

**AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE**

National Inpatient Medication Chart Audit System User Guide

Version 1.5
February 2017

The Australian Commission on Safety and Quality in Health Care
GPO Box 5480 Sydney NSW 2001

How to use this Manual

The manual is divided into sections describing a particular process or function. Throughout the manual special icons are used as follows:



Indicates a Procedure – step by step instructions on how to perform a task.



Indicates a Tip - piece of advice that is relevant to the current section



Indicates a Warning or Caution

System Requirements

- The NIMC audit system is developed and tested using Internet Explorer 11 and Windows 10. The system may work correctly on other Internet browsers and operating systems, however these have not been specifically tested.
- Internet connection
If you are accessing the System from different locations, remember that connection speeds may vary. For example a file that uploads quickly at work may load more slowly at home.

Operating System

Windows 10

Supported Browsers

Internet Explorer 11

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1. Purpose

The purpose of this document is to provide instruction and guidance to users of the Australian Commission on Safety and Quality in Health Care web-based NIMC Audit System. It is written with the user in mind and is intended to be used to guide all users of the system.

2. Introduction

The National Inpatient Medication Chart (NIMC) Audit System has been developed to assist Australian hospitals auditing their use of the NIMC. The NIMC Audit System is designed for hospitals to record, store and report on data generated through NIMC audits.

Regular auditing of the NIMC enables hospitals to:

- Identify areas of good medication management practice
- Focus on areas of practice requiring improvement
- Benchmark their NIMC use compared to peer and all other hospitals

Through the NIMC Audit System, Australian hospitals can participate in NIMC National Audits. The Commission will notify users well in advance of the next national audit being held.

Australian hospitals can also use the NIMC Audit System to undertake local audits, either using the full set of audit data elements, or through part audits focusing on specific areas. This can assist hospitals to measure interventions, for example improving recording of adverse drug reactions and allergies through the NIMC.

Hospitals using the NIMC Audit System will accumulate their data and be able to measure practice over time. The NIMC is a key national medication safety initiative, and the Commission encourages Australian hospitals to audit their use of the NIMC to improve practice and to ensure national consistency.

The data gathered will also guide future NIMC quality improvements and national communication activities.

3. User Types

In order to better understand this guide it is important to explain the different types of roles that can be assigned to personnel using this application. The system allows for 5 types of users as shown in the table below. As it is possible for the same individual to use the system for different purposes, it is important that you are aware of the type of user you are whilst reading this document.

The table below explains all the different types of users for this application.

User Type	Description
National Audit Coordinator	The National Audit Coordinator acts as the system administrator, and has access to all areas of the system. Taking full responsibility for the system, the National Audit Coordinator will set up and manage the national audit when required. If a national audit is required it will usually occur during August and September.
State Coordinator	Each State will have at least one State Coordinator, whose primary role of the system is to set up Hospital Group Coordinators and Hospital Coordinators within their state and view State level reports. The State Coordinator can also set up and manage local audits for local health networks.
Hospital Group Coordinator	Hospitals can be grouped into Hospital Groups. The Hospital Group Coordinator has access to view hospital group level reports, and to set up users within their group.
Hospital Coordinator	The Hospital Coordinator sets up, runs and manages local audits. The Hospital Coordinator is also responsible for setting up Auditors in their own hospital. Hospital Coordinators can view reports pertaining to the hospital(s) they coordinate for auditing.
Auditor	Auditors encompass those users who carry out the actual NIMC audits and enter/upload data into the NIMC system. This means that for the purposes of data entry, a data entry operator will also be known as an Auditor. Auditors cannot view reports.

4. Accessing the System

The below Security Matrix table describes what each user type has access to.

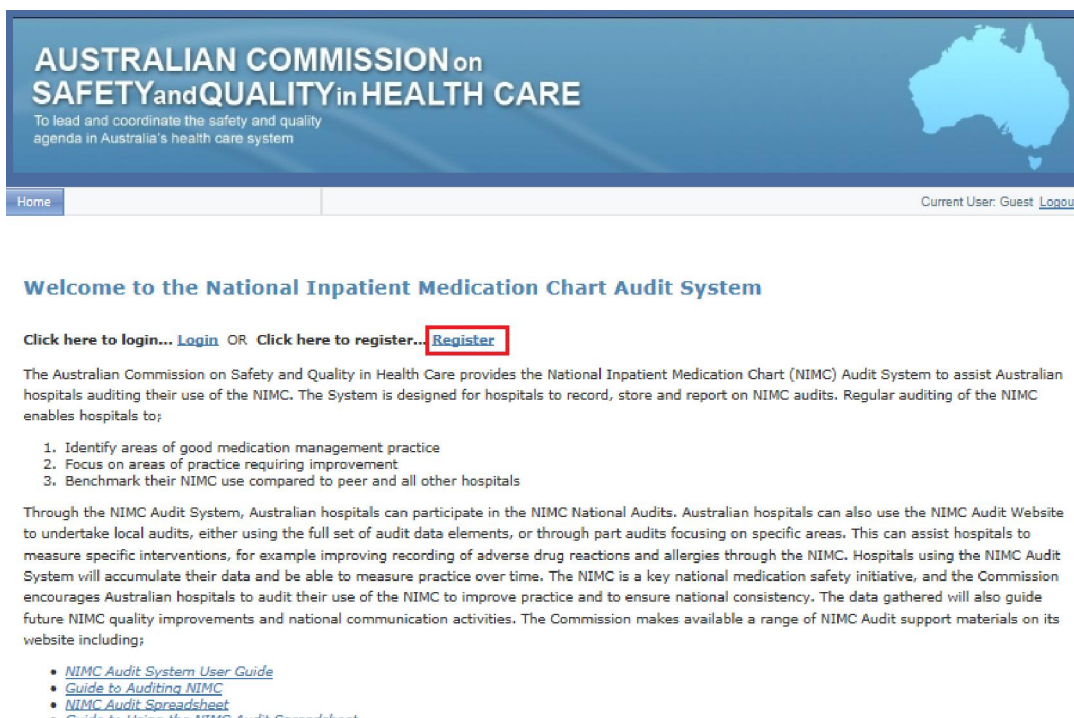
Role / Group	Auditor	Hospital Coordinator	Hospital Group Coordinator	State Coordinator	National Audit Coordinator
Data Entry					
Create National Audits & Change Default Date					✓
Create Local Audits & Set Date Timeframe		✓	✓	✓	✓
Enter Patient Audit Data	✓	✓	✓	✓	✓
Amend a Patient Audit	✓	✓	✓	✓	✓
Bulk data load	✓	✓	✓	✓	✓
Complete Local Audit		✓	✓	✓	✓
Complete National Audit					✓
Unlock an organisation's audit marked as 'Complete'					✓
Reporting					
View Hospital level reports and data		✓	✓	✓	✓
View Hospital Group level reports and data			✓	✓	✓
View State level reports and data				✓	✓
View National level reports and data					✓
View "de-identified" National & State level reports & data		✓	✓	✓	✓
Administration					
Manage Auditors (add/edit/deactivate)		✓	✓	✓	✓
Manage Hospital Coordinators (add/edit/deactivate)			✓	✓	✓
Manage Hospital Group Coordinators (add/edit/deactivate)				✓	✓
Manage State Coordinators (add/edit/deactivate)					✓
Manage Audits (add/edit/deactivate)		✓	✓	✓	✓
Manage Hospitals (add/edit/deactivate)					✓
Manage Groups (add/edit/deactivate)					✓

4.1. Registering to use the NIMC Audit System

Before registering to use the system, auditors should consult with their Hospital Coordinator, Hospital Group Coordinator, or State Coordinator to request the creation of a new account on their behalf (these roles all have access to add new users). Only in the event that there is no known Hospital Coordinator or Hospital Group Coordinator should users register directly to use the system.

Access the system by opening Internet Explorer, and navigating to the NIMC Audit System home page at www.safetyandquality.gov.au/nimcaudit

1. The home page appears. Click **Register**.



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Home Current User: Guest [Logout](#)

Welcome to the National Inpatient Medication Chart Audit System

Click here to login... [Login](#) OR Click here to register.. **Register**

The Australian Commission on Safety and Quality in Health Care provides the National Inpatient Medication Chart (NIMC) Audit System to assist Australian hospitals auditing their use of the NIMC. The System is designed for hospitals to record, store and report on NIMC audits. Regular auditing of the NIMC enables hospitals to:

1. Identify areas of good medication management practice
2. Focus on areas of practice requiring improvement
3. Benchmark their NIMC use compared to peer and all other hospitals

Through the NIMC Audit System, Australian hospitals can participate in the NIMC National Audits. Australian hospitals can also use the NIMC Audit Website to undertake local audits, either using the full set of audit data elements, or through part audits focusing on specific areas. This can assist hospitals to measure specific interventions, for example improving recording of adverse drug reactions and allergies through the NIMC. Hospitals using the NIMC Audit System will accumulate their data and be able to measure practice over time. The NIMC is a key national medication safety initiative, and the Commission encourages Australian hospitals to audit their use of the NIMC to improve practice and to ensure national consistency. The data gathered will also guide future NIMC quality improvements and national communication activities. The Commission makes available a range of NIMC Audit support materials on its website including:

- [NIMC Audit System User Guide](#)
- [Guide to Auditing NIMC](#)
- [NIMC Audit Spreadsheet](#)
- [Guide to Using the NIMC Audit Spreadsheet](#)

2. The Register screen will appear.

3. First name: this is a mandatory field, enter your first name.
4. Middle name: this is an optional field.
5. Last name: this is a mandatory field, enter your last name.
6. Email: this is a mandatory field and will become your username (unless there is an existing account in the system with your email address as the username, in which case an alternative username will be generated). **Please only use a recognised official email address from your organisation. Web-based email addresses will not be approved for use in the system.**
7. Create a password: the password must be between 6 and 12 digits long.
8. Choose your profession from the drop down menu available.
9. Select your hospital(s) on the left and click the arrow > to move the hospitals into the Selected Hospital(s) column. Note that hospitals are arranged in alphabetical order but first via State.
10. Click **OK**.
11. The following email is sent to both the new user who has registered and the nimc.audit@safetyandquality.gov.au email inbox.

Dear <First name> <Last name>,

Thank you for registering to use the National Inpatient Medication Chart (NIMC) Audit System. The system has been developed to assist Australian hospitals (public and private) audit their use of the NIMC.

The NIMC Audit System is designed for hospitals to record, store and report on data generated through NIMC audits.

Now you have registered, we will need to verify your identity and will be in contact with you shortly. Please allow up to *** 3 business days *** for this to occur. Once permission is granted you will receive an email with login details to access the Audit system.

Kind regards,

The NIMC Team

DISCLAIMER: THIS MESSAGE, AND ANY ATTACHMENTS, IS INTENDED FOR THE ADDRESSEE(S) NAMED AND MAY CONTAIN CONFIDENTIAL OR PRIVILEGED INFORMATION. IF YOU ARE NOT THE INTENDED RECIPIENT PLEASE DELETE THIS EMAIL AND NOTIFY THE SENDER. THE VIEWS EXPRESSED IN THIS MESSAGE MAY BE THOSE OF THE INDIVIDUAL SENDER AND ARE NOT NECESSARILY THE VIEWS OF

Australian Commission on Safety and Quality in Health Care

THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE (ACSQHC). THE ACSQHC ACCEPTS NO LIABILITY FOR LOSS OR DAMAGE ARISING FROM THE USE OF THIS EMAIL OR ANY ATTACHMENTS.

12. After the Commission receives your application for a user account, we will contact you to verify your identity prior to approving your access. Please allow up to **3 business days** for this to occur.
13. Once registration is approved, and the National Audit Coordinator edits the user profile and clicks "Email to user", the following email is sent to both the new user who has registered and the nimc.audit@safetyandquality.gov.au email inbox.

Dear <First name>,

You have been registered to use the National Inpatient Medication Chart (NIMC) Audit System.

The system has been developed to assist Australian hospitals (public and private) auditing their use of the NIMC.

It is designed for hospitals to record, store and report on data generated through NIMC audits. Through the NIMC Audit System, Australian hospitals can participate in NIMC National Audits. The Commission will notify users well in advance of the next national audit being held.

Australian hospitals can also use the system to undertake local audits at any time, either using the full set of audit data elements, or through partial audits focusing on specific areas. This can assist hospitals to measure specific interventions, for example improving recording of adverse drug reactions and allergies through the NIMC. Hospitals using the NIMC Audit System will accumulate their data and be able to measure practice over time.

The system can be accessed at www.safetyandquality.gov.au/nimcaudit

Audits may be conducted by entering data directly into the NIMC Audit System web form or via an excel spreadsheet. Users must always access the latest version of the spreadsheet from the above web address.

Your details have been recorded in the NIMC Audit system as follows:

Username:

Password:

First Name:

Middle Name:

Last Name:

Kind regards,

The NIMC Audit Team

DISCLAIMER: THIS MESSAGE, AND ANY ATTACHMENTS, IS INTENDED FOR THE ADDRESSEE(S) NAMED AND MAY CONTAIN CONFIDENTIAL OR PRIVILEGED INFORMATION. IF YOU ARE NOT THE INTENDED RECIPIENT PLEASE DELETE THIS EMAIL AND NOTIFY THE SENDER. THE VIEWS EXPRESSED IN THIS MESSAGE MAY BE THOSE OF THE INDIVIDUAL SENDER AND ARE NOT NECESSARILY THE VIEWS OF THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE (ACSQHC). THE ACSQHC ACCEPTS NO LIABILITY FOR LOSS OR DAMAGE ARISING FROM THE USE OF THIS EMAIL OR ANY ATTACHMENTS.

4.2. Logging In

Access the system by opening Internet Explorer, and navigating to the NIMC Audit System login screen at www.safetyandquality.gov.au/nimcaudit



For quick access to the NIMC Audit System, add the link to your browser's Favourites by pressing CTRL & D

1. The main screen appears. Click **Login**.

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Home Current User: Guest [Logout](#)

Welcome to the National Inpatient Medication Chart Audit System

Click here to login... **Login** OR Click here to register... **Register**

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- [NIMC Audit System User Guide](#)
- [Guide to Auditing NIMC](#)
- [NIMC Audit Spreadsheet](#)
- [Guide to Using the NIMC Audit Spreadsheet](#)

2. The login screen appears. Type your Username and Password and click **Login**.

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Home Current User: Guest [Logout](#)

Please enter your Username and Password.

Username:

Password: [Reset](#)



The first time you log in, the system will prompt you to change your password.

Rather than using your mouse to click to each text box throughout this system, you can use the **Tab key** to move down through each text box. To move back up through the text boxes, hold down the **Shift key**, and press the **Tab key**.

4.3. Changing your password on first login



The system prompts you to re-enter your username and password

1. Type a new password (The password must be between 6 and 12 digits long).
2. Retype your new password to confirm it.
3. Click **Apply Change**.

Your password will be updated and the system redisplay the login page with a message "Welcome << Your Name >>".



How can you tell you are logged in? The top right hand corner shows the current user.

4.4. Unlocking your account (Resetting your Password)



For security reasons, your account will be locked if you incorrectly enter your password three or more times and system reset will not work. Email nimc.audit@safetyandquality.gov.au if this happens.



To reset your password:

1. Navigate to the home page (www.safetyandquality.gov.au/nimcaudit).
2. Click **Login**.
3. Enter your Username
4. Click where it says **here**.

The system will email you a new password. You must use the new password when you next login. You must also change the password following the steps above.

4.5. How to reset your password



You can reset your password at any time. To do this:

1. Login to the system

2. Select **Maintenance** and **Change Password**.

The reset password screen opens.

3. Enter your username and current password, then your new password and confirm it.

4. Click **Apply Change**

The screenshot shows the Australian Commission on Safety and Quality in Health Care website. The header includes the organization's name and a map of Australia. Below the header is a navigation menu with 'Home', 'Auditing', and 'Maintenance'. The current user is identified as 'andrewkillen' with a 'Logout' link. The main content area contains a form for changing the password. The form is divided into two sections: 'Please enter your current Username and Password.' and 'Please enter your new Password.'. The first section has fields for 'Username:' (containing 'andrewkillen') and 'Password:'. The second section has fields for 'New Password:' and 'Confirm New Password:'. An 'Apply Change' button is located at the bottom right of the form.

Your password will now be reset.

4.6. Logging Out

To log out of the system at any time, click the Logout link at the top right of the screen, next to your username. Closing the web browser will also log you out of the system.

7. Managing Users

User security is developed in a way that users can only set up and edit other users with a lower level of system access.

Lev	User Type	Description
1	State Coordinator	Can set up Hospital Group Coordinators, Hospital Coordinators, and Auditors in hospitals within their own State.
2	Hospital Group Coordinator	Can set up Hospital Coordinators and Auditors in hospitals within their own Group.
3	Hospital Coordinator	Can set up Auditors
4	Auditor	Cannot set up any users

7.1. Setting up a new user



1. Log into the system and select **Maintenance, Users**, from the drop down menu.



Any users you have access to in the system will appear.

2. Click **Add New User**.



3. Complete the user details form.
4. Type a simple username (e.g. email address) and password. The user you are setting up will be prompted to change this password when they first log in.



The preferred format of username would be user's email address. The alpha numeric password must be between 6 and 12 characters (i.e. a mix of letters and numbers)

5. Highlight the hospital(s) the user requires access to, and click the right arrow to move the selected hospital across to the **Selected Hospitals** pane.



When you move a hospital across, i.e. by clicking the right or left arrows, the password will disappear. Please note that although the password will no longer be visible in the text box, it is stored in the system.



To select several hospitals at one time, hold down the CTRL key and click each individual hospital you want to select.



If you have incorrectly selected a hospital, highlight it in the **Selected Hospitals** pane and click the left arrow to move it back to the **Available Hospitals** pane.

6. When you have finished setting up the user, make a note of the username and password for the user you have setup and click **OK**.

7.2. Editing an existing user

You may need to edit a user's settings, in order to reset their password, assign them extra hospitals, change their email address, profession or role. To do this:



1. Log into the system and select **Maintenance, Users** from the drop down menu.

All the existing users are displayed.

2. Click **Edit** beside the user you want to edit.

3. Make any necessary changes and click **Apply** and **OK**.

7.3. De-Activate a user



Because they may have been included in past audits and may need to be reported on, users cannot be deleted from the system. If a user is no longer participating in the NIMC audit, then they can be de-activated.



1. Log into the system and select **Maintenance, Users** from the drop down menu.

All the existing users are displayed.

2. Click **Set Inactive** beside the user you want to de-activate.

The user will now be de-activated.

7.4. Reactivate a user



By default, the system will only display active users in the system.



1. If you need to reactivate a user, uncheck the **Show Only Active Users** checkbox. Inactive users will then be displayed.

Username	First Name	Last Name	Profession	Active		
sharron.gilbert@health.wa.gov.au	Sharron	Gilbert	Nurse	True	Edit	Set Inactive
State Coordinator Tas	Tristan	Hughes	Pharmacist	True	Edit	Set Inactive
State Coordinator Qld	Stephanie	Perrin	Health Administrator	True	Edit	Set Inactive
State Coordinator	Kylie	Willows	Allied Health Professional	True	Edit	Set Inactive
Hospital Coordinator WA	Liz	Wood	Allied Health Professional	True	Edit	Set Inactive

Show Only Active Users:

2. Click **Edit** beside the user you wish to reactivate.

The user's details will appear.

3. Tick the **Is Active** checkbox and click **OK**.

The user will now be reactivated.

8. Managing Audits

Periodically the Commission runs a national audit which all hospitals across Australia are invited to participate in. The Commission will notify users well in advance of the next national audit being held. Only the National Audit Coordinator can setup a National Audit.

Local Audits can be setup by Hospital Coordinators, Hospital Group Coordinators and State Coordinators, and only selected hospitals need to partake in these audits.



Hospitals undertaking their own auditing, independent of a national audit being held, **MUST** set up a local audit first, prior to conducting their auditing, otherwise they will not be able to save their data in the system

8.2. How to setup a Local Audit

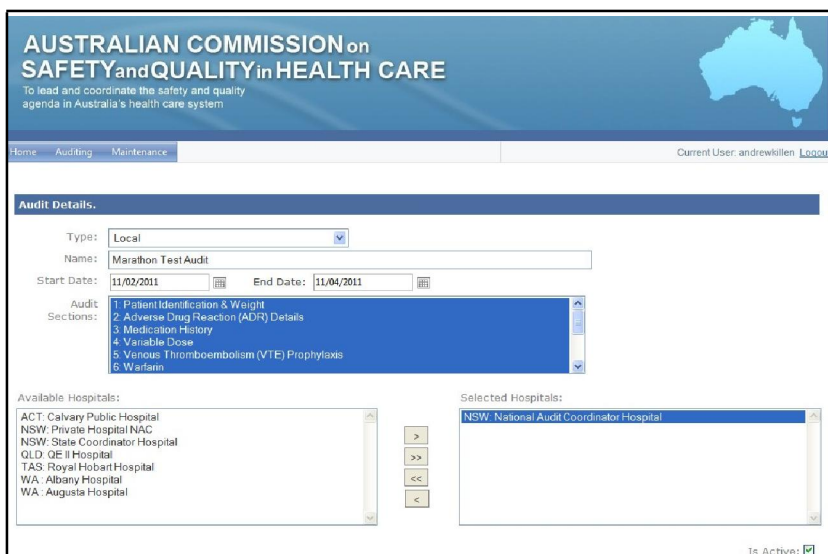
1. Log into the system and select **Auditing, Audits** from the drop down menu.

All active audits you have access to will appear.

Name	Type	Start Date	End Date	Active		
Local [18-01-11 TO 18-03-11]: Test 2	Local	18-01-11	18-03-11	True	Edit	Set Inactive
National [18-01-11 TO 18-03-11]: Test Audit	National	18-01-11	18-03-11	True	Edit	Set Inactive
National [19-01-11 TO 19-03-11]: National Audit 2011	National	19-01-11	19-03-11	True	Edit	Set Inactive

Show Only Active/Current Audits:

2. Click **Add New Audit**.



3. Select “Local” from the **Type** drop down list.
4. Enter the required date range
5. Type a name to identify the audit. (e.g. Mid North Cluster Audit - South Australia, Healthscope Private Hospitals Audit) The system will add the date and the prefix “Local” to the name.
6. All sections of the NIMC audit tool are selected by default. If you wish to only audit specific sections of the tool, click on these with the mouse, otherwise do not click in this section.



Hold down the **CTRL** button to select multiple sections.

7. Select the hospitals that are expected to partake in the audit and click the right arrow to move them into the **Selected Hospitals** pane and click **OK**.

8.3. De-Activate an Audit



1. Log into the system and select **Auditing** and then **Audits** from the drop down menu.
2. All the existing audits are displayed.
3. Click the **Set Inactive** link beside the Audit you want to de-activate.

The audit is de-activated.

8.4. Reactivate an Audit



By default, the system will only display active audits in the system. Audits that pass their “End Date” will automatically de-activate. Users will be able to enter and upload their audit data until midnight the day before the “End Date”.



1. Uncheck the **Show Only Active Audits** checkbox. Inactive audits will then be displayed.
2. Click **Edit** beside the audit you wish to reactivate.

The audit details will appear.


Australian Commission on Safety and Quality in Health Care


3. Enter a new audit **End Date**.
4. Tick the **Is Active** checkbox.
5. Click **OK**.

The audit will now be reactivated.

9. Uploading Patient Audits using the NIMC Audit Spreadsheet (Excel)

If you have entered patient audits into the NIMC Audit Spreadsheet (Excel), you will need to use the upload facility to upload the data into the system.

 You must export the data from the spreadsheet first, prior to attempting to upload it. Please refer to the instructions appendix B: - "Guide to using the NIMC Audit Spreadsheet".


 Always use the latest NIMC Audit Spreadsheet available on the NIMC Audit System home page at www.safetyandquality.gov.au/nimcaudit. The latest version will assist with quicker data entry and validates any errors.

9.1. How to upload a batch file

 1. Log into the system and select **Auditing, Upload Audit**, from the drop down menu.



2. Select the audit you want to upload the excel file to from the list of available audits.

 You will only see audits that you have access to. If the audit you are expecting to work on is not listed, **contact the National Audit Coordinator or in the case of a local audit, contact the Hospital Coordinator, or Hospital Group Coordinator or State Coordinator**, to gain access to it. The National Audit Coordinator cannot assist with local audits.

You will need the "Main.csv" and "Drug Orders.csv" files to upload to the system. Ensure you know the location of these files. For assistance refer to Appendix B - "Guide to using the *NIMC Audit Spreadsheet*".

3. Click **Browse**.
4. Browse to and select the *Main* and *Drug Order* files to upload.
5. Click **Upload**.

The system will validate the contents of the files you are uploading to ensure they are in the correct format.

Assuming the system finds no issues with the files it will display a message telling you "**Files uploaded successfully**".

The screenshot shows the top navigation bar with 'Home', 'Auditing', and 'Maintenance' tabs. The current user is 'andrewkillen'. A green shield icon indicates 'Files uploaded successfully.' Below this, a blue box prompts the user to 'Please specify the location of the 'Main' and 'Drug Order' files.' The 'Audits' dropdown is set to 'Local [18-10-10 TO 11-11-10]: Test Audit'. The 'Main' field contains 'C:\NIMC Audit Tool\Data\3Main.csv' and the 'Drug Order' field contains 'C:\NIMC Audit Tool\Data\3DrugOrders.csv'. 'Browse...' buttons are next to these fields. 'Cancel' and 'Upload' buttons are at the bottom right.

If the upload file contains any invalid patient audits, the system will display an error message informing you of these.

These patient audits issues can be resolved by following the instructions below in the next section.

9.2. How to resolve Patient Audit errors

If the upload file contains any invalid patient audits, the system will display an error message informing you of these. You will need to correct all errors for the data to be saved in the NIMC Audit System database.

The screenshot shows the same interface as above, but with a yellow shield icon and the message 'Files uploaded with errors. Please review the Patient Audit screen for invalid Patient Audits.' The 'Main' and 'Drug Order' fields are now empty, and the 'Browse...' buttons are visible.



1. To correct these issues, go to **Auditing, Patient Audit**
2. Select the Audit you are working on from the drop down list

The list of Patient Audits appears.

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Home Auditing Maintenance Current User Guest Logout

Patient Audit Summary

Audits: Local [18-10-10 TO 11-11-10]: Test Audit Add Audit

Patient Audit Number	Is Valid	Edit
EXL2	True	Edit
EXL3	False	Edit
WEB10102012071492	True	Edit

Add Audit

Under the column **Is Valid**, any audits that contain errors will be flagged as **“False”** and highlighted red. The patient audit summary will list number of patient audits in error.

3. Click **Edit** to open the Patient Audit you want to correct.

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Home Auditing Maintenance Current User Guest Logout

Invalid attributes (Patient).
'6.3: Number of Target INR ranges documented if prescribed in Warfarin' must be between 0 and 20 because 6.4 is set to 0.
'6.4: Number of Target INR ranges documented if prescribed in Regular section' must be between 0 and 20 because 6.3 is set to 0.
'6.2: Number of times patient prescribed warfarin' is greater than zero but '6.5: Warfarin Education recorded' not selected.

National Inpatient Medication Chart Audit Tool

Patient No: EXL3 Hospital: NSW: Hospital Coordinator Hospital Audit Date: 20/10/2010
Bed No.: 23 Gender: Female Chart Type: NIMC
Ward: 2 Reviewer 1: andrew Reviewer 2: andrew

1. Patient Identification & Weight

1.1 Total Current Medication Charts (ie. Charts in use): 3
1.2 Patient ID complete on all pages (include hand-printed name if label used): Yes
1.3 Weight documented on a Medication Chart (Paeds must be all charts): No

2. Adverse Drug Reaction (ADR) Details

The affected fields will be highlighted in red.

11. Prescribing and Administration

Drug Order	Drug Name	Route/Dose	Frequency	Others	Definitions: Error Prone Abbreviations
R = Regular P = PRN S = Start/Phone/Once Only V = Variable Dose W = Warfarin	U = Unclear T = Trade C = Clear	C = Clear M = Missing U = Unclear I = Incorrect NA = Not Applicable	C = Clear M = Missing U = Unclear I = Incorrect NA = Not Applicable	Y = Yes N = No	mcg, ug = microgram U or u = unit qd or QD = every day o.d. or OD = once daily SL, S/C = sublingual SL, S/L = sublingual h (degree symbol) = hourly frequency No leading zero before a decimal point (eg. .5mg) = 0.5mg Trailing zero after decimal point (eg. 1.0 mg) = 1mg

Line	Drug	Drug Name	Route	Dose	Freq	Dose Calc'n Dec'd	Dose Calc'n Dec'd	Error Prone Abbrev's Used	Ind Dec'd	Pharm. Annot.	Pres. Signed	Pres. Clear	Pres. Match Admin Time	Drug Ceased	Ceased Correctly	Doses Required	Doses Admin	IF PRN Max Dose Dec
2	P	C	M	C	M	No	Yes	Yes	No	No	No	No	Yes	Yes	No	-1	-1	No

Add Row

4. Update any fields in error and click **OK**.

The changes are validated and if correct, the page closes.



Patient Audits entered using the excel spreadsheet upload will be prefixed with **EXL**.

Patient Audits entered online will be prefixed with **WEB**.

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Home Auditing Maintenance Current User (Guest) Logout

Patient Audit Summary

Audits: Local [18-10-10 TO 11-11-10]: Test Audit

Patient Audit Number	Is Valid	
EXL2	True	Edit
EXL3	False	Edit
WEB:0102012071492	True	Edit

10. Entering an Audit Online

-  Patient Audits entered online must be entered in their entirety; i.e. the system will **not** save a partially completed audit unless you are participating in a partial audit focusing on specific areas of NIMC that is pre-specified during the new audit set up.
-  The NIMC audit system times out after 30 minutes of inactivity for security purposes. In order to prevent losing your work during auditing, please click the “Test Validation Rules” button on the bottom of the screen. This will extend the 20 minute timer. Then continue to enter the patient data on the screen. Click OK when you have completed the entire patient audit.


10.1. How to enter a patient audit online



1. Log into the system and select **Auditing, Patient Audit** from the drop down menu.



2. Select the audit you want to upload to from the list of available audits.

-  You will only see audits that you have access to on the Patient Audit Summary screen. If the audit you were expecting to work on is not listed, **contact the National Audit Coordinator or in the case of a local audit, contact the Hospital Coordinator, or Hospital Group Coordinator or State Coordinator**, to gain access to it. The National Audit Coordinator cannot assist with local audits.



3. Select “Add New Patient Audit” once the correct audit is shown in the drop down menu.
4. The Patient Audit Summary screen opens. Complete all fields in the patient audit.
5. The system will automatically skip responses that are not required based on your earlier responses.

- In Section 11, Prescribing and Administration, complete the medication orders, click **Add Row** to add a new medication order.

Order No.	Drug Order	Drug Name	Route	Dose	Freq	Dose Calc'n Doc'd	Dose Calc'n Doc'd Correctly	Error Prone Abbrev's Used	Indication Doc'd	Pharm. Annot.	Pres. Signed	Pres. Clear	Freq. Match Admin Time	Drug Ceased	Ceased Correctly	Doses Required	Doses Admin	IFPRN Max Dose Doc
1	R	T	C	C	C	No	N/A	No	Yes	Yes	Yes	Yes	No	No	N/A	20	25	N/A
2	V	T	C	C	M	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	N/A	7	7	N/A

- If you need help in determining the appropriate responses to any of the questions click on icon beside each section. The system will display a note to each question.
- If you need to delete a row click the 'X' to the left of each row.
- To scroll down the patient audit page, click outside the patient audit in the grey area. Do not use the mouse scroll wheel within patient audit page, this may accidentally change the existing data you have entered.

- Click **OK**. The system validates the patient audit and displays any errors.

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Home Auditing Maintenance Reports Current User: National Audit Coordinator Logout

Invalid attributes found, NO data was saved. Please fix errors and save again.
Invalid attributes (Patient).
Gender not selected.

National Inpatient Medication Chart Audit Tool

Patient No.: WEB11042715164581 Hospital: WA: NEWMAN HOSPITAL Audit Date: 9/09/2010
 Bed No.: 2A Gender: NOT DEFINED Chart Type: NIMC
 Ward: General Reviewer 1: D Murray Reviewer 2:

- Resolve any errors the system has flagged and click **OK**.

The Patient Audit you have just entered will be listed below the audit.

NEWMAN HOSPITAL	WEB11042715164581	True	Edit
NEWMAN HOSPITAL	WEB11042715232926	True	Edit
NEWMAN HOSPITAL	WEB11042715270142	True	Edit
NEWMAN HOSPITAL	WEB11042715303939	True	Edit

10.2. How to amend patient audit

A patient audit may need to be amended for various different reasons, for example, if it is uploaded to the incorrect hospital audit or contains invalid data.

- Log into the system and select **Auditing, Patient Audits**.
- Select the Audit you wish to work on. The Patient Audits within that audit will appear.
- Click **Edit** beside the Patient Audit to amend.
- The Patient Audit opens.

- 5. Make the changes and click **OK** to resave the patient audit. The Patient audit will save the changes and close.
- 6. Amended Patient Audit will be flagged as **“True”** in the Patient Audit Summary page.

NEWMAN HOSPITAL	WEB11042715164581	True	Edit
NEWMAN HOSPITAL	WEB11042715232926	True	Edit
NEWMAN HOSPITAL	WEB11042715270142	True	Edit
NEWMAN HOSPITAL	WEB11042715303939	True	Edit

11. Running Reports

11.1. Audit Summary Report

The Audit Summary report can be used to display consolidated totals, averages and percentages for patients (de-identified) and drug orders included in the NIMC audit. See Appendix C for formulae used for each measure in the Audit Summary.

The patient audits included in the report are driven by a number of filters which are controlled by the user running the report. These include audit name, audit sections, audit type, state and date.

Note: You can run two reports to compare against different criteria.

To run the Audit Summary report:

1. Log into the system and select **Reports, Audit Summary**.
2. Select the Audit Name that you have previously entered or uploaded patient audits to. (e.g. National or Local audit)
3. Select one or more Audit Section(s). The selected sections correlate directly to the sections within the Patient Audit. By default all sections are selected.
4. Select the Audit Type (e.g. National, State, Hospital, Group, Peer Group). This will define the level of consolidation of audit summary report at a national, state, hospital, group, and peer group levels.
5. The next selection available depends on the Audit Type chosen at step 4. For example, where State is selected, 'Select State' will be displayed and you should choose the State(s) to be reported. The choice would be limited to your own state and security settings.



You are able to make inter-hospital comparison by selecting more than one hospital. Each option selected will appear as a column on the report. For example, if you select a number of hospitals in your state as a State Coordinator or a group of public/private hospitals as a Hospital Group Coordinator the report will display results for each hospital in each column.



Important: You will only be able to report on criteria within your allocated security settings. See Table below that describes what each user type has access to various audit summary reports.

Audit Summary Reports by user type

User type	Auditor	Hospital Coordinator	Hospital Group Coordinator	State Coordinator	Private Hospital Coordinator	Private Hospital Group Coordinator
Type of Audit Summary Report						
National report (public and private hospitals aggregate)	-	✓	✓	✓	✓	✓
State report (public hospital aggregate)	-	✓	✓	✓	-	-
Hospital report	-	✓	✓	✓	✓	✓
Group report (e.g. Private hospitals, Public hospital local networks)	-	✓	✓	✓	✓	✓
Peer Group report	-	✓	✓	✓	-	-

✓ = report available

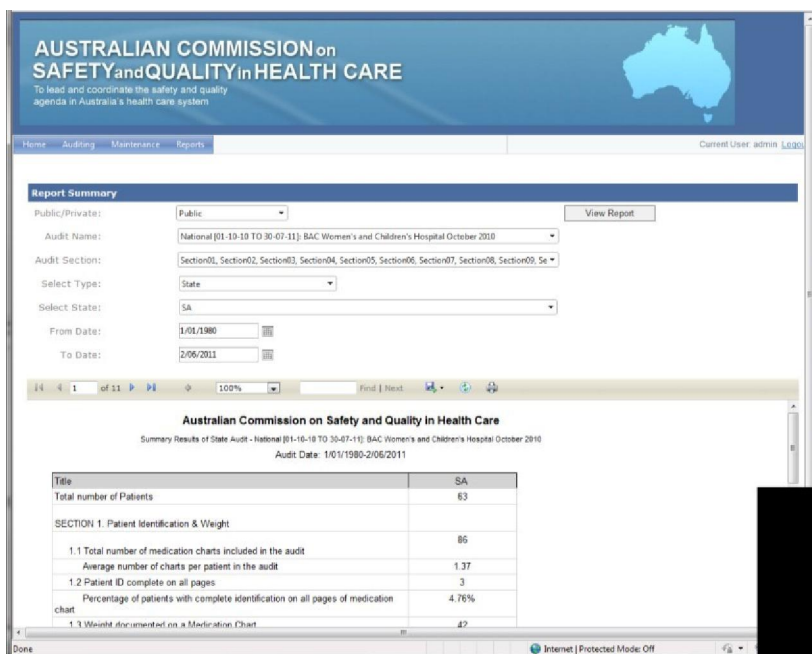





If you are a private hospital, you will have access to national, hospital and group level reports. The options for state and peer group reports will not be available.

If you are a public hospital, you will have access to the peer group report to which your hospital has been classified based on the Australian Institute of Health and Welfare (AIHW) hospital peer group classifications. The AIHW has classified each hospital according to location (major cities, regional and remote) and type of services provided to patients.

- Choose the **From Date** and **To Date**. These can be left blank to report on all audits.
- When finished, click **View Report**.

The report is generated as shown below.



8. To export the report to an Excel, Word or PDF file, choose Export,  , Excel (or Word or PDF). The file opens in a new window, and you can save it to your PC or network.
9. To refresh the data, click  .
10. To print the report, click  . If you require to print a report with multiple hospitals or peer groups in columns for ease of comparison, it is best to export to Excel before printing.



11.2. Audit Statistics

The Audit Statistics reports user statistics for a selected audit.

To run the Audit Statistics report:

1. Log into the system and select **Reports, Audit Statistics**.
2. Select the Audit name. (e.g. National or Local audit)
3. Click **View Report**.

The screenshot shows the 'Audit Stats' page in a web application. At the top, there is a navigation menu with 'Home', 'Auditing', 'Maintenance', and 'Reports'. The 'Reports' menu is active. Below the navigation, there is a header for 'AUSTRALIAN COMMISSION on SAFETY and QUALITY in HEALTH CARE' with a map of Australia. The main content area is titled 'Audit Stats' and contains a dropdown menu for 'Audit Group' set to 'Local [01-01-10 TO 31-07-11]: BAC Korumburra hospital patients' and a 'View Report' button. Below this is a table of statistics:


Audit Statistics	
Audit Group:	Local [01-01-10 TO 31-07-11]: BAC Korumburra hospital patients
Total number of users	2
Total number of hospitals	1
Total number of file uploads	0
Total number of patient audits	1
Total number of patient audits in error	0

The report is generated and details are listed in Table below.

Statistical details shown are:

Details	Description
Total number of participating users	Total number of users who have participated in the selected audit (calculated by counting the number of hospitals in the audit and then the number of users associated with those hospitals)
Total number of participating hospitals	Total number of hospitals included in the selected audit.
Total number of file uploads	Total number of bulk uploads performed for the selected audit using the NIMC Audit Tool spreadsheet
Total number of patient audits	Total number of patient audits included in the selected audit.
Total number of patient audits in error	Total number of patient audits currently in error for the selected audit.
Total number of patient audits that are correct	Total number of valid patient audits that are correct for the selected audit.
Total number of public patient audits	Total number of patients recorded as public patients for the selected audit.
Total number of private patient audits	Total number of patients recorded as private patients for the selected audit.
Total number of public patient audits by state	Breakdown, by State, of the total number of public patient audits. If no data is entered/uploaded for a specific state, that state will not be listed.
Total number of private patient audits by state	Breakdown, by State, of the total number of private patient audits. If no data is entered/uploaded for a specific state, that state will not be listed.

To export Audit Statistics to an Excel, Word or PDF file, choose Export, Excel or Word or PDF. The file opens in a new window, or you can save it to your PC or network.

To refresh the data, click .

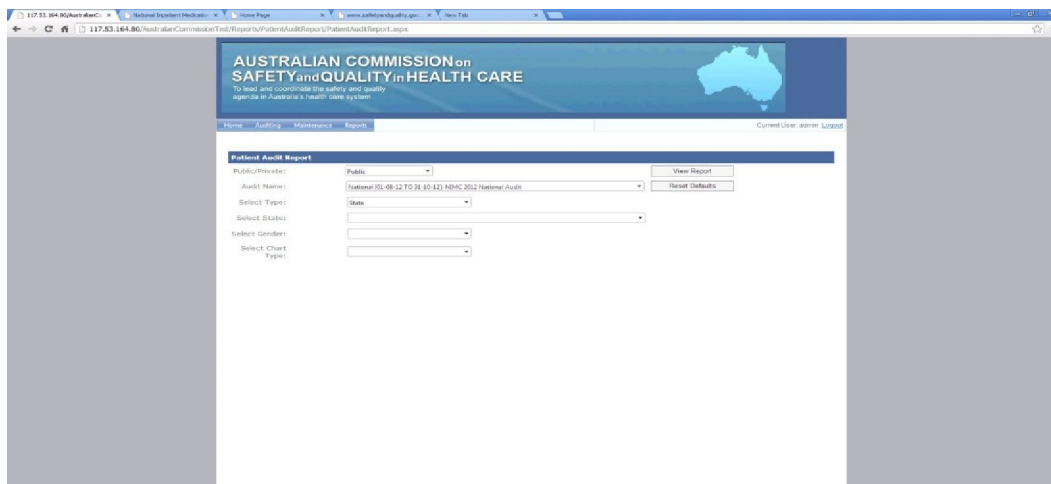
To print the report, click .

11.3. Patient Audit Report

The Patient Audit Report can be used to display patient data as it was entered from the NIMC Audit Tool forms or as uploaded from the NIMC Audit Tool spreadsheet. This report is for sections 1 to 10 of the NIMC Audit Tool. Section 11.4 of this user guide details how to run the report for section 11 of the NIMC Audit Tool, prescribing and administration, and how to use the two reports together.

The patient audits included in the report are driven by a number of filters which are controlled by

the user running the report. These include Public/Private, Audit Name, Audit Type, State/Hospital/Group/Peer Group, Gender and Chart Type. This report is useful for looking at audits by Gender, Chart Type and analysing the comments in section 4.1 of the NIMC Audit Tool, No. Variable Dose medications.



To run the Patient Audit Report:


1. Log into the system and select **Reports, Patient Audit Report**.
2. Select the Audit Name that you have previously entered or uploaded patient audits to. (e.g. National or Local audit). If this field is left blank all historical audit data completed for the State, Hospital, Group or Peer Group that you are aligned to will be combined when the report generates.
3. Select the Audit Type (e.g. National, State, Hospital, Group, Peer Group). This will define the level of consolidation of the patient audit report at national, state, hospital, group, and peer group levels. Please note if selecting State, Hospital, Group or Peer Group you will need to select the State, Hospital, Group or Peer Group in the next step for the report to generate.
4. The next selection available depends on the Audit Type chosen at step 3. For example, where State is selected, 'Select State' will be displayed and you should choose the State(s) to be reported. The choice will be limited to your own state and security settings.
5. Select Gender. Choose – ALL -- if you do not wish to filter. If report is to be used with the Medication Report, section 11.4 of this user guide, ensure that the same filters are selected.
6. Select Chart Type. Choose –ALL-- if you do not wish to filter. If report is to be used with the Medication Report, section 11.4 of this user guide, ensure that the same filters are selected.




Important: You will only be able to report on criteria within your allocated security settings. See the table on the following page that describes to which Patient Audit Reports each user type has access to Patient Audit Reports by user type

User type	Auditor	Hospital Coordinator	Hospital Group Coordinator	State Coordinator	Private Hospital Coordinator	Private Hospital Group Coordinator
Type of Patient Audit Report						
National report (public and private hospitals aggregate)	-	✓	✓	✓	✓	✓
State report (public hospitals aggregate)	-	✓	✓	✓	-	-
Hospital report Group report (e.g. Private hospitals, Public hospital local networks)	-	✓	✓	✓	✓	✓
Peer Group report	-	✓	✓	✓	-	-

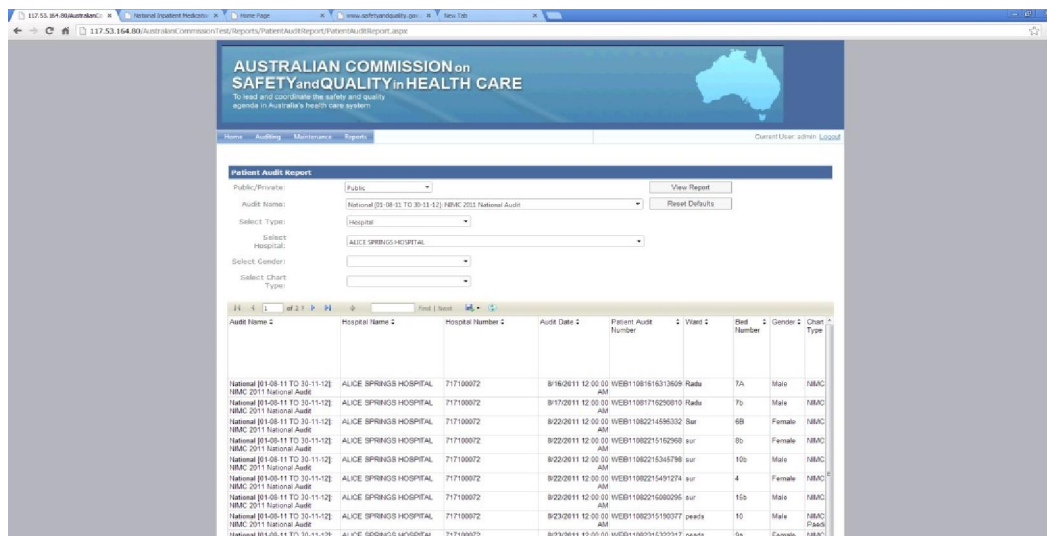
✓ = report available


 If you are a private hospital, you will have access to national, hospital and group level reports. The options for state and peer group reports will not be available.

If you are a public hospital, you will have access to the peer group report to which your hospital has been classified based on the Australian Institute of Health and Welfare (AIHW) hospital peer group classifications. The AIHW has classified each hospital according to location (major cities, regional and remote) and type of services provided to patients.


 7. To reset all filters to their defaults values click **Reset Defaults**. When finished, click **View Report**.

The report is generated as shown on following page.



- You will find next to each column heading, an arrow that can be used to sort columns before exporting. Note that if the report is to be used with the Medication Report (section 11.4 of this user guide) ensure you sort the same column.
- It is recommended that Excel is used to export the file due to the size of the document. To export the report to Excel choose Export, , Excel, the file

opens in a new window, and you can save it to your PC or network. It is recommended that the document is formatted for printing at this stage.

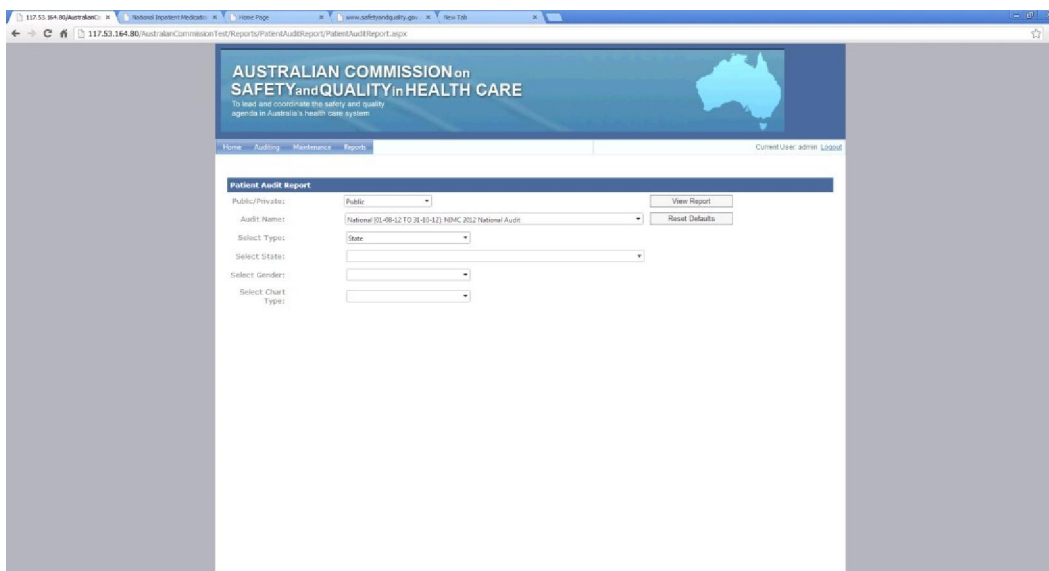
10. To refresh the data, click  .

11.4. Medication Report

The Medication Report can be used to display patient data as it was entered from the NIMC Audit Tool forms or as uploaded from the NIMC Audit Tool spreadsheet. This report is for section 11 of the NIMC Audit Tool, prescribing and administration, section 11.3 of this user guide details how to run the report for sections 1-10 of the NIMC Audit Tool. Instructions on how to use and interpret the two reports together are detailed below.

The patient audits included in the report are driven by a number of filters which are controlled by the user running the report. These include Public/Private, Audit Name, Audit Type, State/Hospital/Group/Peer Group, Gender and Chart Type. This report is useful for looking at audits by Gender and Chart Type.

It is important to note that in the Patient Audit Report (section 11.3 of this user guide), once exported to Excel, each **patient** is represented by a single Excel line, whereas in the Medication Report each individual **order** is represented by a single excel line, some patients will be represented on multiple Excel lines in this report. It is important that when using the reports together you take into account all medication orders. This can be achieved by looking at the unique Patient Audit Number column in each report.



To run the Medication Report:

1. Log into the system and select **Reports, Medication Report**.
2. Select the Audit Name that you have previously entered or uploaded patient audits to.(e.g. National or Local audit) If this field is left blank all historical audit data completed for the State, Hospital, Group or Peer Group that you are aligned to will be combined when the report generates.
3. Select the Audit Type (e.g. National, State, Hospital, Group, Peer Group). This will define the level of consolidation of the Medication Report at national, state, hospital, group, and peer group levels. Please note if selecting State, Hospital, Group or Peer Group you will need to select the State, Hospital, Group or Peer

Group in the next step for the report to generate.

4. The next selection available depends on the Audit Type chosen at step 3. For example, where State is selected, 'Select State' will be displayed and you should choose the State(s) to be reported. The choice would be limited to your own state and security settings.
5. Select Gender. Choose --ALL-- if you do not wish to filter. If report is to be used with the Patient Audit Report, section 11.3 of this user guide, ensure that the same filters are selected.
6. Select Chart Type. Choose --ALL-- if you do not wish to filter. If report is to be used with the Patient Audit Report, section 11.3 of this user guide, ensure that the same filters are selected.



Important: You will only be able to report on criteria within your allocated security settings. See Table below that describes what each user type has access to various Medication Reports.

Medication Reports by user type

User type	Auditor	Hospital Coordinator	Hospital Group Coordinator	State Coordinator	Private Hospital Coordinator	Private Hospital Group Coordinator
Type of Medication Report						
National report (public and private hospitals aggregate)	-	✓	✓	✓	✓	✓
State report (public hospital aggregate)	-	✓	✓	✓	-	-
Hospital report Group report (e.g. Private hospitals, Public hospital local networks)	-	✓	✓	✓	✓	✓
Peer Group report	-	✓	✓	✓	-	-

✓ = report available



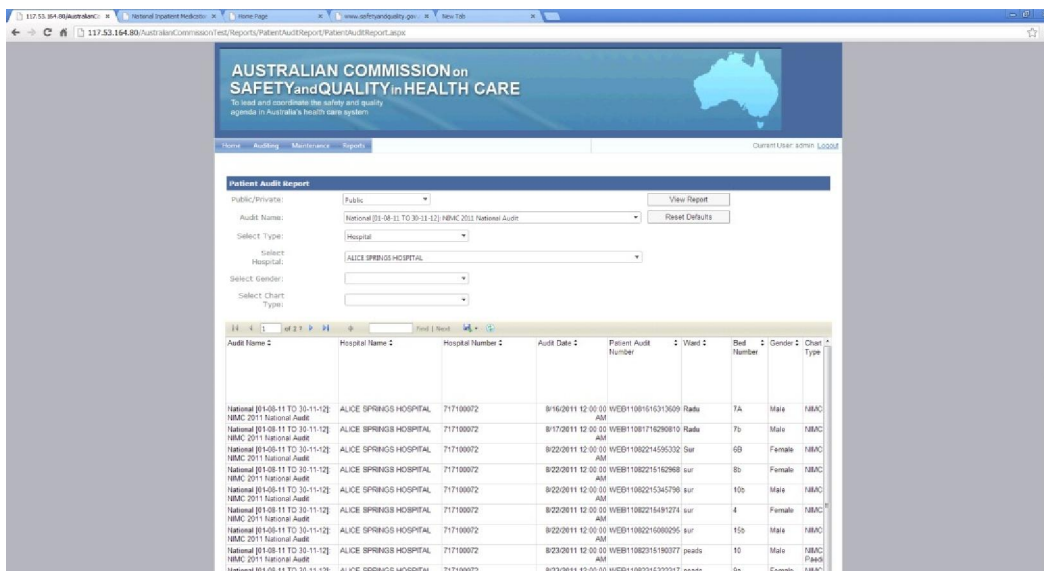
If you are a private hospital, you will have access to national, hospital and group level reports. The options for state and peer group reports will not be available. If you are a public hospital, you will have access to the peer group report to which your hospital has been classified based on the Australian Institute of Health and Welfare (AIHW) hospital peer group classifications. The AIHW has classified each hospital according to location (major cities, regional and remote) and type of services provided to patients.





To reset all filters to their defaults values click **Reset Defaults**.

7. When finished, click **View Report**.

The report is generated as shown on the following page.



8. Next to each column heading is an arrow that can be used to sort columns before exporting. If report is to be used with the Patient Audit Report, section 11.3 of this user guide, ensure you sort the same column.
9. It is recommended that the report be exported as a CSV file due to the size of the document. To export the report as a CSV file choose Export, , CSV, the file opens in a new window (CSV files normally open in Excel by default), and you can save it to your PC or network. It is recommended that the document is formatted for printing at this stage. A **CSV** is a comma separated values **file**, which allows data to be saved in a table structured **format**. CSVs look like an Excel spreadsheet but with a **.csv extension**. The file format export options for this report were changed from Excel to CSV because some reports (usually the National Audit Medication Report) exceeded the number of rows available in Excel.
10. For reports that do not exceed the number of rows available in Excel, the file can be converted to an Excel file. To save it as an excel file, please select CSV from the available export options, then select the option to Open the file (this appears if using Internet Explorer, otherwise the file may download directly to the 'downloads' folder by default if using another web browser). Then go to File, Save As, then in the drop down box where it says "Save as type", select Excel Workbook. This will save your file as an Excel file instead of a CSV file.
11. If the file extension remains CSV, the file will open in Excel and will function like an Excel document however CSV files do not enable formatting thus if any changes are made to the formatting of the file, it will not be possible to save the changes.
12. To refresh the data, click 

Appendices

Appendix A: Contacts

If you require support in using the NIMC Audit System, you may contact your State and territory representatives or the National Audit Coordinator.

**AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE**

TRIM D16-38121

National Inpatient Medication Chart

**Guide to Using the
NIMC Audit Spreadsheet**

October 2016

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Introduction

The *Guide to using the National Inpatient Medication Chart (NIMC) Audit Spreadsheet* is a resource designed to assist data entry into a 'NIMC Audit Tool' that is simply an excel spreadsheet.

The purpose of the excel spreadsheet is to create an electronic file of your NIMC Audit that can later be uploaded to the web-based NIMC Audit System to produce summary and comparison reports of the audit. **Please note that the Audit System also enables patient audits to be entered directly online and therefore it is not absolutely necessary to use the spreadsheet.** Auditors have the choice of either using the online system or the excel spreadsheet. The difference between the two is that the online system requires the user to be connected to the internet while entering the data. Alternatively, the excel spreadsheet enables the user to enter the data offline and then upload the file at a later date. Auditors may like to experiment with the two options and choose their preference.

Specific explanatory notes about answering each of the questions in the audit can be found in the *Guide to Auditing the NIMC*. All the audit tools, and guidance on how to use them, are available on the Commission's web site at: www.safetyandquality.gov.au/nimcaudit.

Only use one spreadsheet per hospital per audit. If you use multiple spreadsheets for the same hospital, you will be unable to upload these spreadsheets to the same audit.

The spreadsheet cannot be used for 'partial' audits. Partial audits are audits conducted with only a subset of the audit questions (which can be selected at the time of setting up your audit in the web-based NIMC Audit System).

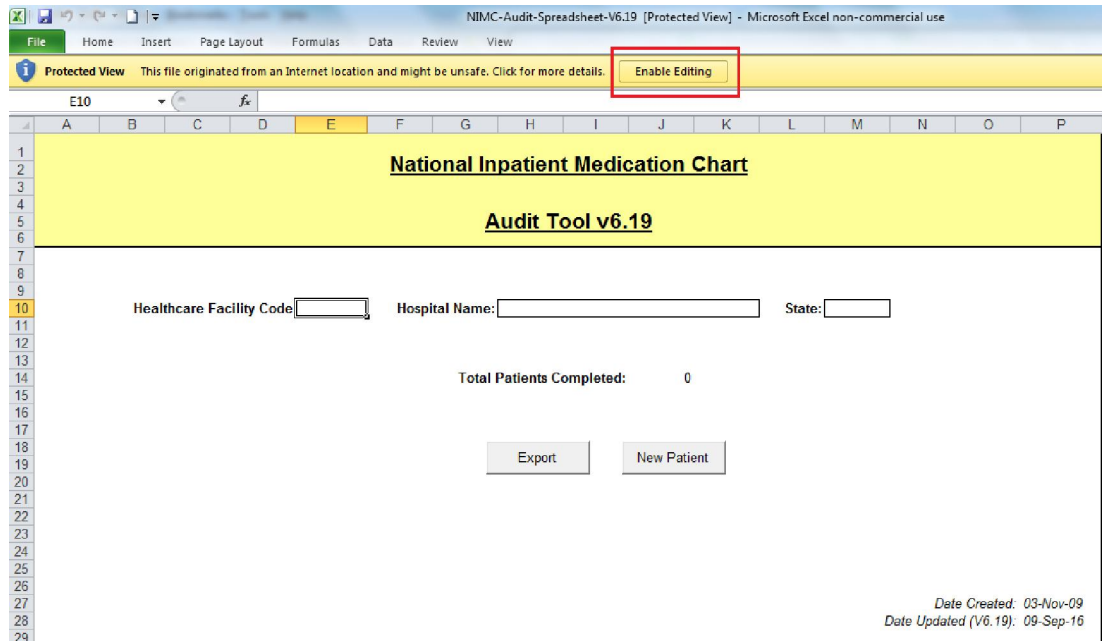
Accessing the NIMC Audit Spreadsheet

1. Navigate to the NIMC audit website by typing the following in your web browser:
<http://www.safetyandquality.gov.au/nimcaudit>
2. Scroll down the screen and find the dotpoint:
 - [NIMC Audit Spreadsheet](#)
3. Click on this link and save the file to your computer.
4. Some web browsers will save the file directly to your downloads folder, whereas other web browsers will let you choose where to save the file. Be sure to save the file somewhere you can easily find it. **Always use the latest version of the NIMC audit spreadsheet. Always download the spreadsheet from the above location before commencing an audit, instead of referring to earlier versions of the spreadsheet which may no longer be compatible with the online system.**

Using the NIMC Audit Spreadsheet for the first time

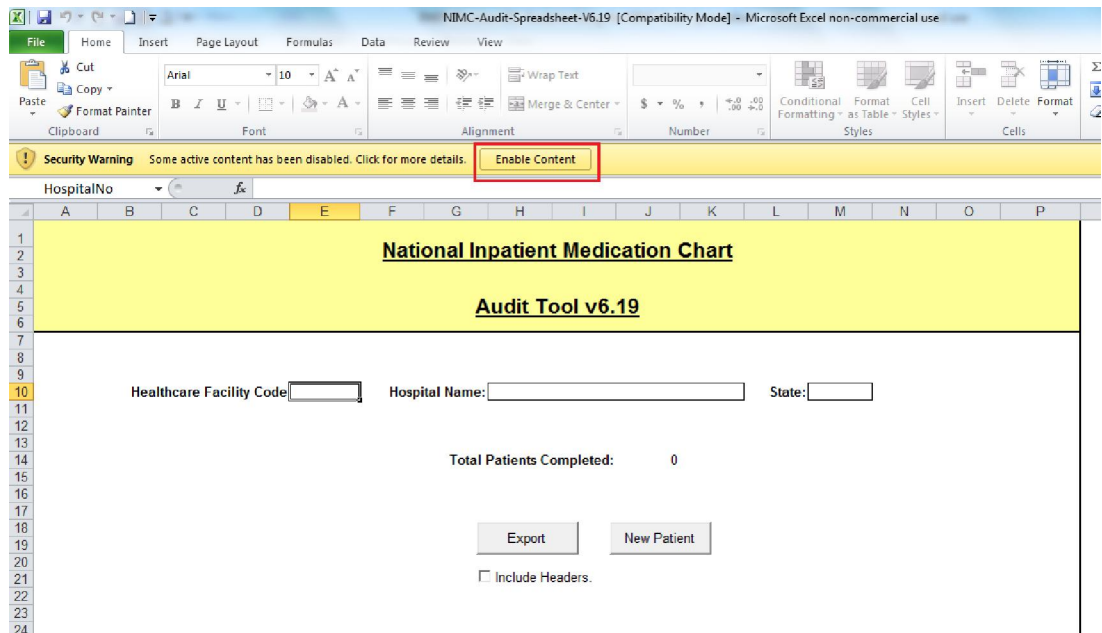
When opening the *NIMC Audit Spreadsheet* for the first time, you will need to click “Enable Editing”. See Figure 1 below.

Figure 1 – NIMC audit spreadsheet, the view when you open the file



After you click enable editing, you may also get a security warning on the screen. Click “Enable Content”. See Figure 2 below.

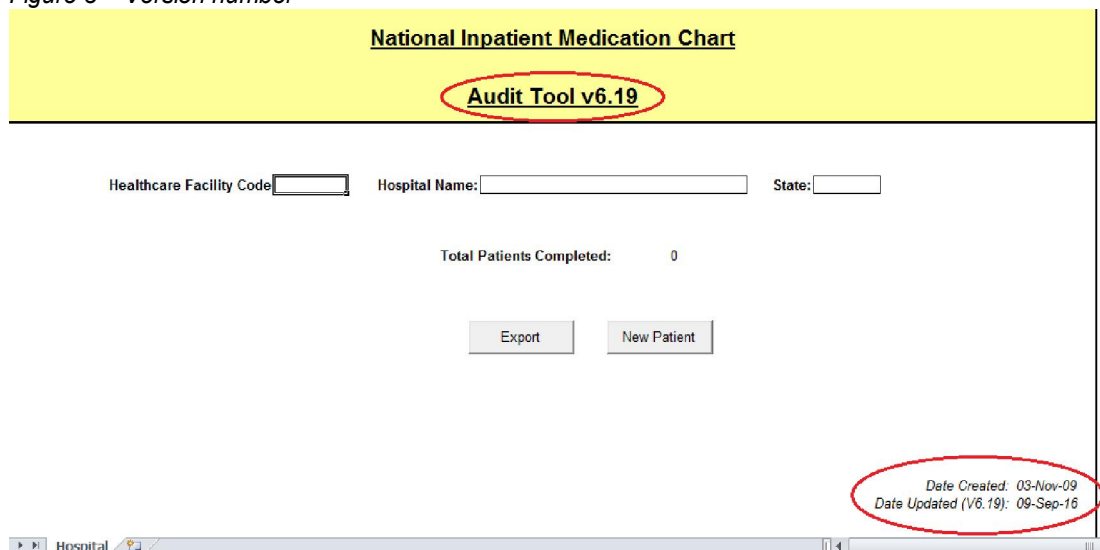
Figure 2 – Security warning



Entering hospital information

When you open the spreadsheet, you will see the hospital worksheet. Please ensure you are using the latest version available from the NIMC Audit System home page at www.safetyandquality.gov.au/nimcaudit. The version number and date updated are shown on the hospital worksheet. (Figure 3)

Figure 3 – Version number



You are required to enter the Healthcare Facility Code (otherwise known as the Establishment ID, consisting of nine alpha-numeric characters for a public hospital and eight alpha-numeric characters for a private hospital), Hospital Name and State or Territory before you start entering patient details.

Hospital facility codes are available from your State or Territory representative or you may contact the Commission to obtain your facility code. Email nimc.audit@safetyandquality.gov.au to obtain your code if required. Please allow up to 3 business days for replies from the nimc audit inbox.

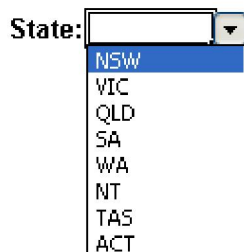
The State field is entered via a drop-down list. When you click on the State field, a button with a down arrow will appear (Figure 4).

Figure 4 – State drop down



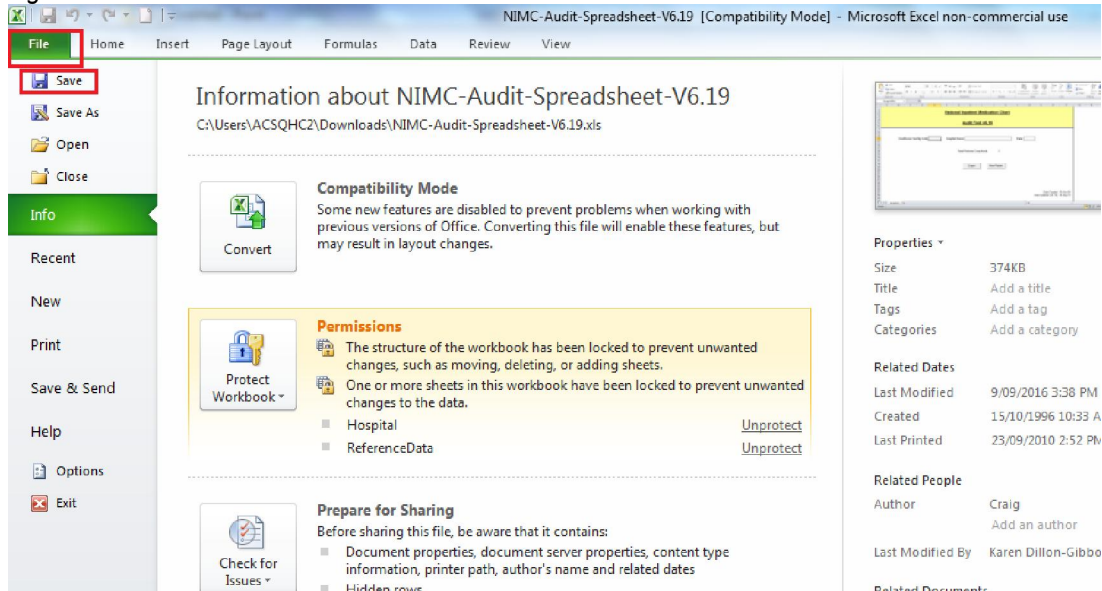
Click on the down arrow button, and a list of options will drop down for you to select. (Figure 5)

Figure 5 – State drop down showing list when the arrow button is clicked



Once you have completed the three fields, **save the application file**. Do this by clicking the “File” tab and then the Save icon. The File tab and Save icon are highlighted with red boxes in Figure 6 below.

Figure 6 – File tab and save icon



Entering patient audit data in the NIMC Audit Spreadsheet

Only use one spreadsheet per hospital per audit. If you use multiple spreadsheets for the same hospital, you will be unable to upload these spreadsheets to the same audit.

4.1 Entering patient data for Sections 1 to 10

On the Hospital worksheet, there is a [New Patient] button. To add a new patient audit worksheet, click on this button (Figure 7), and a new patient userform will be created. (Figure 8) The userform will automatically generate a 'Patient Audit Number' (e.g. EXL1).

Figure 7: Hospital worksheet

Healthcare Facility Code Hospital Name: State:

Total Patients Completed: 1



Figure 8: Patient userform

The screenshot shows the 'National Inpatient Medication Chart Audit Tool Form'. The 'Main Patient Details' section includes fields for Patient Audit Number (EXL1), Gender (dropdown), Chart Type (dropdown), Audit Date (text), Bed Number, Ward, Reviewer 1, and Reviewer 2. Below this are eight numbered sections of audit questions:

- 1. Patient Identification & Weight**: 1.1 Total Current Medication Charts, 1.2 Patient ID complete on ALL pages, 1.3 Weight documented on a Medication Chart.
- 2. Adverse Drug Reaction (ADR) Details**: 2.1 ADR documentation complete on ALL charts, 2.2 Patient has previous ADR, 2.3 Similar class of medication prescribed, 2.4 If previous ADR, do ALL pages have ADR Alert Stickers in place.
- 3. Medication History**: 3.1 Medication History documented on Medication Chart, 3.2 If 'No', is a Medication History cross-referenced on Medication Chart, 3.3 Medication Management Plan (MMP) Form in 'end of bed' folder, 3.4 Allergies/ADR box completed on MMP Form.
- 5. Venous Thromboembolism (VTE) Prophylaxis**: 5.1 VTE Risk Assessment documented on ANY medication chart, 5.2 VTE Prophylaxis prescribed (VTE & Regular sections), 5.3 VTE Prophylaxis prescribed in VTE section.
- 6. Warfarin**: 6.1 Warfarin Guidelines at end of patient's bed or with Medication Chart, 6.2 Number of times patient prescribed warfarin, 6.3 Number of Target INR ranges documented if prescribed in Warfarin section, 6.4 Number of Target INR ranges documented if prescribed in Regular section, 6.5 Warfarin Education recorded.
- 7. Sustained Release**: 7.1 Number of Sustained Release medications ordered, 7.2 Number of Sustained Release medications with SR box ticked.
- 8. Intermittent Medications**: 8.1 Number of intermittent medications ordered, 8.2 Number of intermittent medications ordered and 'boxed'.

You are now ready to enter data for the first patient. First, enter the patient details at the top of the page (Figure 9).

Figure 9: Patient details

This screenshot shows the 'Main Patient Details' section of the form with data entered: Patient Audit Number (EXL1), Gender (Male), Chart Type (NIMC), Audit Date, Bed Number, Ward, Reviewer 1 (NIMC Long Stay), and Reviewer 2. A dropdown menu for Reviewer 1 is open, showing options: NIMC, NIMC Long Stay, NIMC Paediatric, and NIMC Paediatric Long Stay.

Then, following the instructions in the *Guide to Auditing the NIMC*, enter data into the fields in Sections 1-10. You will need to scroll down to get to all the fields.

Most questions are mandatory except for data fields; 'Reviewer 2' and 'Bed Number'.

You can navigate quickly to the next data field using [Tab] or [Enter] key. To go back, use the [Shift + Tab] key.

Most fields have drop downs to assist in data entry. You can also enter the letters Y, N, NA (if applicable) using your keyboard instead of the drop down menus and the mouse. Enter numbers in those fields requesting numbers. You can type in additional information in text boxes provided. A series of warning messages have been programmed to appear if you enter a value that is not valid.

To save time and maximise accuracy of data, selecting an answer to preceding data fields may automatically grey out certain data fields where an answer is not required. This would leave only those fields that require answers.

Once you have completed Sections 1-10, scroll down to Section 11.

4.2 Entering data for Section 11: Prescribing and Administration

You are now ready to enter a drug order within a Table where the spreadsheet will automatically generate an order number starting from order number 1. (Figure 10)

Figure 10: Prescribing and Administration

On each row of this new order, enter under each column a relevant code shown in the legend.

Once you have completed the first drug order, you must click the 'Add/Update Order' button. This will automatically generate a new row with drug order number 2. You can create as many drug orders as required. If no further drug orders are required, simply click 'Submit'.

To view orders that have already been entered, you can browse through the 'Order No.' drop down menu and select the order number and it will display the corresponding values. To edit a data field, you can change those values and click [Add/Update Order].

To delete an order, select the 'Order No.', then click the [Delete Order]. (Figure 10)

The [Cancel] button will close the patient userform.

When you click on the [Submit] button at the end of the final section, the sections that are mandatory will be identified. A dialog box will pop up and identify the section still to be completed. (Figure 11)

Figure 11: Dialog box



On selection of [OK], you will automatically navigate to the first mandatory section.

Once you have completed entering data for one patient, click the [Submit] button to populate the details from the patient userform into an excel worksheet. This will automatically generate an excel worksheet named 'Patient1' pre-populated with that patient's data. (Figure 12)

Figure 12: Populated excel sheet for Patient1

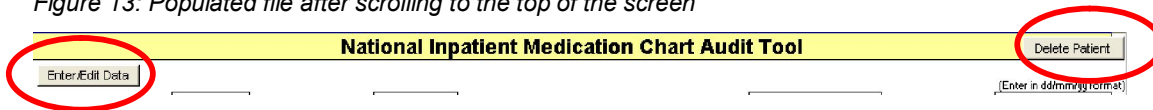
Order No.	Drug Order	Drug Name	Route	Dose	Frequency	Dose Calc'n Documented	Dose Calc'n Doc'd	Error Prone Abbrev's Used	Indication Documented	Pharm. Annot.	Pres. Signed	Pres. Clear	Freq. Matches Admin. Time	Drug Ceased	Ceased Correctly	Doses Required	Doses Admin	# PRN, Max Dose doc.
74	1	S	U	C	C	NA	NA	NA	Y	Y	Y	Y	NA	Y	Y	2	2	NA
75	2	R	U	C	C	C	NA	NA	N	Y	Y	Y	N	N	NA	3	3	NA
76																		
77																		

At this point, you have the opportunity to review the data that you have entered in all sections.

Scroll to the top of the screen to see all the data. To edit a data field, click the [Enter/Edit Data] button located at top left hand corner of the worksheet and change any data fields in the patient userform page and click [Submit]. (Figure 13)

To delete a patient, click [Delete Patient] button located at top right hand corner. (Figure 13)

Figure 13: Populated file after scrolling to the top of the screen

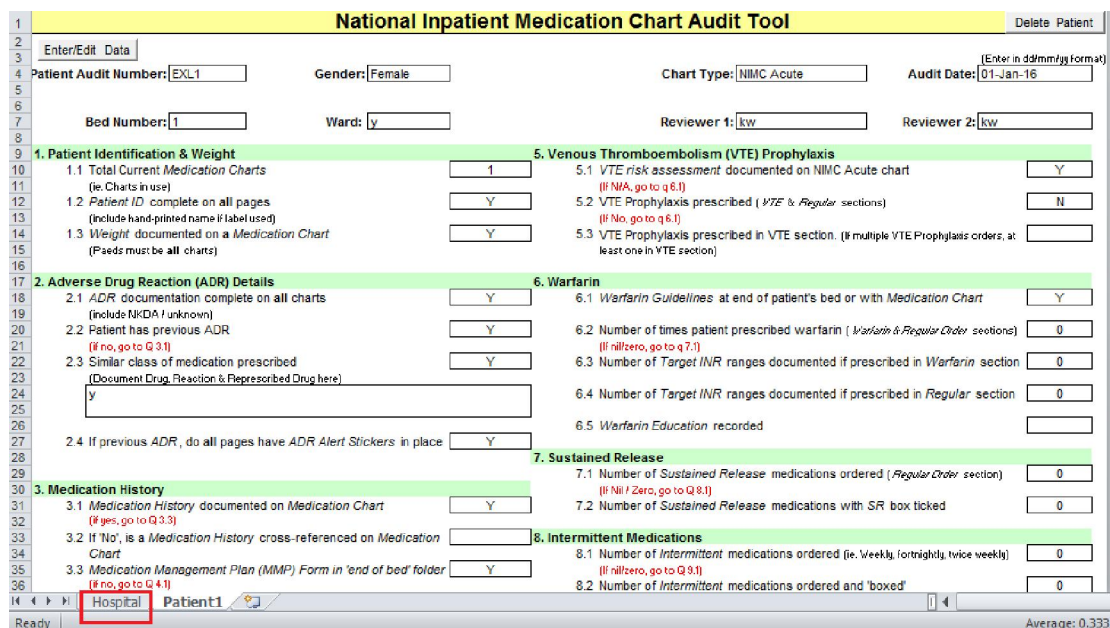


Tip: You should frequently save your work while you're auditing. Simply click the File tab and save at any time, whether you have completed the audits or not.

New Patient

Once you have finished each patient audit, click on the “hospital” tab at the bottom of the screen to go back to the hospital screen and add a new patient. See Figure 14 below.

Figure 14 – Populated spreadsheet with Hospital tab highlighted



Saving the Data

You MUST save the excel spreadsheet before closing, whether you have completed the audits or not. It is recommended that you back up the file so that you do not lose the data. This is particularly important if you are collecting the data over several weeks.

Tips: You should save the application before closing, whether you have completed the audits or not.

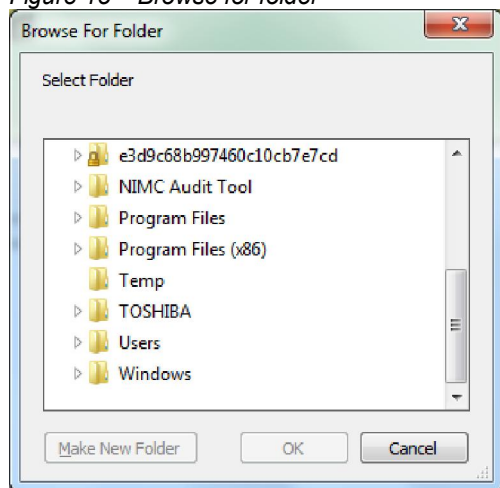
Use only one NIMC Audit Spreadsheet per hospital. Patient worksheets from one spreadsheet cannot be copied and pasted into a new audit spreadsheet. This process will corrupt the excel file format and result in failure to upload your data to the NIMC Audit System.

Exporting and uploading the data to the NIMC Audit System

Once you have finished entering all the patient audit data, save the file. Click back to the first tab of the spreadsheet called “Hospital”.

Now click on the [Export] button to create export (CSV (CSV= comma-separated values)) files. A dialog box “Browse For Folder” (Figure 15) will appear asking you to select a folder/directory to save the files. A second dialog box will confirm the directory/location of where the export files are saved.

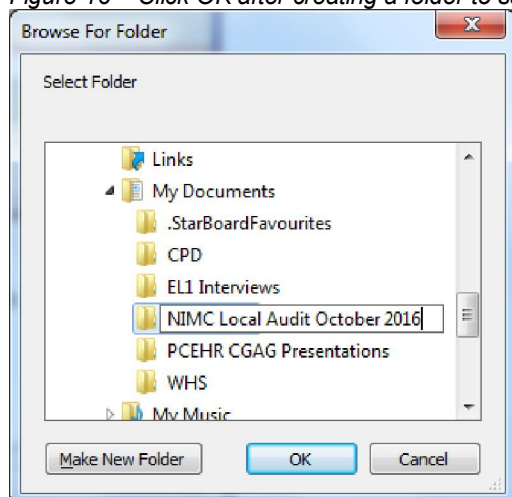
Figure 15 – Browse for folder



Browse for a location to save the exported files. It is good practice to create a new folder each time data is exported with the name and the date of the audit clearly visible on the folder. Every time you create exported files from the NIMC audit spreadsheet, they have identical names, so the folder is the only way to differentiate the exported files created from audits conducted in different time periods.

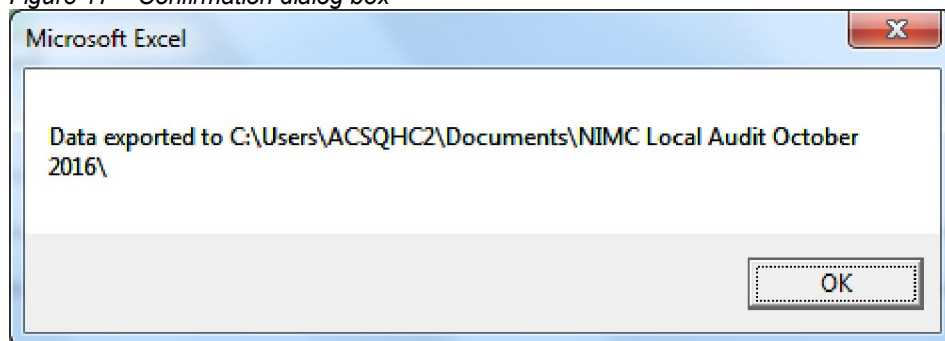
Click OK once the location is chosen (Figure 16).

Figure 16 – Click OK after creating a folder to save the files in



The following dialog box confirming the creation of the exported files will appear (Figure 17).

Figure 17 – Confirmation dialog box

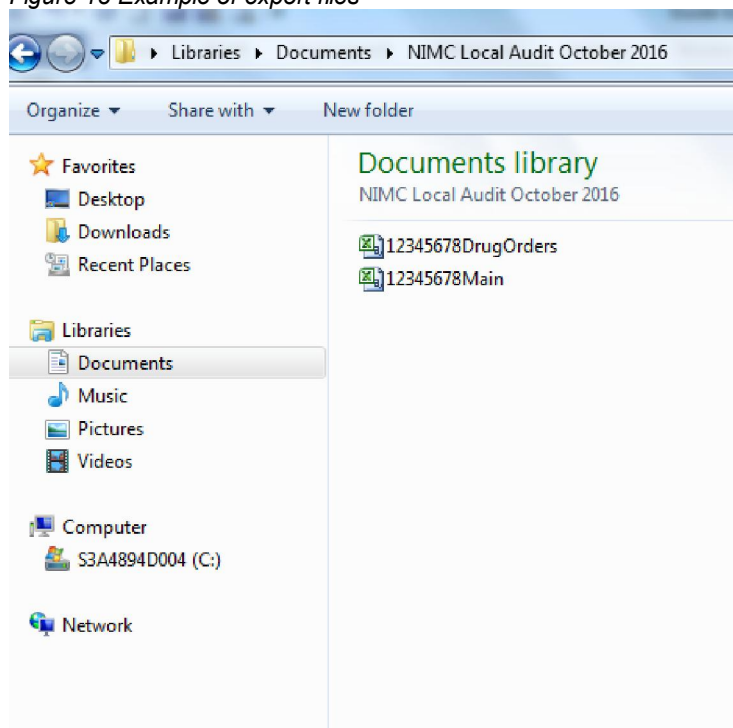


The two export files will be called:

- XXXXXXXXXMain; and
- XXXXXXXXXDrugOrders.

where XXXXXXXX is the Healthcare Facility Code that you have entered on the first tab of the spreadsheet. See example in Figure 18.

Figure 18 Example of export files



You are now ready to upload the CSV files created by the export, to the *NIMC Audit System* at www.safetyandquality.gov.au/nimcaudit. Please refer to the *NIMC Audit System User Guide*, Chapter 10: *Uploading Patient Audits using the Audit Spreadsheet*.

Tips: The data within the exported CSV files should never be modified and resaved. This will result in changes to the file format and failure to upload the data to the *NIMC Audit System*. Edit the data in the audit spreadsheet and click export. Please note that clicking export after editing will overwrite previously exported files. Therefore, do not use the excel spreadsheet for a second audit until the first two files have been saved.

Appendix C: Audit Summary Report Specification / Formulae

Australian Commission on Safety and Quality in Health Care

NIMC Audit System

Audit Summary Report Specification

Title: Summary Results of <National / Local Audit > - <Name of Audit with audit dates automatically inserted>

Audit Date: DD/MM/YYYY – DD/MM/YYYY

About the report:

The audit summary report displays the results of the audit for each of the questions on the NIMC audit tool questionnaire. It can be produced for: national audits as a whole; local audits as a whole; and for peer groups, states, private hospital ownership groups and individual hospitals (for both national and local audits). The results can also be split into public and private hospital results (National Audit Coordinator only) and adult and paediatric chart type results.

How to access the report:

Log into the NIMC audit system. Click on the Reports menu, select Audit Summary Report and then choose the criteria for the report and audit name. Click on View Report.

Report specification:

The following information shows what the report looks like (column 1) the formulae used to calculate the fields on the report (column 2) and the legal values.

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Total number of Patients	Total count of patients included in the NIMC audit	N
Number of patients with NIMC = Count chart type NIMC	Count of patients with chart type = NIMC	N
Number of patients with NIMC Long Stay = Count chart type NIMC Long Stay	Count of patients with chart type = NIMC Long Stay	N
Number of patients with NIMC Paediatric = Count chart type NIMC Paediatric	Count of patients with chart type = NIMC Paediatric	N
Number of patients with NIMC Paediatric Long Stay = Count chart type NIMC Paediatric Long Stay	Count of patients with chart type = NIMC Paediatric Long Stay	N
SECTION 1. Patient Identification & Weight		
1.1 Total number of medication charts included in the audit	Total number of med charts (sum of 1.1)	N
Average number of charts per patient in the audit	Total medication charts (sum of 1.1) / total number of patients	N.NN
Count chart type = NIMC	Count of patients with chart type = NIMC Acute * sum of 1.1	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Count chart type = NIMC Long Stay	Count of patients with chart type = NIMC Long Stay * sum of 1.1	N
Count chart type = NIMC Paediatric	Count of patients with chart type = NIMC Paediatric * sum of 1.1	N
Count chart type = NIMC Paediatric Long Stay	Count of patients with chart type = NIMC Paediatric Long Stay * sum of 1.1	N
1.2 Patient ID complete on all pages	Total count of 1.2 = Y	N
% of patients with complete identification on all pages of medication chart	Total count of 1.2 = Y / Total number of patients * 100	N.NN%
1.3 Weight documented on a Medication Chart	Total count of 1.3 = Y	N
% of patients with weight documented on a Medication chart	Total count of 1.3 = Y / Total number of patients * 100	N.NN%
SECTION 2. Adverse Drug Reaction (ADR) Details		
2.1 ADR documentation complete on all charts	Total count of 2.1 = Y	N
% of patients with complete ADR documentation on all charts	Total count of 2.1 = Y / Total number of patients * 100	N.NN%
2.2 Patient has previous ADR	Total count of 2.2 = Y	N
% of patients with a previous ADR	Total count of 2.2 = Y / Total number of patients * 100	N.NN%
Patients allergy status "unknown"	Total count of 2.2 = Unknown	N
% of patients with "unknown" allergy status	Total count of 2.2 = Unknown / Total number of patients * 100	N.NN%
% of patients with a previous ADR excluding those with unknown allergy status	Total count of 2.2 = Y / (Total count of 2.2 = Y) plus (Total count of 2.2 = N) * 100	N.NN%
2.3 Similar class of medication prescribed	Total count of 2.3 = Y	N
Of the patients with a previous ADR to a medication, % of patients with similar class of ADR medication prescribed	Total count of 2.3 = Y / Total count of 2.2 = Y * 100	N.NN%
2.4 If previous ADR, count of patients with ADR alert stickers in place	Total count of 2.4 = Y	N
Of the patients with a previous ADR, % of patients with ADR alert stickers in place	Total count of 2.4 = Y / Total count of 2.2 = Y * 100	N.NN%
Of the patients with a previous ADR, count of patients with N/A response to ADR alert stickers in place	Total count of patients where 2.2 = Yes and 2.4 = N/A	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Of the patients with a previous ADR, % of patients with ADR alert stickers in place excluding those with N/A recorded for question 2.4	Total count of 2.4 = Y / (Total count of 2.2 = Y) minus (Total count of patients where 2.2 = Y and 2.4 = N/A) * 100	N.NN%
SECTION 3. Medication History		
3.1 Medication History documented on Medication Chart	Total count of 3.1 = Y	N
% of patients with a medication history documented on medication chart	Total count of 3.1 = Y / Total number of patients * 100	N.NN%
3.2 Medication History cross-referenced on Medication Chart	Total count of 3.2 = Y	N
% of patients with a Medication History cross-referenced on Medication Chart	Total count of 3.2 = Y / Total number of patients* 100	N.NN%
% of patients where clinicians can access medication history either via: Medication history, including "nil regular medications", on current medication chart; Cross reference to a previous medication chart; Medication Management Plan	(Total count of 3.1 = Y) plus (Total count of 3.2 = Y) / Total number of patients * 100	N.NN%
3.3 Medication Management Plan (MMP) Form in "end of bed" folder	Total count of 3.3 = Y	N
% of patients with a form in end of bed folder	Total count of 3.3 = Y / Total number of patients * 100	N.NN%
3.4 Allergies/ADR box completed on MMP Form	Total count of 3.4 = Y	N
% of MMP forms with complete ADR documentation	Total count of 3.4= Y / Total count of 3.3 = Y * 100	N.NN%
3.5 No. medicines taken prior to presentation to hospital recorded on MMP form	Sum of 3.5	N
Average number of medicines recorded on the MMP form per patient.	Sum of 3.5 / Total count of 3.3 = Y	N.N
3.6 No. medicines with Dr's Plan on Admission completed on MMP Form	Sum of 3.6	N
% of medicines with Dr's Plan on Admission documented	Sum of 3.6 / Sum of 3.5 * 100	N.NN%
3.7 No. medicines with Reconcile column ticked on MMP Form	Sum of 3.7	N
% of medicines with Reconcile column ticked	Sum of 3.7 / Sum of 3.5 * 100	N.NN%
3.8 More than one source indicated on MMP Form	Total count of 3.8 = Y	N
% of medicines with more than one source indicated	Total count of 3.8 = Y / Total count of 3.3 = Y * 100	N.NN%
SECTION 4. Variable Dose		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
4.1 No. Variable dose medications	Sum of 4.1	N
% of variable dose medications prescribed in variable dose section	Total count of drug order ID = V [in Orders Table] / Sum of 4.1 * 100	N.NN%
SECTION 5. Venous Thromboembolism (VTE) Prophylaxis		
5.1 VTE Risk Assessment documented on NIMC Acute chart	Total count of 5.1 = Y where chart type = NIMC acute	N
% of patients with VTE Risk Assessment documented on NIMC Acute chart	Total count of 5.1 = Y where chart type = NIMC acute / Total count of 5.1 = Y plus Total count of 5.1 = N where chart type = NIMC acute * 100	N.NN%
5.2 VTE Prophylaxis prescribed	Total count of 5.2 = Y where chart type = NIMC acute	N
% of patients with VTE Prophylaxis prescribed without a risk assessment documented on NIMC Acute chart	Total count of patients where 5.1 = N and 5.2 = Y where chart type = NIMC acute / Total count of 5.2 = Y where chart type = NIMC acute * 100	N.NN%
5.3 VTE Prophylaxis prescribed in VTE section	Total count of 5.3 = Y where chart type = NIMC acute	N
% of VTE prophylaxis orders prescribed in VTE section	Total count of 5.3 = Y where chart type = NIMC acute / Total count of 5.2 = Y where chart type = NIMC acute * 100	N.NN%
VTE Prophylaxis prescribed in Regular section	Total count of 5.3 = N where chart type = NIMC acute	N
% of VTE prophylaxis orders prescribed in Regular section	Total count of 5.3 = N where chart type = NIMC acute / Total count of 5.2 = Y where chart type = NIMC acute * 100	N.NN%
SECTION 6. Warfarin		
6.1 Warfarin Guidelines at end of patient's bed or with Medication Chart - Yes responses where chart type is NIMC or NIMC long stay	Total count of 6.1 = Y where Chart type= NIMC OR NIMC long stay	N
6.1 Warfarin Guidelines at end of patient's bed or with Medication Chart - No responses where chart type is NIMC or NIMC long stay	Total count of 6.1 = N where chart type= NIMC OR NIMC long stay	N
6.1 Warfarin Guidelines at end of patient's bed or with Medication Chart - N/A responses where chart type is NIMC or NIMC long stay	Total count of 6.1 = N/A where chart type= NIMC OR NIMC long stay	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
% of patients with Warfarin Guidelines at end of their bed or with Medication Chart (Note: The denominator excludes paediatric patients and those patients where question 6.1 was not applicable.)	Total count of 6.1 = Y / Total number of patients excluding all patients where 6.1 = N/A (that is, only include those patients that answered Y or N to Q6.1) * 100	N.NN%
6.2 No. times patients prescribed warfarin	Sum of 6.2	N
Average number of times patient prescribed Warfarin	Sum of 6.2 / Count of 6.2 = response (that is count of number of responses where 6.2 not equal to 0)	N.NN
Number of warfarin orders prescribed in warfarin section	Total count of drug order ID = W [in Orders Table]	N
% of warfarin orders prescribed in warfarin section	Total count of drug order ID = W [in Orders Table] / Total 6.2 * 100	N.NN%
6.3 No. Target INR ranges documented if prescribed in Warfarin section	Sum of 6.3	N
% of warfarin orders with target INR range documented in warfarin section	Sum of 6.3 / Total count of drug order ID = W [in Orders Table] * 100	N.NN%
6.4 No. Target INR ranges documented if prescribed in Regular section	Sum of 6.4	N
% of warfarin orders with target INR range documented in regular section	Sum of 6.4 / (Sum of 6.2) minus (Total count of drug order ID = W [in Orders Table]) * 100	N.NN%
Of the warfarin orders prescribed in warfarin sections, % of warfarin orders with indication documented	For W only in Orders Table indication documented = Y / Total count of drug order ID = W [in Orders Table] * 100	N.NN%
6.5 Warfarin Education recorded	Total count of 6.5 = Y	N
% of patients with warfarin education recorded	Total count of 6.5 = Y / Count of the number of responses where 6.2≥1] * 100	N.NN%
SECTION 7. Sustained Release		
7.1 No. Sustained Release medications ordered (Regular Order section)	Sum of 7.1	N
7.2 No. Sustained Release medications with SR box ticked	Sum of 7.2	N
% of SR medications with SR box ticked	Sum of 7.2 / Sum of 7.1 * 100	N.NN%
SECTION 8. Intermittent Medications		
8.1 No. Intermittent medications ordered	Sum of 8.1	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
8.2 No. Intermittent medications ordered & boxed	Sum of 8.2	N
% of administration sections boxed correctly	Sum of 8.2 / Sum of 8.1 * 100	N.NN%
SECTION 9. Duplicate Orders		
9.1 No. Duplicated orders	Sum of 9.1	N
% of patients with one or more duplicate medications with potential to harm	Count of responses where 9.1 > 0 / Total number of patients * 100	N.NN%
% of duplicated orders as a proportion of all drug orders	Sum of 9.1 / Total number of drug orders * 100	N.NN%
SECTION 10. Pharmaceutical Review		
10.1 Pharmaceutical Review occurred	Total count of 10.1 = Y	N
% of patients who had at least one pharmaceutical review documented in current medication charts	Total count of 10.1 = Y / Total number of patients * 100	N.NN%
Section 11. Prescribing and Administration		
DRUG ORDERS		
Total number of drug orders	Total drug orders = Total count of drug order IDs R+P+S+V+W	N
Total number of each drug order type in the audit		
Regular orders	Total count of drug order ID = R	N
PRN orders	Total count of drug order ID = P	N
Stat Only orders	Total count of drug order ID = S	N
Variable orders	Total count of drug order ID = V	N
Warfarin orders	Total count of drug order ID = W	N
Each drug order as a % of total drug order		
Regular orders	Total count of drug order ID = R / Total count of drug orders * 100	N.NN%
PRN orders	Total count of drug order ID = P / Total count of drug orders * 100	N.NN%
Stat Only orders	Total count of drug order ID = S / Total count of drug orders * 100	N.NN%
Variable orders	Total count of drug order ID = V / Total count of drug orders * 100	N.NN%
Warfarin orders	Total count of drug order ID = W / Total count of drug orders * 100	N.NN%
Average number of each drug order type per patient		
Average number of Regular orders per patient	Total count of drug order ID = R / Total number of patients	N.NN
Average number of PRN orders per patient	Total count of drug order ID = P / Total number of patients	N.NN
Average number of Stat Only orders per patient	Total count of drug order ID = S / Total number of patients	N.NN

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Average number of Variable orders per patient	Total count of drug order ID = V / Total number of patients	N.NN
Average number of Warfarin orders per patient	Total count of drug order ID = W / Total number of patients	N.NN
DRUG NAME		
<i>Number of drug orders with unclear name by type</i>		
Regular orders	Count where drug order ID = R and drug name = U	N
PRN orders	Count where drug order ID = P and drug name = U	N
Stat Only orders	Count where drug order ID = S and drug name = U	N
Variable orders	Count where drug order ID = V and drug name = U	N
Warfarin orders	Count where drug order ID = W and drug name = U	N
<i>Total number of drug orders with unclear name</i>	Total count of drug name = U	N
<i>% of each drug order type with unclear name</i>		
Regular orders	Count where drug order ID = R and drug name = U / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and drug name = U / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug name = U / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug name = U / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and drug name = U / Total count of drug order ID = W * 100	N.NN%
<i>% of all drug orders with unclear name</i>	Total count of drug name = U / Total count of drug orders * 100	N.NN%
<i>Number of drug orders prescribed using trade names by type</i>		
Regular orders	Count where drug order ID = R and drug name = T	N
PRN orders	Count where drug order ID = P and drug name = T	N
Stat Only orders	Count where drug order ID = S and drug name = T	N
Variable orders	Count where drug order ID = V and drug name = T	N
<i>Total number of drug orders prescribed using trade names</i>	Count where drug order ID = R; P; S; V and drug name = T	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>Total number of regular, PRN, Stat Only and variable orders (denominator)</i>	Count where drug order ID = R; P; S; V	N
<i>% of each drug order type prescribed using trade names</i>		
Regular orders	Count where drug order ID = R and drug name = T / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and drug name = T / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug name = T / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug name = T / Total count of drug order ID = V * 100	N.NN%
<i>% of all drug orders prescribed using trade names</i>	Count where drug order ID = R; P; S; V and drug name = T / Total [drug order ID = R; P; S; V] * 100 - exclude drug order ID = W	N.NN%
<i>Number of drug orders with clear name by type</i>		
Regular orders	Count where drug order ID = R and drug name = C	N
PRN orders	Count where drug order ID = P and drug name = C	N
Stat Only orders	Count where drug order ID = S and drug name = C	N
Variable orders	Count where drug order ID = V and drug name = C	N
Warfarin orders	Count where drug order ID = W and drug name = C	N
<i>Total number of drug orders with clear name</i>	Total count of drug name = C	N
<i>% drug orders prescribed with clear name by type</i>		
Regular orders	Count where drug order ID = R and drug name = C / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and drug name = C / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug name = C / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug name = C / Total count of drug order ID = V * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Warfarin orders	Count where drug order ID = W and drug name = C / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with clear name	Total count of drug name = C / Total count of drug orders * 100	N.NN%
ROUTE		
Number of drug orders with clear and correct route by type		
Regular orders	Count where drug order ID = R and drug route = C	N
PRN orders	Count where drug order ID = P and drug route = C	N
Stat Only orders	Count where drug order ID = S and drug route = C	N
Variable orders	Count where drug order ID = V and drug route = C	N
Warfarin orders	Count where drug order ID = W and drug route = C	N
Total number of drug orders with clear and correct route	Total count of drug route = C	N
% of each drug order type with clear and correct route		
Regular orders	Count where drug order ID = R and drug route = C / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and drug route = C / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug route = C / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug route = C / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and drug route = C / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with clear and correct route	Total count of drug route = C / Total count of drug orders * 100	N.NN%
Number of drug orders with missing route by type		
Regular orders	Count where drug order ID = R and drug route = M	N
PRN orders	Count where drug order ID = P and drug route = M	N
Stat Only orders	Count where drug order ID = S and drug route = M	N
Variable orders	Count where drug order ID = V and drug route = M	N
Warfarin orders	Count where drug order ID = W and drug route = M	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Total number of drug orders with missing route	Total count of drug route = M	N
% of each drug order type with missing route		
Regular orders	Count where drug order ID = R and drug route = M / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and drug route = M / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug route = M / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug route = M / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and drug route = M / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with missing route	Total count of drug route = M / Total count of drug orders * 100	N.NN%
Number of drug orders with unclear route by type		
Regular orders	Count where drug order ID = R and drug route = U	N
PRN orders	Count where drug order ID = P and drug route = U	N
Stat Only orders	Count where drug order ID = S and drug route = U	N
Variable orders	Count where drug order ID = V and drug route = U	N
Warfarin orders	Count where drug order ID = W and drug route = U	N
Total number of drug orders with unclear route	Total count of drug route = U	N
% of each drug order type with unclear route		
Regular orders	Count where drug order ID = R and drug route = U / Total count of drug order ID = R	N.NN%
PRN orders	Count where drug order ID = P and drug route = U / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug route = U / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug route = U / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and drug route = U / Total count of drug order ID = W * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
% of all drug orders with unclear route	Total count of drug route = U / Total count of drug orders * 100	N.NN%
Number of drug orders with incorrect route by type		
Regular orders	Count where drug order ID = R and drug route = I	N
PRN orders	Count where drug order ID = P and drug route = I	N
Stat Only orders	Count where drug order ID = S and drug route = I	N
Variable orders	Count where drug order ID = V and drug route = I	N
Warfarin orders	Count where drug order ID = W and drug route = I	N
Total number of drug orders with incorrect route	Total count of drug route = I	N
% of each drug order type with incorrect route		
Regular orders	Count where drug order ID = R and drug route = I / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and drug route = I / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and drug route = I / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and drug route = I / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and drug route = I / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with incorrect route	Total count of drug route = I / Total count of drug orders * 100	N.NN%
DOSE		
Number of drug orders with clear and correct dose by type		
Regular orders	Count where drug order ID = R and dose = C	N
PRN orders	Count where drug order ID = P and dose = C	N
Stat Only orders	Count where drug order ID = S and dose = C	N
Variable orders	Count where drug order ID = V and dose = C	N
Warfarin orders	Count where drug order ID = W and dose = C	N
Total number of drug orders with clear and correct dose	Total count of dose = C / Total count of drug orders * 100	N
% of each drug order type with clear and correct dose		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Regular orders	Count where drug order ID = R and dose = C / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and dose = C / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and dose = C / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and dose = C / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and dose = C / Total count of drug order ID = W * 100	N.NN%
<i>% of all drug orders with clear and correct dose</i>	Total count of dose = C / Total count of drug orders	N.NN%
<i>Number of drug orders with missing dose by type</i>		
Regular orders	Count where drug order ID = R and dose = M	N
PRN orders	Count where drug order ID = P and dose = M	N
Stat Only orders	Count where drug order ID = S and dose = M	N
Variable orders	Count where drug order ID = V and dose = M	N
Warfarin orders	Count where drug order ID = W and dose = M	N
<i>Total number of drug orders with missing dose</i>	Total count of dose = M	N
<i>% of each drug order type with missing dose</i>		
Regular orders	Count where drug order ID = R and dose = M / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and dose = M / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and dose = M / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and dose = M / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and dose = M / Total count of drug order ID = W * 100	N.NN%
<i>% of all drug orders with missing dose</i>	Total count of dose = M / Total count of drug orders	N.NN%
<i>Number of drug orders with unclear dose by type</i>		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Regular orders	Count where drug order ID = R and dose = U	N
PRN orders	Count where drug order ID = P and dose = U	N
Stat Only orders	Count where drug order ID = S and dose = U	N
Variable orders	Count where drug order ID = V and dose = U	N
Warfarin orders	Count where drug order ID = W and dose = U	N
Total number of drug orders with unclear dose	Total count of dose = U	N
% of each drug order type with unclear dose		
Regular orders	Count where drug order ID = R and dose = U / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and dose = U / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and dose = U / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and dose = U / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and dose = U / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with unclear dose	Total count of dose = U / Total count of drug orders	N.NN%
Number of drug orders with incorrect dose by type		
Regular orders	Count where drug order ID = R and dose = I	N
PRN orders	Count where drug order ID = P and dose = I	N
Stat Only orders	Count where drug order ID = S and dose = I	N
Variable orders	Count where drug order ID = V and dose = I	N
Warfarin orders	Count where drug order ID = W and dose = I	N
Total number of drug orders with incorrect dose	Total count of dose = I	N
% of each drug order type with incorrect dose		
Regular orders	Count where drug order ID = R and dose = I / Total count of drug order ID = R * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
PRN orders	Count where drug order ID = P and dose = I / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and dose = I / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and dose = I / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and dose = I / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with incorrect dose	Total count of dose = I / Total count of drug orders	N.NN%
FREQUENCY		
Number of drug orders with clear frequency by type		
Regular orders	Count where drug order ID = R and frequency = C	N
PRN orders	Count where drug order ID = P and frequency = C	N
Variable orders	Count where drug order ID = V and frequency = C	N
Total number of drug orders with clear frequency	Count where drug order ID = R; P; V and frequency = C	N
Total number of regular, PRN and variable orders (denominator)	Count where drug order ID = R; P; V	N
% of each drug order type with clear frequency		
Regular orders	Count where drug order ID = R and frequency = C / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and frequency = C / Total count of drug order ID = P * 100	N.NN%
Variable orders	Count where drug order ID = V and frequency = C / Total count of drug order ID = V * 100	N.NN%
% of all drug orders with clear frequency	Count where drug order ID = R; P; V and frequency = C / Total [drug order ID = R; P; V] * 100; exclude drug order ID = S & W	N.NN%
Number of drug orders with missing frequency by type		
Regular orders	Count where drug order ID = R and frequency = M	N
PRN orders	Count where drug order ID = P and frequency = M	N
Variable orders	Count where drug order ID = V and frequency = M	N
Total number of drug orders with missing frequency	Count where drug order ID = R; P; V and frequency = M	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>% of each drug order type with missing frequency</i>		
Regular orders	Count where drug order ID = R and frequency = M / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and frequency = M / Total count of drug order ID = P * 100	N.NN%
Variable orders	Count where drug order ID = V and frequency = M / Total count of drug order ID = V * 100	N.NN%
<i>% of all drug orders with missing frequency</i>	Count where drug order ID = R; P; V and frequency = M / Total [drug order ID = R; P; V] * 100; exclude drug order ID = S & W	N.NN%
<i>Number of drug orders with unclear frequency by type</i>		
Regular orders	Count where drug order ID = R and frequency = U	N
PRN orders	Count where drug order ID = P and frequency = U	N
Variable orders	Count where drug order ID = V and frequency = U	N
<i>Number of drug orders with unclear frequency</i>	Count where drug order ID = R; P; V and frequency = U	N
<i>% of each drug order type with unclear frequency</i>		
Regular orders	Count where drug order ID = R and frequency = U / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and frequency = U / Total count of drug order ID = P * 100	N.NN%
Variable orders	Count where drug order ID = V and frequency = U / Total count of drug order ID = V * 100	N.NN%
<i>% of all drug orders with unclear frequency</i>	Count where drug order ID = R; P; V and frequency = U / Total [drug order ID = R; P; V] * 100; exclude drug order ID = S & W	N.NN%
<i>Number of drug orders with incorrect frequency by type</i>		
Regular orders	Count where drug order ID = R and frequency = I	N
PRN orders	Count where drug order ID = P and frequency = I	N
Variable orders	Count where drug order ID = V and frequency = I	N
<i>Total number of drug orders with incorrect frequency</i>	Count where drug order ID = R; P; V and frequency = I	N
<i>% of drug order type with incorrect frequency</i>		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Regular orders	Count where drug order ID = R and frequency = I / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and frequency = I / Total count of drug order ID = P * 100	N.NN%
Variable orders	Count where drug order ID = V and frequency = I / Total count of drug order ID = V * 100	N.NN%
% of all drug orders with incorrect frequency	Count where drug order ID = R; P; V and frequency = I / Total [drug order ID = R; P; V] * 100; exclude drug order ID = S & W	N.NN%
DOSE CALCULATIONS		
Number of drug orders on paediatric & paediatric long-stay charts		
Paediatric Regular orders	Count where chart type ID = NIMC paediatric or NIMC paediatric long stay and drug order ID = R	N
Paediatric PRN orders	Count where chart type ID = NIMC paediatric or NIMC paediatric long stay and drug order ID = P	N
Paediatric Stat Only orders	Count where chart type ID = NIMC paediatric or NIMC paediatric long stay and drug order ID = S	N
Paediatric Variable orders	Count where chart type ID = NIMC paediatric or NIMC paediatric long stay and drug order ID = V	N
Total number of drug orders on paediatric & paediatric long-stay charts	Count where chart type ID = NIMC paediatric or NIMC paediatric long stay and drug order ID = R, P, V or S	N
Number of paediatric medication orders with a dose calculation documented by type		
Paediatric Regular orders	Count where drug order ID = R and calc'n documented = Y	N
Paediatric PRN orders	Count where drug order ID = P and calc'n documented = Y	N
Paediatric Stat Only orders	Count where drug order ID = S and calc'n documented = Y	N
Paediatric Variable orders	Count where drug order ID = V and calc'n documented = Y	N
Total number of paediatric medication orders with a dose calculation documented	Count where drug order ID = R; P; S & V and calc'n documented = Y	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>% of each paediatric medication order with a dose calculation documented by type</i>		
Paediatric Regular orders	Count where drug order ID = R and calc'n documented = Y / Total count of drug order ID = R where calc'n documented = Y or N * 100	N.NN%
Paediatric PRN orders	Count where drug order ID = P and calc'n documented = Y / Total count of drug order ID = P where calc'n documented = Y or N * 100	N.NN%
Paediatric Stat Only orders	Count where drug order ID = S and calc'n documented = Y / Total count of drug order ID = S where calc'n documented = Y or N * 100	N.NN%
Paediatric Variable orders	Count where drug order ID = V and calc'n documented = Y / Total count of drug order ID = V where calc'n documented = Y or N * 100	N.NN%
<i>% of all paediatric medication orders with a dose calculation documented</i>	Count where drug order ID = R; P; S & V and calc'n documented = Y / Count where drug order ID = R; P; S & V and calc'n documented = Y + calc'n documented = N * 100	N.NN%
<i>Of the paediatric medication orders with documented dose calculation, % of each drug order type correctly calculated</i>		
Paediatric Regular orders	Count where drug order ID = R and calc'n documented correctly = Y / Count where drug order ID = R and calc'n documented = Y * 100	N.NN%
Paediatric PRN orders	Count where drug order ID = P and calc'n documented correctly = Y / Count where drug order ID = P and calc'n documented = Y * 100	N.NN%
Paediatric Stat Only orders	Count where drug order ID = S and calc'n documented correctly = Y / Count where drug order ID = S and calc'n documented = Y * 100	N.NN%
Paediatric Variable orders	Count where drug order ID = V and calc'n documented correctly = Y / Count where drug order ID = V and calc'n documented = Y * 100	N.NN%
<i>% of paediatric medication orders with correct dose calculations</i>	Count calc'n documented correctly = Y / Count of calc'n documented = Y * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>Number of paediatric medication orders with a dose calculation not documented by type</i>		
Paediatric Regular orders	Count where drug order ID = R and calc'n documented = N	N
Paediatric PRN orders	Count where drug order ID = P and calc'n documented = N	N
Paediatric Stat Only orders	Count where drug order ID = S and calc'n documented = N	N
Paediatric Variable orders	Count where drug order ID = V and calc'n documented = N	N
<i>Total number of paediatric medication orders with a dose calculation not documented</i>	Count where drug order ID = R; P; S & V and calc'n documented = N	N
<i>% of paediatric medication orders with a dose calculation not documented by type</i>		
Paediatric Regular orders	Count where drug order ID = R and calc'n documented = N / Total R where calc'n documented = Y or N * 100	N.NN%
Paediatric PRN orders	Count where drug order ID = P and calc'n documented = N / Total P where calc'n documented = Y or N * 100	N.NN%
Paediatric Stat Only orders	Count where drug order ID = S and calc'n documented = N / Total S where calc'n documented = Y or N * 100	N.NN%
Paediatric Variable orders	Count where drug order ID = V and calc'n documented = N / Total V where calc'n documented = Y or N * 100	N.NN%
<i>% of paediatric orders with a dose calculation not documented</i>	Count where drug order ID = R; P; S & V and calc'n documented = N / Total R, P, V & S where calc'n documented = Y or N * 100	N.NN%
ERROR PRONE ABBREVIATIONS		
<i>Number of drug orders containing 1 or more error prone abbreviations by type</i>		
Regular orders	Count where drug order ID = R and error prone abbrev'ns used = Y	N
PRN orders	Count where drug order ID = P and error prone abbrev'ns used = Y	N
Stat Only orders	Count where drug order ID = S and error prone abbrev'ns used = Y	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Variable orders	Count where drug order ID = V and error prone abbrev'ns used = Y	N
Warfarin orders	Count where drug order ID = W and error prone abbrev'ns used = Y	N
Total number of drug orders containing 1 or more error prone abbreviations	Total count of error prone abbrev'ns used = Y	N
% of each drug order type with 1 or more error prone abbreviations		
Regular orders	Count where drug order ID = R and error prone abbrev'ns used = Y / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and error prone abbrev'ns used = Y / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and error prone abbrev'ns used = Y / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and error prone abbrev'ns used = Y / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and error prone abbrev'ns used = Y / Total count of drug order ID = W * 100	N.NN%
% of drug orders with 1 or more error prone abbreviations	Total count of error prone abbrev'ns used = Y / Total [drug order ID = R; P; S; V & W] * 100	N.NN%
INDICATION DOCUMENTED		
Number of drug orders with indication documented by type		
Regular orders	Count where drug order ID = R and indication documented = Y	N
PRN orders	Count where drug order ID = P and indication documented = Y	N
Variable orders	Count where drug order ID = V and indication documented = Y	N
Warfarin orders	Count where drug order ID = W and indication documented = Y	N
Total number of drug orders with indication documented	Count where drug order ID = R; P; V & W and indication documented = Y	N
Total number of regular, PRN, variable and warfarin orders (denominator)	Count where drug order ID = R; P; W; V	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>% of each drug order type with indication documented</i>		
Regular orders	Count where drug order ID = R and indication documented = Y / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and indication documented = Y / Total count of drug order ID = P * 100	N.NN%
Variable orders	Count where drug order ID = S and indication documented = Y / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = V and indication documented = Y / Total count of drug order ID = W * 100	N.NN%
<i>% of all drug orders with indication documented</i>	Count where drug order ID = R; P; V & W and indication documented = Y / Total drug order ID = R; P; V & W * 100; exclude drug order ID = S	N.NN%
PHARMACY ANNOTATION		
<i>Number of drug orders with pharmacist annotation present by type</i>		
Regular orders	Count where drug order ID = R and pharmacy annotation = Y	N
PRN orders	Count where drug order ID = P and pharmacy annotation = Y	N
Stat Only orders	Count where drug order ID = S and pharmacy annotation = Y	N
Variable orders	Count where drug order ID = V and pharmacy annotation = Y	N
Warfarin orders	Count where drug order ID = W and pharmacy annotation = Y	N
<i>Total number of drug orders with pharmacist annotation present</i>	Total count of pharmacy annotation = Y	N
<i>% of each drug order type with pharmacist annotation present</i>		
Regular orders	Count where drug order ID = R and pharmacy annotation = Y / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and pharmacy annotation = Y / Total count of drug order ID = P * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Stat Only orders	Count where drug order ID = S and pharmacy annotation = Y / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and pharmacy annotation = Y / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and pharmacy annotation = Y / Total count of drug order ID = W * 100	N.NN%
% of all drug orders with pharmacist annotation present	Total count of pharmacy annotation = Y / Total count of drug orders	N.NN%
PRESCRIBER'S SIGNATURE		
Number of drug orders signed by prescriber by type		
Regular orders	Count where drug order ID = R and prescriber signed = Y	N
PRN orders	Count where drug order ID = P and prescriber signed = Y	N
Stat Only orders	Count where drug order ID = S and prescriber signed = Y	N
Variable orders	Count where drug order ID = V and prescriber signed = Y	N
Warfarin orders	Count where drug order ID = W and prescriber signed = Y	N
Total number of drug orders signed by prescriber	Total count of prescriber signed = Y	N
% of each drug order type signed by prescriber		
Regular orders	Count where drug order ID = R and prescriber signed = Y / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and prescriber signed = Y / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and prescriber signed = Y / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and prescriber signed = Y / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and prescriber signed = Y / Total count of drug order ID = W * 100	N.NN%
% of all drug orders signed by prescriber	Count where prescriber signed = Y / Total count of drug orders	N.NN%
Number of drug orders not signed by prescriber by type		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Regular orders	Count where prescriber signed = N and drug order ID = R	N
PRN orders	Count where prescriber signed = N and drug order ID = P	N
Stat Only orders	Count where prescriber signed = N and drug order ID = S	N
Variable orders	Count where prescriber signed = N and drug order ID = V	N
Warfarin orders	Count where prescriber signed = N and drug order ID = W	N
Total number of drug orders not signed by prescriber	Count where prescriber signed = N	N
% of each drug order type not signed by prescriber		
Regular orders	Count where drug order ID = R and prescriber signed = N / Total count of drug order ID = R * 100	N.NN%
PRN orders	Count where drug order ID = P and prescriber signed = N / Total count of drug order ID = P * 100	N.NN%
Stat Only orders	Count where drug order ID = S and prescriber signed = N / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count where drug order ID = V and prescriber signed = N / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count where drug order ID = W and prescriber signed = N / Total count of drug order ID = W * 100	N.NN%
% of all drug orders not signed by prescriber	Total count of prescriber signed = N / Total count of drug orders * 100	N.NN%
PRESCRIBER'S SIGNATURE CLEAR		
Number of drug orders where prescriber name is clear by type		
Regular orders	Count where drug order ID = R and prescriber's name clear = Y	N
PRN orders	Count where drug order ID = P and prescriber's name clear = Y	N
Stat Only orders	Count where drug order ID = S and prescriber's name clear = Y	N
Variable orders	Count where drug order ID = V and prescriber's name clear = Y	N
Warfarin orders	Count where drug order ID = W and prescriber's name clear = Y	N
Total number of drug orders where prescriber name is clear	Count where prescriber's name clear = Y	N
% of each drug order type signed by prescriber where prescriber name is clear		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Regular orders	Count where drug order ID = R and prescriber's name clear = Y / Count where drug order ID = R and prescriber signed = Y * 100	N.NN%
PRN orders	Count where drug order ID = P and prescriber's name clear = Y / Count where drug order ID = P and prescriber signed = Y * 100	N.NN%
Stat Only orders	Count where drug order ID = S and prescriber's name clear = Y / Count where drug order ID = S and prescriber signed = Y * 100	N.NN%
Variable orders	Count where drug order ID = V and prescriber's name clear = Y / Count where drug order ID = V and prescriber signed = Y * 100	N.NN%
Warfarin orders	Count where drug order ID = W and prescriber's name clear = Y / Count where drug order ID = W and prescriber signed = Y * 100	N.NN%
% of all drug orders signed by prescriber where prescriber name is clear	Count where prescriber's name clear = Y / Count where prescriber signed = Y * 100	N.NN%
FREQUENCY MATCHES ADMINISTRATION TIMES		
Number of orders where times entered match frequency by type		
Regular orders	Count where drug order ID = R and freq. matches admin time = Y	N
Variable orders	Count where drug order ID = V and freq. matches admin time = Y	N
Total number of orders where times entered match frequency	Count where drug order ID = R or V and freq. matches admin time = Y	N
Total number of regular and variable orders (denominator)	Count where drug order ID = R or V	N
% of each drug order type where times entered match frequency by type		
Regular orders	Count where drug order ID = R and freq. matches admin time = Y / Total count of drug order ID = R * 100	N.NN%
Variable orders	Count where drug order ID = V and freq. matches admin time = Y / Total count of drug order ID = V * 100	N.NN%
% of drug orders where times entered match frequency by type	Count where drug order ID = R or V and freq. matches admin time = Y / drug order ID = R or V * 100	N.NN%
CEASED ORDERS		
Number of orders ceased by type		

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
Regular orders	Count where drug order ID = R & drug ceased = Y	N
PRN orders	Count where drug order ID = P & drug ceased = Y	N
Stat Only orders	Count where drug order ID = S & drug ceased = Y	N
Variable orders	Count where drug order ID = V & drug ceased = Y	N
Warfarin orders	Count where drug order ID = W & drug ceased = Y	N
Total number of orders ceased	Total count of drug ceased = Y	N
Number of ceased drug orders ceased correctly by type		
Ceased Regular	Count where drug order ID = R & ceased correctly = Y	N
Ceased PRN	Count where drug order ID = P & ceased correctly = Y	N
Ceased Stat Only	Count where drug order ID = S & ceased correctly = Y	N
Ceased Variable	Count where drug order ID = V & ceased correctly = Y	N
Ceased Warfarin	Count where drug order ID = W & ceased correctly = Y	N
Total number of ceased drug orders ceased correctly	Total count of ceased correctly = Y	N
Of the ceased medication orders audited, % of orders ceased correctly by type		
Regular orders	Count where drug order ID = R & ceased correctly = Y / Count where drug order ID = R & drug ceased = Y * 100	N.NN%
PRN orders	Count where drug order ID = P & ceased correctly = Y / Count where drug order ID = P & drug ceased = Y * 100	N.NN%
Stat Only orders	Count where drug order ID = S & ceased correctly = Y / Count where drug order ID = S & drug ceased = Y * 100	N.NN%
Variable orders	Count where drug order ID = V & ceased correctly = Y / Count where drug order ID = V & drug ceased = Y * 100	N.NN%
Warfarin orders	Count where drug order ID = W & ceased correctly = Y / Count where drug order ID = W & drug ceased = Y * 100	N.NN%
Of the ceased medication orders audited, % of all orders ceased correctly	Total count of ceased correctly = Y / Total count of drug ceased = Y * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
DOSES REQUIRED & ADMINISTERED		
<i>Number of drug orders where doses administered as required by type</i>		
Regular orders	Count number of instances where doses required = doses administered and drug order ID = R	N
Stat Only orders	Count number of instances where doses required = doses administered and drug order ID = S	N
Variable orders	Count number of instances where doses required = doses administered and drug order ID = V	N
Warfarin orders	Count number of instances where doses required = doses administered and drug order ID = W	N
<i>Total number of drug orders where doses administered as required</i>	Count number of instances where doses required = doses administered and drug order ID = R; S; V & W	N
<i>Total number of regular, stat only, variable and warfarin orders (denominator)</i>	Count drug order ID = R; S; V & W	N
<i>% of drug orders where doses administered as required by type</i>		
Regular orders	Count number of instances where doses required = doses administered and drug order ID = R / Total count of drug order ID = R * 100	N.NN%
Stat Only orders	Count number of instances where doses required = doses administered and drug order ID = S / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count number of instances where doses required = doses administered and drug order ID = V // Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count number of instances where doses required = doses administered and drug order ID = W / Total count of drug order ID = W * 100	N.NN%

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>% of all drug orders where doses administered as required</i>	Count number of instances where doses required = doses administered and drug order ID = R; S; V & W / Count drug order ID = R; S; V & W *100	N.NN%
<i>Number of drug doses required by type</i>		
Regular orders	Sum of doses required where Drug order ID = R	N
Stat Only orders	Sum of doses required where Drug order ID = S	N
Variable orders	Sum of doses required where Drug order ID = V	N
Warfarin orders	Sum of doses required where Drug order ID = W	N
<i>Total number of drug doses required</i>	Sum of doses required where Drug order ID = R, S, V & W	N
<i>Number of drug doses administered by type</i>		
Regular orders	Sum of doses administered where Drug order ID = R	N
Stat Only orders	Sum of doses administered where Drug order ID = S	N
Variable orders	Sum of doses administered where Drug order ID = V	N
Warfarin orders	Sum of doses administered where Drug order ID = W	N
<i>Total number of drug doses administered</i>	Total sum of doses administered where Drug order ID = R, S, V & W	N
ADMINISTRATION OMISSIONS		
<i>Number of drug orders where one or more doses were omitted by type</i>		
Regular orders	Count number of instances where doses required > doses administered and drug order ID = R	N
Stat Only orders	Count number of instances where doses required > doses administered and drug order ID = S	N
Variable orders	Count number of instances where doses required > doses administered and drug order ID = V	N
Warfarin orders	Count number of instances where doses required > doses administered and drug order ID = W	N

National Inpatient Medication Chart (NIMC) Audit Outcomes	Formulae	Legal values
<i>Total number of drug orders where one or more doses were omitted</i>	Count number of instances where doses required > doses administered and drug order ID = R; S; V & W	N
<i>Total number of regular, stat only, variable and warfarin orders (denominator)</i>	Count drug order ID = R; S; V & W	N
<i>% of drug orders where one or more doses were omitted by type</i>		
Regular orders	Count number of instances where doses required > doses administered and drug order ID = R / Total count of drug order ID = R * 100	N.NN%
Stat Only orders	Count number of instances where doses required > doses administered and drug order ID = S / Total count of drug order ID = S * 100	N.NN%
Variable orders	Count number of instances where doses required > doses administered and drug order ID = V / Total count of drug order ID = V * 100	N.NN%
Warfarin orders	Count number of instances where doses required > doses administered and drug order ID = W / Total count of drug order ID = W * 100	N.NN%
<i>% of all drug orders where one or more doses were omitted</i>	Count number of instances where doses required > doses administered / Total [drug order ID = R; S; V & W] * 100; exclude drug order ID = P from both numerator and denominator	N.NN%
PRN MAXIMUM DOSE		
<i>Total number of PRN orders with a maximum dose documented</i>	Count where drug order ID = P and PRN max dose doc = Y	N
<i>Total number of PRN orders (denominator)</i>	Total drug order ID = P	N
<i>% of PRN orders with a maximum dose documented</i>	Count where drug order ID = P and PRN max dose doc.= Y / Total drug order ID = P * 100	N.NN%