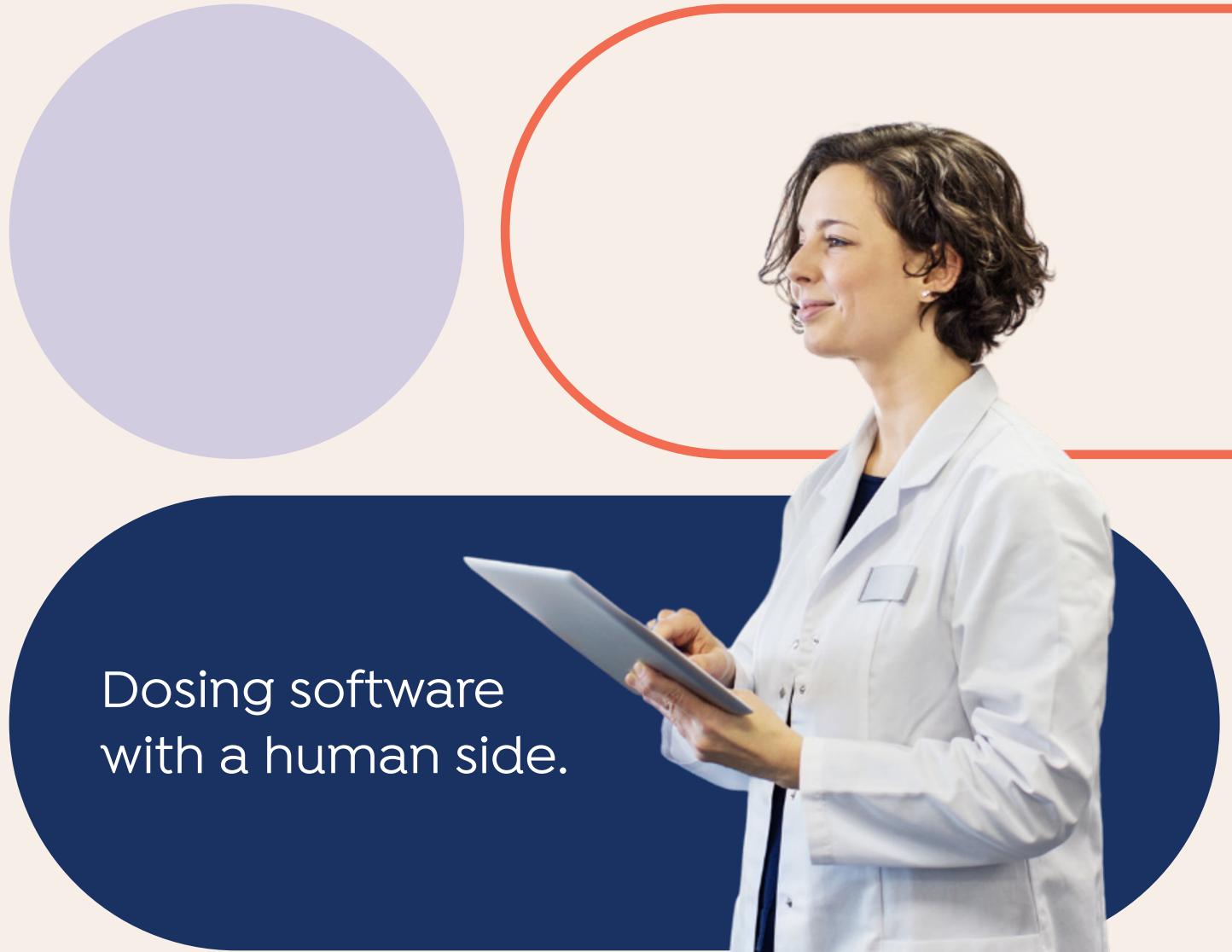




# Comprehensive User Guide

DoseMeRx Integrated

The background of the lower half of the page features a light beige color with three overlapping circles. A large light purple circle is on the left. A medium-sized red circle is on the right, containing a portrait of a female doctor in profile, looking upwards and smiling. A smaller dark blue circle is at the bottom right.

Dosing software  
with a human side.

# Comprehensive User Guide

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# Comprehensive User Guide

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# Navigating DoseMeRx

## Patient Profile



Once you have selected the patient in your EHR and launched DoseMeRx, the Patient Profile page will display. Here, you'll see everything you need at a glance, including your patient's information and existing courses.

## Resources



In the resources section you'll find a range of useful materials including training resources, clinical competency templates, user guides, and drug information about the PK/PD models used in DoseMeRx.

## Request Help



If you need support, no matter what time of day, click Request Help to speak to one of our support team online. This will open a chat window and provide the DoseMeRx support team with a direct link to the patient you are accessing to assist us in helping you as quickly as possible. You can also contact us via email [support@dosemehealth.com](mailto:support@dosemehealth.com) or call (832) 358-3308.

# Patient Profile Page

**Patient Information**

Age: 45 years (DOB 11/07/1975)    Weight: 108 kg    Height: 172 cm    Sex: M

Clinicians: Dr. Kristi Kuper, Holly McCallum, Dr. Jane Smith, Dr. Michael Thomas and 2 more

DoseMeRx data updated: Oct 21 2021, 18:46

**Course List**

+ Create new course

Drug	First Dose	Last Dose
Vancomycin IV	Oct 08 2021 20:31	Oct 29 2021 16:13
Amikacin	Sep 27 2021 16:09	Oct 06 2021 16:09
Gentamicin	Sep 22 2021 16:09	Sep 25 2021 16:09
Tobramycin	Aug 17 2021 04:39	Aug 28 2021 04:39

**Course Preview**

**Vancomycin IV**  
Adult (2-compartment)

View full course →

**Recent Doses:**

Time Administered	Amount	Infusion
Oct 29 2021 16:13	1250 mg	2.0 hours
Oct 28 2021 16:07	1250 mg	2.0 hours
Oct 27 2020 16:21	1250 mg	2.0 hours

**Recent Observations:**

Time	Type	Level
Oct 29 2021 19:51	SeCr	1.4 mg/dL
Oct 28 2021 15:51	Level	14.9 mg/L
Oct 22 2021 06:24	Level	11.1 mg/L

« < 1 > »

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**Compliance**

[HIPAA Privacy Statement](#)

**Useful Resources**

[Drug Information](#)  
[Help Center](#)

**Contact Us**

US: +1 (858) xxx-xxxx  
[hello@dosemehealth.com](mailto:hello@dosemehealth.com)

# Patient Profile Page

## Patient information header

The screenshot shows the DoseMeRx interface with a dark blue header bar. On the left is the DoseMeRx logo. To the right are three buttons: "Patient Profile", "Resources", and "Request Help". Below the header is a white section titled "Patient Information" with a red border. Inside this box, there's a "Edit Details" button with a pencil icon. Below the button, the patient's details are listed: Age: 45 years (DOB 11/07/1975), Weight: 108 kg, Height: 172 cm, Sex: M, and BMI: Obese (Class II). To the right of these details is a clinician list: Dr. Kristi Kuper, Holly McCallum, Dr. Jane Smith, Dr. Michael Thomas and 2 more. At the bottom right of the box, it says "DoseMeRx data updated: Oct 21 2021, 18:46".

The patient information header displays your:

- Patient's demographic details pulled from the EHR, such as name (where provided), age or date of birth, weight, height, and sex.
- Users who have recently interacted with the patient's profile in DoseMeRx.
- When the data was last updated from the EHR or third party software.

**Handy tip!** You can hide the header if needed by clicking the collapse arrow at the bottom.

## Editing Patient Demographics

To edit your patient's demographic information click in the patient information header.

You will be able to update your patient's date of birth, sex, weight, and height. You may wish to do this, for example, if:

- The exact date of birth is not read from the EHR;
- Sex is not defined;
- The patient's weight has changed; or
- Height is not recorded.



### Read from the EHR:

On launch, DoseMeRx will attempt to communicate with the EHR and read all available patient demographic data (age, sex, weight, height etc.), as well as recorded course data (doses, drug levels, SeCr reading etc.).

### Manually added:

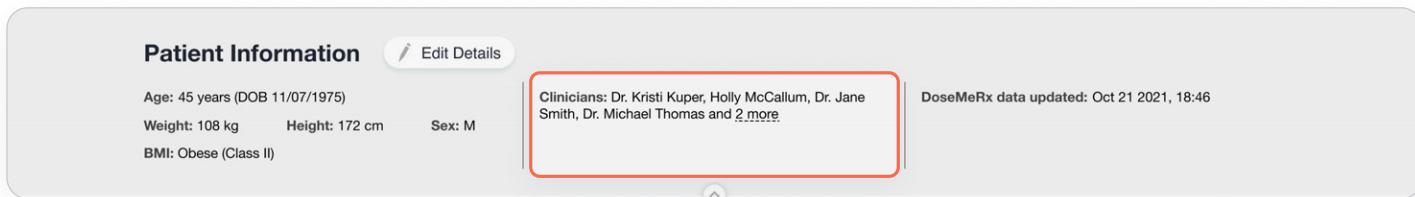
Users can manually enter any patient demographic data that hasn't been read from the EHR (e.g., patient weight, date of birth), and all types of course data (i.e., doses, observations).

## How DoseMeRx Supports Edited Data

With patient demographic data, we will use the EHR as the source of truth. That means every time DoseMeRx is launched, patient demographic data will be reset to what is recorded in the EHR. The one exception to this is when there is no EHR data recorded for a particular field.

DoseMeRx will check the EHR for patient demographic data. If there is no value received from the EHR then we will continue to display the manually entered value – so you do not need to reenter it every time. Manually added or edited values will display a red light indicator  to show it doesn't match EHR records. However, if the EHR is sending a value, any manual edits to patient demographic data inside DoseMeRx will be reset to the EHR values.

## Clinicians



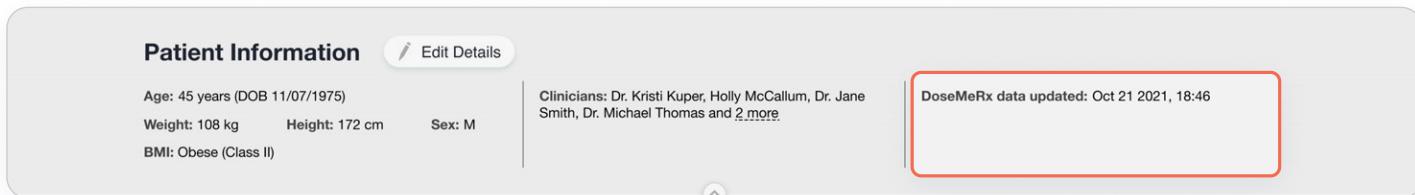
The screenshot shows the 'Patient Information' section of the DoseMeRx interface. It includes fields for Age (45 years), Weight (108 kg), Height (172 cm), Sex (M), and BMI (Obese (Class II)). There is an 'Edit Details' button. A box highlights the 'Clinicians' section, which lists Dr. Kristi Kuper, Holly McCallum, Dr. Jane Smith, Dr. Michael Thomas and 2 more. A red box surrounds this list. At the bottom right, it says 'DoseMeRx data updated: Oct 21 2021, 18:46'.

DoseMeRx keeps track of who has interacted with a patient with a list of clinicians. Your name will be recorded here if you perform certain actions on a patient's profile, or on any of their courses. Examples of these actions include:

- Editing patient details;
- Creating a new course;
- Adding or editing course data; or
- Generating a dosing report.

Names will not be recorded here when simply inspecting, or performing actions such as interacting with the dosing profile or simulating a next dose without generating a dosing report.

## DoseMeRx Data Updated



The screenshot shows the 'Patient Information' section of the DoseMeRx interface. It includes fields for Age (45 years), Weight (108 kg), Height (172 cm), Sex (M), and BMI (Obese (Class II)). There is an 'Edit Details' button. A box highlights the 'DoseMeRx data updated: Oct 21 2021, 18:46' message. At the bottom left, it says 'Clinicians: Dr. Kristi Kuper, Holly McCallum, Dr. Jane Smith, Dr. Michael Thomas and 2 more.'

This displays the last time we were able to sync with your EHR. If this is showing a time in the past, we were not able to successfully sync EHR data when you launched DoseMeRx, and you may not be seeing the most up-to-date data.

**Did you know:** even if there is an EHR connection issue, you can still manually add course data inside DoseMeRx – so you can continue to simulate doses even while things are 'down'.

# Course List

The course list displays existing courses of drugs for your patient from the last 28 days, and will display the most recent course first. The table shows each course with the time of its first dose, and its most recent dose. Clicking on a course in this list will then show more details in the Course Preview panel.

The screenshot shows the DoseMeRx software interface. On the left, the 'Course List' panel displays a table of drug courses. The first course, 'Vancomycin IV', is highlighted with a red border. The table columns are 'Drug', 'First Dose', and 'Last Dose'. The data rows are:

Drug	First Dose	Last Dose
Vancomycin IV	Oct 08 2021 20:31	Oct 29 2021 16:13
Amikacin	Sep 27 2021 16:09	Oct 06 2021 16:09
Gentamicin	Sep 22 2021 16:09	Sep 25 2021 16:09
Tobramycin	Aug 17 2021 04:39	Aug 28 2021 04:39

On the right, the 'Course Preview' panel provides detailed information for the selected 'Vancomycin IV' course. It includes a summary section for 'Vancomycin IV' (Adult (2-compartment)), a 'Recent Doses' table, and a 'Recent Observations' table.

**Recent Doses:**

Time Administered	Amount	Infusion
Oct 29 2021 16:13	1250 mg	2.0 hours
Oct 28 2021 16:07	1250 mg	2.0 hours
Oct 27 2020 16:21	1250 mg	2.0 hours

**Recent Observations:**

Time	Type	Level
Oct 29 2021 19:51	SeCr	1.4 mg/dL
Oct 28 2021 15:51	Level	14.9 mg/L
Oct 22 2021 06:24	Level	11.1 mg/L

# Course Preview

Next to the course list, is the course preview panel. This gives you a quick look at the recent course activity, showing the three most recent doses, and three most recent observations – all in one place. Click the [View full course →](#) button to navigate to the full course profile page for the selected course.

The screenshot shows the DoseMeRx software interface. On the left, the 'Course List' panel displays a table of drug courses. The first course, 'Vancomycin IV', is highlighted with a red border. The table columns are 'Drug', 'First Dose', and 'Last Dose'. The data rows are:

Drug	First Dose	Last Dose
Vancomycin IV	Oct 08 2021 20:31	Oct 29 2021 16:13
Amikacin	Sep 27 2021 16:09	Oct 06 2021 16:09
Gentamicin	Sep 22 2021 16:09	Sep 25 2021 16:09
Tobramycin	Aug 17 2021 04:39	Aug 28 2021 04:39

On the right, the 'Course Preview' panel provides detailed information for the selected 'Vancomycin IV' course. It includes a summary section for 'Vancomycin IV' (Adult (2-compartment)), a 'Recent Doses' table, and a 'Recent Observations' table.

**Recent Doses:**

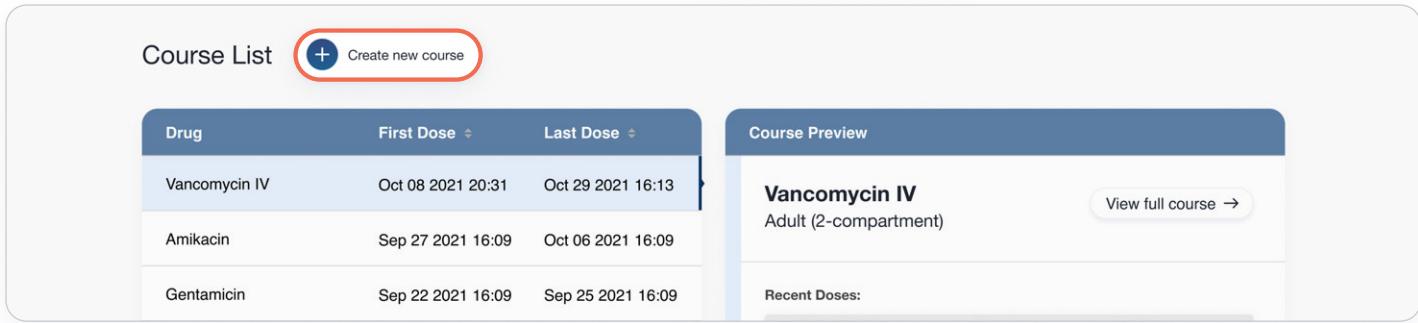
Time Administered	Amount	Infusion
Oct 29 2021 16:13	1250 mg	2.0 hours
Oct 28 2021 16:07	1250 mg	2.0 hours
Oct 27 2020 16:21	1250 mg	2.0 hours

**Recent Observations:**

Time	Type	Level
Oct 29 2021 19:51	SeCr	1.4 mg/dL
Oct 28 2021 15:51	Level	14.9 mg/L
Oct 22 2021 06:24	Level	11.1 mg/L

# Calculate First Dose & Create New Course

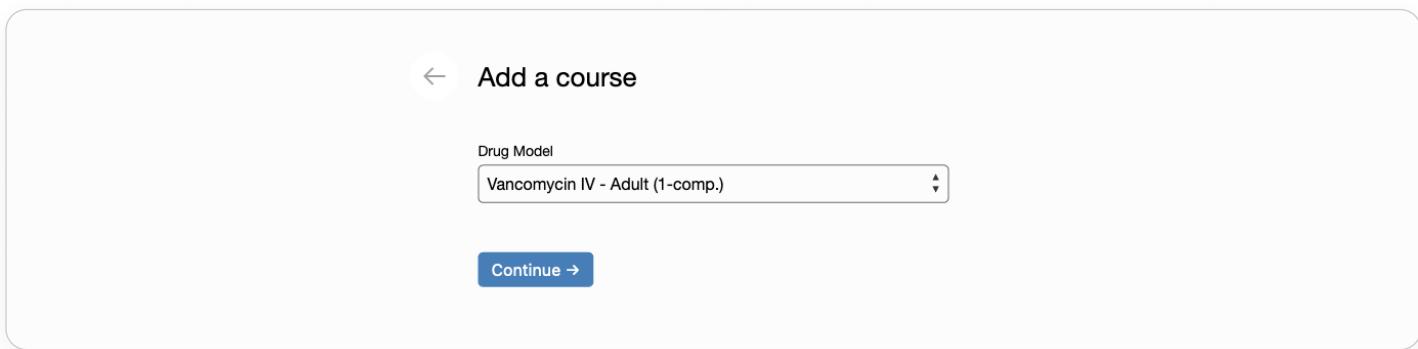
To simulate a new first or loading dose, click the  Create new course button at the top of the page.



The screenshot shows the 'Course List' section with a table of drugs and their dosing details. The 'Create new course' button is highlighted with a red circle. To the right, the 'Course Preview' section displays 'Vancomycin IV' for an 'Adult (2-compartment)' patient, with a 'View full course →' link. Below it, a 'Recent Doses:' section is partially visible.

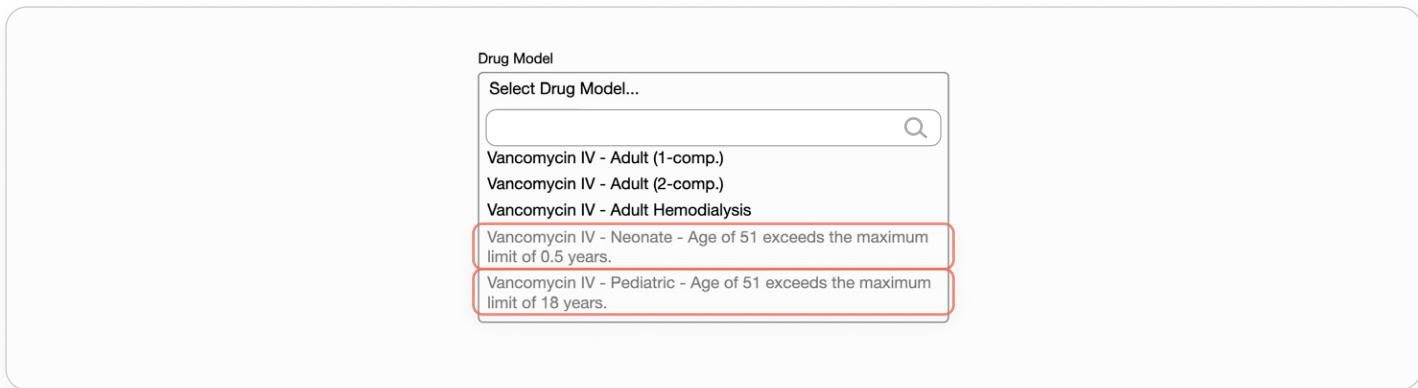
Drug	First Dose	Last Dose
Vancomycin IV	Oct 08 2021 20:31	Oct 29 2021 16:13
Amikacin	Sep 27 2021 16:09	Oct 06 2021 16:09
Gentamicin	Sep 22 2021 16:09	Sep 25 2021 16:09

You will be able to create a new course for any drug model your institution has purchased access to in DoseMeRx; simply select the desired drug model in the dropdown.

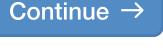


The screenshot shows the 'Add a course' screen with a back arrow and the title 'Add a course'. A 'Drug Model' dropdown menu is open, showing 'Vancomycin IV - Adult (1-comp.)' as the selected option. A 'Continue →' button is located below the dropdown.

If you are unable to select one or more of the listed drug models, this may be because your patient falls outside of the drug model parameters. In this scenario, the unavailable drug models will be grayed out, and show why they are unable to be selected.



The screenshot shows a dropdown menu titled 'Drug Model' with a search bar. The results list includes 'Vancomycin IV - Adult (1-comp.)', 'Vancomycin IV - Adult (2-comp.)', 'Vancomycin IV - Adult Hemodialysis', 'Vancomycin IV - Neonate - Age of 51 exceeds the maximum limit of 0.5 years.', and 'Vancomycin IV - Pediatric - Age of 51 exceeds the maximum limit of 18 years.' The last two items are highlighted with red boxes and crossed out.

Once you've selected a model, click the  Continue → button, and you will be taken to the blank course profile page for the new course.

# Course Profile Page

DoseMeRx

Patient Profile Resources Request Help

**Patient Information** Edit Details

Age: 45 years (DOB 11/07/1975) Weight: 108 kg Height: 172 cm Sex: M Clinicians: Dr. Kristi Kuper, Holly McCallum, Dr. Jane Smith, Dr. Michael Thomas and 2 more DoseMeRx data updated: Oct 21 2021, 18:46

**Vancomycin IV Adult (2-compartment)** Edit  
First Dose: Oct 08 2021, 20:31 – Last Dose: Oct 29 2021, 16:13

**Dosing Profile** Legend

**Course Features** Edit  
Indication (guideline/label): Severe infection

**Other Indicators**  
eCrCl: 10.4 mL/min (IBW) | 12.9 mL/min (TBW)  
Dosing Weight: 108 kg (TBW)

**Pk Parameters**  
Individual Population  
Vd: 115.65 L 90.10 L  
CL: 3.48 L/h 3.19 L/h  
K elimination: 0.0301 /h 0.0354. /h  
Terminal T<sub>1/2</sub>: 23.1 h 19.6 h

**Notes & Activity Log**  
Oct 08 2021, 17:20 Holly McCallum updated patient weight to 108kg  
Oct 21 2021, 18:37 Kristi Kuper commented:  
Nurse accidentally drew level while drug was infusing. Decided to re-draw trough prior to next dose instead. Paged resident to put in order; awaiting callback.  
Oct 21 2021, 18:42 Kristi Kuper excluded a lab result from calculations [Level: Oct 21 2021, 16:51]

**Recorded Course Data** Add Dose Add Observation

Type	Time	Amount	Infusion	AUC	Peak/Trough
Dose	Oct 29 2021, 16:13	1250 mg	2.0 h	242.6	484.3
SeCr	Oct 29 2021, 19:51	1.4 mg/dL	—	242.6	484.3
Dose 1	Oct 30 2021, 16:10	1250 mg	2.0 h	242.6	484.3
Dose 2	Oct 31 2021, 16:10	1250 mg	2.0 h	242.6	484.3
Dose 3	Nov 01 2021, 16:10	1250 mg	2.0 h	242.6	484.3

mg.h/L calculated by DoseMeRx

**Next Dose** Jan 24 2021 08:10 Individualized Custom Guideline

Individualized dose recommendation Based on a target AUC of 450 mg.h/L

Dose	Infusion	Interval	Doses	AUC24	Peak	Trough
1250	2.0	24	4	460.24	20.3	13.4

Individualized regimen: 1250mg over 2 hours, every 24 hours Generate Report

**Important Documents**  
Terms of Use Privacy Policy

**Compliance**  
HIPAA Privacy Statement

**Useful Resources**  
Drug Information Help Center

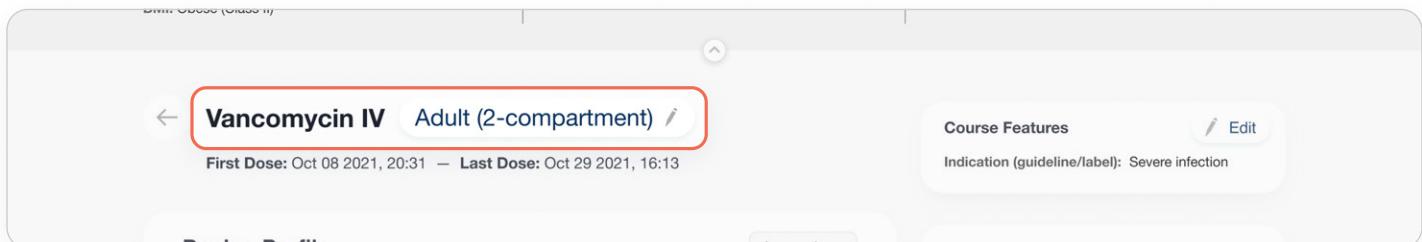
**Contact Us**  
US: +1 (858) xxx-xxxx hello@dosemehealth.com

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# Course Profile Page

## Selecting Your Model

DoseMeRx allows you to select which drug model to use with a course. If there are alternative models available, the model's name will appear as a button, which you can click to edit the model. If there are no alternative models available the model name will appear as plain text.



Clicking to edit the drug model will open a popup window, where you will find a dropdown to select from the list of available alternatives. You may not be able to see all drug models your institution has access to; this is because you are only able to select a drug model that is suitable for your current patient.

**Handy tip!** DoseMeRx will remember which model is selected, and save the course with that model. That means next time you come back, you will not need to select the model again.

## Dosing Profile

The dosing profile panel gives a graphical representation of how the patient is responding to the drug course.



# Interpreting the Dosing Profile

Historical Only (i.e., before simulating a next dose):



## Blue individualized line

If the patient has a recorded drug level, you will see the blue individualized line.

This is the individualized PK/PD model for your patient and is a visualization of how they are responding.

## Red population line

If the patient does not have a drug level recorded, the population line is all you will see. DoseMeRx is unable to Individualize the model without a drug level.

The red line is the population PK/PD model; this indicates how an average patient with the same characteristics as your patient (height, weight, sex, age, and serum creatinine) would respond.

## Drug Levels

A drug level is shown as a small black cross on the plot.

Historical + Predicted (i.e., after simulating a next dose):



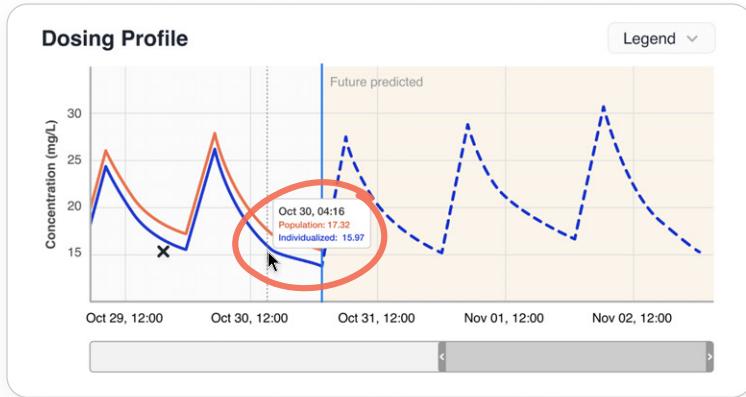
When you calculate a next dose, the dosing profile will also populate with the simulated doses from the predicted dosing regimen.

The predicted doses will display with a highlighted background, and be clearly separated from the historical doses with a blue divider.

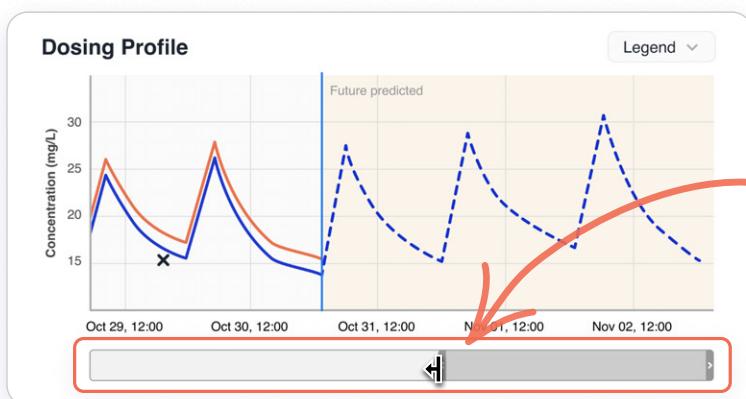
**Handy tip!** You can hide and show the alternative predicted dosing regimens (e.g., Individualized, Custom, and Guideline) by using the checkboxes in the Predicted Plot section in the **Legend** dropdown.

Legend	
Historical Plot	
<input checked="" type="checkbox"/> Individualized	— Blue
<input type="checkbox"/> Population	— Red
Predicted Plot	
<input checked="" type="checkbox"/> Individualized	— Blue
<input type="checkbox"/> Customized	— Green
<input type="checkbox"/> Guideline	— Magenta
Observations	
<input type="checkbox"/> Drug Level	✗

## Interacting with the Dosing Profile



Hover over the plot with your cursor at any point to get detailed insights into the values along the visible plot lines.



Use the slider below the plot to change the visible area on the plot in the following ways:

- Grab the edge and expand the slider to increase the viewable timeline (i.e., zoom out).
- Grab the edge and make the slider smaller to reduce the viewable timeline (i.e., zoom in).
- Drag the middle of the slider to move it along the timeline.



# Recorded Course Data

The recorded course data panel lists all previous doses and observations that have been recorded for your patient, in a chronological timeline – so you'll see the oldest record at the top, and most recent at the bottom.

The table displays the record type, date and time recorded, amount value (i.e., dose amount, drug level), and the infusion length for doses.

You can filter the list to show only doses, or only observations by clicking one of these options. 'Observations' encompasses recorded lab results such as drug levels and serum creatinine.

Type	Time	Amount	Infusion	AUC T	AUC24
Dose	Oct 27 2021, 16:21	1250 mg	2.0 h	242.6	484.3
Level	Oct 28 2021, 15:51	14.9 mg/L	—	—	—
Dose	Oct 28 2021, 16:07	1250 mg	2.0 h	242.6	484.3
Dose	Oct 29 2021, 16:13	1250 mg	2.0 h	242.6	484.3
SeCr	Oct 29 2021, 19:51	1.4 mg/dL	—	—	—

mg·h/L calculated by DoseMeRx

On the right side are the individual per-dose predicted outcomes, calculated by DoseMeRx.

The calculated outcomes data visible here will depend on the drug, selected model, and your hospital settings. You can switch which calculated outcomes are visible by clicking the available options that appear above.

The recorded course data table displays a colored indicator next to every data point:

- A green light indicator means the data matches your EHR records.
- Any data point that has been edited or manually added in DoseMeRx will not write back to your EHR, and will display a red light indicator, to show it does not match EHR records.

## Adding Data

You can manually add any course data you wish, by clicking on the 'add' buttons at the top of the recorded course data panel.

Clicking **+ Add Dose** will open a popup window, where you can enter the dose time, dose amount, and infusion length.

Clicking **+ Add Observation** will open a popup window, where you can select the observation type (such as drug level, or serum creatinine), the record time, and the value for the observation.

Any data point that has manually added in DoseMeRx will not write back to your EHR, and display a red light indicator to show it does not match EHR records.

## Editing Course Data

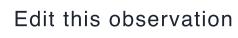
You can “edit” EHR data in DoseMeRx. Anything that is edited will be saved inside DoseMeRx as an updated record, so every time you come back into DoseMeRx any edited data will stay as edited. An edited record will also be marked with a red indicator  as it does not match EHR records.

Recorded Course Data

Add Dose Add Observation

AUC Peak/Trough

Type	Time	Amount	Infusion	AUC <sub>T</sub>	AUC <sub>24</sub>
Dose	Oct 27 2021, 16:21	1250 mg	2.0 h	242.6	484.3
Level	Oct 28 2021, 15:51	14.9 mg/L	—	—	—
Dose	Oct 28 2021, 15:51	1250 mg	2.0 h	242.6	484.3
Dose	Oct 29 2021, 08:15	1250 mg	2.0 h	242.6	484.3
SeCr	Oct 29 2021, 08:15	1250 mg	2.0 h	242.6	484.3

Edit this observation 

Exclude from calculations 

To edit a dose or observation in the recorded course data table, click the more options  icon, and select the ‘Edit this dose’ / ‘Edit this observation’ option.

This will then open a popup window, where you will be able to update the record details.

Edit dose

Dose time (00:00–23:99):  
Oct 24 2021  08 : 15

Dose amount:  
1250 mg

Infusion length:  
2.5 hours

Exclude from calculations 

Update

Edit observation

Observation type:  
Drug level

Time (00:00–23:99):  
May 24 2021  08 : 15

Reading:  
 mcg/mL

Exclude from calculations 

Update

For a dose, you can update the dose date and time, dose amount, and infusion length.

For an observation you can update the record date and time, and the value; however you will not be able to change the observation type.

**Note:** Any data point that has manually added in DoseMeRx will not write back to your EHR and display a red light indicator  to show it does not match EHR records

## Excluding Data

You can elect to exclude course data from calculations. Excluding a record means it will not be included in the historical dosing profile, and will not be factored in next dose calculations / recommendations. You may wish to exclude a record if, for example, you have an incorrectly timed level.

Recorded Course Data

Type	Time	Amount	Infusion	AUC <sub>T</sub>	AUC <sub>24</sub>
Dose	Oct 27 2021, 16:21	1250 mg	2.0 h	242.6	484.3
Level	Oct 28 2021, 15:51	14.9 mg/L	—	—	—
Dose	Oct 28 2021, 16:07	1250 mg	2.0 h	242.6	484.3
Dose	Oct 29 2021, 16:13	1250 mg	2.0 h	242.6 <sup>i</sup>	484.3 <sup>i</sup>
SeCr	Oct 29 2021, 19:51	1.4 mg/dL	—	—	—

Add Dose Add Observation

AUC Peak/Trough

Edit this observation

Exclude from calculations

mg.h/L calculated by DoseMeRx

To exclude a dose or observation in the recorded course data table, click the more options  icon, and select the 'exclude from calculations' option.

Recorded Course Data

Type	Time	Amount	Infusion	AUC <sub>T</sub>	AUC <sub>24</sub>
Dose	Oct 27 2021, 16:21	1250 mg	2.0 h	242.6	484.3
Level	Oct 28 2021, 15:51	14.9 mg/L 	—	—	—
Dose	Oct 28 2021, 16:07	1250 mg	2.0 h	242.6	484.3
Dose	Oct 29 2021, 16:13	1250 mg	2.0 h	242.6 <sup>i</sup>	484.3 <sup>i</sup>
SeCr	Oct 29 2021, 19:51	1.4 mg/dL	—	—	—

Add Dose Add Observation

AUC Peak/Trough

mg.h/L calculated by DoseMeRx

Excluded records will still show in the recorded course data table, however they will appear grayed out and display a  icon.

You can also re-include an excluded record. Simply click the more options  icon for excluded record, and select the 'Include in calculations' option.

**Note:** Both excluding a record, and including a record will be logged in the Notes & Activity Log.

## Deleting Data

Data can only be deleted if it has been manually entered. You cannot delete data that has been sent from the EHR. To delete a manually entered dose or observation, click the more options  icon, and select the 'Delete this dose' / 'Delete this observation' option. You will only see this option if it is possible to delete that record.

## Simulated Doses in the Recorded Course Data Panel

Recorded Course Data

Type	Time	Amount	Infusion	AUC <sub>T</sub>	AUC <sub>24</sub>
Dose	Oct 29 2021, 16:13	1250 mg	2.0 h	242.6	484.3
SeCr	Oct 29 2021, 19:51	1.4 mg/dL	—	242.6	484.3

Add Dose Add Observation

AUC Peak/Trough

Dose 1 Oct 30 2021, 16:10 1250 mg 2.0 h 242.6 484.3

Dose 2 Oct 31 2021, 16:10 1250 mg 2.0 h 242.6 484.3

Dose 3 Nov 01 2021, 16:10 1250 mg 2.0 h 242.6 484.3

mg.h/L calculated by DoseMeRx

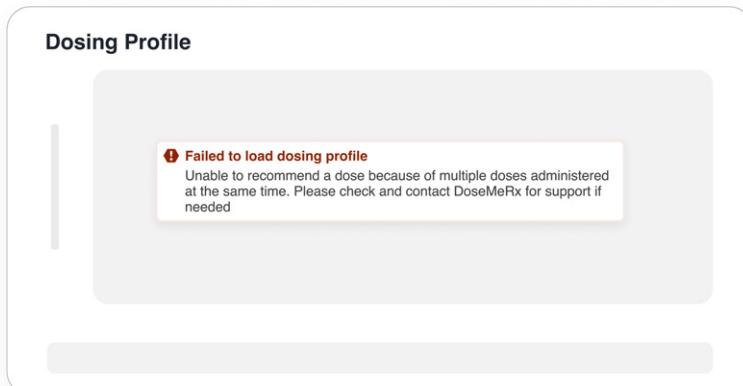
When you calculate a next dose, the recorded course data panel will populate with all the doses in the simulated regimen.

The simulated doses will display with a highlighted background, and be clearly separated from the historical dose with a blue divider. Future data will also be italicized.

## Duplicate Data

If one or more doses have been recorded at or around the same date and time, these will be considered duplicate records.

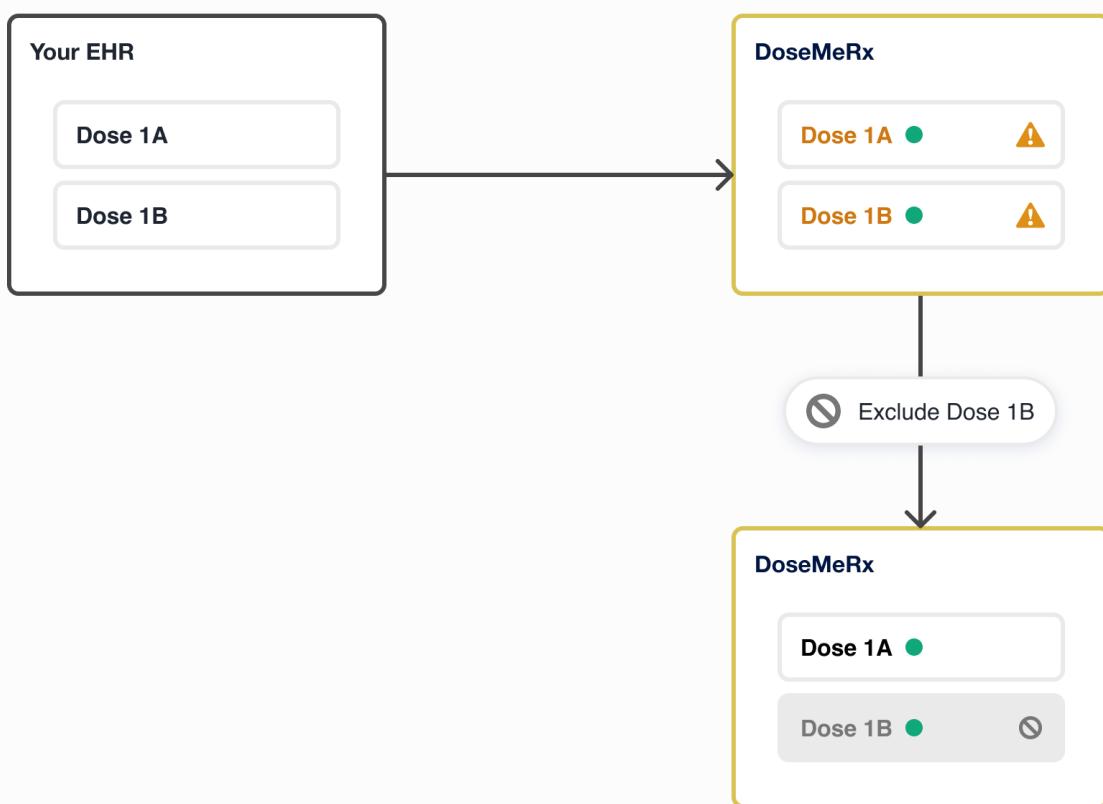
DoseMeRx only checks the date and time in order to flag duplicates. For example, the dose amounts or infusion lengths do not need to be identical for them to be considered duplicates.



DoseMeRx models cannot handle duplicate data. This means the Dosing Profile will be hidden, and the Calculate Next Dose panel will be unavailable.

In the event that you have duplicate doses recorded, you will see this error covering the Dosing Profile panel.

**Note:** Duplicate data needs to be resolved in order to continue. You can do this by excluding, editing or deleting one of the duplicate records.



# Calculate Next Dose

from calculations [Level: Oct 27 2021, 16:51]

Calculate Next Dose May 24 2021 08 : 15 

Add comment...

Enter a date and time for the next dose in the 'calculate next dose' panel, and click the  arrow to run the next dose simulation.

## The Next Dose Panel

Once you have run the dose simulation, the Next Dose panel will populate with the recommended dosing regimen for you to review, including dosing details and the predicted outcomes.

**Next Dose** Jan 24 2021 08 : 10 

**Individualized** Custom Guideline

**Individualized dose recommendation**    
Based on a target AUC of 450 mg.h/L.

Dose mg	Infusion hours	Interval hours	Doses No.
1250	2.0	24	4

**Predicted outcomes**   
Calculated by DoseMeRx

AUC24 mg.h/L	Peak mg/L	Trough mg/L
460.24	20.3	13.4

Individualized regimen: 1250mg over 2 hours, every 24 hours  Generate Report

You can switch the selected regimen by clicking the options in the top-right of the next dose panel.

On the right side are the predicted outcomes. These represent the outcome after the final dose in the recommendation. They are calculated by DoseMeRx based on available doses and observations.

Predicted outcomes for vancomycin will include: AUC24, Peak, and Trough.

Typically, the dose details you'll see include:

- Recommended dose amount;
- Infusion length;
- Interval between doses, and
- Number of doses.

**Note:** When you run a simulation with the Next Dose panel, the rest of the page will populate all simulated doses (in both the Dosing Profile and the Recorded Course Data panels), so you'll get a clear picture of what's happening and how the simulated regimen will fit with the current course.

## Individualized Dose Recommendation

The individualized dose recommendation is calculated for the individual patient based on their dosing history, pharmacokinetic characteristics, and your hospital's default target outcome for that particular drug model.

In order to provide an Individualized dose recommendation, there needs to be at least one drug level recorded for the patient.

The screenshot shows the DoseMeRx software interface. At the top, it displays 'Next Dose' (Jan 24 2021, 08:10), 'Individualized' (selected), 'Custom', and 'Guideline'. Below this, the 'Individualized dose recommendation' is shown, based on a target AUC of 450 mg.h/L. It includes a table for 'Dose mg', 'Infusion hours', 'Interval hours', and 'Doses No.' with values 1250, 2.0, 24, and 4 respectively. To the right, 'Predicted outcomes' are listed: AUC24 (460.24), Peak (20.3), and Trough (13.4). At the bottom, it says 'Individualized regimen: 1250mg over 2 hours, every 24 hours' and has a 'Generate Report' button.

On the right are the predicted outcomes of the individualized dose recommendation.

For more information about how the individualized dose is calculated, click the icon next to the 'individualized dose recommendation' title.

## Preview Higher/Lower Dose

One of the great features we have in DoseMeRx is the preview of higher and lower dose function available for vancomycin adult drug models.

The screenshot shows the DoseMeRx software interface. The 'Individualized' tab is selected. A red circle highlights the icon next to 'Individualized dose recommendation'. A red arrow points from this icon down to a 'Preview of lower and higher dose' window. This window contains a table titled 'Predicted Outcomes' with columns for Dose mg, Infusion hours, Interval hours, Doses No., AUC24 mg.h/L, Peak mg/L, and Trough mg/L. It lists three rows: 'Lower dose' (1000, 1.5, 24, 4, 382.65, 21.7, 9.4), 'Individualized' (1250, 2.0, 24, 4, 410.24, 26.3, 13.6, highlighted in blue), and 'Higher dose' (1500, 3.0, 24, 4, 490.73, 30.3, 16.5).

With 'Individualized' selected, you will have the ability to preview a higher and lower dose by selecting the icon.

This will open a popup window, which shows the predicted outcomes for a regimen that is one dose rounding unit (e.g. 250mg) below, and one dose rounding unit above the suggested dose.

This will allow you to quickly glance at predicted AUC24, peak, and trough values of other regimens without running multiple custom dose calculations.

# Customize

The customize section of DoseMeRx will allow you to test and simulate different dosing regimens. With 'Custom' selected, you have the ability to customize a dosing regimen through either a:

- Custom Target, or
- Custom Dose

## Custom Target

With 'Custom Target', you can generate a dose recommendation for a custom target outcome value, or by using other alternative target types.

Change the target type by clicking the dropdown, above the target field, on the left side.

The fields that appear here may change depending on what target type you have selected.

Click the **Calculate >** button to run the simulation.

With a custom target simulation, the recommended dose amount will be over on the right side with the calculated outcomes.

Dose mg	AUC24 mg.h/L	Peak mg/L	Trough mg/L
1250	460.24	20.3	13.4

Customized regimen: 1250mg over 2 hours, every 24 hours

## Custom Dose

Using 'Custom Dose', you are able to adjust the dose amount, infusion length, dosing interval, and number of doses you would like to simulate.

Then click **Calculate >** to view the predicted outcomes of your custom dosing regimen.

Next Dose Jan 24 2021 08 : 10 Individualized **Custom** Guideline

Custom Target **Custom Dose**

Predicted outcomes Calculated by DoseMeRx

Dose mg	AUC24 mg.h/L	Peak mg/L	Trough mg/L
1000	460.24	20.3	13.4

Customized regimen: 1000mg over 1.75 hours, every 12 hours

## Guideline Dose Recommendation

This panel provides you with a dose recommendation based on the guideline source information, and the predicted outcomes of providing that regimen to your patient.

**Next Dose** Jan 24 2021 08 : 10 Individualized Custom **Guideline**

**Guideline dose recommendation** Guideline source: UpToDate

Dose mg	Infusion hours	Interval hours	Doses No.
1250	2.0	24	6

**Predicted outcomes** Calculated by DoseMeRx

AUC24 mg.h/L	Peak mg/L	Trough mg/L
460.24	20.3	13.4

**Guideline regimen:** 1250mg over 2 hours, every 24 hours [Generate Report](#)

You can find information about the guideline source for a particular drug model by clicking on the  icon next to the 'Guideline dose recommendation' title.

## Population Dose

If the patient does not have a drug level recorded, DoseMeRx will be unable to provide an individualized dose recommendation. In this case, a population recommendation will be provided.

The population recommendation is based on the validated PK/PD drug model inside DoseMeRx and how an average patient with the same characteristics as your patient (height, weight, sex, age, and serum creatinine) would respond.

## Label Dose

Associated Label references for each drug model can be found under Drug Information, in our helpful Resources section.

**Dose Calculation Methods**

- Individualized:** Buelga DS, del Mar Fernandez de Gatta M, Herrera EV, Dominguez-Gil A, García MJ. Antimicrob Agents Chemother. 2005 Dec;49(12):4934-41.
- Guideline:** Drew RH et al. Vancomycin: Parenteral dosing, monitoring, and adverse effects in adults. UpToDate. 2017. <https://www.uptodate.com/contents/vancomycin-parenteral-dosing-monitoring-and-adverse-effects-in-adults> (Modified to remove q18h dosing, DoseMe, 2019).
- Label:** Baxter Healthcare. Vancomycin Label, FDA. Jan 2017. Accessed via [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2017/050671s023lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2017/050671s023lbl.pdf)

**Warning:** Non-label doses may not have been verified as appropriate for clinical use by the FDA.

# Safety Warnings

If there are any safety warnings associated with the selected dose recommendation, DoseMeRx will highlight these below the dose details for you to review.

The screenshot shows the DoseMeRx interface with the following details:

- Next Dose:** Jan 24 2021, 08:10
- Individualized:** Selected tab
- Predicted outcomes:** Calculated by DoseMeRx
- Dose:** 1750 mg, **Infusion hours:** 3.0, **Interval hours:** 24, **Doses No.:** 4
- AUC24:** 604.21 mg.h/L, **Peak:** 34.3 mg/L, **Trough:** 14.4 mg/L
- Warnings:** ① Historical report; dose date is in the past. ② Calculated AUC24 outcome exceeds recommended therapeutic range of 400-600mg.h/L
- Individualized regimen:** 1250mg over 2 hours, every 24 hours
- Generate Report:** button

Warnings are displayed to highlight any potential safety concerns with the selected dosing regimen.

They will appear with the orange alert icon.

Safety warnings may display with all dose recommendations including population, individualized, and guideline, as well as custom regimens that you simulate.

Examples of safety warnings you may encounter include (but are not limited to):

- A dose recommendation is outside of your pre-set hospital limits.
- Predicted outcomes are outside of the recommended therapeutic range.
- The dose date you set is in the past.

**Note:** If you do encounter any warnings, please consider them carefully; however, you will be able to continue with the selected dosing regimen at your own discretion.

# Errors

An error is different from a warning, in that they occur when there is a problem that prevents you from generating a recommendation, or there is a validation issue. They appear with a dark red icon.

The screenshot shows the DoseMeRx interface with the following details:

- Next Dose:** Jan 24 2021, 08:10
- Custom Target:** Selected tab
- Predicted outcomes:** Calculated by DoseMeRx
- AUC:** -450 mg.h/L, **Infusion hours:** 2.0, **Interval hours:** 24, **Doses No.:** 16
- Calculate:** button
- Some form fields are invalid:**
  - ① Target must be positive
  - ② Amount of doses predicted cannot exceed 14 days in the future
- Customized regimen:** –
- Generate Report:** button

You may run into an error if:

- There is a problem while loading a dose recommendation.
- Values input are outside of hospital or drug limits.
- Patient characteristics fall outside of the parameters.

**Note:** If you need help with an error, click the request help link to open a chat with one of our friendly support team – we're available 24/7.

# Generating a Dose Report

Next Dose Jan 24 2021 08:10

Individualized dose recommendation Based on a target AUC of 450 mg.h/L.

Dose mg	Infusion hours	Interval hours	Doses No.
1250	2.0	24	4

Predicted outcomes Calculated by DoseMeRx

AUC24 mg.h/L	Peak mg/L	Trough mg/L
460.24	20.3	13.4

Individualized regimen: 1250mg over 2 hours, every 24 hours

Generate Report

After deciding on the dose recommendation for your patient, at the bottom of the next dose panel, there is a summary of your selected dosing regimen.

From here, click the Generate Report button. This will open the generate dose report popup window.

In this window, you will see the selected regimen, along with the target and predicted outcomes.

Here you have the option to add any clinical or course notes, which will be included on the report, as well as sent to the Notes & Activity Log panel once the report is saved/downloaded.

## Generate dose report

Next dose: Jan 24 2021, 16:10

### Individualized regimen:

1250mg over 2 hours, every 24 hours.

Target AUC24  
450 mg.h/L

Predicted AUC24  
460.24 mg.h/L

### Clinical notes to include on PDF:

Enter notes here...

dose instead. Paged resident to put in order; awaiting callback.

Oct 21 2021, 18:42  
Kristi Kuper excluded a lab result from calculations [Level: Oct 21, 16:51]

Add comment...

If the selected dosing regimen contained any safety warnings, these will be highlighted again for you here.

**Note:** You will be required to acknowledge the safety warnings, and confirm you wish to continue, in order to generate a dosing report.

You do have the ability to preview the note before saving it; just select the Preview button. This will show you a full preview of the dose report before it's created.

Once you are ready to proceed click the Save or Download button, whichever appears for you.

This will save or download the generated report, and send an automated message to the Notes & Activity Log panel including any notes you have added.

# Course Variables

The course variables panel will contain any model-specific settings that may impact dose calculations.

To update these course variables, click  in the top-right of the panel – this will open a popup window with any available settings.

In some cases, one or more of these course variables will be required settings, meaning the setting is required in order to achieve an accurate representation of the individual. A good example of this is ‘gestational age’ for Neonate models.

Required course variables that are yet to be set, will appear with an orange alert  icon.

## Course Variables



Gestational age: Unknown 

Indication (for guideline only): Non-severe

# Other Indicators

The other indicators panel will display even more information to assist you in clinical decision making.

This will typically include an indication of the type of weight value being used in calculations by that particular drug model (i.e. whether it's considering IBW or TBW).

## Other Indicators

eCrCl: 10.4 mL/min (IBW) | 12.9 mL/min (TBW)

Dosing Weight: 108 kg (TBW)

# PK Parameters

The PK Parameters panel displays calculated pharmacokinetic parameters, giving you a greater understanding of how your patient is processing the drug, for enhanced clinical decision making. The PK Parameters included are:

- Volume of distribution (**Vd**)
- Clearance (**CL**)
- Elimination rate constant (**K elimination**)
- Terminal half life (**Terminal T<sub>1/2</sub>**)

In this panel you will see both population and individualized calculated values. Population values are indicative of an average patient with similar characteristics as your patient (height, weight, sex, age, and serum creatinine) based on the validated PK/PD drug model inside DoseMeRx.

## Pk Parameters

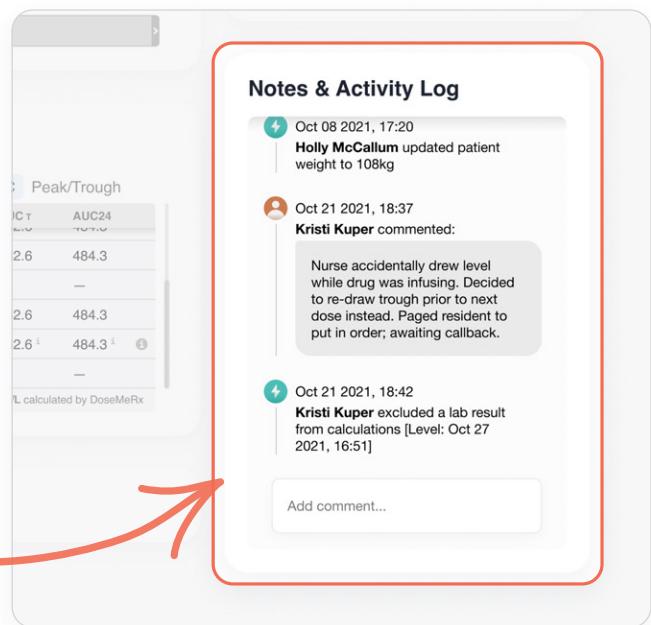
	Individual	Population
<b>Vd:</b>	115.65 L	90.10 L
<b>CL:</b>	3.48 L/h	3.19 L/h
<b>K elimination:</b>	0.0301 /h	0.0354. /h
<b>Terminal T<sub>1/2</sub>:</b>	23.1 h	19.6 h

# Notes & Activity Log

The notes and activity log is where you can leave notes and keep track of anything that's changed in the patient's course. There are two types of messages that will appear here:

- Automated log messages
- Manually added notes

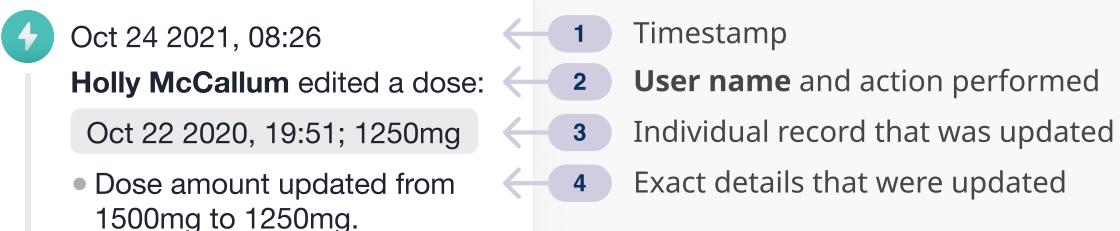
All automated messages and manual notes display in chronological order with the most recent at the bottom, which allows you to easily look back through a timeline of updates on a patient's course.



## Automated Log Messages

Automated log messages will be sent any time a user adds or edits data on a patient's course, as well as when patient details are added or edited. Examples of when you'll see an automated log message:

- Editing patient details
- Adding a dose or observation
- Editing a dose or observation
- Excluding a dose or observation from calculations
- Updating course variables
- Updating the course drug model
- Saving a dose report (along with any notes added to the report)





## Manually Added Notes

You can manually type notes to add to the course activity log. This will allow you to communicate effectively with team members in one spot inside a patient's course in DoseMeRx.

**Notes & Activity Log**

Course created  
10/24/2021, 08:39

Oct 26 2021, 08:27  
**Callum Soden** edited patient details:  
• Weight updated from 84kg to 91kg.  
• Height set to 185cm.

Oct 30 2021, 20:31  
**Holly McCallum** added a dose:  
Oct 29 2021, 19:41; 1250mg

Nov 01 2021, 01:30  
**Holly McCallum** excluded an observation from calculations:  
Level: Oct 29 2021, 19:52

Add comment...

**Notes & Activity Log**

Oct 26 2021, 08:27  
**Callum Soden** edited patient details:  
• Weight updated from 84kg to 91kg.  
• Height set to 185cm.

Oct 30 2021, 20:31  
**Holly McCallum** added a dose:  
Oct 29 2021, 19:41; 1250mg

Nov 01 2021, 01:30  
**Holly McCallum** excluded an observation from calculations:  
Level: Oct 29 2021, 19:52

Nurse accidentally drew level while drug was infusing. Decided to re-draw trough prior to next dose instead. Paged resident to put in order; awaiting callback. | →

**Notes & Activity Log**

Holly McCallum added a dose:  
Oct 29 2021, 19:41; 1250mg

Nov 01 2021, 01:30  
**Holly McCallum** excluded an observation from calculations:  
Level: Oct 29 2021, 19:52

Nov 01 2020, 07:24  
**Kristi Kuper** said:  
Nurse accidentally drew level while drug was infusing. Decided to re-draw trough prior to next dose instead. Paged resident to put in order; awaiting callback.

Add comment...

Start a note by clicking on the text field at the bottom

Type your message, and click the arrow to send it

Note: pressing enter/return will NOT send your message

**Important Note:** Once you have posted a message, you will not be able to edit or delete it.



Oct 26 2021, 18:37

**Kristi Kuper** commented:

Continue monitoring, draw level prior to next dose.

1

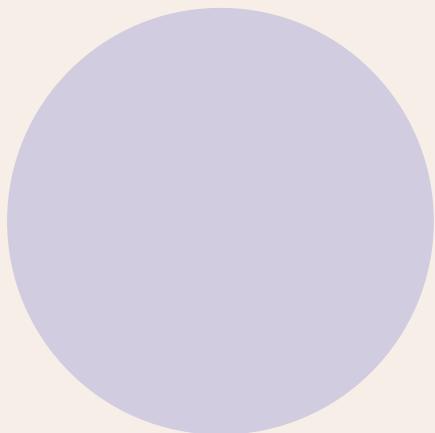
When the message was sent

2

User name

3

The message they wrote



**Dosing software  
with a human side.**

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