	New medicine		—	 Type of medicine	
Am(500)	Amikacin				Second-Line Injectable	^
Am(500/2)	Amikacin	International Nonproprietary	Name (INN)		Second-Line Injectable	
Amx/Clv(250/125)	Amoxicillin + Clavular				D3-Second-Line Add-On	
Amx/Clv(500/125)	Amoxicillin + Clavular	Abbreviated name			D3-Second-Line Add-On	
Amx/Clv(875/125)	Amoxicillin + Clavular				D3-Second-Line Add-On	
Bdq(100)	Bedaquiline	Strength			D2-Second-Line Add-On	
Cfz(100)	Clofazimine				Other Core Second-Line	
Cfz(50)	Clofazimine	Dosage form	Not Applicable	*	Other Core Second-Line	
Clr(250)	Clarithromycin				D3-Second-Line Add-On	
Clr(500)	Clarithromycin				D3-Second-Line Add-On	
Cm(1000)	Capreomycin	Туре	-	*	Second-Line Injectable	
Cm(500)	Capreomycin				Second-Line Injectable	
Cm(750)	Capreomycin				Second-Line Injectable	
Cs(250)	Cycloserine				Other Core Second-Line	
DIm(50)	Delamanid	Save Cancel			D2-Second-Line Add-On	
E(100)	Ethambutol	100mg		Film coated tablet(s)	Pediatric First-Line/D1-Second-Line Add	
E(200)	Ethombutol	200mg		Film opoted toblet(a)	Dadiatria First Lina/D4 Cassad Lina Add	~
					Close	
		F	igure 25			

If you try to create a new medicine with (or edit an existing medicine to have) the exact same name, abbreviated name, strength, and dosage form of an existing medicine, QuanTB will not permit it. Any difference in any of these fields, including capitalization, dots, or spaces will be understood by QuanTB as a different medicine and you will be permitted to save the item. Be careful not to create duplicates. 3. To change or delete medicines on the list, click on the medicine you want to modify and the **Edit** and **Delete** buttons will be enabled. Click on the buttons and follow instructions in the respective dialog boxes that appear. If you modify a medicine that has been used in a regimen, you must delete it from the regimen and re-add it so that the updated information appears in the regimen.

Modifying the treatment regimens list

1. Go to **Medicines & Regimens** menu and select the **Edit Treatment regimens** menu option.



2. The tool already contains treatment regimens **for training purposes only**. To create a regimen, select Multidrug or Single Drug in the dropdown window, and then click on the **New** button.

Note: When creating or selecting regimens, please remember that in QuanTB, quantification can be done either by regimens, or by percent of use of each medicine. Thus, two types of regimens can be created depending on how you want to quantify: multidrug regimens for quantification by regimens, or single-drug regimens for quantification by percent of use of each medicine. The steps below describe multidrug regimens first, then single-drug regimens. The term "single-drug regimen" is used for convenience, to distinguish it from multidrug regimens.

Treatment regimen	LICAID SA	x
New Duplicate Edit Delete	Type of regimen: Multidrug	
Treatment Regimen	Composition	
Adult FL New Treatment (56-70Kg): 2(RHZE)/4(RH)	2RHZE(150/75/400/275)/4RH(150/75)	
Adult FL Re-treatment (56-70kg): 2S(RHZE)/1(RHZE)/5(RHE)	2S(1000)RHZE(150/75/400/275)S&N-5/21Gx1.5 and Safety Box WFI(5)/1RHZE(150/75/400/275)/5RHE(150/75/275)	
Longer MDR-TB Regimen 1: (weight 56-70kg)	8Cm(1000)Cs(250)Lfx(250)Pto(250)S&N-5/21Gx1.5 and Safety Box WFI(5)Z(500)/14Cs(250)Lfx(250)Pto(250)S&N-5/21Gx1.5 and	
Longer MDR-TB Regimen 2: (weight 56-70kg)	8Km(1000/4)Eto(250)Lfx(250)PAS(Na)S&N-5/21Gx1.5 and Safety Box WFI(5)Z(500)/14Eto(250)Lfx(250)PAS(Na)S&N-5/21Gx1.5 a	
Pediatric FL New Treatment (11-14kg): 2(RHZ)E/4(RH)	2E(100)RHZ(60/30/150)/4RH(60/30)	1
Pediatric FL New Treatment (NEW Regimen):(12-15kg) 2(RHZ)E/4(RH)	2E(100)RHZ(75/50/150)/4RH(75/50)	
	Close]

Figure 27

NOTE: If you want to number your treatment regimens, you should use a leading 0 with the numbers 1 through 9 (e.g., 01, 02, 03), so that they will appear in the correct order. If you don't use a leading 0 and you have more than nine regimens, the numbers 10 and higher will appear in the wrong order.

3. In the **New Treatment Regimen** dialog box that appears, enter information in the Name field. The Composition field will be automatically completed by the software, based on the medicines you enter. You may modify it after the regimen is created, if you wish. You may add up to 10 phases for each regimen and have a duration of weeks or months for each phase.

In the Phase 1 window that appears when you create a new treatment regimen, click on the **Add Medicine** button. In the list of medicines that appears, select the medicines you want to add to the regimen by clicking the checkbox(es), and click on the **Save** button to confirm or **Cancel** to undo it. Use the dropdown window to set the **Duration** by choosing a number and weeks or months.

For each medicine in the phase, click in the appropriate column to enter the **Units per Day** and **Days per Week**.

If you have more than one phase for this regimen, click the **Add phase** button. Repeat the process described above by clicking on the **Add Medicine** button in the Phase 2 window. Another option is to copy the previous phase by clicking on a phase, then clicking the **Copy previous** button. When you click this button, the system copies information from the immediate previous phase of the one that is selected and replaces all existing information in the selected phase. For example, if there are 3 phases and the second is selected (i.e., opened), the system will copy data from the first phase. This resource can be useful when the same medicines have been used in more than one phase.

Note: Because there is an average of 4.3 weeks per month, the quantities required for a regimen defined in weeks will differ from a regimen defined in months. The difference increases with the length of the regimen and can be surprising, if you are assuming that 4 weeks equals one month. Four weeks does not equal one month, because four weeks is 28 days and one month is 30 or 31 days.

ame MDR-T	B Regimen 1: weight 56-70 kg		Multidrug		
omposition					
		ſ	Add phase Copy previous	Delete phase	
ase 1					
			p		
ration 0 🗘 months 🗸			Add medicine Dele	ete medicine	
			Units	Days	
	Medicine		per	per	
			Day	Week	
ct medicines					
ect medicines	and the second se		-		
ect medicines		Т	ype of medicine:	×	
ct medicines	International Nonproprietary Name (INN)	T: Strength	ype of medicine:	Type of medicine	
Abbreviated name	International Nonproprietary Name (INN) Amikacin		C	Type of medicine Second-Line Injectable	
Abbreviated name		Strength	Dosage form		
Abbreviated name	Amikacin	Strength 500mg	Dosage form Powder for injection	Second-Line Injectable	
Abbreviated name Am(500) Am(500/2)	Amikacin Amikacin	Strength 500mg 500mg/2ml	Dosage form Powder for injection Solution for injection	Second-Line Injectable Second-Line Injectable	
Abbreviated name] Am(500)] Am(500/2)] Am://Clv(250/125)	Amikacin Amikacin Amoxicillin + Clavulanic acid	Strength 500mg 500mg/2ml 250mg+125mg	Dosage form Powder for injection Solution for injection Film coated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On	
Abbreviated name Am(500) Am(500/2) Amv(CV(250/125) Amv(CV(500/125)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid	Strength 500mg 500mg/2ml 250mg+125mg 500mg+125mg	Dosage form Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On	
Abbreviated name Am(500) Am(500/2) AmvClv(250/125) AmvClv(500/125) AmvClv(875/125) Bdq(100)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate	Strength 500mg 500mg/2ml 250mg+125mg 500mg+125mg 875mg+125mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On	
Abbreviated name Am(500) Am(500/2) Amx/Clv(250/125) Amx/Clv(500/125) Amx/Clv(875/125) Bdq(100)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline	Strength 500mg 500mg+125mg 500mg+125mg 600mg+125mg 875mg+125mg 100mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On D2-Second-Line Add-On	
Abbreviated name Am(500) Am(500/2) Amv/CV(250/125) Amv/CV(250/125) Amv/CV(875/125) Bdq(100) Cfz(100)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline Clofazimine	Strength 500mg 500mg/2ml 250mg+125mg 600mg+125mg 875mg+125mg 100mg 100mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s) Film uncoated tablet(s) Capsule(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On D2-Second-Line Add-On Other Core Second-Line	
Abbreviated name Am(500) Am(500/2) Amx/Clv(250/125) Amx/Clv(875/125) Amx/Clv(875/125) Bdq(100) Ctz(100) Ctz(50) Ctr(250)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline Clofazimine Clofazimine	Strength 500mg 500mg/2ml 250mg+125mg 500mg+125mg 875mg+125mg 100mg 50mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s) Capsule(s) Capsule(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On D2-Second-Line Add-On Other Core Second-Line Other Core Second-Line	
Abbreviated name Am(500) AmrK0k/(500/125) Amx/Clv(850/125) Amx/Clv(875/125) Bdq(100) Cfz(50) Clr(250) Clr(500)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline Clofazimine Clofazimine Clarithromycin Clarithromycin	Strength 500mg 500mg/2ml 250mg+125mg 500mg+125mg 100mg 100mg 50mg 250mg 500mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s) Capsule(s) Capsule(s) Film coated tablet(s) Film coated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On Other Core Second-Line Other Core Second-Line Other Core Second-Line Other	
Am(500) Am(500/2) AmvClv(250/125) AmvClv(875/125) Bdq(100) Ctz(100) Ctz(50) Ctr(50) Ctr(50) Ctr(500) Cm(1000)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline Clofazimine Clofazimine Clarithromycin Clarithromycin Capreomycin	Strength 500mg 500mg/2ml 250mg+125mg 500mg+125mg 100mg 100mg 500mg 250mg 500mg 100mg 500mg 500mg 100mg 500mg 250mg 1000mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s) Capsule(s) Capsule(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On Other Core Second-Line Other Core Second-Line Other Other Second-Line Injectable	
Abbreviated name Am(500) Am(500/2) Amw2(Vk(250/125) Amw2(Vk(250/125) Amw2(Vk(250/125) Bdq(100) Ctz(100) Ctz(50) Ctr(250) Ctr(250) Ctr(250) Ctr(000) Ctm(1000)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline Clofazimine Clofazimine Clarithromycin Clarithromycin Clarithromycin Capreomycin Capreomycin	Strength 500mg 500mg/2ml 250mg+125mg 600mg+125mg 875mg+125mg 100mg 500mg 250mg 500mg 100mg 500mg 250mg 500mg 500mg 500mg 500mg	Dosage form Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s) Capsule(s) Capsule(s) Film coated tablet(s) Powder for injection Powder for injection	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On D2-Second-Line Add-On Other Core Second-Line Other Core Second-Line Other Other Second-Line Injectable Second-Line Injectable	
Abbreviated name Am(500) Am(500/2) Amv/Clv(250/125) Amv/Clv(50/125) Amv/Clv(75/125) Bdq(100) Ctz(50) Ctz(50) Clr(500) Ctr(100)	Amikacin Amikacin Amoxicillin + Clavulanic acid Amoxicillin + Clavulanic acid Amoxicillin + Potassium clavulanate Bedaquiline Clofazimine Clofazimine Clarithromycin Clarithromycin Capreomycin	Strength 500mg 500mg/2ml 250mg+125mg 500mg+125mg 100mg 100mg 500mg 250mg 500mg 100mg 500mg 500mg 100mg 500mg 250mg 1000mg	Powder for injection Solution for injection Film coated tablet(s) Film coated tablet(s) Film uncoated tablet(s) Capsule(s) Capsule(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Second-Line Injectable Second-Line Injectable D3-Second-Line Add-On D3-Second-Line Add-On D3-Second-Line Add-On Other Core Second-Line Other Core Second-Line Other Other Second-Line Injectable	



4. After adding medicines in the relevant number of phases and entering information on the **Units per Day**, **Duration** (weeks or months), and **Days per Week** fields, click on the **Save** button to confirm or **Cancel** to undo it. Only whole numbers can be entered for these fields. The software will fill out the **Composition** field for you, based on the information you enter, but you may modify it if you wish.

The first number in the Composition field displays the number of months of the first phase of the regimen. Any time there is a change in the number of months for a medicine (e.g., when changing to the continuation phase), the software will insert a "/" to divide the description. The first number after the "/" displays the number of months for the next phase. The abbreviated names of the medicines (with their strength in parentheses) follow the numbers of months. When a medicine has a duration of weeks, the weeks are converted to months in the Composition field.

Note: In keeping with international standards, we require that all medicines in a phase have the same duration.

New treatment regimen			- ×
Name	MDR-RB Regimen 1 (weight 51-70 kg)	Aultidrug	
Composition	8Cs(250)Lfx(500)Pto(250)/14Cs(250)Lfx(250)Pto(250)Z(400)		
	Add phase Copy pre		elete phase
Phase 1 Phase 2			
Duration 14 🗘 mor	Add medicine	Delet	e medicine
		Units	Days
	Medicine	per Day	per Week
Cycloserine 250mg Ca		3	6
Levofloxacin 250mg Fi Protionamide 250mg		3	6
Pyrazinamide 400mg F		4	6 \$
Save			Cancel

Figure 29

5. To modify recorded treatment regimens, select one regimen you want to change and click on the **Edit** button. In the Edit treatment regimen screen that appears (below), you can replace, delete or add medicines to an existing regimen.

Edit treatment regimen					×
Luit treatment regimen					
Name	MDR-TB Regimen 1 (weight 51-70kg)		M	ultidrug	
Composition	8Cm(1000)Cs(250)Lfx(250)Pto(250)Z(500)/14Cs(250)Lfx(250)Pto(250)Z(500)				
		Add pha	se Copy prev	ious De	lete phase
Phase 1 Phase 2					
Duration 8 🗘 mon	ths 🗸	[Add medicine	Delete	medicine
				Units	Days
	Medicine			per Day	per Week
Capreomycin 1000mg	Powder for injection			1	6
Cycloserine 250mg Ca				3	6
Levofloxacin 250mg Fil	m coated tablet(s)			3	6
Protionamide 250mg F	Film coated tablet(s)			3	6
Pyrazinamide 500mg F	ilm uncoated tablet(s)			4	6
Save				[Cancel



6. To add a new medicine, click on the **Add medicine** button. In the **Selected Medicines** dialog box that appears, choose the medicine(s) and click on the **Save** button to confirm or **Cancel** to undo it. If necessary, repeat the process for medicines you want to add in other phases.

Figure 31

7. To delete a medicine, click on it and then click on the **Delete Medicine** button. In the confirmation dialog box that appears, click on the **Yes** button to confirm or **No** to undo it. If necessary, repeat the process for other medicines you want to delete in all phases.

Edit treatment regimen							23
Name	MDR-TB Regimen 1 (weight 5	1-70kg)			N	lultidrug	
Composition	8Cm(1000)Cs(250)Lfx(250)Pf	to(250)Z(500)/14Cs(250)Lfx(250)Pto(250)Z(50	0)			
				ſ	Add phase Copy prev	ious De	lete phase
Phase 1 Phase 2							
Duration 8 🗘 mor	nths 🗸				Add medicine	Delete	medicine
		Delete				Units per Day	Days per Week
Capreomycin 1000mg	Powder for injection	?	Confirm delete?			1	6
Cycloserine 250mg Ca Levofloxacin 250mg Fil			Yes No			3 3	6 6
Protionamide 250mg						3	6
Pyrazinamide 500mg F	Film uncoated tablet(s)					4	6
Save						[Cancel

- Figure 32
- 8. After all modifications are made, click on the word **Composition** to update the description automatically. Then click the **Save** button to confirm or on the **Cancel** button to undo them. Be careful not to create duplicate regimens. QuanTB follows the rules below:
 - If you try to create a new treatment regimen with the exact same name, medicines, units per day, duration, and days per week of an existing regimen, QuanTB will not permit it.
 - If you create a new treatment regimen with the same name but other different information (medicines, units per day, duration, and days per week), QuanTB displays a warning message, but will allow the creation if you click the yes button.
 - If you create a new treatment regimen with a different name but the exact same other information (medicines, units per day, duration, and days per week), QuanTB displays a warning message, but will allow the creation if you click the yes button.

- If you edit a treatment regimen to have exactly the same name, medicines, units per day, duration, and days per week of another existing regimen, QuanTB displays a warning and will not save the information.
- If you edit a treatment regimen, keeping the name, but changing information for the medicines, units per day, duration, and days per week to match an existing regimen, QuanTB will display a warning message, but will allow the regimen creation if you click the yes button.
- If you edit a treatment regimen, changing the name, but keeping information for the medicines, units per day, duration, and days per week to match an existing regimen, QuanTB will display a warning message, but will allow the regimen creation if you click the yes button.
- 9. To delete recorded treatment regimens, select one regimen you want to remove and then click on the **Delete** button. In the confirmation dialog box that appears, click on the **Yes** button to confirm or **No** to undo it. If necessary, repeat the process for other regimens you want to delete.

New Duplicate Edit Delete	Type of regimen: Multidrug 💙	
Treatment Regimen	Composition	
Adult FL New Treatment (56-70Kg): 2(RHZE)/4(RH)	2RHZE(150/75/400/275)/4RH(150/75)	
Adult FL Re-treatment (56-70kg): 2S(RHZE)/1(RHZE)/5(RHE)	2S(1000)RHZE(150/75/400/275)S&N-5/21Gx1.5 and Safety Box WFI(5)/1RHZE(150/75/400/275)/5RHE(150/75/275)	
onger MDR-TB Regimen 1: (weight 56-70kg)	8Cm(1000)Cs(250)Lfx(250)Pto(250)S&N-5/21Gx1.5 and Safety Box WFI(5)Z(500)/14Cs(250)Lfx(250)Pto(250)S&N-5/2	1Gx1.5 and
.onger MDR-TB Regimen 2: (weight 56-70kg)	8Km(1000/4)Eto(250)Lfx(250)PAS(Na)S&N-5/21Gx1.5 and Safety Box WFI(5)Z(500)/14Eto(250)Lfx(250)PAS(Na)S&N-5	i/21Gx1.5 a
Pediatric FL New Treatment (11-14kg): 2(RHZ)E/4(RH)	2E(100)RHZ(60/30/150)/4RH(60/30)	
Pediatric FL New Treatment (NEW Regimen):(12-15kg) 2(RHZ)E/4(RH)	2E(100)RHZ(75/50/150)/4RH(75/50)	
Duration 8 C months v	Confirm delete?	er per
	1	6
Cycloserine 250mg Capsule(s)	3	6
Cycloserine 250mg Capsule(s) Levofloxacin 250mg Film coated tablet(s)	1 3 4	6 6
Cycloserine 250mg Capsule(s) Levofloxacin 250mg Film coated tablet(s) Protionamide 250mg Film coated tablet(s)	1 3 4 3	6 6 6
Capreomycin 1000mg Powder for injection Cyclosenine 250mg Capsule(s) Levolloxacin 250mg Film coated tablet(s) Protionamide 250mg Film coated tablet(s) Pyrazinamide 500mg Film uncoated tablet(s)	4 3 4	6 6 6 6
Cycloserine 250mg Capsule(s) Levofloxacin 250mg Film coated tablet(s) Protionamide 250mg Film coated tablet(s)	1 3 4 3 4 2 2	6 6 6

	Treatment Regin	men					Composition				
2(RH)ZE/4(RH) - (weight 40-54kg)				2RH(150/75)Z(400)E(400)/4RH(150/75)							
2(RHZE)/4(RH) - (weight	40-54kg)		25	HZE(150/75/400/2	275)/4RH(150/75)						
IDR-TB Regimen 1 (wei	ght 51-70kg)		80	m(1000)Cs(250)L	fx(250)Pto(250)Z(500)/14Cs(250)Lf	(250)Pto(250)Z(50	0)			
MDR-TB Regimen 2 (wei	ght 51-70kg)		8K	m(1000/4)Eto(125	i)Lfx(250)PAS(Na)	Z(500)/14Eto(125)	Lfx(250)PAS(Na)Z(500)			
Medicine	Phase 1 Units/day -	Phase 2 Units/day -	Phase 3 Units/day -		m delete? es <u>N</u> o		Phase 7 Units/day -	Phase 8 Units/day -	Phase 9 Units/day -	Phase 10 Units/day -	
	Days/week - Duration	Days/week - Duration	Days/week - Duration	Duration	Duration	Days/week - Duration					
E(400) Ethambutol 400mg Film coated ablet(s)	2 - 7 - 2 months	-	-	-	-	-	-	-	-	-	
		3 - 7 - 4 months									

 When creating new multidrug or single-drug regimens, you may copy an existing regimen and edit it. The regimen you want to duplicate must be selected. The click the **Duplicate** button to copy it. The regimen will appear in the list of regimens with "- Copy" after the name. Click on it and modify it as described above.

New Duplicate Edit Delete	Type of regimen: Multidrug	
Treatment Regimen	Composition	
dult FL New Treatment (56-70Kg): 2(RHZE)/4(RH)	2RHZE(150/75/400/275)/4RH(150/75)	1
dult FL New Treatment (56-70Kg): 2(RHZE)/4(RH) - Copy	2RHZE(150/75/400/275)/4RH(150/75)	
dult FL Re-treatment (56-70kg): 2S(RHZE)/1(RHZE)/5(RHE)	2S(1000)RHZE(150/75/400/275)S&N-5/21Gx1.5 and Safety Box WFI(5)/1RHZE(150/75/400/275)/5RHE(150/75/275)	
onger MDR-TB Regimen 1: (weight 56-70kg)	8Cm(1000)Cs(250)Lfx(250)Pto(250)S&N-5/21Gx1.5 and Safety Box WFI(5)Z(500)/14Cs(250)Lfx(250)Pto(250)S&N-5/21Gx1.5 and	
onger MDR-TB Regimen 2: (weight 56-70kg)	8Km(1000/4)Eto(250)Lfx(250)PAS(Na)S&N-5/21Gx1.5 and Safety Box WFI(5)Z(500)/14Eto(250)Lfx(250)PAS(Na)S&N-5/21Gx1.5 a	
ediatric FL New Treatment (11-14kg): 2(RHZ)E/4(RH)	2E(100)RHZ(60/30/150)/4RH(60/30)	~



11. If your quantification is based on the percentage of use of each single TB medicine, you must create single-medicine regimens. At the **Treatment Regimen** screen, select **Single Drug** in the dropdown window, and then click **New**.

ment regimen New Duplicate Edit Delete	Type of regimen: Single drug 💌
Treatment Regimen	Composition
mikacin 8 months	8Am(500/2)
apreomycin 8 months	8Cm(1000)
closerine 22 months	22Cs(250)
ionamide 22 months	22Eto(250)
namycin 8 months	8Km(1000)
vofloxacin 22 months	22Lfx(250)
	Close

Figure 35

12. Enter the **Name** of the treatment regimen and then click on **Set Medicine.** Select a medicine by clicking on it on the **Select medicines** screen that appears. Click **Save** to confirm your choice or **Cancel** to discard it.

Name E	thambutol		Sing	gle drug]	
Composition						
Composition						
			Add pha	ase Delete pha		
Phase 1						
Duration 0 🗘 months	s •			Set Medicin	e	
					~	
				Units Days		
	Medicine			per per		
				Day Weel	ĸ	
elect medicines						-
						_
			Type of medicine:	-	~	
			Type of medicine:	-		
Abbreviated name	International Nonproprietary Name (INN)	Strength	Dosage form	-	Type of medicine	
Abbreviated name Cm(750)	Capreomycin	750mg	Dosage form Powder for injection		Type of medicine Line Injectable	
Abbreviated name Cm(750) Cs(250)	Capreomycin Cycloserine	750mg 250mg	Dosage form Powder for injection Capsule(s)	Other Co	Type of medicine Line Injectable re Second-Line	
Abbreviated name Cm(750) Cs(250) DIm(50)	Capreomycin Cycloserine Delamanid	750mg 250mg 50mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s)	Other Co D2-Seco	Type of medicine Line Injectable	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100)	Capreomycin Cycloserine Delamanid Ethambutol	750mg 250mg 50mg 100mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s)	Other Co D2-Secor Other	Type of medicine Line Injectable re Second-Line nd-Line Add-On	
Abbreviated name Cm(750) Cs(250) DIm(50) E(100) E(100)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol	750mg 250mg 50mg 100mg 100mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s)	Other Co D2-Secon Other Pediatric	Type of medicine Line Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(100) E(200)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol	750mg 250mg 50mg 100mg 100mg 200mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Other Co D2-Secon Other Pediatric Pediatric	Type of medicine ine Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add First-Line/D1-Second-Line Add	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(100) E(200) E(200)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol	750mg 250mg 50mg 100mg 100mg 200mg 400mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Other Co D2-Secon Other Pediatric Pediatric Adult Firs	Type of medicine Line Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add First-Line/D1-Second-Line Add-On	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(100) E(200)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol	750mg 250mg 50mg 100mg 100mg 200mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Other Co D2-Secon Other Pediatric Pediatric Adult Firs Adult Firs	Type of medicine ine Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add First-Line/D1-Second-Line Add	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(100) E(200) E(200) E(400) E(600)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol	750mg 250mg 50mg 100mg 200mg 400mg 600mg 600mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Other Co D2-Seco Other Pediatric Adult Firs Adult Firs Adult Firs	Type of medicine Line Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add First-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(200) E(200) E(200) E(400) E(600) E(600)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol	750mg 250mg 50mg 100mg 200mg 400mg 600mg 800mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Other Co D2-Secol Other Pediatric Adult Firs Adult Firs Adult Firs Adult Firs	Type of medicine ine Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add first-Line/D1-Second-Line Add-On it-Line/D1-Second-Line Add-On it-Line/D1-Second-Line Add-On	
Abbreviated name Cm(750) Cs(250) DIm(50) E(100) E(200) E(200) E(400) E(400) E(600) E(600) E(400) E(400)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol 2-FDC EH (400/150)	750mg 250mg 50mg 100mg 200mg 200mg 400mg 600mg 800mg 400mg+150mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s) Film coated tablet(s)	Other Co D2-Secol Other Pediatric Adult Firs Adult Firs Adult Firs Adult Firs Other Co	Type of medicine Line Injectable re Second-Line nd-Line Add-On First-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(100) E(200) E(400) E(600) E(600) EH(400/150) EH(400/150) EH(125)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol Ethionamide	750mg 250mg 50mg 100mg 200mg 200mg 400mg 600mg 800mg 400mg+150mg 125mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s)	Other Co D2-Seco Other Pediatric Adult Firs Adult Firs Adult Firs Adult Firs Other Co Other Co	Type of medicine Line Injectable re Second-Line Ad-Con First-Line/D1-Second-Line Add First-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On st-Line/D1-Second-Line Add-On t-Line/D1-Second-Line Add-On re Second-Line	
Abbreviated name Cm(750) Cs(250) Dim(50) E(100) E(200) E(200) E(200) E(400) E(600) E(600) E(600) E(800) EH(400/150) Eto(125) Eto(250)	Capreomycin Cycloserine Delamanid Ethambutol Ethambutol Ethambutol Ethambutol Ethambutol 2-FDC EH (400/150) Ethionamide Ethionamide	750mg 250mg 50mg 100mg 100mg 200mg 400mg 600mg 800mg 400mg+150mg 125mg 250mg	Dosage form Powder for injection Capsule(s) Film coated tablet(s) Dispersible tablet(s) Film coated tablet(s)	Other Co D2-Secol Other Pediatric Pediatric Adult Firs Adult Firs Adult Firs Other Co Other Co Pediatric	Type of medicine Line Injectable re Second-Line Ad-Line Add-On First-Line/D1-Second-Line Add First-Line/D1-Second-Line Add-On t-Line/D1-Second-Line Add-On t-Line/D1-Second-Line Add-On t-Line/D1-Second-Line Add-On re Second-Line	

- Figure 36
- 13. On the **New treatment regimen** screen, enter the **Duration (in weeks or months)**, **Units per Day** and **Days per Week for** that medicine. The system will not allow you to enter

more than one medicine. Click on the **Save** button to confirm or on the **Cancel** button to undo it.

New treatment regimen			×					
Name	Ethambutol	Single drug						
Composition								
	A	dd phase D	elete phase					
Phase 1								
Duration 22 🗘 months 🗸								
	Medicine	Units per Day	Days per Week					
Ethambutol 100mg Film	n coated tablet(s)	3	6					
Save			Cancel					

Figure 37

Note: The list of medicines is stored in the med_dictionary.xml file and the list of regimens is stored in the reg_dictionary.xml file, both located in the QuanTB data folder. You can only have one version of each of these files in this folder. If you need to have two different lists of medicines (or regimens), e.g., because you are working with two countries, you must install two copies of QuanTB on your computer in different folders.

Changing languages

After QuanTB is installed, you can switch from one system language to another by clicking the flag icons at the top of the screen. If you hover the mouse over the flag, you can see the name of the language that it represents. When changing the language of the tool, QuanTB checks all open quantifications before making the change. If any quantification is not executed, the system will prompt you to save it. If any quantification was executed with an error or warning message (e.g., for cases or percentage with zero or missing information on parameters tab) QuanTB will display these messages again before changing the language.



If you created your medicines and regimens in one language, when you change to another language, everything that is free text (i.e., not in a dropdown window) will remain in the language in which it was created. You will have to go to each field and re-enter the free text information in the new language. Please note that the medicines list and the sample regimens that come with QuanTB when installed are in English. You may translate these to another language if necessary.

STARTING A NEW QUANTIFICATION

As you use QuanTB, please **save** your work on a regular basis.

QuanTB does not save data automatically.

It is important to understand that the calculations in QuanTB quantifications assume 100% adherence, that is, that all patients receive all doses of all medicines and no one is lost to follow-up. If you know the attrition rate for each medicine, you can enter it for the enrolled and expected cases. These results will appear in the dashboard. If you simply adjust the quantity to order, that will not appear on the dashboard.

Opening a new quantification

Go to the **File** menu and select the menu option for **New** or click on the **New** icon in the left upper corner. Enter the variables/parameters in the fields and check/select the regimens you want to forecast in the list. All fields must be filled out. See the explanation below about the fields in the **New quantification** dialog box.

New quantification		×
Name of Country/Regi	on/Facility:	
Name of the person pe	erforming the quantification:	
Inventory date:	Oct 22, 2016	
Lead time:	1 🗘 (months)	
End date of quantificat	ion: 0	
Minimum months of st	tock: 0 🗘 (months)	
Maximum months of s	tock: 0 🗘 (months)	
Regimen type:	Multidrug	~
Enrolled Cases:	By number 🗸 🗸	Expected Cases: By number
Select regimens		
	Treatment Regimen	Composition
Adult F	FL New Treatment (56-70Kg): 2(2RHZE(150/75/400/275)/4RH(150/75)
	FL Re-treatment (56-70kg): 2S(2S(1000)RHZE(150/75/400/275)S&N-5/21Gx1.5 and Safety B
	er MDR-TB Regimen 1: (weight	8Cm(1000)Cs(250)Lfx(250)Pto(250)S&N-5/21Gx1.5 and Safe
	er MDR-TB Regimen 2: (weight	8Km(1000/4)Eto(250)Lfx(250)PAS(Na)S&N-5/21Gx1.5 and Sa
Pedia	tric FL New Treatment (11-14kg	2E(100)RHZ(60/30/150)/4RH(60/30)
Pediat	tric FL New Treatment (NEW Re	2E(100)RHZ(75/50/150)/4RH(75/50)
Shorte	er MDR1 (30-50kg): 5KmCfz E H	5Km(1000/4)Cfz(100)E(400)H(300)Mfx(400)Pto(250)S&N-5/2
Shorte	er MDR2 (30-50kg): 5CmCfz E H	5Cm(1000)Cfz(100)E(400)H(300)Mfx(400)Pto(250)S&N-5/21
Save	Cancel	

Figure 39

Name of Country/Region/Facility: Defines the context to which the quantification refers

Name of the person performing the quantification: Defines the individual who is entering data and generating the results of the quantification

Inventory date: The current day as set on your computer is automatically entered. You may move the **Inventory date** back to the past if needed (e.g. if your medicines stock information is dated), but you should not move it forward. The inventory date should be the date you counted the stock information you are entering, so an inventory date in the future will not have any inventory information. The quantification begins the day after the **Inventory date**.

Lead time: Enter the number of months normally necessary for your orders to arrive. The figure entered should include all of the time that starts with planning for quantification and ends when the medicines are available on the shelf. It is not simply the suppliers' lead time. QuanTB will allow you to enter 0 for the lead time, but we strongly recommend that you don't because it is not realistic.

End date of quantification: Defines last day of the period for which the quantification is made. This is a future period and the start date must be later than the inventory date plus the lead time. When you enter a date, the quantification period will automatically appear next to the end date.

Minimum months of stock and Maximum months of stock: Enter the minimum and maximum number of months of stock that you want to keep on hand. These figures affect the stock calculations. They are used to set the range of months on the dashboard and to determine the estimated months of stock. The first day of the month(s) QuanTB calculates that you reach the minimum level of stock triggers the need to order. If you have not set a minimum, a stock out triggers an order. If you want to keep buffer stock, you must include it in your minimum. The minimum and maximum can't be the same, unless both are zero. If you set the minimum stock to 0, QuanTB will calculate the quantities needed as if minimum stock were set to one.

Regimen type: Select multidrug or single-drug in the dropdown window.

Enrolled cases: Use the dropdown window to select whether you want to enter the number of enrolled cases by number or by percentage.

Expected cases: Use the dropdown window to select whether you want to enter the number of expected cases by number or by percentage.

Select Regimens: All treatment regimens previously defined in the system are displayed here. Check the boxes for regimens you want to forecast.

Note: QuanTB doesn't allow performing quantification for multidrug regimens and single drugs in the same quantification. You can either select full multidrug regimens for quantification by number of regimens and percentage of cases on each regimen (as many regimens as you need), or select single-drug regimens for quantification by percentage of each medicine use

against total number of cases (as many drugs as you need). In the **New quantification** dialog box you may check only multidrug regimens or single-drug regimens in the **Select Regimens** boxes and create two separate forecasts to accommodate these needs. You cannot simultaneously use both methods.

For the greatest precision, use multidrug regimens and numbers of cases. The next most precise option is to use multidrug regimens and percentages. Using single-drug regimens will produce less precise quantifications.

After filling in the fields, click on the **Save** button to confirm your choices. The system creates a **New quantification** tab with the **Parameters** tab inside. Clicking on the **Cancel** button will close the dialog box and all entered information will be lost.

If you expect to have attrition in your program, you can use the **Adjust medicines quantity for attrition** button to reduce the quantity initially calculated for each medicine related to enrolled and expected cases. This adjustment is reflected in the quantity needed (summary, medicine, and medicine detailed reports), and also appears in the dashboard. In the example below, the medicine quantities have been adjusted for a 10% reduction in enrolled cases and a 5% reduction in expected cases.

Medicine	Adjust for enrolled cases (%)	Adjust for expected cases (%)
Capreomicin 1000 mg Powder/Vial	90	95
Cycloserine 250 mg Tablet or Capsule	90	95
Ethionamide 250 mg Tablet	90	95
Kanamycin 1000 mg Powder/Vial	90	95
Levofloxacin 250mg Tablet	90	95
P-aminosalicylate sodium salt 4000m	90	95
Prothionamide 250mg Tablet	90	95
Pyrazinamide 500 mg Tablet	90	95

Figure 40

If you make changes in the Parameters, **save** them, and then click on the **Execute Quantification** button to make them effective and see updated results. **QuanTB does not save data automatically.**

Case information

Previously entered variables are displayed in the **New quantification** tab and can be changed as needed. The **Enrolled Cases**, **Expected Cases** and **Stock of Medicines** tabs are also displayed to be completed as described below. You can click on the regimens of the quantification to see more details about them. You can't make changes to the regimens here.

Enrolled Cases

Total Number of Enrolled Cases per Month:

If you selected to forecast by actual cases enrolled per each regimen, the system will display all of the months for the selected regimens depending on their duration, starting with the months in which cases were enrolled that could still be on treatment at the inventory date. If, for example, the duration of a selected regimen to treat MDR-TB is 22 months and the inventory date is April 1, 2013, the system will display months starting with July 2011, because some cases enrolled in that month could still be on treatment, and thus must be accounted for in the quantification process.

The date used in calculations is one day after the inventory date, after counting back the number of months in the regimen. For example:

- Inventory date for the quantification: 15 October 2014
- Length of treatment regimen: 6 months
- The first date for the enrolled cases is 16 April 2014. This is six months before the inventory date, plus one day.

For quantification calculations (consumption), entered cases are considered as started on treatment in the first day of each month, unless the inventory date is not the first of a month.

For each month, you should enter the number of cases **enrolled** in this month.

You may copy and paste data from another source (e.g., Excel spreadsheet, Word table, QuanTB quantification, etc.) into the enrolled or expected cases. To copy and paste, please follow these rules:

- The sequence of the regimens in the source information must be same as for QuanTB data. The system cannot verify that the information you are entering matches, so please be careful that the sequence matches.
- The number of columns of the source information cannot be more than the number of months of the longest regimen in your QuanTB quantification.
- The number of rows in the source information can be less than QuanTB, but cannot be more.
- If the source information has fewer rows than QuanTB, the data will be pasted from the top to the bottom (so the last rows in QuanTB will be blank).

- Only whole numbers from the source information can be pasted to QuanTB, or an error message is displayed. Zero is considered a whole number. Text is not permitted either, so be careful that you don't copy the names of your regimens from the source information.
- An empty cell in Excel is considered a "non-whole number" and will trigger an error message.
- You may copy selectively, e.g., only one cell (one month of specific regimen) of enrolled and/or expected cases by double-clicking the number, hitting Ctrl C and pasting it to another cell using Ctrl V.
- As in Excel, if you copy a number, you may paste that number into multiple months in QuanTB by highlighting the range of months, then hitting Ctrl V.

When regimens have different durations, the system considers the number of columns of the longest for the pasting process (also for validation and generation of the error message related to the number of columns displayed). If you leave the months not used for the shorter regimens blank, the system displays an error message. You must fill the months not used in the shorter regimens with some valid data (e.g., 0) to allow pasting, even if this information won't be used later.

In the example below, only the blue cells in Excel should be copied. No cells are blank, because 0 has been entered as the value for the cells with no enrolled cases in the MDR-TB 1 regimen.

MDR-TB 1	10	10	10	10	10	10	10	10	0	0	0	0
MDR-TB 2	5	5	5	5	5	5	5	5	5	5	5	5

Note: If monthly enrollment data are not available, you can use the number of cases enrolled per quarter, entering the data in the middle month of a quarter. Quantification in this case will be less precise.

To perform "what if" scenarios, you can use the **Enable** box to mark which regimens should be included in the quantification. Unticking the **Enable** box means that the regimen won't be included when you execute the quantification, although all of the information about regimen remains and can be included in the quantification by simply ticking the **Enable** box and executing the quantification again. If you enable/disable stock or regimens, you must execute the forecasting to get the updated results.

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QuanTB 4.1 SIAPS
Fictilia 2016
Parameters Summary Medicines Report Cases Report Medicines Detailed Report Order and Schedule Graphs
Inventory date Lead time: End date of quantification: Quantification period: Name of Country/Region/Facility: Mar 31, 2016 Image: Country image: Countr
Enrolled cases Expected cases Stock of medicines
Number of enrolled cases per month Change to By percentage Copy selected Paste number
Enable Treatment Regimen Jun-2014 Jun-2014 Sep-2014 Sep-2014 Nov-2014 Dec-2014 Jan-2015 Feb-2015 Mar-201 Image: MDR-TB Regimen 1: (weight 56-70kg) 8Cm(1000)Cs(250)Lt/(3 3 4 3 3 3 3 4 3 3 3 3 4 3 3 3 3 3 4 3 3 3 3 4 3 3 3 3 3 4 3 3 3 3 4 3 3 3 3 3 4 3 3 3 3 4 3 3 3 3 4 3 3 3 3 4 3 <
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Figure 41

Percentage of Enrolled Cases per Treatment Regimen:

If you selected to forecast by percentage of use of each regimen, the system will display all selected regimens. Enter the percentage of enrolled cases that are using each regimen. For multimedicine regimens the total percentage must be 100%. (For single medicines the calculations are different, so the cumulative percentage could be any number.) Also enter the **Total Number of Enrolled Cases per Month** for each month.

Note: Using the percentage method is not recommended for quantification in a setting with a small number of enrolled cases. However, if you do so, the system will keep cases in the Case Report tab as decimals and round up only for the total medicines quantities needed by month.

QuanTB - Tuberculosis Medicines Quantification Tool			_		1000	- D X
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Comment		(Execute quar	ntification		
Enrolled cases Expected cases Stock of medicines						
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Enable Treatment regimen	Percentage of enrolled		Month		Number of enr	
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			Dct-2014			14
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			eb-2015			17
Total 100.00 %			Mar-2015			17
		فا	06-2015			151-1
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Figure 42

Expected Cases

Estimated number of expected cases per month: The system will display all of the months for the selected regimens, starting with the inventory date and ending with the end of the quantification period. Enter the numbers of cases you expect to enroll by month of the quantification period

On the Expected Cases tab, the first month displayed can be the same as the last month of the enrolled cases, if the inventory date is not the first of the month. The inventory date divides the enrolled cases and expected cases, so if the inventory date is 15 October 2014, the enrolled cases stop on 14 October 2014 and the expected cases start on 15 October 2014. Until the reference date, cases are enrolled and after the reference date, they are expected. The expected period starts the day after the reference date. Be careful not to double-count cases in that month if the inventory date is in the middle of the month.

You may copy and paste data from another source (e.g., Excel spreadsheet, Word table, QuanTB quantification, etc.) into the enrolled or expected cases. To copy and paste, please follow these rules:

- The sequence of the regimens in the source information must be same as for QuanTB data. The system cannot verify that the information you are entering matches, so please be careful that the sequence matches.
- The number of columns of the source information cannot be more than the number of months of the longest regimen in your QuanTB quantification.

- The number of rows in the source information can be less than QuanTB, but cannot be more.
- If the source information has fewer rows than QuanTB, the data will be pasted from the top to the bottom (so the last rows in QuanTB will be blank).
- Only whole numbers from the source information can be pasted to QuanTB, or an error message is displayed. Zero is considered a whole number. Text is not permitted either, so be careful that you don't copy the names of your regimens from the source information.
- An empty cell in Excel is considered a "non-whole number" and will trigger an error message.
- You may copy selectively, e.g., only one cell (one month of specific regimen) of enrolled and/or expected cases by double-clicking the number, hitting Ctrl C and pasting it to another cell using Ctrl V.
- As in Excel, if you copy a number, you may paste that number into multiple months in QuanTB by highlighting the range of months, then hitting Ctrl V.

When regimens have different durations, the system considers the number of columns of the longest for the pasting process (also for validation and generation of the error message related to the number of columns displayed). If you leave the months not used for the shorter regimens blank, the system displays an error message. You must fill the months not used in the shorter regimens with some valid data (e.g., 0) to allow pasting, even if this information won't be used later.

In the example below, only the blue cells in Excel should be copied. No cells are blank, because 0 has been entered as the value for the cells with no enrolled cases in the MDR-TB 1 regimen.

MDR-TB 1 10 10 10 10 10 10 0 0 MDR-TB 2 5										-		_	
	MDR-TB 1		10				10	10	10	0	0	0	0
	MDR-TB 2	5	5	5	5	5	5	5	5	5	5	5	5

Note: For quantification calculations (expected consumption), entered cases are considered as started on treatment in the first day of each month. The only exception is the month of the inventory date (first month displayed), where cases are considered as started on treatment on the inventory date.

QuanTB - Tuberculosis Medicines Quantification Tool	
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Inventory date: Lead time: End date of quantification: Quantification period: Mar 31, 2016	Fictitia Name of the person performing the quantification:
Minimum months of stock: Maximum months of stock:	NTP
6 C (months)	Adjust medicines quantity for attrition Select treatment regimens
Expected increase in cases enrollment from May 2016 Comment	Execute quantification
Enrolled cases Expected cases Stock of medicines	
Estimated number of expected cases per month Change to: By percentage	Copy selected Paste number(s)
	May-2016 Jun-2016 Jul-2016 Aug-2016 Sep-2016 Oct-2016 Nov-2016 Dec-2016 Jan-2017 F
Longer MDR-TB Regimen 1: (weight 56-70kg) 8Cm(1000)Cs(250)Lfx(9 Longer MDR-TB Regimen 2: (weight 56-70kg) 8Km(1000/4)Eto(250)Lfx. 11	44 44 49<
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Percentage of Expected Cases per Treatment Regimen: Displays all selected regimens. Enter the percentage of expected cases that will be using each regimen. For multimedicine regimens the total percentage must be 100%. (For single medicines calculations are different, so the cumulative percentage could be any number.)

Note: Using the percentage method is not recommended for quantification in a setting with a small number of enrolled cases. However, if you do so, the system will keep cases in the Case Report tab as decimals and round up only for the total medicines quantities needed by month.

Estimated Number of Expected Cases per Month: Enter the total numbers of cases you expect to enroll by month of the quantification period, for all regimens.

To perform "what if" scenarios, you can use the **Enable** box to mark which regimens should be included in the quantification. Unticking the **Enable** box means that the regimen won't be included when you execute the quantification, although all of the information about regimen remains and can be included in the quantification by simply ticking the **Enable** box and executing the quantification again.

QuanTB - Tuberculosis Medicines Quantification Tool			
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Inventory date: Lead time: End date of quantification:	Quantification period:	Name of Country/Region/Facility:	
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Mar 31, 2016 6 C (months) Dec 31, 2017	20 months, 30 days	Name of the person performing the quantif	ication:
Minimum months of stock: Maximum months of stock:		NTP	
6 C (months) 18 C (months)			
(months)		Adjust medicines quantity for attrition	Select treatment regimens
Expected increase in cases enrollment from May 2016			
Comment:			
Commenc		Execute qua	ntification
Enrolled cases Expected cases Stock of medicines			
Percentage of expected cases per treatment regim	en. Change to: By number	Estimated number of expect	ed cases per month Copy selected Paste number(s)
Enable Treatment regimen	Percentage of expected	Month	Estimated number of expected cases
	cases	Apr-2016	20 ^
Longer MDR-TB Regimen 1: (weight 56-70kg) 8Cm(1000)Cs(25	46.62	May-2016 Jun-2016	95
Longer MDR-TB Regimen 2: (weight 56-70kg) 8Km(1000/4)Eto(2	53.38	Jul-2016	95
		Aug-2016	105
		Sep-2016	105
		Oct-2016	105
		Nov-2016	105
		Dec-2016	105
Total	100.00 %	Jan-2017	105
Total	100.00 /0	Eab-2017	105
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Changing from quantification by number to quantification by percentage and vice versa

You can change how you enter information about your enrolled and expected cases by clicking the **By number** or **By percentage** button, which is above the treatment regimens on the **Parameters** tab, as shown below. The option on the button will be the method you are not currently using.

Using this option allows you to try different scenarios, but certain things must be understood:

- You can only switch between the percentage and number methods for multidrug regimens (not for single-drug regimens).
- You must execute the quantification to see the results of your change.
- The results of each type of quantification will be different.
- If you change the quantification method, saving, executing, or exporting the forecasting will replace your last numbers or percentages with the newly calculated values, so you should save the quantifications under different names if you want to be able to see them all.
- If you want to keep your changes after changing from one method to the other, you must save the quantification.

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Parameters Summary Medicines Report Cases Report Medicines Detailed	Report Order a	nd Schedule	Graphs							
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Minimum months of stock: Maximum months of stock:				NTP						
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Expected increase in cases enrollment from May 2016 Comment				0	Exe	cute quanti	fication]	
Enrolled cases Expected cases Stock of medicines										
Number of enrolled cases per month Change to By percentage								Copyse	lected Pa	ste number(s)
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Longer MDR-TB Regimen 2: (weight 56-70kg) 8Km(1000/4)Eto(250)Lf	9	10	13	11	11	10	12	12	13	13
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Stock information

Stock of Medicines

This tab displays all the medicines that compose the selected treatment regimens. Clicking on the quantity causes the batch details for that medicine to appear. For the stock on hand, the first-to-expire batches are listed first. For the stock on order, the earliest expected receiving date is listed first.

QuanTB has a feature to create a template that you can fill in and then import into the software, saving time. You must have a quantification file open. Then go to the **Import & Export** menu, click on **Import from Excel**, then click on **Get template for stock data**.

e Medicines & Regimens Import & Export Divide & Merge Help			
		STATES.	
			USAID SIAPS
Export to Excel Import stock data	QuanT]	B 4.1 🛛 🔛	
		Source of the second	FROM THE AMERICAN PEOPLE to Pharmaceuticals and Ser
titia_2016 🗙			
arameters Summary Medicines Report Cases Report Medicines Deta	iled Report Order and Schedule	Graphs	
ventory date: Lead time: End date of quantification:	Quantification period:	Name of Country/Region/Facility:	
ventory date. Lead time. End date of quantilication.	cuantification period.	Fictitia	
lar 31, 2016 🔲 6 🗘 (months) Dec 31, 2017 🔟	20 months, 30 days	Name of the person performing the quantit	fication:
inimum months of stock: Maximum months of stock:		NTP	
6 C (months) 18 C (months)		Adjust medicines quantity for attrition	Select treatment regimens
Expected increase in cases enrollment from May 2016			
Comment:		Execute qua	antification
Enrolled cases Expected cases Stock of medicines			
Percentage of expected cases per treatment regime	en. Change to: By number	Estimated number of expect	ted cases per month Copy selected Paste number(s
Enable	Percentage of expected	Month	Estimated number of expected cases
Treatment regimen	cases	Apr-2016	20
Longer MDR-TB Regimen 1: (weight 56-70kg) 8Cm(1000)Cs(25	46.62	May-2016	95
Longer MDR-TB Regimen 2: (weight 56-70kg) 8Km(1000/4)Eto(2	53.38	Jun-2016 Jul-2016	95
		Aug-2016	105
		Sep-2016	105
		Oct-2016	105
		Nov-2016	105
		Dec-2016	105
	100.00 %	Jan-2017	105
Total	100.00 %	Eeb-2017	105

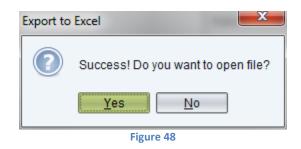
Figure 46

A window asking you to give your template a name will appear as shown below. Name the file and decide where you want to save it.

🕗 Get templa	ate for stock data	
Save in: 🏮	docs	▼ ▲
	xlsx emplate.xlsx med details.xlsx	QuanTB folder
File name: File Types:	Stock Data Template Excel file (.xlsx)	
		Save Cancel

Figure 47

When the file is created, you will be asked whether you want to open it. After clicking **Yes**, go to Excel to see the file.



A sample template is shown below.

Medicines	Stock on hand	Expiration date of the stock on hand	Stock on order	Expected receiving date	Expiration date of the stock on order
		5			

Figure 49

Fill in your inventory information, including the **Medicines**, **Stock on hand**, **Expiration date of the stock on hand**, **Stock on order**, **Expecting receiving date**, and **Expiration date of the stock on order** (if known). Save your file.

To import this template into QuanTB, click on the **Import & Export** menu, then **Import from Excel**, then **Import stock data**.

Note: Do not copy and paste information into this template because you will change important formulas and formatting.

Or, if you don't want to use the template and your stock on hand data is in your own spreadsheet, you can import that into QuanTB. The data containing the medicine names, quantities, and expiration dates must be properly formatted and in an .xlsx file. To format the file, use the Define Name feature in the Formulas tab in Excel:

• Select the range of cells with the medicine names, and then define the name for it as "M" (without the quotes). This range must only contain medicine names or numbers and blank cells.

- Select the range of cells with the stock on hand quantities, and then define the name for it as "Q" (without the quotes). This range must only contain whole numbers.
- Select the range of cells with the stock on hand expiration dates, and then define the name for it as "D" (without the quotes). This range must only contain dates.
- Select the range of cells with the stock on order quantities, and then define the name for it as "QO" (without the quotes). This range must only contain whole numbers.
- Select the range of cells with the stock on order expected receiving dates, and then define the name for it as "DE" (without the quotes). This range must only contain whole numbers.
- Select the range of cells with the stock on order expiration dates, and then define the name for it as "DO" (without the quotes). This range must only contain dates.

Tip: If you need to make changes in your named ranges, use the Name Manager option in the Excel Formulas tab.

After defining the names (or after making any changes to the spreadsheet), save the file. Certain rules must be followed in the formatting:

- You can list a medicine name more than once (e.g., for multiple batches), but all of the repeated batches for that medicine must be in contiguous rows.
- All ranges must start from the same row and the first row must not be blank.
- Each range must only have one column.
- Do not select the entire column to define the name and do not include the column heading in the range.
- If you have a medicine expiration date, you must have a quantity for it and vice versa.
- Only the first sheet of data in the spreadsheet is imported.
- Merged rows or columns will not be imported.

Note: If you import your stock on hand data from Excel, it will overwrite the stock on hand data that you have in the quantification to which you import it. If the quantity figure for an item is blank in the import file, the quantification's original data is preserved. If the quantity figure is 0, the quantity for that item in the quantification will become 0.

To import your file into QuanTB, click on the **Import & Export** menu, then **Import from Excel**, then **Import stock data**.

QuanTB - Tuberculosis Medicines Quantification Tool	Survey of State Street, or other		
File Medicines & Regimens Import & Export Divide & Merge Help			
🗋 🚔 🕘 🗐 🔲 Import from Excel > Get template for sto	ck data	1913	
Export to Excel Import stock data	QuanT	'D / 1	SIAPS 🔏
Importation data	Qualiti	D 4.1	Systems for Improved Access
		STORA .	FROM THE AMERICAN PEOPLE to Pharmaceuticals and Services
Fictitia_2016 🗙			
Parameters Summary Medicines Report Cases Report Medicines De	ailed Report Order and Schedule	Graphs	
Inventory date: Lead time: End date of quantification:	Quantification period:	Name of Country/Region/Facility:	
	additined on period.	Fictitia	
Mar 31, 2016 🔲 6 🗘 (months) Dec 31, 2017 🔟	20 months, 30 days	Name of the person performing the g	uantification:
Minimum months of stock: Maximum months of stock:		NTP	
6 C (months) 18 C (months)		Adjust medicines quantity for attrition	Select treatment regimens
Evented increases in sease excellment from May 2016			
Expected increase in cases enrollment from May 2016 Comment			
Comment.		Execute	quantification
Enrolled cases Expected cases Stock of medicines			
Percentage of expected cases per treatment regi	men. Change to: By number	Estimated number of e	expected cases per month Copy selected Paste number(s)
Enable Treatment regimen	Percentage of expected	Month	Estimated number of expected cases
	cases	Apr-2016	20 ^
Longer MDR-TB Regimen 1: (weight 56-70kg) 8Cm(1000)Cs(25	46.62	May-2016 Jun-2016	95
Longer MDR-TB Regimen 2: (weight 56-70kg) 8Km(1000/4)Eto(2.	. 53.38	Jul-2016	95
		Aug-2016	105
		Sep-2016	105
		Oct-2016	105
		Nov-2016	105
		Dec-2016	105
Total	100.00 %	Jan-2017	105
		Eeb-2017	105
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After selecting your file, the following screen appears so that you can match the medicines in QuanTB with the medicines in your spreadsheet. Click the dropdown arrow to show the list of medicines from your spreadsheet and select the one that matches each QuanTB medicine. When you click **Save**, the medicines, quantities, and expiration dates will be imported from the .xlsx spreadsheet file.

Import from Excel	Trans.	×
QuanTB medicine Capreomycin 1000mg Powder for injection Kanamycin 1000mg/4ml Solution for injection Cycloserine 250mg Capsule(s) Ethionamide 125mg Film coated tablet(s) Levofloxacin 250mg Film coated tablet(s) P-aminosalicylate sodium salt 4000mg Powder/Sachet	Medicine to import Levofloxacin 250 mg tab Ethambutol 400 mg tab Pyrazinamide 400 mg tab	~
Protionamide 250mg Film coated tablet(s) Pyrazinamide 500mg Film uncoated tablet(s)	2-FDC RH 150+150 tab Capreomycin 1000 mg inj Cycloserine 250 mg cap	
Save	(Cancel

Figure 51

You can also enter your stock on hand data manually. Click on the cell value of **Stock on Hand** for one medicine. Then, in the **Batches Details** box click on the **Add** button. In the dialog box

that appears, enter the expiration date of the batch and the quantity of units available in stock (on the inventory date). Click on the **Save** button to confirm or **Cancel** to undo it. If needed, repeat the process for all existing batches of the same product and for all other medicines available on stock.

Note: You may copy and paste numbers into the Stock on Hand Batches Details **Quantity** field from another source (e.g., Excel file, Word table, QuanTB quantification, etc.) by copying a number using Ctrl C and pasting it with Ctrl V.

🕢 QuanTB - Tuberculosis Medicines Quantification Tool					
File Medicines & Regimens Import & Export Divide & Merge Help					
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Fictitia_2016 X					
Parameters Summary Medicines Report Cases Report Medicin	nes Detailed Report Order and S	chedule Graphs			
Inventory date: Lead time: End date of quantifica	ation: Quantification period:	Name of Country/Re	gion/Facility:		
Mar 31, 2016 6 (months) Dec 31, 2017	20 months 30 days	Name of the person	performing the quantification:		
Minimum months of stock: Maximum months of s	stock: New stock on hand	×			
6 C (months)			ity for attrition	Select treatment regimens	
Expected increase in cases enrollment from May 2016 Comment:	Quantity Batch number and/or co	mments	Execute quantificat	ion	
Enrolled cases Expected cases Stock of medicines					
Quantity of medicines on hand and on order at the inventory date	Save	Cancel		Add Edit	Delete
	Stock Orock	Expiration da	te Quantity	Batch number and/or con	nments
Cm(1000) Capreomycin 1000mg Powder for injection	140,545 -	▲ Apr 29, 20*	76,545		
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection	36,827 72,000	Nov 29, 20	19 64,000		
Cs(250) Cycloserine 250mg Capsule(s)	321,059 250,000				
Eto(250) Ethionamide 250mg Film coated tablet(s)	750,000 -				
Lfx(250) Levofloxacin 250mg Film coated tablet(s)	1,019,000 -				
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac	419,656 -				
Pto(250) Protionamide 250mg Film coated tablet(s)	576,059 -				
S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli	400,000 -				
WFI(5) Water for injection 5ml	200,000 -	-			
Z(500) Pyrazinamide_500mo_Film uncoated tablet(s)	830 724 -]
Соругі	ight©2012 Management Sciences	for Health, Inc. All rights reserved. Dev	eloped by MSH.		



Click on the cell value of **Stock on Order** for one medicine. Then, in the **Batches Details** box click on the **Add** button. In the dialog box that appears, enter the expected receiving date, expiration date (if known, otherwise leave blank), and the quantity of units to be received. If you make a mistake with the expiration date, click the Clear date link to delete it and re-enter it. Click on the **Save** button to confirm or **Cancel** to undo your batch details. If needed, repeat the process for all products expected to arrive.

Quantity field from another source (e.g., Excel file, Word table, QuanTB quantification, etc.) by copying a number using Ctrl C and pasting it with Ctrl V.

QuanTB - Tuberculosis Medicines Quantification Tool		The second se		
File Medicines & Regimens Import & Export Divide & Merge Help	p			
	💽 QuanT	B 4.1		SIAPS Systems for Improved Access to Pharmaceuticals and Services
Fictitia_2016				
Parameters Summary Medicines Report Cases Report Medi	icines Detailed Percent Order and Schedule	Graphs		
Inventory date: Lead time: End date of quantit	fication: New stock on order			
Mar 31, 2016 6 (months) Dec 31, 2017	Expected receiving date	Apr 25, 2017	e quantification:	
Minimum months of stock: Maximum months	of stock: Expiration date			
6 C (months) 18 C (mont	ths)	Clear date		
	Quantity	0	on Select treatment regi	mens
Expected increase in cases enrollment from May 2016	Batch number and/or comments			
Comment				
			ute quantification	
Enrolled cases Expected cases Stock of medicines	Save	Cancel		
Quantity of medicines on hand and on order at the inventory date			Add	dit Delete
Medicines	Stock Stock on hand on order	Enable Expected receiving date Expiration	n date Quantity Batch number	er and/or comments
Cm(1000) Capreomycin 1000mg Powder for injection	140.545	recorning date		
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection	36.827 72.000			
Cs(250) Cycloserine 250mg Capsule(s)	321.059 250.000			
Eto(250) Ethionamide 250mg Film coated tablet(s)	750.000 -			
Lfx(250) Levofloxacin 250mg Film coated tablet(s)	1,019,000 -			
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac	419,656 -			
Pto(250) Protionamide 250mg Film coated tablet(s)	576,059 -			
S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli	400,000 -			
WFI(5) Water for injection 5ml	200,000 -			
Z(500) Pyrazinamide_500mg_Film uncoated tablet(s)	830 724 - 💙			
Co	pyright © 2012 Management Sciences for Hea	Ith, Inc. All rights reserved. Developed b	y MSH.	

Figure 53

Changing recorded information regarding stock on hand and stock on order:

To edit, double click on the specific information you want to change or click on the batch, then click the **Edit** button. In the dialog box that appears change required data and click on the **Save** button to confirm or **Cancel** to undo it.

Edit stock on order	Same of the	×
Expected receiving date	Sep 29, 2016	
Expiration date	Jun 29, 2019 <u>Clear date</u>	
Quantity	72000	
Batch number and/or comments		
Save	Cancel	
Figu	ıre 54	

To delete, click on the specific information and the **Delete** button will be enabled. Click on the **Delete** button and in the confirmation dialog box that appears click on the **Yes** button to confirm or **No** to undo it.

For your reference, the system uses the following date-related rules:

- The expiration date of stock on hand can be the same as or after the inventory date, but cannot be earlier.
- The expected receiving date of the stock on order can be the same as or after the inventory date, but cannot be earlier.
- The expiration date of the stock on order can be the same as or after the expected receiving date, but cannot be earlier.

Selecting other treatment regimens:

To select other treatment regimens to be included in the quantification, click on the **Select Treatment Regimens** button and in the **Select Regimens** dialog box that appears check or uncheck the regimens displayed. Click on the **OK** button to confirm or **Cancel** to undo it. If you have changed the selection of regimens done initially (in the **New quantification** dialog box), you will need to repeat processes described above for entering data on Enrolled Cases, Expected Cases, and Stock of Medicines (stock on hand and stock on order).

Note: If you execute the quantification, then edit any regimen information (e.g., dosages, duration or medicines) that is included in this quantification, you must remove and re-insert the regimen from the quantification for the regimen changes to register in the quantification. Do this at the parameters tab by unchecking the box at the "Select regimen" dialog box and clicking the OK button, then insert the regimen again by checking the box and clicking the OK button. When you do this, the cases related to that regimen will disappear and you will have to re-enter them before executing the quantification. You can save time by copying and pasting the case information.

QuanTB - Tuberculosis Medicines Quantification Tool	the second secon		
File Medicines & Regimens Import & Export Divide &	& Merge Help		
	QuanTI QuanTI	B 4.1	FOM THE AMERICAN PEOPLE SIAPS
Fictitia_2016 X			<u></u>
Parameters Summary Medicines Report	t regimens	— ו•	
Inventory date: Lead time: Mar 31, 2016 6 (months) Minimum months of stock: 6 (months) Expected increase in cases enro Comment: Enrolled cases Expected cases Stock of m Quantity of medicines on hand and on order at th Medicines Cm(1000) Capreomycin 1000mg Powder for 1	Treatment Regimen Adult DS-TB Regimen (55-70Kg) Bedaquiline MDR-TB Regimen (51-70Kg) Longer MDR-TB Regimen 1 (51-70kg) Longer MDR-TB Regimen 1 (51-70kg) Longer MDR-TB Regimen 2 (starbing) Longer MDR-TB Regimen 2 (starbing) Longer MDR-TB Regimen 2 (starbing) Shorter MDR-TB Regimen 2 (starbing) Shorter MDR-TB Regimen (12-15kg) Shorter MDR-TB Regimen (>50kg)	Composition 200452(150/75/400/275)/4RH(150/75) 1Cm(1000)8d(01-02/75)/4RH(150/75) 8Cm(1000)Cs(250)Lm(250)Pto(250)8AN 8Km(1000/25(250)Lm(250)Pto(250)8AN 8Km(1000/4)Eto(250)Lm(250)PAS(Na)8A 2Km(1000/4)Eto(250)Lm(250)PAS(Na)8A 2E(100)RH2(75f50150)4RH(75f50) 5Km(1000/4)Cfz(100)E(400)H(300)Mfz(40	fication: Select treatment regimens antification Add Edit Delete Duantity Batch number and/or comments
Eto(250) Ethionamide 250mg Film coated tab	OK Cancel		
Lfx(250) Levofloxacin 250mg Film coated tablets) PAS(Na) P-aminosalicytate sodium salt 4000mg Pow Pto(250) Protionamide 250mg Film coated tablet(s) S&N-52/21Cxr1.5 and Safety Box Syringe & needle (auto WFI(5) Water for injection 5ml Z(500). Pyrazinamide, 500mg, Film uncoated tablet(s)	576,059 -		
	Copyright © 2012 Management Sciences for Heal	th, Inc. All rights reserved. Developed by MSH.	

Figure 55

Once all parameters have been entered, **SAVE** them, then click on the **Execute Quantification** button or click on the **Arrow** icon in the left upper corner.

QuanTB - Tuberculosis Medicines Quantification Tool												
File Medicines & Regimens Import & Export Divide & Merge Help	p											
	💽 Qua	anTB 4.1	FROM THE AMERICAN PEOPLE Systems for Improved Access to Pharmaceuticals and Services									
Fictitia_2016 X												
Parameters Summary Medicines Report Cases Report Medic	cines Detailed Report Order and S	chedule Graphs										
Inventory date: Lead time: End date of quantif Mar 31, 2016 6 C (months) Dec 31, 2017 Minimum months of stock: Maximum months 6 C (months) 18 C (months)	20 months, 30 days	Name of Country/Region/Facility: Fictita Name of the person performing the quantific NTP Adjust medicines quantity for attrition	cation:									
Comment Expected increase in cases enrollment from May 2016	Comment Expected increase in cases enrollment from May 2016 Execute quantification											
Quantity of medicines on hand and on order at the inventory date		Batches Details	Add Edit Delete									
Medicines	Stock Stock on hand on order	Enable Expected receiving date Qu	antity Batch number and/or comments									
Cm(1000) Capreomycin 1000mg Powder for injection	140,545 -	^										
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection	36,827 72,000											
Cs(250) Cycloserine 250mg Capsule(s)	321,059 250,000											
Eto(250) Ethionamide 250mg Film coated tablet(s)	750,000 -											
Lfx(250) Levofloxacin 250mg Film coated tablet(s)	1,019,000 -											
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac	419,656 -											
Pto(250) Protionamide 250mg Film coated tablet(s)	576,059 -											
S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli	400,000 -											
WFI(5) Water for injection 5ml	200,000 -											
Z(500) Pyrazinamide_500mo_Film uncoated tablet(s)	830 724 -											
Cop	pyright © 2012 Management Science:	s for Health, Inc. All rights reserved. Developed by MSH.										

Figure 56

Note: If you re-execute the quantification after some time has passed (e.g., because you have updated case information) but you have not updated your inventory information, stock may have expired since you entered the inventory information. QuanTB will compare stock expiration dates to the inventory date and will prevent you from re-executing the quantification until you have adjusted expiration dates, expected receiving dates, and/or quantities, to ensure an accurate forecast.

If you need additional information on quantifying for multiple years, ancillary medicines, or patient kits, please see Annexes 1, 2, or 3, respectively.

QUANTIFICATION RESULTS

After you execute the quantification, the following **tabs** with quantification results will appear:

ſ	Fictitia_2016	×						
	Parameters	Summary	Medicines Report	Cases Report	Medicines Detailed Report	Order and Schedule	Graphs	
11								

Figure 57

Parameters tab

The Parameters tab includes the information you defined when you began the quantification.

Summary tab

The Summary tab includes a list of all of the medicines in your quantification. For each product, it lists the following information:

On the inventory date

Stock on hand: Quantity of units of medicines available on the inventory date, according to the stock on hand entered in the Parameters tab.

Estim. Months of Stock (excl. on order): This is the estimated number of months of stock on hand as of the inventory date until the day before a stock-out. It doesn't include stock on order. The estimated months of stock on hand equals the stock on hand divided by the monthly consumption. The consumption is based on regimens used and number of cases each month and assumes 100% adherence. The figure appears in red if it is below/at the minimum or above/at the maximum months of stock assigned by you in the parameters. This alerts you to an issue needing attention, e.g., a pending stock-out or stock at risk of expiry due to overstock. If stock on hand at the inventory date is zero, the estimated months of stock will be zero because stock is not counted as available until it has actually arrived. If there is a stock-out, then an order is received, then there is another stock-out during the period being considered, only the first stock-out date is used.

Accelerated order period (with date range)

The **Stock on order**, **Quantity dispensed**, and **Quantity likely to expire** during the accelerated order period are displayed. The Stock on order and quantity likely to expire figures may be blank if they don't occur during accelerated order period. The accelerated order period dates are determined when the system calculates the expected needs, combined with the lead time, stock on hand, and minimum stock level. They are meant to cover consumption during the lead time period. If the accelerated order period ends in the middle of a month, the entire quantity to order for that month is included as an accelerated order.

Regular order period (with date range)

The Stock on hand after accelerated order period, Stock on order, Quantity likely to expire, Estimated consumption (enrolled cases), and Estimated consumption (expected cases) are shown for the regular order period. The regular order period begins the day after the accelerated order period ends and ends on the last day of the quantification period.

Quantity to order (entire date range)

The quantities to order during the **Accelerated order period** and **Regular order period** are shown, along with the **Total** quantity.

	- u			licines Detailed F	Report Order	and Schedule	Graphs						
ictitia NTP Expected in	Crease in cases On the inve Mar 31	entory date	Acce	elerated order pe 1, 2016Sep 30,				egular order peri 1, 2016Dec 31,				Quantity to orde 1, 2016Dec 31	
Medicine	Stock on hand	Estim. months of stock (excluding on order)	Stock on order	(183 days) Quantity dispensed	Quantity likely to expire	Stock on hand after accelerated order period	Stock on order	(457 days) Quantity likely to expire	Estimated consumption (enrolled cases)	Estimated consumption (expected cases)	Accelerated order period	(640 days) Regular order period	Total
Capreomycin 1000mg Powder for injection	140,545	18	-	22,164	-	118,381	-	-	104	149,003	-	81,686	81,686
Kanamycin 1000mg/4ml Solution for injection	36,827	6	72,000	31,656	-	77,171	-	-	338	170,457	48,248	103,616	151,864
Cycloserine 250mg Capsule(s)	321,059	12	-	89,271		231,788	250,000	-	34,119	746,763	-	682,464	682,464
Ethionamide 250mg Film coated tablet(s)	750,000	16	-	173,985	-	576,015	-	-	117,120	855,957	-	839,322	839,322
1													

Figure 58

Medicines report tab

The Medicine reports tab displays the following information for each medicine for each month of the quantification period: Stock on hand, Quantity needed, Quantity likely to expire, Stock on order, Estimated consumption (enrolled cases), Estimated consumption (expected cases), and Estimated consumption (total cases). The Quantity likely to expire will appear in red. If you hover over a cell, you will see the medicine and row name.

Medicine	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Ott-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017 .	lun-2017 J	ul-2017 A	4ug-2017 1	Sep-2017 (0d-2017 I	Nov-2017	Dec-2017
Capreomycin 1000r	ng Powder f	or injection																			
Stock on hand	140,545	139,495	138,307	137,033	135,525	133,473	130,925	127,753	123,931	119,459	114,194	109,034	102,824	63,763	57,203	51,043	44,803	38,323	32,323	25,843	19,60
Quantity needed			1. 1				. (e) .									- (6)			- (A)		1.1
Quantity likely to expire		1.2			1.5	3	357	1.5		(2)	1.2	4	33,136			. 20			130		2
Stock on order		•	1	1 10/1		2 .															
Estimated consumption (enrolled cases)	925	864	702	546	432	286	130					-									
Estimated consumption (expected cases)	125	324	572	962	1,620	2,262	3,042	3,822	4,47	5,265	5,160	6,210	5,925	6,490	6,240	6,240	6,480	6,000	6,480	6,240	6,24
Estimated consumption (total cases)	1,050	1,188	1,274	1,508	2,052	2,548	3,172	3,822	4,47	5,265	5,160	6,210	5,925	6,480	6,240	6,240	6,480	6,000	6,480	6,240	6,24
Kananiycin 1000mg	µ4ml Solutio	n for injectio	n																		
Stock on hand	36,827	34,477	31,831	28,971	25,539	21,248	88,306	82,508	75,85	68,418	59,965	51,925	42,529	33,629	23,909	14,549	5,189			-	
Consection consected	1 1 1 1 1 1 1 1 1	10.61										10000					4 621	0 000	0.750	0.360	0.26
										igure	E0										

Cases report tab

The Cases report tab displays the number of **Enrolled Cases**, **Expected Cases**, and **Total** cases by treatment regimen and by medicine (on a separate tab) for each month of the quantification period. The number of cases displayed is the maximum number of cases of any day in the entire month.

Treatment regimen		Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-201
MDR-TB Regimen 1 (weight	Enrolled Cases	75.00	70.00	68.00	66.00	62.00	60.00	58.00	55.00	53.00	50.00	48.00	45.00	43.00	41
51-70kg)	Expected Cases	5.00	12.00	22.00	37.00	60.00	87.00	117.00	147.00	177.00	207.00	237.00	267.00	297.00	327
	Total	80.00	82.00	90.00	103.00	122.00	147.00	175.00	202.00	230.00	257.00	285.00	312.00	340.00	368

- 1-1	σ	ш	n	0	h	

Treatment regimen Medicine															
Medicine		Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2
Capreomycin 1000mg	Enrolled Cases	37.00	32.00	27.00	21.00	16.00	11.00	5.00	-	-	-	-	-	-	
Powder for injection	Expected Cases	5.00	12.00	22.00	37.00	60.00	87.00	117.00	147.00	172.00	195.00	215.00	230.00	237.00	
	Total	42.00	44.00	49.00	58.00	76.00	98.00	122.00	147.00	172.00	195.00	215.00	230.00	237.00	



Note: The **Treatment regimen** tab on the **Case reports** tab is unavailable when the quantification is only for single-drug regimens.

Medicines detailed report tab

The Medicines detailed report tab allows you to select a medicine from the dropdown and see detailed information about that product's stock during the quantification period. The screen

shows **Stock on hand, Estimated consumption (enrolled cases), Estimated consumption** (**expected cases**), **Estimated consumption (total), Stock on order, Quantity likely to expire**, and the **Minimum quantity to prevent treatment interruption**. The **Quantity likely to expire** will appear in red. The **Minimum quantity to prevent treatment interruption** will appear in red in the months when an accelerated order is needed.

	M	dicine Protonamide 250mg Film coa	fed tablet(s)	4			
icitia NTP Slower enrolment than expected							
Period	Stock on hand	Estimated consumption (enrolled cases)	Estimated consumption (expected cases)	Estimated consumption (total cases)	Stock on order	Quantity likely to expire	Min. qtp. to prevent treatment intercuption
pr 01, 2016Apr 30, 2016 (30 days)	576,059	5,481	375	5,856		1.4	
lay 01, 2016. May 31, 2016 (31 days)	570,203	5,670	972	6.642			
n 01, 2016. Jun 30, 2016 (30 days)	563,561	5,304	1,718	7,020			
il 01, 2016. Jul 31, 2016 (31 days)	556,541	5,148	2,805	8,034			
g 01, 2016. Aug 31, 2016 (31 days)	548,507	5.022	4,860	9,882			
p 01, 2016. Sep 30, 2016 (30 days)	538,625	4,680	6,785	11,466			
101, 2016. Oct 31, 2015 (31 days)	527.159	4,524	9,126	13,650		0i	
v 01, 2016. Nov 30, 2016 (30 days)	513,500	4,290	11,406	15,758		S	
ec 01, 2016 . Dec 31, 2016 (31 days)	497,753	4.134	13,805	17,940		14	
n 01, 2017 Jan 31, 2017 (31 days)	479,813	4,050	16,767	20,817			
b 01. 2017. Feb 28, 2017 (28 days)	458,996	3,456	17,064	20,520		-	
r 01, 2017Mar 31, 2017 (31 days)	438,476	3,645	21,627	25,272			
e 01, 2017 . Apr 30, 2017 (30 days)	413,204	3,225	22.275	25,500	-		
iy 01, 2017, May 31, 2017 (31 days)	387,704	3,321	26,487	29,000		(a	
n 01, 2017. Jun 30, 2017 (30 days)	357,896	2,885	27,845	30,732			
01, 2017. Jul 31, 2017 (31 days)	327,164	2,495	30,185	32,682			
g 01, 2017. Aug 31, 2017 (31 days)	294,482	2,187	33,777	35,954	1.0		
p 01, 2017_Sep 30, 2017 (30 days)	258.510	1,575	33.525	35,100		223,418	• · · · · · · · · · · · · · · · · · · ·
(01, 2017Oct 31, 2017 (31 days)	-	1,295	38,637	39,933			39
w 01, 2017. Nov 30, 2017 (30 days)	-	850	39,546	40,404			40
ec 01, 2017. Dec 31, 2017 (31 days)	-	390	41,805	42.276		54 C	42

Order and schedule tab

The Order and schedule tab has three sub-tabs: **Quantity and Costs, Additional Costs, and Schedule**.

Quantity and Costs

The **Quantity and Costs** tab shows detailed information on the quantities needed for each medicine, separated in tables for **Consolidated regular orders**, **Consolidated accelerated orders**, and **Consolidated total orders** (the sum of regular and accelerated). The accelerated procurement is meant to ensure that you have enough stock before you receive your regular order. The tables are labeled "Consolidated" because there may be multiple accelerated and regular orders. The **Regular order** and **Accelerated order** tables display the:

- Medicines
- Quantity needed (in units)

Adjustment (% of quantity needed): This is customizable by the user. It is "100" by default, meaning no adjustment is needed. By entering other numbers and based on statistics or experience, the order may be adjusted for mortality or loss for follow-up rates, or other trends in the program. If you enter "0" it means that the medicine is not required at all. As an example, if you want to reduce the quantity by 5%, enter 95% to reflect that you want to order 95% of the suggested quantity.

- **Pack size:** This is customizable by the user. Enter the desired or known pack size here; the final quantities of units will be rounded up to a full pack size.
- **Pack price or unit price:** This is customizable by the user and is helpful for estimating budget needs. When using the unit price instead of pack price, enter "1" in Pack Size.
- Adjusted quantity to order (in units)
- Adjusted quantity to order rounded up to pack size
- Cost of the order

Note: You may copy and paste numbers into the Adjustment (% of quantity needed), Pack size, and Pack price or unit price fields from another source (e.g., Excel file, Word table, QuanTB quantification, etc.) by copying a number using Ctrl C, double-clicking into the target field, then pasting by hitting Ctrl V. You may also copy the pack sizes and prices of the regular order to the accelerated order and vice versa.

The **Regular order** and **Accelerated order** adjustments can be entered separately, since they may differ.

Note: You must **SAVE** the quantification after entering or changing data in the Adjustment Pack Size and Pack Price columns **BEFORE** executing the quantification. If you do not save the data you enter, this information will be lost.

The **Total order** table displays the sum of the **Regular order** and **Accelerated order** tables:

- Medicines
- Quantity needed (in units)
- Adjusted quantity to order (in units)
- **Cost of the order** (The cost column is not displayed until you enter a pack price for each quantity needed.)

The **Total cost of medicines** is shown at the bottom of the **Quantity** tab.

Note: If you have not entered a pack price or unit price for a medicine, QuanTB cannot calculate a cost for it and therefore the **Total cost of medicines** figure will not include the cost of that medicine.

Consolidated regular order(s)					Copy pack size	a from accelerated order Copy packs	prices from accelerated order
Mediones	Medicines Quantity needed (in units) Adjustment (Pack size (enter 1 for units)	Adjusted guantity to order rounded up to pack size	Cost		
Capreomyon 1000mg Powder for injection	17,837	100.00	1	5.58	17,837	17,037	99,530,4
Kanamycin 1000mgi4mil Solution for injection	68,696	100.00	50	50 41.30 68.696		1,374	56,746.2
Cycloserine 250mg Capsule(s)	115,575			1,156	49,708.0		
Ethionamide 125mg Film coaled tablet(s)	452,068	100.00	100	6.79	6.79 452.058		30,697.5
Levofloxacin 250mg Film coated tablet(s)	870,202	100.00	100	8.74	870,202	8,703	76,064.2
P-aminosalicytate sodium salt 4000mg PowdenSachet	382,056	100.00	30	39.00	382,056	12,736	496,704.0
Protionamide 250mg Film coated tablet(s)	333,993	100.00	100	15.53	333.993	3,340	51,870.2
Pyrazinamide 500mg Film uncoated tablet(s)	1,688,212	100.00	672	21.00	1,688,212	2,513	52,773.0
onsolidated accelerated order(s)		Adjustment (% of quantity				pack sizes from regular order Copy p Adjusted quantity to order	ack prices from regular order
Medicines	Quantity needed (in units)	needed)	Pack size (enter 1 for units)	Pack price or unit price	Adjusted quantity to order (in units)	rounded up to pack size	Cost
Capreomycin 1000mg Powder for injection		100.00	1	5.58	×	+:	
	20.075	100.00	50	41.30	20.075	402	16,602.6
			100	43.00			
Cycloserine 250mg Capsule(s)					1.1.1		
Cycloserine 250mg Capsule(s) Ethionamide 125mg Film coated tablet(s)		100.00	100	6.79		-	
Cycloserine 250mg Capsule(s) Ethionamide 125mg Film coated tablet(s) Levofloxacin 250mg Film coated tablet(s)	-	100.00 100.00	100 100	6.79 8.74			
Kanampin 1000mpikmi Salation for injection Cycloseine 250mp Capsule(s) Ethiopamate 120mp Film coated tablet(s) Levofoxani 250mp Film coated tablet(s) Pleminosaticitate sodum salt 4000mp (ProviderStachet Statements and Statements)		100.00 100.00 100.00	100 100 30	6.79 8.74 39.00	1	-	
Cyclosente 250mg Capsule(s) Ethionamide 125mg Film coaled bable(s) Levolosani 250mg Film coaled bable(s) Parimosalar(tate sodium sall 4000mg Provider(Sachet Profonamide 250mg Film coaled bable(s))	-	100.00 100.00	100 100	6.79 8.74	1		
Cycloserine 250mp Capsule(s) Ethionamide 125mg Film coated tablet(s) Levolfoxacin 250mg Film coated tablet(s)		100.00 100.00 100.00 100.00	100 100 30 100	6.79 8.74 39.00 15.53	-	-	
Cyclosenia 250mg Capsule(s) Ethionamide 125mg Film coaled fable(s) Leofloxan 250mg Film coaled table(s) P-annocalicitate sodium auf 4000mg Proventilachet Protonamide 250mg Film coaled table(s) Storbionamide 250mg Film coaled table(s)		100.00 100.00 100.00 100.00	100 100 30 100	6.79 8.74 39.00 15.53	-	-	
Crotesterie 200mg Cappule(s) Incrotestation (Stronger Term coaled table(s) Incrotestation (Strong Film coaled table(s) Presonantiele solong Film coaled table(s) Presonantiele solong Film coaled table(s) Presonantiele solong Film coaled table(s) Cost of medicines: 15,602,60 Costoldated total order(s)		100.00 100.00 100.00 100.00 100.00	100 100 30 100 672	6.79 8.74 39.00 15.53 21.00			
Crossente 200mg Capace(s) Incodenta (String Tim coaled tabit(s) Incodenta (String Tim coaled tabit(s) Incodenta (String Tim coaled tabit(s) Protectionale 200mg Tim coaled tabit(s) Protectionale (String Tim coaled table(s) (String Tim coaled table(s) Cost of medicines: 16,862.60 Costoldated total order(s) Mediones		100.00 100.00 100.00 100.00 100.00	190 190 30 972 472 472	6.77 8.74 3.800 155.53 21.00 Adjusted guardit	ry to order (19 units)	-	
prosenie 20mg Capabeles) protection 20mg Film coaled tability) revoluciant 20mg Film coaled tability) revoluciant 20mg Film coaled tability) resonancies 20mg Film uncoaled tability) prantumide 500mg Film uncoaled tability) Cost of medicines: 16.402,60 Cossolisated total order(s)		100.00 100.00 100.00 100.00 100.00	100 100 30 100 672	6.77 8.74 39.00 15.53 21.00 Agusted guard			

Additional Costs

The Additional Costs tab displays the total cost of medicines for regular and accelerated orders, along with line items for additional costs specific to each TB program procurement, such as **Freight, Insurance , Pre-shipment inspection (PSI), Procurement agent, Customs clearance, etc.** These additional costs can be entered as percentage of order value or as flat fees. You can enter your own types of costs and can add or delete the ones listed in the program. Any text you enter will not change if you change the language of the program. All additional costs are added to get the **Cost of Regular Order** and **Cost of Accelerated Order**.

surance 0.0 0.517.2.8 (precentage of mediones costs 0.517.2.8 (precentage of mediones					
Implifie 15.00 352,465.72 by processing of medicines costs Contraction strained synch 0.00 6.512.845.94 by processing of medicines costs Cost regist strained synch 0.00 5.512.05 by processing of medicines costs Cost regist strained synch 0.00 5.512.05 by processing of medicines costs Add Rem strained synch 0.00 5.512.05 by processing of medicines costs Add Rem strained synch 0.00 5.502.05 by processing of medicines costs Cost of medicines costs Consolidated accelerated order(s) Conopolidated accelerated order(s) <t< th=""><th>Cost of medicines 2,556,438.16 (USDI\$)</th><th></th><th>Consolidated regular order(s)</th><th></th><th></th></t<>	Cost of medicines 2,556,438.16 (USDI\$)		Consolidated regular order(s)		
High 15.80 354.45 /2 by providing of medianes costs Ocean Freight Statutes 6.20 6.17.24 /b by providing of medianes costs Ocean Freight How services 6.00 221.33.30 /b providing of medianes costs Ocean Freight How services 860.60 /b y value and for each delivery Addition Addition Total cost of regular orders 3.182.648.66 (950.9) Consolidated accelerated order(s) Consolidated accelerated order(s) Cost of medicines 145.050.00 (950.9) Expension of the costs Method of the provide of medicines costs Addition Bin Parcentage Value (NDDS) Method order(s) Consolidated accelerated order(s) Cost of medicines 145.050.00 (950.9) Sale of the costs of medicines costs Addition Addition Bin Parcentage Value (NDDS) Method order(s) Consolidated accelerated order(s) Cost of medicines 145.050.00 (950.9) In provide of medicines costs Addition Addition Bin Parcentage Value (NDDS) Method of medicines costs Addition Bin Additional Cost in the cost in the cost in the costs Addition Addition Ad	ltern	Percentage	Value (USD/5)	Method	
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Name Operating of maddines only and to each detery Add term conternet agent des contents					Ocean Freight
South Mark Spectral Spectra Spectral Spectral Spectra Spectral Spectral Spectra	Smaled pre-shipment inspection				
Storms Glazance B00.00 (sry usus and for soch delivery Remove item Total cost of regular orders 3.182,648.66 (USD S) Corps file Corps file Cost of medicines 145,923.60 (USD S) Consolidated accelerated order(s) Corps file (p1 medicines 145,923.60 (USD S) Value (USD S) Method Corps file (p2 medicines 145,923.60 (USD S) Value (USD S) Method Corps file (p2 medicines 145,923.60 (USD S) Value (USD S) Method Corps file (p3 medicines 145,923.60 (USD S) Sol 2.74 (pr processing) of medicines costs Method Corps file (p3 medicines 145,923.60 (USD S) Sol 2.74 (pr processing) of medicines costs Method Corps file (p3 medicines 145,923.60 (USD S) Sol 2.74 (pr processing) of medicines costs Method Corps file (p3 medicines 145,923.60 (USD S) Sol 2.74 (pr processing) of medicines costs Method Corps file (p3 medicines 145,923.60 (USD S) Sol 2.74 (pr processing) of medicines costs Method Method (p3 medicines 145,923.74 (pr processing) of medicines costs Method Method Method (p3 medicine) costs Sol 2.74 (pr processing)		8.65			Add item
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Total cost of regular orders 3,182,048.06 (ISDS) Cost of medicines 145,053.00 (ISDS) Cost of medicines 145,053.00 (ISDS) Total cost of medicines 145,053.00 (ISDS) Total cost of medicines 100,000 (ISDS) Total cost of medicines 100,000 (ISDS) Cost of medicines 100,000 (ISDS					Remove item
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Initial (1) 20.00 29.417 /0 by proceedings of medicines costs Comment Jurance 6.40 563.71 by proceedings of medicines costs Air Freight Standard pre-shopment inspection 660.60 by value and free sizes debuty Air Freight Standard pre-shopment inspection 660.60 by value and free sizes debuty Add feam Standard pre-shopment inspection 800.00 by value and free sizes debuty Add feam			Consolidated accelerated order(s)		
urance 0.4 553.74 (p peopretage of threadons costs 74 (p = 0.4 (p	Cost of medicines 145,025.00 (USD/8)	- Providence			
Imited pre-bigment inspection 600.00 by value and for each delivery Add ferm countered specifies 10.50 15.72.11 by percentage of medicines costs 0.000 by value and for each delivery 0.000 by value and for each delivery	Cost of medicines 145,935,60 (USD/8) Bern		Value (USD/5)	Method	Comment
scuement apent the 10.50 15.323 this preventage of maticina costs Add Rem	Cost of medicines 145,025.00 (USDS) Iden	20.00	Value (USD/B) 29,187.60 by percentage of r	Method	Comment
istoms clearance . 800.00 by value and for each delivery	Cost of medicines 145,005.00 (USD 5) sight Bern unifore	20.00	Value (UED/6) 29,187.00 by peccentage of 553.74 by peccentage of	Method nedicines costs nedicines costs	Comment
Remove Rem	Cost of medicines 145.595.60 (USDB) IgH Bern usticos medica pre-adoptment inspection	20.00	Value (USD/5) 29,187.00 by percentage of r 553.74 by percentage of r 600.00 by value and for a	Method medicines costs medicines costs ch delvery	Comment Air Freight
	Cost of medicines 145,525,500 (USD16) split Bern uarding menological mages of the split of the s	20.00 0.40 	Value (UEDIS) 29,187,00 by percentage of 563,74 by percentage of 660,00 by value and for e 15,232,18 by percentage of	Method nedicines costs ch delwny nedicines costs	Comment Air Freight
Copy 9	Cost of medicines 145,935.00 (USD13) scott Memory scott Memory damake grave - subgenet inspection scottement agent me	20.00 0.40 	Value (UEDIS) 29,187,00 by percentage of 563,74 by percentage of 660,00 by value and for e 15,232,18 by percentage of	Method nedicines costs ch delwny nedicines costs	Add item
Total cost of accelerated orders 198,028.92 (USDS)	Cost of medicines 145,935.00 (USD13) scott Memory scott Memory damake grave - subgenet inspection scottement agent me	20.00 0.40 	Value (UEDIS) 29,187,00 by percentage of 563,74 by percentage of 660,00 by value and for e 15,232,18 by percentage of	Method nedicines costs ch delwny nedicines costs	Add item
	Cost of medicines 145,875.69 (USD3) sight Nam burget Annales grave - Automationspection concentent agoing the concentent agoing the	20.00 0.40 	Value (UEDIS) 29,187,00 by percentage of 563,74 by percentage of 660,00 by value and for e 15,232,18 by percentage of	Method nedicines costs ch delwny nedicines costs	Comment Add item Remove item
Grand total cost of all orders 3,380,677.58 (USDIS)	Cost of medicines 145,875.69 (USD3) sight Nam burget Annales grave - Automationspection concentent agoing the concentent agoing the	20.00 0.40 	Value (UEDIS) 29,187,00 by percentage of 563,74 by percentage of 660,00 by value and for e 15,232,18 by percentage of	Method nedicines costs ch delwny nedicines costs	Comment Add item Remove item

Schedule

The **Schedule** tab displays the accelerated and regular order quantities for the quantification. QuanTB will propose a monthly schedule based on the needs and the maximum and minimum levels of stock you have entered. You can select a monthly, all at once, annually, bi-annually, or quarterly order schedule.

The frequency of the orders will determine how many accelerated and regular orders are needed. The accelerated orders appear first. Each order includes the following information: order date, delivery date, medicines, adjusted quantity to order (in units), adjusted quantity to order rounded up to pack size, and costs of medicines, additional costs, and the total for the order.

There are certain rules for the schedules:

- Choosing the "Monthly" delivery order means that an order will be recommended to prevent the stock of any medicine falling below the minimum months of stock and will be for a quantity sufficient to reach the minimum as of the first day of the order month. Please note that the minimum months of stock DOES NOT include stock that may expire.
- Choosing the "All at Once" delivery order means that the date of the order will be calculated based on the day that at least one of the medicines in the forecasting reaches the minimum stock level in the defined period.
- Accelerated orders will appear first on the schedule of deliveries.
- The additional costs you have entered for your forecasting will be applied to each delivery.
- The total number of packs in all orders may vary from the forecasted quantity because of rounding to whole packs for each order.
- The schedule is calculated to ensure that the minimum stock level for each medicine is available on the first day of the month (even if the forecasting period doesn't start on the first day of the month).
- The quantities in the schedule of deliveries are only meant to meet the needs of the forecasting period. If you want or need to buy more in order to remain above your minimum stock level, you can extend the forecasting period, do a new forecasting, or update the current forecasting with new data every three months.
- The order date is calculated as the delivery date minus the lead time.
- When calculating needs and schedules, orders are assumed to be available on the first day of the month in which they are expected, therefore their delivery date is assumed to be one day earlier. For example, if an order is expected to be received in April 2017, QuanTB assumes that the stock in that order will be available on 1 April 2017 and that the stock was delivered on 31 March 2017.

Parameters Summary Medicines Report Cases Report Me	edicines Detailed Report Order and Sc	nedule Graphs						
Quantity and Costs Additional Costs Schedule								
			Schedule of orde	me Quaterly				
Accelerated order # 1 Order date: As soon as possible (should Detivery date: As soon as possible (should	I have been ordered on Jan 1, 2016) I have been delivered on Jul, 01 2016)		Regular order #1 Ditter date: Jun 1, 2016 Dativery date: Deciment date: Dativery date: Deciment date: Dativery date: Deciment date: Dativery date: Deciment date: Dativery date: Deciment					
Medicines	Adjusted guardity to order (in units)	Adjusted quantity to order rounded up to pack size	Cost	Medicines	Adjusted quantity to order rounded up to pack size	Cost		
Km(1000r4) Kanamycin 1000mgl4ml Solution for injection	20.075	402	16,602.60	2(500) Pyrazinamide 500mg Film uncoated tablet(s)	70,608	106	2,226.00	
	Cost of medicines: Additional cost Cost of order		16,602.60 0.00 16,602.60		st of medicines. Additional cost Cost of order		2,226.01 0.01 2,226.01	
Regular order # 2 Order date: Jul 1, 2016 Delivery date: Jan 1, 2017				Regular order # 3 Order date: Oct 1, 2016 Delivery date: Apr 1, 2017				
Medicines	Adjusted quantity to order (in units)	Adjusted quantity to order rounded up to pack size	Cost	Medicines	Adjusted quantity to order (in units)	Adjusted guantity to order rounded up to pack size	Cost	
Z(500) Pyrazinamide 500mg Film uncoated tablet(s)	348,148	519		Km(1000i4) Kanamycin 1000mgi4mi Solution for injection	12,536	251	10,366.30	
				Eto(125) Ethionamide 125mg Film coated tablet(s)	52,864	529	3,591.91	
				Ltr(250) Levolfoxacin 250mg Film coaled tablet(s)	217,342	2,174	19,000.76	
1				PAS(Na) P-aminosalicytate sodium salt 4000mg Powder/Sachet 2(500) Piradinamide 500mg Film uncoated tablet(s)	115,920 398,976	3,864	150,696.00	
				2(500) - yrabininder Souring Feint Gindaleu labreigs)	306,910		12,474.00	
	Cost of medicines: Additional cost		Coat of medicines: Additional coat: Coat of order					
	Cost of order:							
Regular order # 4 Order date: Jan 1, 2017 Delivery date: Jul 1, 2017				Regular order # 5 Order date: Apr 1, 2017 Delivery date: Oct 1, 2017			196,128.97	
Medicines	Adjusted guardity to order (in units)	Adjusted guantity to order rounded up to pack size	Cost	Adjusted guantity to order (in Adjusted guantity to order)		Adjusted guantity to order rounded up to pack size	Cost	
EmittoMith Execution (INVestigation) Column for interface	29.000	643	22 240 40	Cen/40/00 Consecution 40/0/mix Enantar for leading	17.037	17.037	44 673 46	



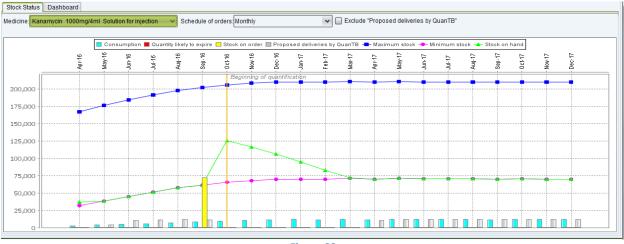
Graphs tab

The **Graphs** tab has two sub-tabs: **Stock Status** and **Dashboard.** You should not rely on these graphs to make decisions—they are simply to depict the highlights of a quantification.

Stock Status

On this tab, you can select a medicine to see the stock movement information graphically, by each type of delivery schedule. You can also exclude planned deliveries from the graph. The line graph shows the following information about the medicine: **Consumption, Quantity likely to expire, Stock on order, Planned delivery, Maximum stock, Minimum stock, and Stock on hand.**

If you have a planned shipment, you should make the delivery date for it one day earlier than the scheduled date so that the **Stock on order** and **Planned delivery** bars in the graph will appear correctly. If you don't adjust the date like this, you will see both a grey bar and a yellow bar on the graph in the same month.



Note: The **Stock Status graph** only provides an overview of the stock situation. For a more accurate view of the stock, you should always consult the **Medicines Detailed Report**.

To copy, save, or print the graph, right click anywhere in it and use the **Copy**, **Save As**, or **Print** options. The name of the medicine will not be included so please make a note of it.

Dashboard

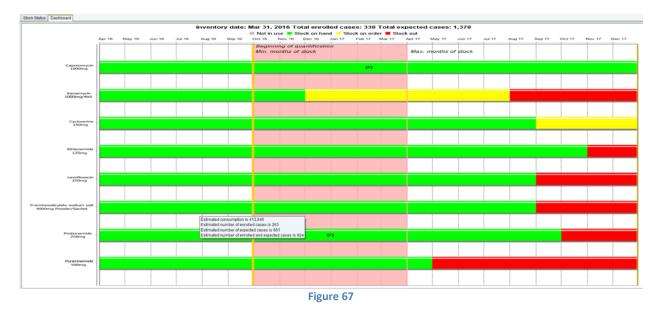
The dashboard displays each medicine's status graphically on a timeline that begins with the inventory date and ends with the quantification period end date. The green color represents stock on hand. The yellow color is displayed for stock on order. The red color indicates a stock-out. The pink background on the chart is for the time in between the minimum and maximum months of stock that you have set. The gray color indicates that there was no stock and no planned consumption of the item during that period. The vertical orange bars mark the beginning and end of the quantification period. Information is displayed according to these rules:

- If stock on hand is zero, the system displays a red bar for the entire period (inventory date until the end of the quantification period).
- When stock is on order, the estimated receiving date for the stock is displayed when you hover over the yellow bar. Where the bar is displayed does NOT represent when the stock is expected to arrive. The yellow bar for stock on order represents the number of months added to your stock on hand based on the quantity to be received. It is displayed at the end of the green stock on hand bar to show this.
- Stock is not considered as available until it is actually received, so the color on the dashboard will still show as red even after the date when the stock is expected to be received.
- After a stock-out occurs, the system displays a red bar from the respective month until the end of quantification period. The system displays stock on order that will arrive later as a yellow bar inside the red bar. However, the system doesn't display a green bar after a red bar even if consumption occurred with enough quantity in stock on order to cover all patients in the future.
- Regardless of the date when stock on order will be received, the system displays a yellow bar for the entire month of receiving in case no consumption is planned to use that specific quantity. If the stock on order arrives when there is enough stock on hand to cover all patients in certain months, the system display the yellow bar only in months when the cases start consuming the stock on order (this is the reason a message with the month and year the stock on order will arrive is necessary).
- If you hover the mouse over the colored bars, the program will show the estimated consumption figure, estimated enrolled, expected, and total cases for that time period.
- If stock is likely to expire in a period, an exclamation point (!) will be centered in the range. Where it appears does NOT represent precisely when the stock is likely to expire.

When reviewing the dashboard, a good guideline to use is that you want to see green bars for each medicine extending into the pink area on the chart. If the green bar for a medicine doesn't reach the

pink area, you are in danger of a stock-out and should take action. If the green bar extends past the pink area, you may be overstocked and at risk of medicines expiring on the shelf.

Note: The **Dashboard** only provides an overview of the stock situation. For a more accurate view of the stock, you should always consult the **Medicines Detailed Report**.



To copy, save, or print the dashboard, right click anywhere in it and use the **Copy, Save As**, or **Print** options.

Saving quantifications

A quantification can be saved at any time, even before execution. Each quantification must be saved manually.

QuanTB does not save data automatically.

Go to the **File** menu and select the **Save** menu option or click on the **Disk** icon in the left upper corner. In the confirmation dialog box that appears, click on the **Yes** button to confirm or **No** to undo it.

🕢 QuanTB - Tube	erculosis Medicines Quantification Tool		-	-							- • ×
File Medicines	& Regimens Import & Export Divide & Merge H	elp									
New) 🗐 📖 📥 🛄 🚥 🚺	6					AT BEATER				
Open				anT	B 4.1		S USAID		SAI	ID S	IAPS
Save				am	D 7.1			EROM T		PEOPLE Syst	ems for Improved Access
Save as	L.	_					Onal DE	- Incontri		to P	narmaceuticais and Services
Close											
st 5 docs>	ummary Medicines Report Cases Report Me	dicines Detailed R	eport Order and	Schedule	Granhs						
Exit			- n			me of Country/R	egion/Eacility:				
	Lead time: End date of quar	ntification: Quar	tification period:			Fictitia	egronin denny.				
Mar 31, 2016	6 C (months) Dec 31, 2017	20 m	onths, 30 davs		ble		n performing the guar	diff and any			
Minimum mont			0.000,000 00,00		Na	NTP	n performing the quar	nuncation:			
						INTE					
6 🗘 (m	nonths) 18 🗘 (mo	nths)			Adi	ust medicines a	uantity for attrition		Select treat	ment regimens	
					/ dj	ast medicines q	danaty for attraction		ociect ireat	nentregimens	
E	Expected increase in cases enrollment from May 20	16									
Comment:						Ð	Execute qu	antificatio	on		
							Execute qu	aununcauv	011		
Enrolled cases	Expected cases Stock of medicines										
Quantity of medi	cines on hand and on order at the inventory date				Batches Det	ails			Add	Edit	Delete
	Medicines	Stock	Stock		Enable	Expected	Expiration date	Quantity	Det	ch number and/	
		on hand	on order			receiving date	Expiration date	Quantity	Bat	ch number and/	or comments
	reomycin 1000mg Powder for injection	140,545	-	^							
	namycin 1000mg/4ml Solution for injection	36,827	72,000								
	serine 250mg Capsule(s)	321,059	250,000								
	namide 250mg Film coated tablet(s)	750,000	-								
	oxacin 250mg Film coated tablet(s)	1,019,000	-								
	inosalicylate sodium salt 4000mg Powder/Sac namide 250mg Film coated tablet(s)	419,656	-								
	and Safety Box Syringe & needle (auto-disabli	576,059 400,000	-								
WFI(5) Water fo		200,000	-								
	amide_500mg_Eilm uncoated tablet(s)	830 724	-	~							
	C	opyright © 2012 Ma	anagement Scienc	es for He	alth, Inc. All rig	hts reserved. De	eveloped by MSH.				
				Figur	e 68						

In the dialog box that appears when you click "Yes," the system directs you to the "Docs" folder of the system but you can select another location on your computer. Fill out the **File Name** field and click on the **Save** button to confirm or **Cancel** to undo it. The **QuanTB** folder button is a shortcut to return you to the docs folder location in the QuanTB program with one click, if you have navigated away from it.

Save forecasting document	×
Save in: 🎉 docs	• 👍 💿 💷
Fictitia 1-1-2013 fast rev.qtb Fictitia 1-1-2013 rev.qtb Fictitia 1-1-2013 slow rev.qtb JEF.qtb	QuanTB folder
File name: new forecasting File Types: Forecasting data file	
	Save Cancel

Figure 69

For saving a previously saved quantification, go to the **File** menu and select the **Save as ...** menu option. The same dialog boxes will appear to save the quantification in a selected folder. Fill out the **File Name** field and click on the **Save** button to confirm or **Cancel** to undo it.

Opening saved quantifications

Saved files can be retrieved later for further work. Go to **File** menu and select the **Open** menu option or click on the **Folder** icon in the left upper corner. In the dialog box that appears, select the location where the file was saved and then double click in the specific file to open or click on the **Open** button. Click on the **Cancel** button to undo it. The **QuanTB** folder button is a shortcut to return you to the docs folder location in the QuanTB program with one click, if you have navigated away from it. The **<Last 5 docs>** option in the **File** menu is also a convenient way to find recent files.

Open forecasting document	x l
Look in: 🚺 docs	• 👍 💼 💷
 Fictitia 1-1-2013 fast rev.qtb Fictitia 1-1-2013 rev.qtb Fictitia 1-1-2013 slow rev.qtb JEF.qtb 	QuanTB folder
File name: File Types: Forecasting data file	
	Open Cancel

Figure 70

Note: If you erase cases and/or percentages data in an executed quantification, then execute the quantification again, QuanTB will generate an error message. The system will disable the existing tabs (except Parameters tab) until adequate data is entered to execute the quantification properly.

Exiting the system

Go to the **File** menu and select the **Exit** menu option or click on the **"X"** in the right upper corner. In the confirmation dialog box that appears, click on the **Save all and exit** button to save your work before exiting or **Exit** to exit. Click **Cancel** if you do not want to exit. All unsaved information will be lost if you exit the system.

🕗 QuanTB - Tuberculosis Medicines Quantification Tool		
File Medicines & Regimens Import & Export Divide & Merge Help		
	QuanTB 4.1	SIAPS Systems for Improved Access to Pharmaceuticals and Services
Fictitia_2016 ×		
Parameters Summary Medicines Report Cases Report Medicine	s Detailed Report 🖞 Order and Schedule 🖞 Graphs	
Inventory date: Lead time: End date of quantificat	ion: Quantification period: Name of Country/Region/Facility:	
Mar 31, 2016 6 (months) Dec 31, 2017 Minimum months of stock: Maximum months of s	Fictitia 20 months, 30 days Name of the person performing the quantification:	
6 C (months)	Exiting the application Exiting the application Select	t treatment regimens
Comment Expected increase in cases enrollment from May 2016 Enrolled cases Expected cases Stock of medicines	What to do next? Save all and exit Exit Cancel	
Quantity of medicines on hand and on order at the inventory date	Batches Details Add	Edit Delete
	Stock Stock Enable Expected receiving date Quantity	Batch number and/or comments
Cm(1000) Capreomycin 1000mg Powder for injection	140,545 -	
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection	36,827 72,000	
Cs(250) Cycloserine 250mg Capsule(s)	321,059 250,000	
Eto(250) Ethionamide 250mg Film coated tablet(s)	750,000 -	
	1,019,000 -	
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac	419,656 -	
Pto(250) Protionamide 250mg Film coated tablet(s)	576,059 -	
S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli WFI(5) Water for injection 5ml	400,000	
Z(500) Pyrazinamide 500mg Film uncoated tablet(s)	830 724 -	
	0.30 (74)	
Copyrig	ht © 2012 Management Sciences for Health, Inc. All rights reserved. Developed by MSH.	

Figure 71

EXPORTING QUANTIFICATIONS TO EXCEL AND PRINTING

Quantifications can be exported into an Excel file (<u>values only</u>) at any stage of the process and saved for references, comparison, or further analysis in Excel, or via Excel in other programs.

Export to Excel

Go to the **Import & Export** menu and select **Export to Excel** or click on the **Excel** icon in the left upper corner. In the dialog box that appears, the system directs you to the "Docs" folder of the system but you can select another location on your computer. Fill out the **File Name** field and click on the **Save** button to confirm or **Cancel** to undo it.

The dashboard and stock quantity graphs will not be exported with the Excel file. You can copy and paste those to another document, save them to another location, or print them. By right clicking on your mouse, you can see the different options, including the option to zoom in and out.

The quantification data can be printed as an Excel file. This is the only print option.

When you export to Excel, you can choose your type of export: All data or Without medicine details. Exporting without the medicine details is faster.

File Medicines & Regimes Importsmore cell Exporte See Importsmore cell Exporte See Importsmore cell Exporte See Importsmore cell Fidta_2016 X Importsmore cell Fidta_2016 X Importsmore cell Parameters Summary Medicines Report Medicines Detailed Report Order and Schedule Graphs Invertory date Lead time: End date of quantification: Quantification period: Iso (months) Dec 31, 2017 20 months of stock: Maimum months of stock: Minimum months of stock: Maimum months of stock: Iso (months) Bit (months) Comment Expected increase in cases enroliment from May 2016 Comment Expected cases Medicines Stock Medicines Stock Medicines Stock Medicines Stock Medicines Stock Minimum months of stock: Maint and on order of medicines Outsity of medicines on hand and on order at the inventory date Batches Details Add Extend for lapaction<	QuanTB - Tuberculosis Medicines Quantification Tool			
Export b Excel Export b Excel QuanTB 4.1 Image: Contract And Contract An	File Medicines & Regimens Import & Export Divide & Merge Hel	lp		
Parameters Summary Medicines Report Cases Report Medicines Detailed Report Order and Schedule Graphs Inventory date: Lead time: End date of quantification: Quantification period: Name of Country/Region/Facility: Inventory date: Lead time: End date of quantification: Quantification period: Fictitia Marinum months of stock: Maximum months of stock: Maximum months of stock: Name of Country/Region/Facility: © (months) 18 © (months) 18 © (months) Adjust medicines quantification: Comment: Expected increase in cases enrollment from May 2016 Execute quantification Comment: Enrolled cases Stock on madicines Quantity of medicines on hand and on order at the inventory date Batches Details Add Medicines 0n hand 0n order Final date Enable Cm(1000) Capreomycin 1000mg Powder for injection 36.827 72.000 Final date Guantity Batche sodium sati 4000mg Amoder comments Cs(250) Crickestine 250mg Film coated table(s) 750.000 - Final date Expiration date Quantity Pasitos Protonamide 250mg Film coated tablet(s) 576.059 -		(()	uanTB 4.1	FROM THE AMERICAN PEOPLE SLAPPS
Inventory date: Lead time: End date of quantification: Quantification period: Name of Country/Region/Facility: If ar 31, 2016 Image: Country of the cou	Fictitia_2016 X			
Intention date Echo date of quantification Column and/or comments Mar 31, 2016 	Parameters Summary Medicines Report Cases Report Med	dicines Detailed Report Order a	d Schedule Graphs	
Minimum months of stock: Maximum months of stock: Minimum months of stock: Minimum months of stock:	Inventory date: Lead time: End date of quanti	ification: Quantification period		
Image: Second	Mar 31, 2016 6 (months) Dec 31, 2017	20 months, 30 days	Name of the person performing the	e quantification:
Adjust medicines quantity Adjust medicines quantity for attrition Select treatment regimens Comment Expected increase in cases enrollment from May 2016 Execute quantification Enrolled cases Expected cases Stock of medicines Quantity of medicines Stock Execute quantification Medicines Nand on order Adjust medicines Details Medicines Stock Stock Enable Expected Cm(1000) Capreomycin 1000mg Powder for injection 140,545 - Adjust medicines Add Edit Delete Enable Expected Expected table(s) 750,000 - - - - Cx(250) Cryotosine 250mg Film coated table(s) 1,019,000 - - - - PAS(Na) P-aninosalicytate sodium sati 4000mg Powder/Sac 419,656 - - - PAS(Na) P-aninosalicytate sodium sati 4000mg Powder/Sac 419,656 - - - VHF(5) Water for injection 5ml 200,000 - - - -	Minimum months of stock: Maximum months	s of stock:	NTP	
Comment Execute quantification Enrolled cases Expected cases Stock of medicines Quantity of medicines on hand and on order at the inventory date Batches Details Add Edit Delete Medicines on hand on order Image: Comment Batches Details Add Edit Delete Cm(1000) Capreomycin 1000mg Powder for injection 36.827 72.000 Comments Comments Image: Comments	6 C (months)	ths)	Adjust medicines quantity for attrition	on Select treatment regimens
Guantity of medicines on hand and on order at the inventory date Batches Details Add Edit Delete Medicines Stock on hand on order Image: Comparison of the inventory date Enable Expected receiving date Expiration date Quantity Batches Details Add Edit Delete Cm(1000) Capreomycin 1000mg Powder for injection 140,545 - <t< td=""><td></td><td>6</td><td>Exect</td><td>ute quantification</td></t<>		6	Exect	ute quantification
Medicines Stock on hand Stock on order Enable Expected receiving date Expiration date Quantity Batch number and/or comments Cm(1000) Capreomycin 1000mg/dml Solution for injection 140,545 -	Enrolled cases Expected cases Stock of medicines			
Cm(1000) Capreomycin 1000mg / Powder for injection 140,545 - Cm(1000) Capreomycin 1000mg / Powder for injection 36,827 72,000 Cs(250) Cycloserine 250mg Capsule(s) 321,059 250,000 Eto(250) Eto(2	Quantity of medicines on hand and on order at the inventory date		Batches Details	Add Edit Delete
Km(1000/4) Kanamydin 1000mg/4ml Solution for injection 36.827 72.000 Cs/250) Cyclosenine 250mg Capsule(s) 321.059 250,000 Eta(250) Ethionamide 250mg Film coated tablet(s) 750,000 - Lth(250) Levolfoxacin 250mg Film coated tablet(s) 1.019,000 - PAS(Na) P-aminosalicytate sodium salt 4000mg Powder/Sac 419,656 - Pto(250) Protionamide 250mg Film coated tablet(s) 576,059 - S&M-521Cx1.5 and Safety Box Syninge & needle (auto-disabili 400,000 - WFI(5) Water for injection 5ml 200,000 -	Medicines		receiving date Expiration date	e Quantity Batch number and/or comments
Cs(250) Cycloserine 250,000 Eto(250) Ethionamide 250mg Film coated table(s) 750,000 Ltp(250) Ltp(250) Ltp(250) Ltp(250) Ltp(250) Ltp(250) PAS(Na) P-aminosalicylate sodium salt 400,000 - P40(250) Protionamide 250mg Film coated table(s) S&N-5i21Ck1.5 and Safety Box Syninge & needle (auto-disabili WFI(5) Water for injection Smi				
Etc(250) Ethionamide 250mg Film coated tablet(s) 750.000 - LM(250) Levofloxacin 250mg Film coated tablet(s) 1,019.000 - PAS(Na) Parininosalicytates sodium sait 4000mg Powder/Sac 419.656 - Pto(250) Protionamide 250mg Film coated tablet(s) 576.059 - S&N-5121Gk1.5 and Safety Box Syntoge & needle (auto-disabili 400.000 - WFI(5) Water for injection 5ml 200.000 - -				
Lfx(250) Levofloxacin 250mg Film coated tablet(s) 1,019,000 - PAS(Na) P-aminosalicytate sodium salt 4000mg Powder/Sac 419,656 - Pto(250) Protionamide 250mg Film coated tablet(s) 576,059 - S&N-5221Cx15 and Safety Box. Syninge & needle (auto-disabili 400,000 - WFI(5) Water for injection 5mil 200,000 - -				
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac 419,656 - Pto(250) Protionamide 250mg Film coated tablet(s) 576,059 - S&N-521Cs(1.5 and Safety Box Syninge & needle (auto-disabil 400,000 - WFI(5) Water for injection 5ml 200,000 -				
Pto(250) Profilonamide 250mg Film coaled tablet(s) 576.059 - S&N-5/21 Ckr1.5 and Safety Box Symple & needle (auto-disabili 400,000 - WFI(5) Water for injection 5ml 200,000 - -				
S8N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabili 400,000 - WFI(5) Water for injection 5ml 200,000 -				
WFI(5) Water for injection 5ml 200,000				
Z(500) Pyrazinamide 500mg Film uncoated tablet(s) 830 724 -	Z(500) Pyrazinamide 500mg Film uncoated tablet(s)	830.724 -	~	
Copyright © 2012 Management Sciences for Health, Inc. All rights reserved. Developed by MSH.	Co	pyright © 2012 Management Scie	nces for Health, Inc. All rights reserved. Developed by MS	H

Figure 72

Note: The format of the Excel file is controlled by the user's Windows configuration. For example, if you are using the Russian version of QuanTB and your computer's Windows configuration is English (United States), the QuanTB Excel file date and number formats will be in English (United States).

An example of the All details exported Excel file is shown below. There are multiple tabs of information, including a separate tab for each medicine. The Excel export file without the medicine details does not contain the separate tabs for each medicine.

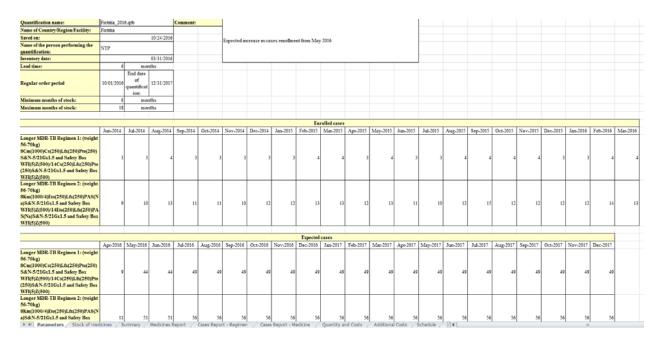


Figure 73

DIVIDING AND MERGING A QUANTIFICATION

Dividing a quantification

QuanTB has an option to divide a quantification. This may be useful, for example, if you create a multi-year quantification and you want to divide it by year for procurement planning purposes. To divide a quantification, open the quantification file, click the **Divide & Merge** menu, and then click **Divide quantification**.

QuanTB - Tuberculosis Medicines Quantification Tool									
File Medicines & Regimens Import & Export Divide & Merge	Help								
🗋 🚞 💾 🗢 🗃 💷 📟 🛄 🖬 Divide quantificati Merge quantificati		Qua	anTB 4.1					PEOPLE S	IAPS of marcel and Services
Fictitia_2016 🗙									
Parameters Summary Medicines Report Cases Report M	edicines Detailed R	eport Order and S	chedule Graphs						
Inventory date: Lead time: End date of qua Mar 31, 2016 6 (months) Dec 31, 201 Minimum months of stock: Maximum mon 6 (months) 18 (months)	7 🔯 20 m ths of stock:	ntification period: ionths, 30 days	N	NTP	n performing the qua	antification:			
Comment: Expected increase in cases enrollment from May 21	016				eantity for attrition	quantificati		nent regimens	
Quantity of medicines on hand and on order at the inventory date			Batches D	tails			Add	Edit	Delete
Medicines	Stock on hand	Stock on order	Enable	Expected receiving date	Expiration date	Quantity	Bat	ch number and/c	r comments
Cm(1000) Capreomycin 1000mg Powder for injection	140,545	-	^						
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection	36,827	72,000							
Cs(250) Cycloserine 250mg Capsule(s)	321,059	250,000							
Eto(250) Ethionamide 250mg Film coated tablet(s)	750,000	-							
Lfx(250) Levofloxacin 250mg Film coated tablet(s)	1,019,000	-							
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac	419,656	-							
Pto(250) Protionamide 250mg Film coated tablet(s) S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli	576,059 400,000	-							
WFI(5) Water for injection 5ml	200,000								
Z(500) Pyrazinamide_500mg_Film uncoated tablet(s)	830 724	-	~						
	Copyright © 2012 Ma	anagement Science	s for Health, Inc. All r	ghts reserved. De	eveloped by MSH.				



A screen will appear so that you can enter the parameters of the subdivided forecasting. After it is saved, the subdivided quantification will function like a regular quantification. The new quantification only has information in the parameters tab, so you must execute it to see the results, after you have reviewed the parameters.

Divide quantification	sectors in a line	×
Name of Country/Region/Fac	ility:	Fictitia
Name of the person performi	ng the quantification:	NTP
Comment:	Expected increase in cases enrolln	nent from May 2016
Inventory date:	Mar 31, 2016	
Lead time:	6 🗘 (months)	
End date of quantification:	Dec 31, 2017	21 months
Minimum months of stock:	6 C (months)	Maximum months of stock: 18 🗘 (months)
Save Cancel		

Figure 75

Certain rules must be understood when dividing a quantification:

- Your inventory date in the subdivided quantification cannot be earlier than the inventory date of the original quantification.
- The start and end dates of the subdivided quantification cannot be earlier than the inventory date of the original quantification or after the end of the original quantification.
- If you move the inventory date later than the inventory date of the original quantification, expected cases from the original quantification will become enrolled cases. Also, stock on order will become stock on hand and some stock may expire. If the inventory date is in the future, the stock information becomes an estimate.
- If there was no expiration date entered for the stock on order, it will not have an expiration date when it becomes stock on hand. QuanTB will consider the expiration date to be the end of the quantification period. The system will allow you to leave the expiration date blank. For greater accuracy in your new subdivided quantification, enter an estimated expiration date for the stock on hand before you save, execute the quantification, or export it to Excel.
- If the stock on order from the original quantification has an expected date after the inventory date of the subdivided quantification, it will still be stock on order in the subdivided quantification.
- If the stock on order from the original quantification has an expected receiving date at or earlier than the inventory date of the subdivided quantification, it becomes stock on hand in the subdivided quantification.
- If your original quantification was done by percentage (rather than by number), the percentages in the subdivided quantification may be different.

- When you divide a quantification, you will lose the pack size and price information from the original quantification.
- If you add up the total quantities from your subdivided quantifications, they may not match the total of the original quantification. This is because of how the inventory date can interact with the days medicines are consumed (frequency), when the regimen does not specify that the patient take a medicine every day. Another reason for a mismatch is because of how the lead time can overlap different quantification periods defined in consecutive subdivided quantifications.

After you have subdivided your quantification and reviewed the parameters, save it and execute it as you would a normal quantification. You will be prompted to enter an expiration date for the medicines if they don't have one.

Merging a quantification

QuanTB has an option to merge multiple quantification files. This is helpful, for example, if you have quantifications done at the regional level of a country and want to combine them at the central level. To merge two or more quantification files, open the relevant quantification files, then go to the **Divide & Merge** menu and click the **Merge quantifications** option. Ensure that you have saved the quantification files before merging them, because any changes made since the last time you saved the files will not be merged.

QuanTB - Tuberculosis Medicines Quantification Tool		_	_	_					
File Medicines & Regimens Import & Export Divide & Merge H	lelp								
🗋 🚞 🛗 🗢 🖲 💷 🖬 🖬 🖬 Twide quantificati Merge quantificati		Qu:	anTE	34.1					SIAPS Parterns for Improved Access Pharmaceuticals and Services
Fictitia_2016 🗙 JEF Test 🗙									
Parameters Summary Medicines Report Cases Report M	edicines Detailed R	eport Order and	Schedule	Graphs					
Inventory date: Lead time: End date of qua		ntification period: onths, 30 days		Fictitia					
Mar 31, 2016 6 (months) Dec 31, 2017 Minimum months of stock: Maximum mont		onuis, so days		Name of the NTP	person performing the (quantification			
6 C (months)	onths)			Adjust medici	nes quantity for attrition		Select treatr	nent regimen	s
Expected increase in cases enrollment from May 20 Comment Enrolled cases Expected cases Stock of medicines	116			[Execute	e quantifica	ation		
Quantity of medicines on hand and on order at the inventory date			В	atches Details		[Add	Edit	Delete
Medicines	Stock on hand	Stock on order		Enable Expect receiving		Quantity	Bat	ch number an	d/or comments
Cm(1000) Capreomycin 1000mg Powder for injection	140,545	-	^						
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection	36,827	72,000							
Cs(250) Cycloserine 250mg Capsule(s)	321,059	250,000							
Eto(250) Ethionamide 250mg Film coated tablet(s)	750,000	-							
Lfx(250) Levofloxacin 250mg Film coated tablet(s)	1,019,000	-							
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac Pto(250) Protionamide 250mg Film coated tablet(s)	419,656 576,059	-							
S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli	400.000	-							
WFI(5) Water for injection 5ml	200,000								
Z(500) Pyrazinamide_500mg_Film uncoated tablet(s)	830 724	-	~						
	Copyright © 2012 Ma	anagement Science	es for Health	n, Inc. All rights reserv	red. Developed by MSH.				

Figure 76

A screen will appear for you to select which quantifications you want to merge. Tick the boxes to select the quantifications, then click **OK** to continue or **Cancel** to cancel. A new quantification

will be created from the quantifications you selected. The new quantification is only merging the parameters of the component quantifications, so you must execute it to see results, after you have reviewed the parameters.

When you merge quantifications, the system checks the inventory date, quantification start date, type of regimen, whether the quantification was done by numbers or percentages, then the regimens themselves to ensure that these values are the same in all quantifications. The order in which the files are checked is the order that the quantifications appear on the selection list for the merge. This means that the second file is compared to the first and if the second one doesn't match, you will get an error. If the first and second match, the third is the next to be compared, and so on. The order the quantifications appear on the list is determined by the order in which you opened the quantification files in the program before you selected the Merge option.

Note: We recommend that all parameters of component files be the same when merging files.

Select forecasting	g files to merge 🧮	x
	Forecasting files	
	Fictitia 1-1-2013 fast rev.qtb	
	Fictitia 1-1-2013 slow rev.qtb	
Ok	Cancel	

Figure 77

Certain things must be understood when merging quantifications:

- The inventory date must be the same in all of the files to be merged.
- The merged file will have the longest lead time and the longest quantification period of the component files.

- The merged file will not have the maximum and minimum months of stock, the name of the country/region/facility or the name of the person performing the quantification.
- You can only merge quantifications if they were done by the same method, i.e., by number or by percentage. You cannot merge a quantification done by number with a quantification done by percentage.
- You can only merge quantifications if they were done for the same regimen type, i.e., multidrug or single-drug. You cannot merge a quantification using multidrug regimens with a quantification using single-drug regimens.
- You can merge quantifications done by percentage if the enrolled and expected cases are both done by percentage, if the composition of the regimens is the same, and if each quantification's regimens have the same percentage.
 - If the component quantifications done by percentage have multidrug regimens, the enrolled and expected cases for each regimen must have the same percentage in each quantification. (The percentage for enrolled and the percentage for expected can be different from each other.)
 - If the component quantifications done by percentage have single-drug regimens, you can have different regimens as long as the percentages for the regimens that exist in more than one quantification are the same. Each regimen of the enrolled and expected cases can have different percentages as long as they are the same in the other quantifications to be merged.
- When you merge quantifications, the merged file will not have pack prices or sizes.

Regular monitoring

When used regularly (e.g., quarterly or monthly), QuanTB can serve as an effective early warning system to monitor the availability of medicines. This is especially important for rapidly expanding programs, or programs phasing-in/phasing-out TB medicines or regimens. A previously developed quantification file can be opened a month or a quarter later, saved as a new forecast, and edited for actual cases versus planned for the elapsed period, stock of medicines on hand updated to reflect the consumption, stock on order turned into stock on hand with expiration dates, etc. QuanTB will then alert you to possible issues that may lead to treatment interruptions or waste of medicines. If the stock of a medicine is below the minimum level or above the maximum level, it will appear in red in the Estimated months of stock column.

For example, a TB program may appear to be quite balanced in the beginning of year, with sufficient stock of medicines to cover current and expected cases through the year until the next regular procurement, with some medicines being over the maximum set level of 12 months (below):

ictitia NTP Expected inc	rease in cases	enrollment from	m May 2016										
	On the inve Mar 31		Accelerated order period Apr 01, 2016Sep 30, 2016 (183 days)					egular order peri 1, 2016Dec 31, (457 days)	Quantity to order Apr 01, 2016Dec 31, 2017 (640 days)				
Medicine	Stock on hand	Estim. months of stock (excluding on order)	Stock on order	Quantity dispensed	Quantity likely to expire	Stock on hand after accelerated order period	Stock on order	Quantity likely to expire	Estimated consumption (enrolled cases)	Estimated consumption (expected cases)	Accelerated order period	Regular order period	Total
Capreomycin 1000mg Powder for injection	140,545	18	-	22,164		118,381	-	-	104	149,003	-	61,302	61,302
Kanamycin 1000mg/4ml Solution for injection	36,827	6	72,000	31,656	-	77,171	-	-	338	170,457	25,535	103,033	128,568
Cycloserine 250mg Capsule(s)	321,059	12	-	89,271	-	231,788	250,000	-	34,119	746,763	-	529,116	529,116
Ethionamide 250mg Film coated tablet(s)	750,000	16	-	173,985	-	576,015	-	-	117,120	855,957	-	662,418	662,418

Parameters Summary Medicines Report Cases Report Medicines Detailed Report Order and Schedule Graphs



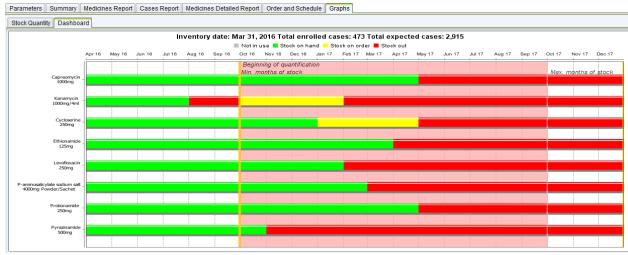
The situation in that same TB program may look very different three months later when it becomes clear that the number of actually enrolled cases during the previous quarter exceeds the planned numbers, and so will the expected number (e.g., due to successful implementation of new diagnostic technology). Some medicines (with estimated months of stock shown in red) are now at the critical level of availability and will require accelerated procurement:

Parameters Summa	ry Medicines F	tepon Case:	sixepoir med	inclines Detailed I	(epoir order	and Schedule	Graphis							
ctitia NTP Faster enrol	Iment than expe	cted												
	On the inve Mar 31		Accelerated order period Apr 01, 2016Sep 30, 2016 (183 days)				Regular order period Oct 01, 2016Dec 31, 2017 (457 days)					Quantity to order Apr 01, 2016Dec 31, 2017 (640 days)		
Medicine	Stock on hand	Estim. months of stock (excluding on order)	Stock on order	Quantity dispensed	Quantity likely to expire	Stock on hand after accelerated order period	Stock on order	Quantity likely to expire	Estimated consumption (enrolled cases)	Estimated consumption (expected cases)	Accelerated order period	Regular order period	Total	
Capreomycin 1000mg Powder for injection	140,545	13	-	49,278	-	91,267	-		1,300	185,860	-	158,293	158,293	
Kanamycin 1000mg/4ml Solution for injection	36,827	4	72,000	37,897	-	70,930	-	-	1,040	247,120	100,500	178,880	279,380	
Cycloserine 250mg Capsule(s)	321,059	9	-	167,874	-	153,185	250,000	-	137,823	980,355	106,282	1,117,661	1,223,943	
Ethionamide 125mg Film coated tablet(s)	750,500	12	-	252,297	-	498,203	-		166,935	1,291,500	-	1,623,232	1,623,232	

Parameters Summary Medicines Report Cases Report Medicines Detailed Report Order and Schedule Graphs

Figure 79

The details for every medicine by month can be found in the **Reports** tabs and the whole situation will also be reflected on the graphs:





In yet a different scenario, that same program three months later may be failing to enroll the planned number of cases, e.g., due to slower than planned uptake of diagnostic technology, or lack of funding for patient care. In this case, it will be alert to the impending expiration of some medicines:

Parameters Summar	y Medicines F	Report Cases	Report Med	icines Detailed F	Report Order	and Schedule	Graphs						
ictitia NTP Slower enroll	Iment than expe	ected											
	On the inve Mar 31			elerated order pe 1, 2016Sep 30, (183 days)				egular order perio 1, 2016Dec 31, (457 days)			Quantity to order Apr 01, 2016Dec 31, 2017 (640 days)		
Medicine	Stock on hand	Estim. months of stock (excluding on order)	Stock on order	Quantity dispensed	Quantity likely to expire	Stock on hand after accelerated order period	Stock on order	Quantity likely to expire	Estimated consumption (enrolled cases)	Estimated consumption (expected cases)	Accelerated order period	Regular order period	Total
Capreomycin 1000mg Powder for injection	140,545	21	-	9,620	-	130,925	-	33,136	130	84,296	-	17,837	17,837
Kanamycin 1000mg/4ml Solution for injection	36,827	8	72,000	20,521	-	88,306	-	-	312	129,965	20,075	68,696	88,771
Cycloserine 250mg Capsule(s)	321,059	17	-	48,900		272,159	250,000		42,333	384,021	-	115,575	115,575
Ethionamide 125mg Film coated tablet(s)	750,500	19	-	143,319	-	607,181	-	-	108,906	617,673	-	452,068	452,068
1													

Figure 81

When using QuanTB files for early warning system monitoring, you must update the following parameters:

- Inventory date
- Quantification period, if the time period for the quantification period is below the sum of inventory date plus the lead-time date. In this situation, you must extend your quantification period but you do not need to include additional cases in the expected cases tab.
- Expected cases
- Stock of medicines (stock on hand and stock on order). If stock is expired, you must delete that stock from the system, or the system will display an error message. If you have received a stock previously on order, make sure it is deleted from the system and included as stock on hand.

For example, if you have to update every three months, you need to ensure that you collect the current total number of enrolled cases per month in the previous three months and enter in the enrolled case field. For expected cases, review the patient trend to make sure it is the same based on current enrolled cases collected. If the trend is not the same, make adjustments as needed.

We strongly recommend that you update your forecast with current information every three months and execute it again.

Viewing QuanTB files created by others

QuanTB quantification files can be e-mailed to others for review. Files can be accessed in the locations where QuanTB was saved after installation. Go to the Docs folder (e.g., C:\Users\yourname\QuanTB\docs) to select the QuanTB quantification file you want to email to your colleague.

Upon receipt of your QuanTB quantification file, your colleague can save the file in a location where it can be accessed. The QuanTB quantification file can be opened and your colleague can view or make certain changes in the file received. However, he or she will not have access to the medicines and regimens lists (dictionaries) for that quantification in the system unless they are added to the colleague's copy of QuanTB. To do this, open the other person's quantification file, go to the **Medicines & Regimens** menu, and then click **Add from quantification**.

QuanTB - Tuberculosis Medicines Quantification Tool			
File Medicines & Regimens Import & Export Divide & Merge H	lelp		
🗋 Edit medicines 🔰 📁 🛄 💴 💴	C		
Edit treatment regimens			anTB 4.1 (SIAPS of
Add from quantification			EROM THE AMERICAN PEOPLE Systems for Improved Access
	_		the second
Fictitia_2016 🗙 JEF Test 🗙			
Parameters Summary Medicines Report Cases Report Me	edicines Detailed R	leport Order and S	Schedule Graphs
Inventory date: Lead time: End date of gua	ntification: Quar	ntification period:	Name of Country/Region/Facility:
			Fictitia
Mar 31, 2016 🔯 🚺 6 🗘 (months) Dec 31, 2017	7 🔟 20 m	nonths, 30 days	Name of the person performing the quantification:
Minimum months of stock: Maximum mont	hs of stock:		NTP
6 ♀ (months) 18 ♀ (mo	onthe)		
6 C (months)	Shursy		Adjust medicines quantity for attrition Select treatment regimens
Expected increase in cases enrollment from May 20	16		
Comment	10		
Comment			Execute quantification
Enrolled cases Expected cases Stock of medicines			
Quantity of medicines on hand and on order at the inventory date			Batches Details Add Edit Delete
Medicines	Stock	Stock	Enable Expected Expiration date Quantity Batch number and/or comments
	on hand	on order	receiving date
Cm(1000) Capreomycin 1000mg Powder for injection	140,545	- 72,000	
Km(1000/4) Kanamycin 1000mg/4ml Solution for injection Cs(250) Cycloserine 250mg Capsule(s)	36,827 321.059	250.000	
Eto(250) Ethionamide 250mg Film coated tablet(s)	750,000	230,000	
Lfx(250) Levofloxacin 250mg Film coated tablet(s)	1,019,000	-	
PAS(Na) P-aminosalicylate sodium salt 4000mg Powder/Sac	419,656	-	
Pto(250) Protionamide 250mg Film coated tablet(s)	576,059	-	
S&N-5/21Gx1.5 and Safety Box Syringe & needle (auto-disabli	400,000	-	
WFI(5) Water for injection 5ml	200,000	-	
Z(500) Pyrazinamide_500mg_Film uncoated tablet(s)	830 724	-	V
	Copyright © 2012 M	anagement Sciences	es for Health, Inc. All rights reserved. Developed by MSH.

Figure 82

QuanTB will then automatically compare the medicines and regimens in the quantification file to the medicines and regimens in your copy of QuanTB and will add any new ones to your dictionary files (lists).

It is important to note the following about the adding process:

- When QuanTB compares the medicines in the quantification to the medicines in your dictionary, it will not import a medicine with an identical name, strength, form, etc. It will import the medicine if there are any differences, even if the difference is only slight.
- When QuanTB compares the regimens in the quantification to the regimens in your dictionary, it will not add regimens with identical compositions to your regimens. If there are any differences between a quantification's regimen and your regimen—even only a space or a period—it will add the regimen to your dictionary.

After QuanTB compares the medicines and regimens in the quantification file to those in your dictionary and adds the ones that you are missing, it will display a screen summarizing the medicines and regimens that were imported.

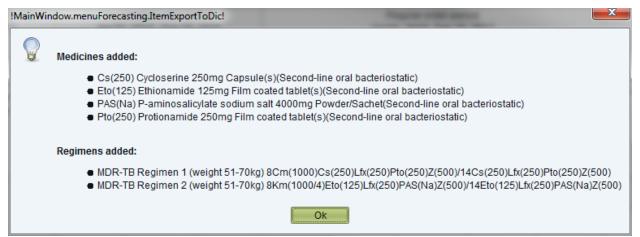


Figure 83

ANNEX 1: QUANTIFYING FOR MULTIPLE YEARS

QuanTB can be used for multiple year forecasts to determine budget requirements for procurement and planning purposes. Follow the steps below for a multiyear forecast. If you later want to divide a multi-year forecast, e.g., to determine annual procurement quantities, use the **Divide Quantification** option.

- 1. Customize the **medicines** and **treatment regimens** as required to match your situation.
- 2. Click **File**, then **New** to begin a new quantification.
- 3. **Inventory date:** Since no stock information is required for this forecast, you can enter a date one month before your quantification period. Recall that your quantification period should be a date greater than the inventory date and the lead-time in months.
- 4. Lead time in months: Since this exercise is not for procurement, but just to determine the budget, you can simply enter the number 1 in this field.
- 5. End date of quantification: This should be set to create a two- to five- year forecast, or longer as required.
- 6. **Minimum months of stock:** Enter the number 1.
- 7. Maximum months of stock: Enter the number 1.
- 8. **Regimen type:** Select Multidrug or Single drug, as appropriate.
- 9. Enrolled cases: Use the option of By number.
- 10. Expected cases: Use the option of By number.
- 11. Select the regimens or single medicines for the forecast, then click **Save**.
- 12. **Enrolled cases:** Leave this field blank since we are estimating needs for future cases. You will receive a warning message informing you that at least one enrolled case should be entered for each regimen or medicine. Select "yes" and continue.
- 13. **Expected cases:** There are two options to input cases in this field:
 - a. *Option 1*: Enter the total number of cases expected by **month** for each regimen or medicine starting from the first month of your quantification period. Example, if you have a total of 1260 cases to enroll in two regimens with a regimen split of 80% and 20% for a quantification period between Jan. 1 2014 to Dec. 31, 2016; you have to enter 28 cases for regimen A and 7 cases for regimen B each month.

After entering data in the last month (Dec. 31, 2016), go back and change your forecast period from Dec. 2016 to Dec. 2018. DO NOT ENTER ADDITIONAL DATA from Jan. 2017. Because QuanTB computes patient needs as they are enrolled, patients enrolled in Dec. 2016 would only have received one month of treatment, in Nov. 2016, 2 months of treatment and so on. For complete treatment quantities, you have to extend the quantification period without adding additional data to allow patients complete their treatment. When planning for procurement, and considering enrolled cases and stock information is considered, you do not need to do this because with regular planning and updating of QuanTB, medicines will be purchased and consumed as patients are enrolled.

- b. *Option 2*: Enter the total number of cases expected for each regimen or medicine for the *total duration of the forecast* in the field for the first month of the quantification period. Using the same example above, enter 1008 cases for regimen A and 252 cases for regimen B in Jan. 1, 2014. For this option, make sure that the quantification period is equal to or longer than the duration of treatment. If not, follow instructions for option 1 above.
- 14. Stock of medicines: Leave this field blank. The forecast is for budget purposes only.

15. Execute quantification.

16. Save your result.

ANNEX 2: QUANTIFYING FOR ANCILLARY MEDICINES

The main challenge with quantifying ancillary medicines is making sure you have the right data. Most countries do not collect and compile data on adverse events and some countries do not have standardized guidelines for managing adverse events. In such situations, you need to use proxy data that would provide the most accurate estimate for your forecast. As data becomes available, later forecasts should be more evidence-based.

Some key data requirements are:

- List of recommended ancillary medicines for TB adverse events treatment.
- Ancillary medicine specifications (medicine name, strength, unit/pack price, etc.)
- Recommended quantity, duration, and frequency for each condition treated.
- Historic data on number or percentage of TB cases that will be treated with ancillary medicines.
- Data on total number or percentage of patients enrolled to receive ancillary medicine for the most recent 6 months (if the program is long-running).
- Previous quantification assumptions used for ancillary medicine quantification (if previously done).
- Country targets, expansion plans, planned interventions, etc. for TB ancillary treatment in the country.
- Total quantity of stock on hand for each ancillary medicine, with:
 - Expiration dates for each ancillary medicine by batch
 - Total quantity of stock on order (order placed but not yet received) for each ancillary medicine and date order is expected for delivery
 - Total lead time for procurement (consider total lead time from planning, to ordering, to shipment, to actual receipt in central warehouse for distribution
 - Total minimum stock level (consider all health care levels)

To forecast for ancillary medicines, you should use the **Single Drug** option for this forecast. You cannot use the single drug option and the regimen option at the same time. If you quantify other medicines by regimen, you must perform a separate quantification for single drugs.

To forecast using QuanTB, follow the steps below:

- 1. Select your **medicines** and **treatment regimens**. For each medicine, include the total duration of time for treatment per case for the entire period of treatment. (Some adverse events may be treated two or three times during the course of a TB treatment; ensure you agree on an average to use for the forecast.)
- 2. Click **File**, then **New** to begin a new quantification.
- 3. **Inventory date:** Enter the date you took your stock status information. If no previous stock information is available, then ensure the quantification period is equal to or greater than the sum of the inventory date and the lead time in months.
- 4. **Lead time in months:** Enter the total time required from planning until medicine is received in the store.
- 5. **Quantification period:** Enter the period for which you are quantifying.
- 6. Minimum months of stock: Enter the minimum stock level agreed on for the medicines.
- 7. **Maximum months of stock:** Enter the maximum stock level agreed on for the medicines.
- 8. **Regimen type:** Select the **Single drug** option and select to forecast either by number or by percent depending on the data available.
- 9. Select regimens: Select the regimens you want to include in the forecast.
- 10. Click Save.
- 11. **Enrolled cases:** Enter the percentage of enrolled cases for each medicine. Then enter the total number of enrolled cases per month.
- 12. **Expected Cases:** Enter the percentage of expected cases for each medicine. Then enter the total number of expected cases per month.
- 13. **Stock of medicines:** Leave these fields blank if no data is available (that is, if medicines have not been purchased by the program in the past).

14. Click **Execute quantification**.

15. Save your results.

QuanTB does not have a specific feature to forecast patient kits, i.e., the complete medicine requirement for the duration of treatment in one box for one patient. QuanTB considers patient needs based on their enrollment date and calculates their needs (number of tablets per day, number of days per week, and duration in months) for the complete month (28, 30, or 31 days depending on the calendar month) until the quantification period ends. This means that if you assume that each case will receive 3 tablets daily for 7 days, QuanTB calculates that until treatment is complete and does not take into account wastages and weight adjustments during the forecasted period. Wastages can be adjusted in the order tab.

To forecast for patient kits, follow the steps below:

- 1. Create the kits as medicines in the **Medicines list**. If the kit contains two or more different products, you must enter each under separate names in the INN field. To differentiate regular medicines from patient kit medicines, set your medicine INN name as "patient kit" including any other identifiers if you have multiple kits in use. For example, "patient kit new adult cases intensive phase". Use an abbreviated identifier in the abbreviated name field example, "PK-Int (RHZE)". Enter medicines strength and dosage form and select type of medicines. Follow the same procedure for continuation phase medicines and save.
- 2. Create your **regimen** for the patent kit, including any other identifiers if you have multiple kits in use, for example, "patient kit new cases". Then click on or enter the composition of the regimen.
- 3. Click **File**, then **New** to begin a new quantification.
- 4. **Inventory date:** Enter the date you took your stock status information.
- 5. Lead time in months: Enter the total time required from planning until medicine is received in the store.
- 6. **Quantification period:** Enter the period for which you are quantifying. Ensure the forecasting period is equal to or greater than the sum of inventory date and lead time in months.
- 7. Minimum months of stock: Enter the minimum stock level agreed on for the medicines.
- 8. **Maximum months of stock:** Enter the maximum stock level agreed on for the medicines.
- 9. **Regimen type:** Select the *Multidrug* option for this forecast.
- 10. Enrolled cases: Use the option of By number.

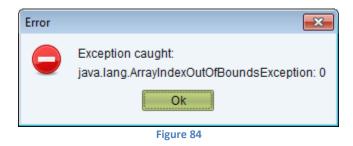
- 11. Expected cases: Use the option of By number.
- 12. Select the regimens for the forecast, then click **Save**.
- 13. **Enrolled cases:** Enter the number of cases enrolled in treatment by month for each regimen.
- 14. **Expected cases:** Enter the number of cases expected for treatment by month for each regimen.
- 15. **Stock of medicines:** Convert each patient kit contents into units. For example, a kit may contain 168 tablets of RHZE and 336 tablets of RH. Multiply these totals by the total number of patient kits to get the overall total units for each medicine. Enter each medicine's expiration date by batch. Follow the same steps for stock on order.

16. Execute quantification.

- 17. Click on the **Order** tab. On the **Quantity** tab, in the **Pack Size** column, enter 168 for RHZE and 336 for RH for the patient kits medicines (based on the example above; adjust your figures as necessary). Notice that quantities may vary slightly because QuanTB does not adjust for wastages and calculates needs until patient stops treatment. Use the higher number as the total pack size to procure.
- 18. Make additional upward or downward adjustments in the **Adjustment (% of quantity needed)** column.
- 19. Enter the **Pack price** for procurement.
- 20. Click on the **Final cost** tab to enter additional costs, such as shipping, insurance, etc.

ANNEX 4: REPORTING AN ERROR

If you receive an error message with an "Exception caught:" error, please let us know so that we can continuously improve QuanTB.



Report problems to <u>quantb@msh.org</u> with the following information:

- 1. A step-by-step list of what you were doing in QuanTB when you got the error.
- 2. A screen capture of the error message itself.
- The log file that QuanTB creates automatically about the error. If you installed the software in the default location, the error file will be in C:\users\yourname\QuanTB\data\log. The file name will contain the date of the error, e.g., 2014-02-20err.qtb.

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