Hospira I MedNet

SOFTWARE USER GUIDE



Hospira, Inc., 275 North Field Drive, Lake Forest, IL 60045, USA

430-98324-001 (C, 2015-08)

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Hospira MedNet[™] Software User Guide

Rx Only

List 16037-64-02 and List 16037-64-03

IMPORTANT

Refer to this User Guide for complete instructions for use, warnings, and cautions associated with the Hospira MedNet $^{\text{TM}}$ Software after it has been properly installed. Refer to the Installation and Configuration Guide for proper use, warnings, and cautions associated with installing and configuring the Hospira MedNet $^{\text{TM}}$ Software. The help files included with the Hospira MedNet $^{\text{TM}}$ Software are provided as reference only.

Intended Use

The Hospira MedNet™ Medication Management Suite (MMS) is intended to facilitate networked communication between MMS compatible computer systems and Hospira Infusion pumps. The MMS provides trained healthcare professionals with the capability to send, receive, report, and store information from interfaced external systems, and to configure and edit infusion programming parameters.

The MMS is intended to provide a way to automate the programming of infusion parameters, thereby decreasing the amount of manual steps necessary to enter infusion data. All data entry and validation of infusion parameters is performed by a trained healthcare professional according to physician's orders.

Please read this entire guide before using the Hospira MedNet™ Software.

For a list of Hospira MedNet™ compatible devices approved for your country and/or to obtain a copy of this guide, contact:

in the USA
The Hospira Advanced Knowledge Center
1-800-241-4002

outside the USA
The Support Center listed in your Hospira.com regional website

From our Hospira Website, you can access our System Operating Manuals and this guide via the Support Center's Infusion Pumps + Clinical Software.

User Guide for Hospira MedNet Software

Change History

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430-98324-001 (B, 2015-06)	Initial Release	
430-98324-001 (C, 2015-08)	Added List Number 16037-64-03	Title Page

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Chapter 1: Introduction

Hospira MedNetTM is a server-based safety software product intended for use in healthcare facilities by trained healthcare professionals to provide valuable bedside guidance by managing IV infusion information with compatible Hospira infusion systems. The Hospira MedNetTM suite of software also includes a separate application, Hospira MedNetTM MedsTM.

Hospira MedNetTM software enhances safety at the point of care with highly customizable drug libraries that guides users and help to protect patients by alerting to hard and soft, upper and lower dosing limits intended to help prevent infusion errors. These limits are based on a hospital's specific IV administration practices.

Hospira MedNetTM software reduces manual programming steps by providing the option to allow pharmacy settings to flow directly into the compatible infusion pumps through the IV Clinical Integration (IVCI) solution. Hospira MedNetTM software connects the pharmacy validated medication order with the infusion pump and the patient's electronic medical record (EMR), providing the opportunity for automated programming of the infusion pump.

Hospira MedNet[™] software generates more than 20 different reports based on data, settings, and changes that are automatically and wirelessly collected from the compatible infusion pumps. The generated reports help to turn data into actionable data to provide visibility to clinical practice. Depending on the EMR system capability, automated documentation in the EMR is also supported by Hospira MedNet[™].

Hospira MedNet[™] software packages consist of the components listed below. The specific components available to you will depend on your institution's license.

Hospira MedNet[™] **Administrator** [™] provides the ability to manage system users, infusers, drug library downloads, infuser software updates, access points, and other configurations.

Hospira MedNetTM **Connect**TM establishes the connectivity between the Hospira MedNetTM server and the infusers. It incorporates ethernet and wireless components permitting Hospira MedNetTM MedsTM and Hospira MedNetTM AdministratorTM to exchange information with infusers.

Hospira MedNetTM **Integrator**TM provides interfaces to a hospital's enterprise level applications and serves as the conduit for the exchange of data between infusers, the Hospira MedNetTM server, and a variety of hospital information systems.

Hospira MedNetTM **Meds**TM provides functionality to the pharmacy for the definition and management of medications, drug libraries, clinical care areas, and infuser configurations.

Hospira MedNetTM **Performance**TM delivers data from the Hospira MedNetTM server into reports designed for asset management as well as clinical assessment of Hospira MedNetTM use with selectable options to best meet the needs of the user.

Hospira MedNetTM **Programmer**TM takes medication dispensing orders from the Bar Code Medication Administration (BCMA) system and translates them into operational commands which automatically populate settings on the infuser. For more information, see **Hospira MedNet**TM **Software User Guide**, Appendix B.

Chapter 1: Introduction Terminology

Terminology

This document uses the following conventions:

• References to specific values are approximations only, unless otherwise indicated.

• The terms "Hospira MedNetTM Software" and "the Software" are used interchangeably throughout this manual.

Note: Illustrations and screen representations are for illustrative purposes only and may vary from the actual software. Your computer's display settings may affect screen representations.

General Warnings and Cautions

The following conventions are used in this user guide to denote warnings or cautions:

Caution: Contains information that could prevent product damage or hardware failure. Failure to observe a caution could result in patient or user injury.

WARNING!: Warning messages contain special safety emphasis and must be observed at all times. Failure to observe a warning message is potentially life threatening.

Caution: Federal (USA) law restricts this device to sale by or on the order of a physician or other licensed practitioner.

Computer Management and Security

- Except for virus data files (typically called "dat" files), do not install upgrades, service packs, or patches to non-Hospira software on computers on which Hospira MedNet 'M' Software is installed, except as authorized by Hospira.
- Do not enable automatic updates to operating systems on computers on which Hospira MedNet^{1M} Software is installed.
- Ensure that procedures are in place for backing up and restoring data, and that administrators can successfully restore data from earlier backups.
- Ensure that the network on which Hospira MedNet[™] Software is used has effective security procedures in place, including physical and network access control.
- Ensure that user passwords are protected.
- Ensure a backup power supply (uninterrupted power source) is available to prevent critical data loss.

Important:

We highly recommend that you regularly backup and purge your database. A database can grow to a large size that will affect the performance of your Hospira MedNet™ system.

Although we suggest to purge a database every four years at a minimum, if you have more than 2,000 infusers it would be wise to consider doing so more often. Complete backup instructions are in the Installation and Configuration Guide or you can consult our Advanced Knowledge Center.

Handling Infusers

- Refer to the System Operating Manual for the applicable infuser for warnings and cautions before handling the infusers.
- Use care when handling connectors and cables.
- Avoid twisting or bending cables and connectors.
- Ensure compliance to IEC 60601-1-1 for connecting accessories to medical devices.

Note: The infusion devices compatible with Hospira MedNet will display selectable options based on your licensing and Hospira's compatibility matrix.

Transferring Data

- Ensure that only one instance of the Hospira MedNetTM MedsTM software is running on a computer at a time.
- To avoid inconsistencies between drug libraries, and reports, ensure that all infusers are using the same drug library version.

Chapter 1: Introduction Transferring Data

Notes:

Chapter 2: Setting Up Hospira MedNet Software

Overview

This chapter provides information necessary to set up Hospira MedNet Software.

The system administrator must perform the following procedures in order to enable users to access and use the application:

- Login
- Enter information about your hospital
- Add the System Administrator user account
- Add user accounts and set up user privileges
- Change the default password

Logging In

Overview

This procedure allows users to log into the application. To perform the set up procedures in the following section, log into the application as a system administrator with full access privileges.

User

System Administrator

Navigation Path

The navigation path varies based upon the configuration of your system.

Steps

To log into the application, do the following:

1. Open Microsoft Internet Explorer and enter the URL of the Hospira MedNet server for the application's Login page.

Note: If you do not know the address of the Hospira MedNet Software Login page, ask your Information Technology (IT) department. The security settings on your computer can sometimes be responsible for difficulty logging in. See your IT department for assistance.

The **Login** screen appears.



2. Enter the following user ID and password (see Appendix E: Character String Specifications on page 215):

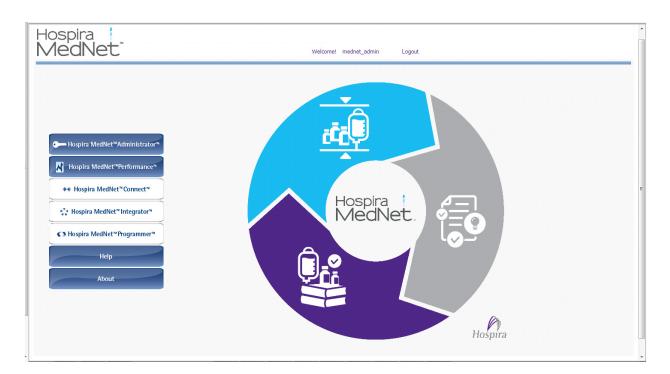
User ID: mednet_admin

Password: Please contact your Hospira Service Representative to obtain the password.

Note: Login ID is not case sensitive for both LDAP and non-LDAP environments.

The User ID **mednet_admin** has full Administrator privileges (see Appendix D: User Roles and Privileges on page 213).

3. Click **Login**. The application opens to the logged in home view.



- 4. Depending on your software license, the logged in home view displays the following graphics and buttons:
 - Hospira MedNet Administrator Allows access to administrative views providing user account management, infuser management, library download, and other configuration views.
 - Hospira MedNet Performance Allows access to the Reports view.
 - Hospira MedNet Connect Indicates the server is enabled to collect data from the supported infusers.
 - Hospira MedNet Integrator Indicates the server is enabled for connection to an external system.
 - Hospira MedNet Programmer Indicates the server is enabled for Auto-Programming functionality with a BCMA system.
 - Help
 - About

- 5. If a user has Administrator privileges and selects **Hospira MedNet Administrator**, the following options will be displayed:
 - Home
 - My Account
 - Users & Roles
 - Software Import

- Access Point Mapping (not available with Enhanced Asset Tracking)
- Administrative Setup
- **Authentication Services**
- About

See Chapter 11: Administrative Setup on page 65 to enter information or change the current settings in the Administrative Setup view.

- 6. **Hospira MedNet Performance** is only available with Protected Health Information privileges. A user with Administrator privileges can select the following options:
 - Home
- Reports
- About
- 7. When a user selects **About**, the following selectable views will be displayed:
 - Home
- About

Logging Out

To log out of the application, click **Logout**. The Login screen reappears.

Note: Hospira MedNet Software automatically logs you off if your account is inactive beyond the lockout period. The default lockout period is 30 minutes.

Overview Chapter 3: My Account

Chapter 3: My Account

Overview

User accounts provide the basis for system security. In this chapter, you will learn how to manage your account and change your password.

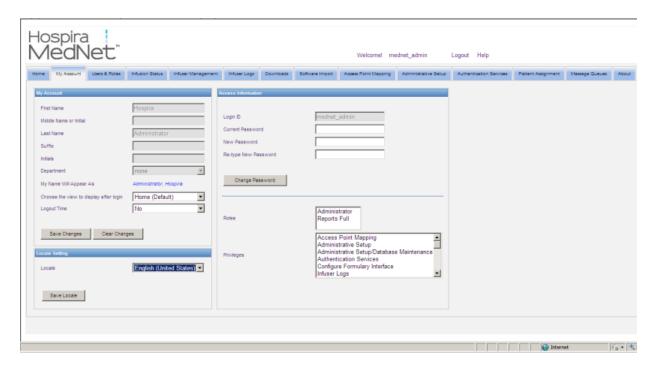
User Accounts and Windows Network Login (LDAP)

LDAP (Lightweight Directory Access Protocol) is a network protocol that enables applications to use a company's existing network directory listing for user names and passwords. In an LDAP-enabled environment, you can use your company's network login information with the same credentials (user name and password) to access Hospira MedNet Software (see Chapter 4: Users and Roles on page 17 for more information on LDAP).

Navigating

Note: Depending on licensing and privileges, some tabs will either be visible or unavailable.

Click the My Account tab on the navigation bar. The My Account view appears.



The My Account view displays your access information, Login ID, and the Change Password button. The My Account view also displays the roles and privileges you have been assigned. See Chapter 4: Users and Roles on page 17, and Appendix D: User Roles and Privileges on page 213 for more information.

Chapter 3: My Account Navigating

Note: Roles and Privileges are assigned to your account by a system administrator.

Locale Settings

Use the following process to select the preferred Hospira MedNet language.

- 1. Select the desired language from the Locale drop-down list.
- 2. Click the **Save Locale** button.

Managing Your Account

You may change your name, initials, department, and password in the My Account view.

- 1. To change your name, initials, and/or department, enter the following information (see Appendix E: Character String Specifications on page 215):
 - First Name
 - Middle Name or Initial
 - Last Name
 - Suffix
 - Initials
 - **Department** (select from drop-down list)

Note: The Edit Department List appears if you have administrator privileges.

2. Click Save Changes.

Changing Your Password Chapter 3: My Account

Changing Your Password

You should change your password periodically to ensure that your account is secure.

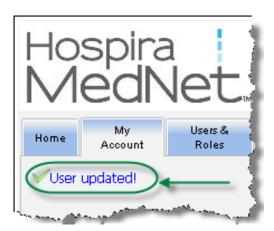
The My Account view allows only the user who is logged in to change their own password.

To change your password:

1. In the My Account view, go to the Access Information section.



- 2. Enter the current password.
- 3. Enter the new password.
- 4. Re-type the new password.
- 5. Click Change Password.
- 6. The password confirmation message appears.



Note: In an LDAP-enabled environment, the changing password feature is unavailable.

Chapter 3: My Account Changing the View

Changing the View

You can select the view that displays once you are logged in.

1. In the My Account view, use the drop-down list next to Choose the view to display after login to select a view other than the Home default.



2. Click Save Changes.

Changing the Logout Time

The default Logout Time is 30 minutes. In order to change that time, you will need to have a role that allows you to do so.

- 1. Select the Users & Roles tab.
- 2. Select the Roles tab.
- 3. From the Roles view, select a role.



- 4. Click Edit.
- 5. At User can configure logout time, click Yes.

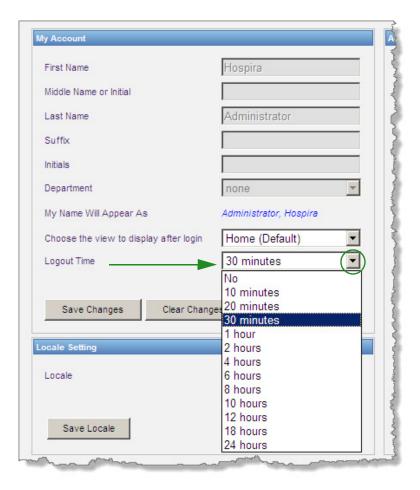


- 6. Click Save Changes.
- 7. A message displays to show the role has been updated.



8. Return to the My Account tab. You can now edit the Logout Time from **No** to **24 hours**.

Changing the Logout Time Chapter 3: My Account



9. Click Save Changes.

Notes:

Chapter 4: Users and Roles

Overview

Authorized users, such as system administrators, define the users, roles, and privileges for using Hospira MedNet Software. Each account is protected by a password; appropriate privileges are assigned to each user. This chapter instructs how to establish user accounts.

If you do not have Windows Network Login (see below), the Users & Roles view allows you to:

- · Add, edit, and delete users
- View and assign roles and privileges

The relationship of roles and privileges are described in Appendix D: User Roles and Privileges on page 213.

Windows Network Login

User Accounts and Windows Network Login (LDAP)

LDAP (Lightweight Directory Access Protocol) is an application protocol that enables applications to use a company's existing network directory listing for user names and passwords. This allows the network administrator to manage login access to multiple applications from one central source. Hospira MedNet Software supports both LDAP and non-LDAP environments.

In an LDAP-enabled environment, you can use your company's network login information with the same credentials (user name and password) to access Hospira MedNet Software.

The LDAP-enabled environment is able to retain a history of user-configurable passwords. However, a user will be unable to change their password to any password in their history.

After a successful login, if a user password is scheduled to expire in a user-configured number of days, the user receives a warning message and is required to change the password immediately. After a user-configurable password expiration period elapses, an LDAP server automatically expires the password and disables the user's account until the user's password is changed.

Support for LDAP is enabled or disabled during installation.

Summary of Users & Roles with Windows Network Login

- User accounts cannot be added, edited, or deleted from the Users & Roles view.
- User names appear in the Users list once they have logged into the Hospira MedNet server.
- A new role can be added with its own set of privileges.
- A role can be assigned to an LDAP group.
- Privileges cannot be added, edited, or deleted.

Roles

The default list of roles consists of:

- Administrator
- Administrator Limited
- Biomed
- Clinical Administrator
- IT

- Materials Management
- Pharmacist I
- Pharmacist II
- · Reports Full
- Reports Limited

The Administrator, Administrator Limited, and Clinical Administrator have access to the Users and Roles page and can add, modify, or delete a role.

Note: The Administrator must self assign View Protected Health Information privileges and is the only person authorized to assign the View Protected Health Information privileges.

Privileges

Privileges include:

- Access Point Mapping
- Administrative Setup
- Authentication Services
- Configure Formulary Interface
- Database Maintenance
- Infuser Logs
- Infuser Management
- Infusion Status
- Library Download
- Manage Finalized Libraries
- Manage Medications

- Manage Message Queues
- Manage Patient/Pump Assignments
- Manage Worksheets
- My Account
- Reports Full
- Reports Limited
- Software Management
- Users & Roles
- View Drug Libraries
- View Medications
- View Protected Health Information

Note: The Protected Health Information includes such data as Patient Name, Patient Date of Birth, Patient ID, Room and Patient Location i.e., Room and Bed location.

Privileges cannot be changed.

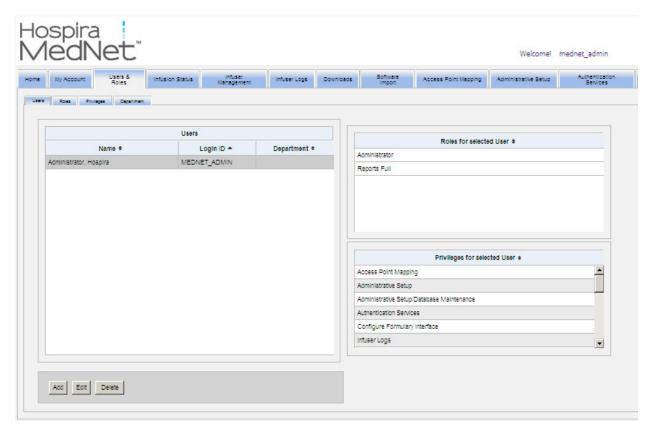
Departments

The list of departments can be created by either the Administrator, Administrator Limited, or Clinical Administrator.

Navigating

Note: Depending on licensing and privileges, some tabs will either be visible or unavailable.

Click the Users & Roles tab on the navigation bar. The Users & Roles view appears.

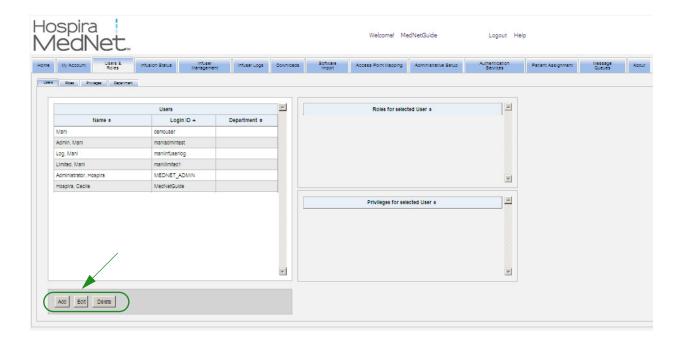


You may focus on Users, Roles, Privileges or Departments in this view. Click the tab to change the view.



Adding, Editing, or Deleting a User

In the Users & Roles view, click the **Users** tab to view users, then click the **Add**, **Edit**, or **Delete** buttons to add, edit, or delete a user.



Note: The Add, Edit, and Delete buttons are disabled in an LDAP environment.

To add a user:

1. In the Users & Roles view, click Add. The Add User window appears.



- 2. Assure the **Name & Login** tab is highlighted, and enter the following information (see Appendix E: Character String Specifications on page 215):
 - First Name
 - Middle Name or Initial
 - Last Name
 - Suffix
 - Initials
 - **Department** (select from a drop-down list)

Note: The Edit Department List appears if you have Administrator privileges.

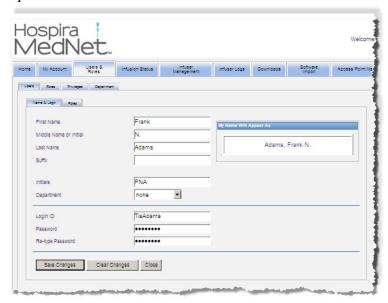
- Login ID
- Password
- Confirm Password
- 3. Click **Save Changes** to save the new user. The confirmation message appears.



4. Click **Close** to exit the window and return to Users & Roles.

To edit a user:

1. In the Users & Roles view, highlight a user name. Then, click **Edit**. The User Edit window opens.



2. Make changes to the applicable fields, and click **Save Changes**. The message "User Updated!" appears.



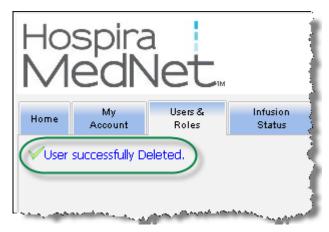
3. If there are no further edits to be made, click **Close**.

To delete a user:

1. In the Users & Roles view, highlight a user name, then click **Delete**. The Delete User pop-up window opens and the following message displays:

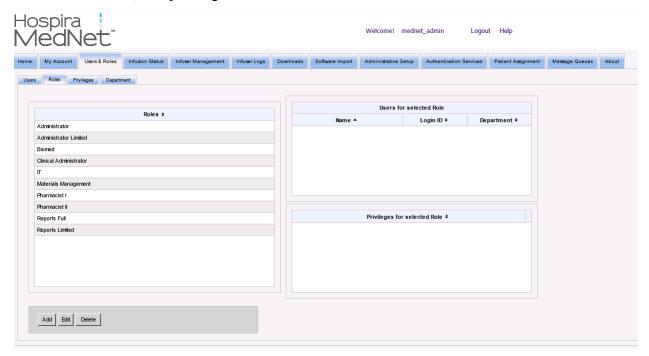


- 2. Click **OK** and the user is deleted from the list of users.
- 3. The following confirmation message appears.



Adding, Editing, or Deleting a Role and its Privileges

In the Users & Roles view, click the **Roles** tab to see the following: roles, users assigned to the selected role, and privileges for the selected role.



To add a role:

1. In the Roles view, click Add. The Add Role window appears.



2. Enter the Role Name, Description, and LDAP group (if applicable).

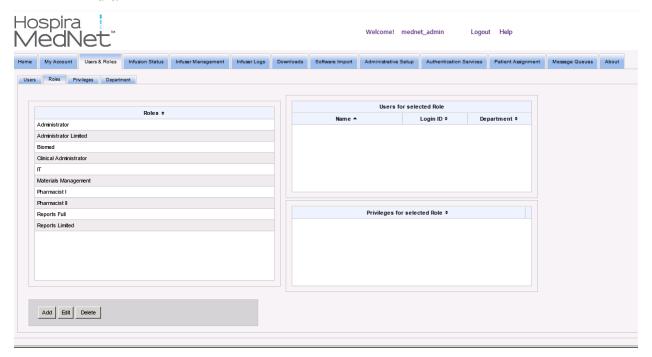
Note: Available Privileges are displayed. You may want to assign them at this time by following the instructions below.



- 3. Highlight one selection at a time from the **Available privileges** list. Using the add (>) button, assign the privileges to the role; then, click **Save Changes** when done.
- 4. Click Close.

To edit a role:

1. In the Users & Roles view, do the following: select the **Roles** tab, select a role, click **Edit**.



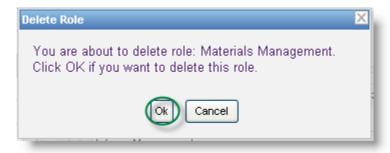
The following window will appear.



- 2. Highlight one of the available **Privileges** or **Privileges Assigned to Role**. Using the add (>), add all (>>), remove (<), and remove all (<<) buttons, assign the privileges to the role, then click **Save Changes**.
- Click Close.

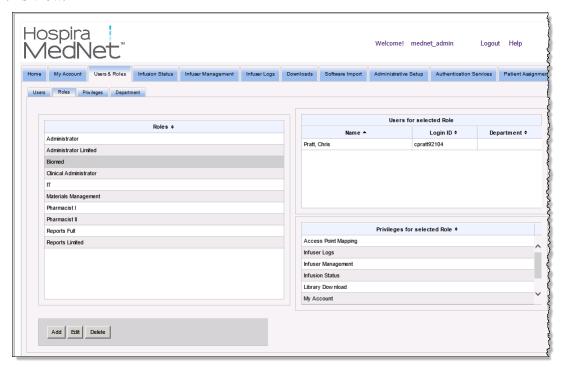
To delete a role:

- 1. Users & Roles view, select the **Roles** tab, highlight a role. Then click **Delete**. The Delete Role dialog pop-up window appears.
- 2. Click **OK**. The role is deleted from the list of roles.



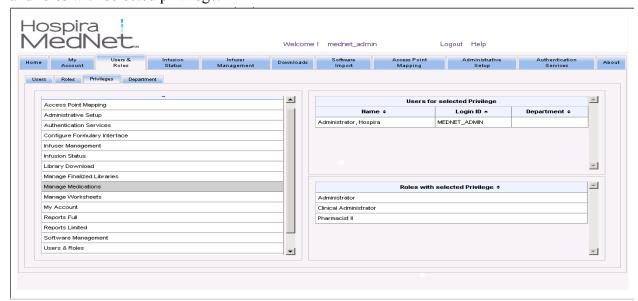
To view Roles:

In the Users & Roles view, click the **Roles** tab, highlight a role and the Users for selected Role displays as well as the privileges for the selected Role. Should you select to do so, you can edit from this view.

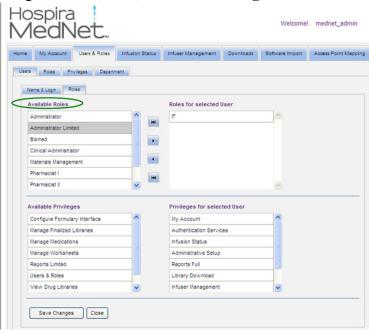


To view Privileges:

In the Users & Roles view, click the **Privileges** tab to view privileges, users for selected privilege, and roles with selected privilege.



- 1. The **Add**, **Edit**, and **Delete** buttons are not available in the Privileges view. If you need to edit the roles assigned to the user, click the **Roles** tab. The User Roles window appears.
- 2. Select one or more of the options from the **Roles for Selected User** list or the **Available Roles** list. Using the add (>), remove (<), add all (>>), and remove all (<<) buttons, assign the roles; then, click **Save Changes**.



- 3. If you made changes, a confirmation message appears.
- 4. Click Close.

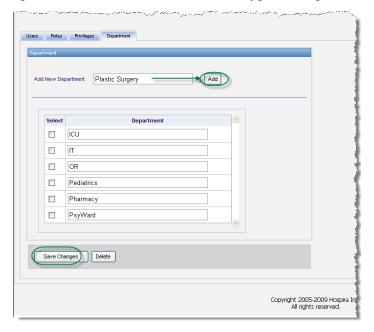
Adding, Editing, or Deleting a Department

The **Department** tab displays in the Users & Roles view. Any changes to the Department list on this tab are reflected in the Department drop-down list located on the Add User and Edit User windows.

Note: The default department name is "none."

To add a Department:

1. To add a department click the **Add** button and type the department name.



The following confirmation message appears.

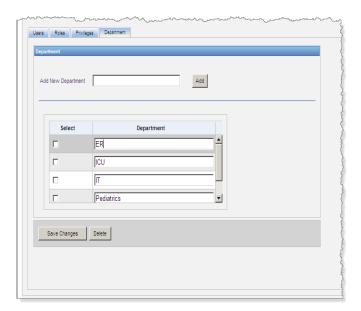


2. Click Save Changes.

To edit a department list:

1. In the **Department** tab, select a department name from the Department list, and edit the department name.

Note: You can edit several entries at a time. Enter the change, place a check mark in the check box next to the Department name you have edited, then go on to the next name you want to change.



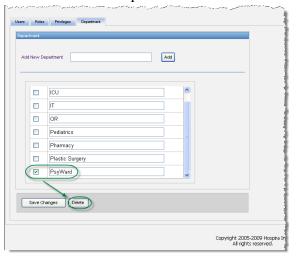
2. Click Save Changes.

The following confirmation message appears.

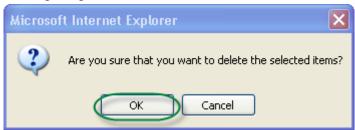


To delete a department:

1. To delete a department select the department to delete and click delete.



2. Click **OK** at the prompt.



The following confirmation message appears.



3. Click Save Changes.

Notes:

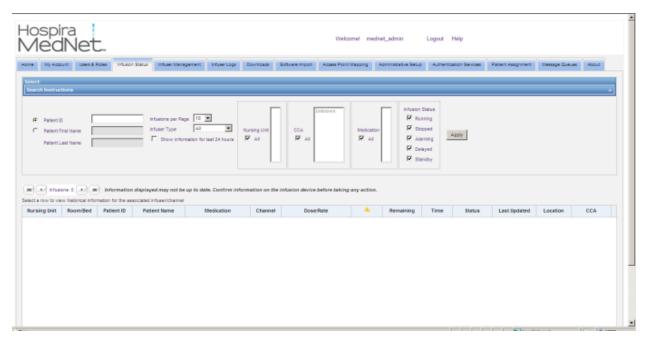
Chapter 5: Infusion Status

Overview

The Infusion Status provides a real-time view of infusions, including information about their remaining volume and time, drug library compliance, and alarm status. Infusion Status View is only available if you have View Protected Health Information privileges.

Navigating

1. Click the **Infusion Status** tab. The Infusion Status search instructions window appears. The default will display all the options listed for all infusers.



2. Should you wish to refine your search to a specific patient, you can do so either by indicating the Patient ID or you can type the Patient First Name and Patient Last Name. You can use the wildcard ("*") after just the first letter of the patient's first or last name or enter a partial first or last name followed by the wildcard asterisk ("*").

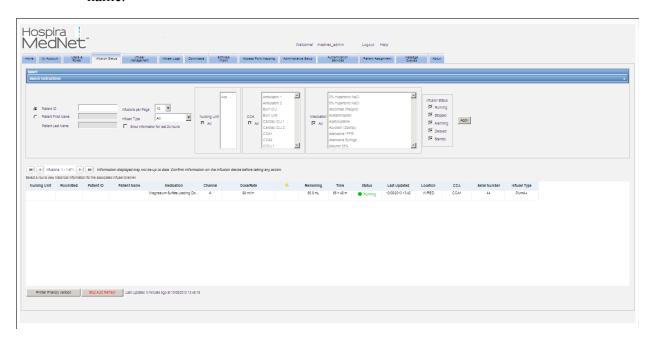
Note: Do not use the wildcard ("*") as the first character when conducting a search.

- 3. Choose the desired options for the number of Infusions to display per page, Infuser Type, Nursing Unit, CCA, Medication and Infusion Status. The latest status of all infusions that were communicating within the past hour will be displayed. Click the **Show information for last 24 hours** checkbox to view last status received, even if it was prior to the last hour (up to 24 hours).
- 4. Select **Apply** to display or refresh the list below.

Chapter 5: Infusion Status

Overview

5. You can sort the list by any column, except Dose/Rate, by clicking on the column name

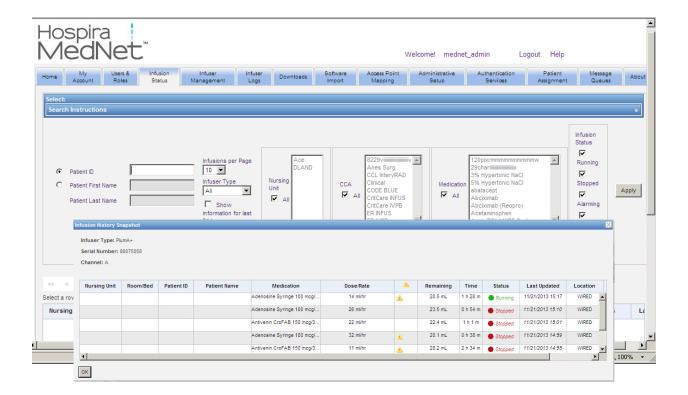


Overview Chapter 5: Infusion Status

Infusion History Snapshot

You can view the historical data for the associated infuser by clicking on the row displaying an infusion.

Each infuser and each channel displays for one hour or 24 hours if you selected **Show information for last 24 hours**.



Chapter 5: Infusion Status Overview

Infusion Status View

Note: The list will automatically refresh unless the Stop Auto Refresh button is clicked. Refresh can be resumed by clicking the **Start Auto Refresh** button.

The following table describes the Infusion Status view fields:

Field/Label	Information
Nursing Unit	Displays the Nursing Unit associated with Auto-Programming and Patient.
Room/Bed	Room number and Bed number.
Patient ID	Patient identifier.
Patient Name	Patient name that is visible only if the user has the View Protected Health Information privilege.
Medication	Medication being infused. If the infuser has a library unknown to Hospira MedNet, the medication will display "Unknown."
Channel	The channel currently in use on the infuser. For LifeCare PCA, channel will be blank.
Dose/Rate	The Dose or Rate at which the medication is being infused.
Limit Exceeded (+)	When a warning icon is displayed, it indicates that the therapy violated a rule set that was overridden. Hovering the mouse over the icon displays a pop-up showing the limits in the drug library that were overridden by the user.
Remaining	Displays volume (mL) of infusion remaining. Applies to licensed infusers but not LifeCare PCA.
Time	Displays the time remaining in the infusion. Applies to licensed infusers but not LifeCare PCA.
Status and Last Updated	Status (running, stopped, or alarming) and Last Updated appear in <i>italics</i> when the last status update is more than 5 minutes old. Status is also indicated by color: Green = Running; Red = Stopped; Blinking Yellow/Red = Alarming.
Location	The location of the infusion.
CCA	Either an established CCA, or may display as "Unknown." Unknown displays when none of the finalized drug libraries was on the infuser and, therefore, the infusion occurred with the existing library on the infuser (possibly a default drug library or the drug library downloaded from a different Hospira MedNet server).
Serial Number	The serial number of the infuser used in the therapy.
Infuser Type	The Infuser Type column in the report will only display when "All" is selected for the Infuser Type. The report will only show licensed infuser type(s) used in the therapy.

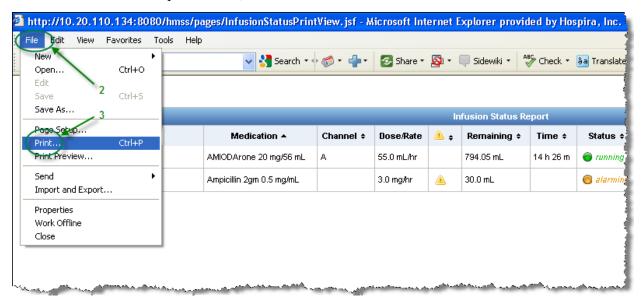
Overview Chapter 5: Infusion Status

Printing

1. To print, select **Printer Friendly Version**.



- 2. Go to the top menu bar and select File.
- 3. From the drop-down list, select **Print**.



4. Print as you would any other document.

Chapter 5: Infusion Status

Overview

Notes:

Chapter 6: Infuser Management

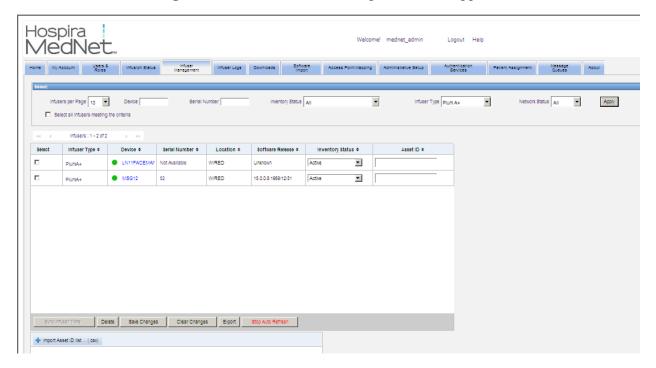
Overview

The Infuser Management view displays a list of all the infusers at your institution and allows you to maintain inventory status and asset ID information for each infuser, as well as to manually synchronize the infuser time on some infusers.

Note: This view is only accessible for users with the following roles: Administrator, Administrator Limited, Biomed, Clinical Administrator, IT, and Materials Management. The logged-in user will also need to have the View Protected Health Information privilege.

Navigating

Click the **Infuser Management** tab. The Infuser Management view appears.



Infuser Management View

The following table describes the Infuser Management view fields:

Field/Label	Information
Select	Click on the checkbox to select an infuser. Click again to deselect it.
Infuser Type	Licensed infuser type(s)
	Position the mouse over the Infuser Type and a photo of the device appears.
Device	Logical ID of the infuser
	The dot to the left of the device indicates its network status. The green dot indicates that the device is online and communicated with the Hospira MedNet Software in the last 5 minutes. The red dot indicates that the device is offline and not communicating with the Hospira MedNet Software.
Serial Number	Serial number of the infuser.
Location	The descriptive physical access point location receiving data from the infuser or the access point that last communicated with the infuser.
Software Release	The version of software residing on the infuser.
	The hourglass icon appears when a software download is in progress; it disappears after the download is complete.
Inventory Status	The inventory status of the device.
	The inventory status for any infuser will be independent of the inventory status of other infusers, even when several infusers share a CE.
Asset ID	The hospital-assigned asset ID of the device (25 characters).

Note: The Infuser Management view automatically updates every two minutes to show changes in the infusers' status.

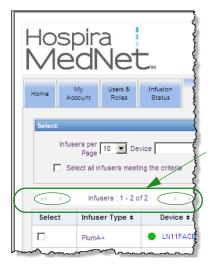
The following table describes the Infuser Management view filters. To filter, enter information or select a value from the drop-down lists, and click **Apply**.



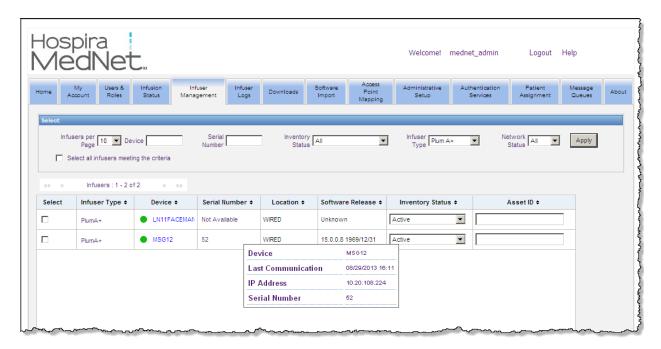
Filter	Information	
Infusers Per Page	You can select the number of infusers to display per page by using the Show (number of) feature. You can view 10, 25, 50, 100, 200, 500, or all infusers.	
	Note: When All Infusers per page is selected the following buttons are disabled: Delete, Save Changes, Clear Changes, Sync Infuser Time.	
Device	Allows you to create a filtered view of infusers by their device ID.	
Serial Number	Allows you to create a filtered view of infusers by their serial number.	
Inventory Status	Allows you to create a filtered view of infusers by their inventory status.	
Infuser Type	Allows you to create a filtered view of infusers by their type. Only licensed infuser type display.	
Network Status	Allows you to create a filtered view of infusers by their network status: Online, Offline, or All.	
Select All Infusers Meeting the Criteria	Allows you to automatically select all infusers that meet criteria.	

Note: Filters that allow you to enter text will accept all or part of the field. It is not necessary to enter the entire number or value. For example, to filter by serial number, you may enter "154" to show all infusers whose serial numbers begin with 154, or you may enter the exact serial number if desired.

Navigate through the list of infusers by using the first, previous, next, and last buttons.



Position the mouse over the Device or Serial Number of any infuser to display a pop-up showing the **Device**, **Last Communication**, **IP Address**, and **Serial Number** of the infuser.



Position the mouse over the Infuser Type of an infuser to display a pop-up showing the device.



To enter an asset ID for an infuser, enter the ID in the Asset ID field and click Save Changes.

The **Inventory Status** column assigns the following status descriptions to an infuser.

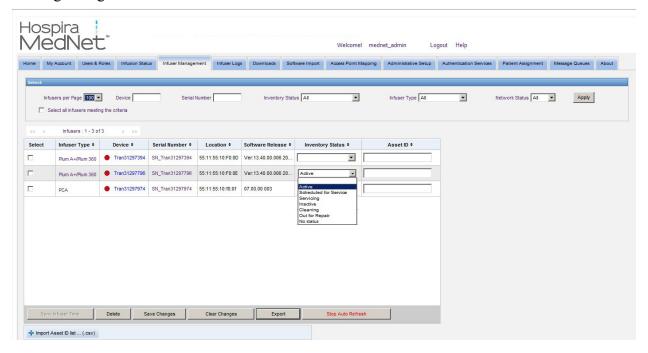
All Active Cleaning

• Scheduled for Service • Out for Repair

Servicing
 No Status

To assign an inventory status, click the arrow in the Inventory Status field and select the desired status from the pop-up window.

An arrow may display to the right of an infuser to show whether the last communication contained log messages. This arrow is useful to determine whether the infuser has completed sending its logs to the server.



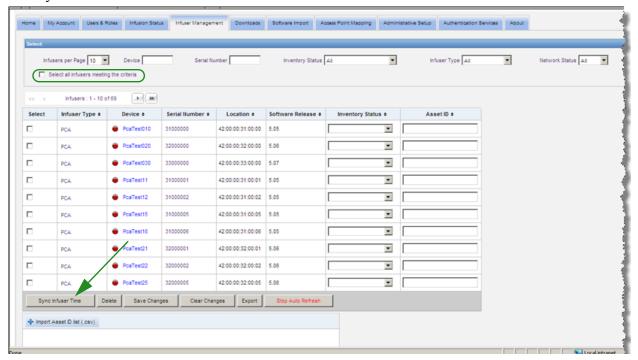
All online infusers with 802.11a/b/g wireless capability will automatically synchronize their time with the Hospira MedNet server time whenever they are online and there is a difference of +/- 5 seconds or more between infuser and server time.

Note: Synchronization will not happen during infusion.

Time synchronization for LifeCare PCA infusers with 802.11b wireless capability is performed in a slightly different manner. For these infusers, Hospira MedNet runs a process each day at approximately 2:00 a.m. to update their time. However if these infusers were not online during this automatic process, the **Sync Infuser Time** button can be used to manually synchronize their time when the infusers are online.

Note: The changes will not take place with the LifeCare PCA 802.11b board until the infuser has been powered off then back on.

Select the checkbox for the infuser(s) whose time you want to update or use the button to select all infusers and click Sync Infuser Time. A progress bar appears in a pop-up window during the time synchronization.



If the **Delete** button is selected, the infuser is marked for deletion. Deleted infusers are not displayed in other views. Data from deleted infusers will not be contained in any reports unless "Include Deleted Infusers" is selected on the Report Options page when a report is run.

If an infuser selected to be deleted is assigned to a patient, a message displays that the specified infuser cannot be deleted. The message will contain the Infuser Serial Number, Patient ID, and if so privileged, the full Patient Name. If not so privileged, the Patient Name will be obscured by asterisks.

If a deleted infuser communicates its status to the server at a later time, it will be undeleted and will then be displayed again.

Note: An infuser will have a serial number of "Unknown" if the server has never received a full status message from the infuser. The full status message contains all elements including the serial number. Full status messages are sent when the infuser is turned on. For infusers that have accumulated usage hours, yet do not report a serial number, it is possible that the hours of use occurred prior to the software version upgrade, and the infuser has not been turned on since the upgrade. Once the infuser is turned on, the server will receive its serial number in the next full status message.

The **Save Changes** button saves entered information.

The **Clear Changes** button clears any changes that you have not saved.

The **Export** button generates an Asset ID list.

The **Stop Auto Refresh** button toggles the auto refresh feature, so the Infuser Management screen does not update with the latest pump status.

Import Asset ID List

The Infuser Management view allows you to import or export a file containing a list of serial numbers and asset IDs.

File Format

The import file must be in **CSV** format. It must have a header row containing the fields Serial Number, Asset ID, and Inventory Status. The file format is specified in the following table.

Serial Number	Asset ID	Inventory Status
Required, up to 50 characters	Not required, up to 25 characters	Must be one of the following: • (blank) • Active • Scheduled for Service • Servicing • Inactive • Cleaning • Out for Repair • No Status

To import an Asset ID list:



1. Click **Import Asset ID list ... (.csv)**. A Windows Explorer navigation window appears that allows you to browse for a **.csv** file containing the serial number and asset ID information.

Note: If a serial number is not found, or the .csv file is not properly formatted, an error message is displayed.

2. Click the **Start Import** button.

To export an Asset ID list:

Click the **Export** button. A Windows Explorer File Download pop-up window like the example below appears, allowing you to open the file in Excel, or save the file in .csv format.



Note: Deleted Infusers will not be included in the export file.

Overview Chapter 7: Infuser Logs

Chapter 7: Infuser Logs

Overview

The Infuser Logs view displays a list of all the infusers at your institution.

Note: This view is only accessible for users with the following roles: Administrator, Administrator Limited, Biomed, IT, and Materials Management. The logged-in user will also need to have the View Protected Health Information privilege.

Navigating

Click the **Infuser Logs** tab. The Infuser Logs view appears.

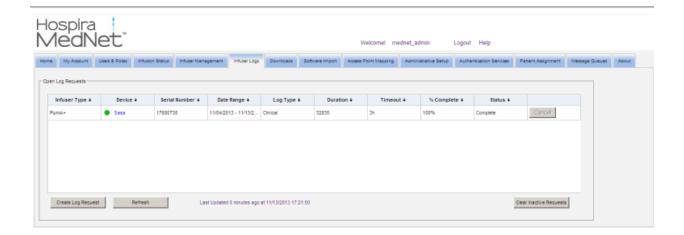


Chapter 7: Infuser Logs Overview

Infuser Logs View

The following table describes the Infuser Logs view fields:

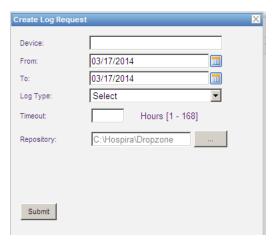
Field/Label	Information
Infuser Type	Licensed infuser types.
Device	Device Name. The dot to the left of the device indicates its network status. The green dot indicates that the device is online and communicated with the Hospira MedNet Software. The red dot indicates that the device is offline and not communicating with the Hospira MedNet Software.
Serial Number	Serial number of the infuser.
Date Range	The date range specified in the log request.
Log Type	The type of log entries associated with the particular device.
Duration	Period of time required to obtain data.
Timeout	The period of time you selected.
%Complete	Percentage completed.
Status	Displays a status message i.e., Complete, Cancelled, Error: Timeout or Complete (Partial). If an error is present in the infuser log request "Infuser Error" will display. Other messages may include "Error: Disk Space," "No Logs Found," "Retrieving from infuser" (applies only to infusers with CE 3.x), "Retrieving from DB," etc.



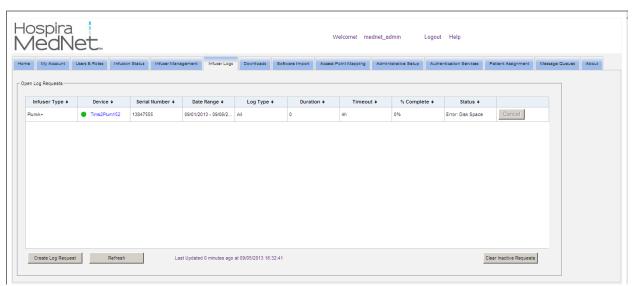
Overview Chapter 7: Infuser Logs

To Create a Log Request

1. Click Create Log Request. A pop-up window displays.



- 2. Enter the **Device Name** (alphanumeric format).
- 3. At **From:**, either accept the current date, or type in a start date using the mm/dd/yyyy format, or use the Calendar.
- 4. At **To:**, either accept the current date, or type in an end date using the mm/dd/yyyy format, or use the Calendar.
- 5. At Log Type:, use the drop-down list to select a Log type. The choices include Clinical, Diagnostic, Audit, or All, depending on the device.
- 6. At **Timeout:**, enter a time in hours (1-168), if you so desire.
- 7. The default is C:\Hospira\DropZone. Your Network Administrator can extract the files from the default repository.
- 8. Click Submit.



You can use the **Refresh** button to get the most current data and the **Cancel** button to cancel the associated log request.

The **Clear Inactive Requests button** will remove completed, cancelled, or error log requests from the queue.

Chapter 7: Infuser Logs Overview

Notes:

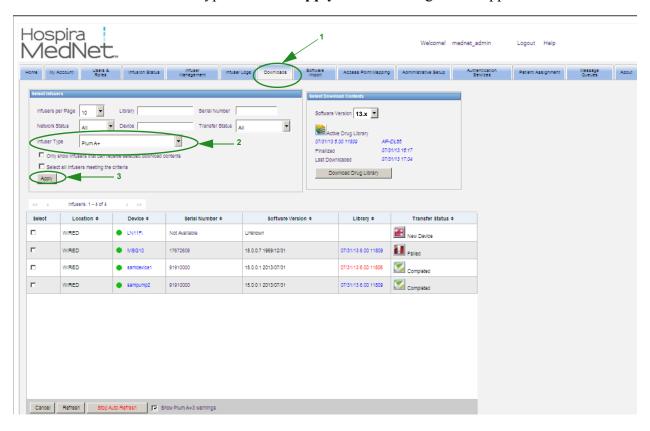
Overview Chapter 8: Downloads

Chapter 8: Downloads

Overview

The Downloads view is used to download the active drug library to the selected infusers and to monitor the download status of libraries.

- 1. Click the **Downloads** tab. The Downloads view appears.
- 2. Select the infuser type and click **Apply**. The following screen appears:



Note: The Downloads view automatically refreshes every 2 minutes to reflect any changes in the infusers' status.

To filter, enter information or select a value from the drop-down list, and click **Apply**.

To sort by column, click the header of a column. Click again to sort the results in reverse order.

Chapter 8: Downloads Downloads Fields

Downloads Fields

The following table describes the fields in the Downloads view:



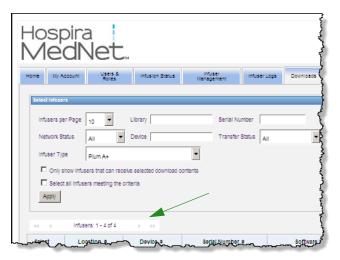
Field/Label	Information
Select	Click on the checkbox to select an infuser. Double click to deselect it.
Location	Descriptive physical location of the access point receiving data from the infuser or the access point that last communicated with the infuser.
Device	Logical ID of the infuser. The dot to the left of the device indicates its network status. The green dot indicates that the device is online and communicating with the Hospira MedNet Software. The red dot indicates that the device is offline and not communicating with the Hospira MedNet Software.
Serial Number	Serial number of the infuser.
Software Version	Displays component name and software version information.
Library	The version number of the drug library on the infuser. Descriptions include: Not Available, Version Number, Invalid Library, and DDL.
Transfer Status	New Device: A drug library has never been downloaded to the infuser.
Otatus	Pending: The server is attempting to download the library to the infuser. The server has not yet received any indication that the infuser is using the new drug library.
	Completed: The infuser has received a new library and it has been activated on the infuser by a clinician.
	Requested: The infuser is scheduled to receive a new drug library.
	Failed: An error occurred while the infuser was receiving a new drug library. The new drug library must be sent again before it can be activated by a clinician.
	On Pump: The library has been successfully transferred to the infuser's CE. Once the clinician accepts the library, the status will change to Completed.
	Installing: The library is being downloaded from the CE to the infuser.

Downloads Fields Chapter 8: Downloads

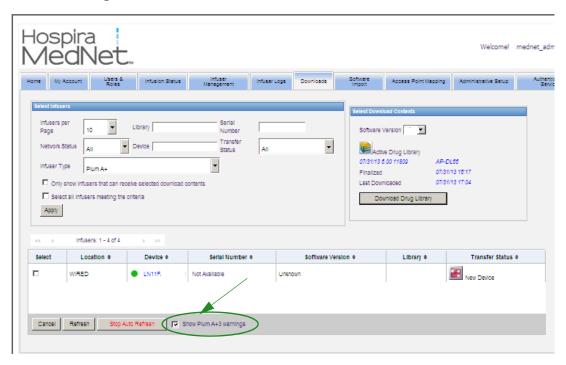
List of Infusers

Note: Only the infusers for which you are licensed will be displayed.

You can navigate through the list of infusers by using the first, previous, next, and last buttons.



Plum A+3 Warnings

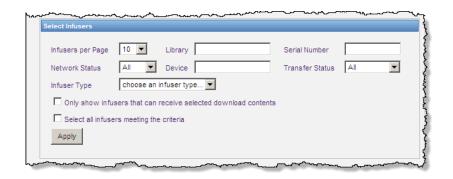


When this checkbox is selected, warning messages are displayed to indicate that the selected infuser is part of a Plum A+3 device. When this checkbox is unselected, warning messages do not indicate that the selected infuser is part of a Plum A+3 device.

Chapter 8: Downloads Downloads Filters

Downloads Filters

The following table describes the filters in the Downloads view.



Note: Filters that allow you to enter text will accept all or the first few field values. It is not necessary to enter the entire number or value. For example, to filter by serial number, you may enter "154" to show all infusers whose serial numbers begin with 154, or enter the exact serial number if desired.

Filter/Label	Information	
Infusers per page	This function allows you to select the number of infusers to display per page by entering a number in the Show (number of) Infusers per page feature. You can view 10, 25, 50, 100, 200, 500 or all infusers.	
	Note: When All Infusers per page is selected, the following buttons are disabled: Download and Cancel.	
Library	This function allows you to enter a drug library version that has been downloaded.	
Serial Number	This function allows you to create a filtered view of infusers by their serial number.	
Device	This function allows you to filter by the device ID.	
Network Status	This function allows you to create a filtered view of infusers by their network status: All, Online, or Offline.	
Transfer Status	This function allows you to create a filtered view of infusers by their library download status: All, New Device, Requested, Pending, Installing, Completed, Failed, and On Pump.	
Infuser Type	This function allows you to select the infuser type desired for the library download. Only licensed infusers can be selected.	
Only show infusers that can receive selected download contents	This function allows you to filter by known information. You can choose to show only infusers that can receive the selected download contents.	
Select all infusers meeting the criteria	This function allows you to automatically select all infusers meeting the criteria.	

Transfer Status Chapter 8: Downloads

Transfer Status

This section provides detailed information concerning the Requested and Pending States. For information concerning the New Device, Pending, Completed, Requested, Failed, On Pump, and Installing states, see Transfer Status on page 52.

Requested State

An infuser is in the "Requested" state for the following reasons:

- It has been queued to receive a drug library, but the server has not yet begun the download.
- A previous drug library download was unsuccessful.

The infuser remains in the "Requested" state until the next download interval. If an infuser is in the "Requested" state, the drug library download can be cancelled by selecting the infuser and pressing the **Cancel** button.

Pending State

An infuser is in the "Pending" state if the server is currently downloading the drug library to the infuser.

The download to an infuser in the "Pending" state cannot be cancelled.

Drug Libraries

Invalid Plum A+ and LifeCare PCA Infusers Drug Libraries

If a Plum A+ or LifeCare PCA infuser is turned off and plugged in, a minimal status message is generated that does not include the drug library name. If a drug library was downloaded and installed on the infuser, but the infuser was turned off before it has sent the drug library name to the server, the server will report an "invalid library." Once the infuser is turned on, a standard status message is sent to the server, updating the library name to reflect the library on the infuser. A status message is generated approximately five minutes after the infuser is turned on. This applies only to infusers with "B" board and CE 1.x devices (refer to the Compatibility Matrix available from the Advanced Knowledge Center).

Chapter 8: Downloads Drug Libraries

Downloading a Library

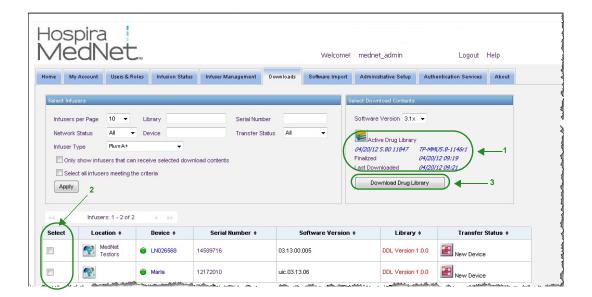
To download a library to infusers:

- 1. Verify the library version information.
- 2. Select the desired infusers.

Note: Some libraries require a software version to be selected before beginning the download.

3. Click Download Drug Library.

Note: When the library is not current, Library Version is displayed in **red** text. It remains in **red** text until the download is successful. When the download is successful, the Library Version changes to the current active library and is displayed in **blue** text.



Drug Libraries Chapter 8: Downloads

If the **Stop Auto Refresh** button at the bottom of the screen is selected, the Library Download screen does not update with the latest pump status.

Important: Verify the downloaded library on several infusers before deploying the new library across the entire institution.

Note: The current active drug library version downloaded to the selected infusers is identified by the Drug Library ID found on the Library Directory page of the Hospira MedNet Meds application.

Note: Under some conditions, when sending a new library to infusers, "Invalid Library" will display in the Library field. If this happens, click **Refresh** until the library download is completed. After the download is completed, the description in the Library field changes to the current active library.

Drug Library Report

The Library Download view provides the following reports:

- Drug Library
- CCA Library
- Master Infuser and CCA Settings
- LifeCare PCA Master Protocol Report (PCA Only)

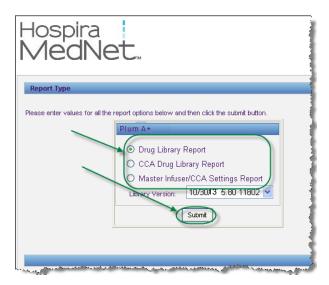
To select a report:

1. In the Library Download view, click on the icon that looks like a book.



Chapter 8: Downloads Drug Libraries

Select a report type and library version, then click **Submit**. Only finalized libraries will be displayed.



2. The report is displayed as shown in the following example.



3. You may print the report using your browser's **Print** button.

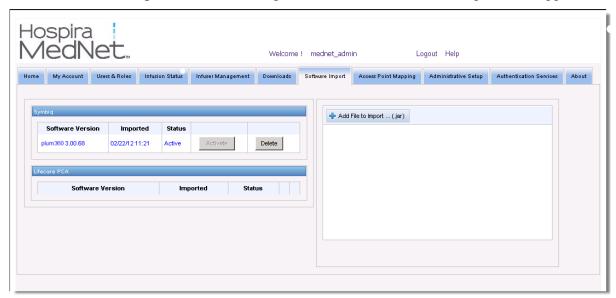
Chapter 9: Software Import

Overview

The Software Import view allows the software for compatible infusers to be updated to a new version. Once imported to the server using this view, the new software can be downloaded to the infusers.

Important: Infuser software updates are managed only by Hospira Service Representatives.

Click the **Software Import** tab on the navigation bar, and the Software Import view appears.



The Software Import view allows the user to import a file to load the new software version to the server. The software update process is initiated on the infuser itself.

Note: After a software update, the infuser reverts to a default drug library. Before using the infuser in a clinical setting, a new drug library must be downloaded to the infuser.

Uploading a file to the server

- 1. Click the **Add File to Import** button.
- 2. Find the jar file in the browser window and select the file to add by clicking **Open**.
- 3. Click the **Upload/Import** button.

Once the software versions are loaded, you can activate or delete the software version for a particular infuser type using the **Activate** and **Delete** buttons next to each version.

Chapter 9: Software Import Overview

Notes:

Chapter 10: Access Point Mapping

Overview

The Access Point Mapping view allows you to enter a description for each wireless access point. This description appears in online views and on reports that include an infuser's location. It also provides a means to import or export a list of access points and descriptions.

Note: If your hospital has licensed Asset Tracking, the Access Point Mapping view is not displayed. See Appendix C: Enhanced Asset Tracking on page 211 for more information.

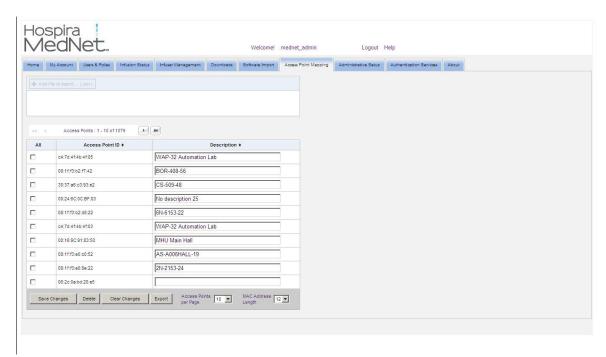
The following table describes the fields in the Access Point Mapping view:

Field/Label	Information
Access Point ID	The MAC address of the wireless access point through which the infuser communicates with Hospira MedNet Software.
Description	This feature allows you to enter a descriptive location for the access point used for online views and in reports.
	The description field is optional.
Access Points Per Page	User Selectable with options per page of 10, 25, 50, 100, 250, or All.

Note: Your system administrator can provide the physical locations for wireless access points.

Navigating

Click the **Access Point Mapping** tab, and the Access Point Mapping view appears. You may click on the Access Point ID column or the Description column to sort the view. Clicking again will sort in reverse order.



Enter a descriptive name for a wireless access point ID in the Description field, then click **Save Changes**.

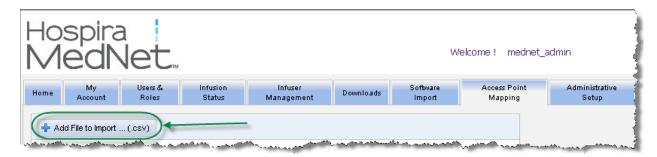
To delete an access point, enter a check mark in the box next to the access point ID you want to delete, then click **Delete**.

Note: If the selected access point recently communicated with an active infuser, the access point cannot be deleted.

Importing And Exporting An Access Point List

To import an access point list:

1. Click the **Add File to Import** button to locate the file.



- 2. A Windows Explorer navigation pop-up window appears; use it to browse for a .csv file, so you can import access point IDs and descriptions.
- 3. Click the **Start Import** button.

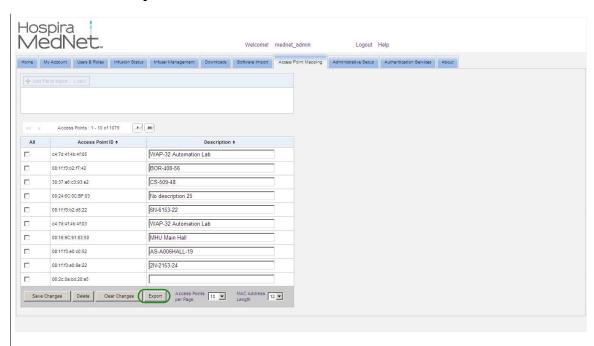


4. The upload may be canceled by using the **Cancel** button.

Note: If the .csv file is not properly formatted, an error message is displayed in the Access Point Mapping view.

To export an access point list:

1. Click the **Export** button.



2. A Windows Explorer File Download pop-up window appears like the example below. Open the file in Excel, or save the file in .csv format.



Chapter 11: Administrative Setup

Overview

The administrative setup configuration typically occurs during the installation of Hospira MedNet Software. The Administrative Setup view is used to maintain information about your institution, maintain infuser software download settings, view, or update your software license file, and configure settings for database maintenance.

Note: Only users with appropriate login privileges can see the Administrative Setup view.

Institution Settings

1. Click the **Administrative Setup** tab to display the Administrative Setup view.



- 2. To add or change **Institution Settings**, enter the following information:
 - **Institution Name** (default is "Institution Name")
 - Contact Name
 - Title
 - Phone
 - Pager

Note: The **Institution Name** field is printed on reports. It is displayed on Plum A+ infusers when they are powered on.

Software Download Settings

To change Software Download Settings, click the Software Download Settings tab, and enter the following information:

- Maximum Retries (maximum 999; default is 3)
- **Minimum Retry Interval (default is 120 seconds)**
- **Click Save Changes**



Note: The maximum retries and minimum retry interval are configuration settings for the software update capability on the LifeCare PCA infusers. Any changes needed are made by your Hospira Field Service Representative.

On certain Plum infusers, maximum retries and minimum retry interval are configuration settings that are made by your Hospira Field Service Representative. For infuser types, refer to the Hospira MedNet Device Compatibility Matrix available through the Hospira Advanced Knowledge Center.

License Information

The License Information section is empty until a license file is imported. In the Import New License File section, click | Import New License File...(jkey) to locate it on your PC, then click Import. The Current License Details fields will be populated.



Current License Details include the following:

- Use Profile
- Software Package
- Languages
- License Expires On
- Enhanced Asset Tracking
- Formulary Integration

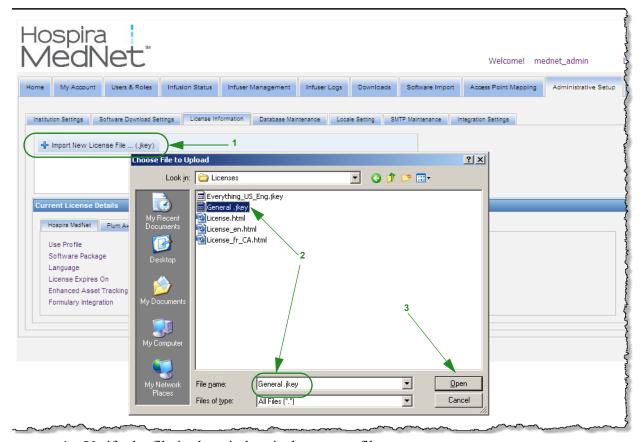
- Infuser(s) License(s)
- Auto-programming
- Auto-documentation
- Alarm Forwarding
- Drug Library Size Level 2

Note: License files are provided by the Hospira implementation team.

Importing a License

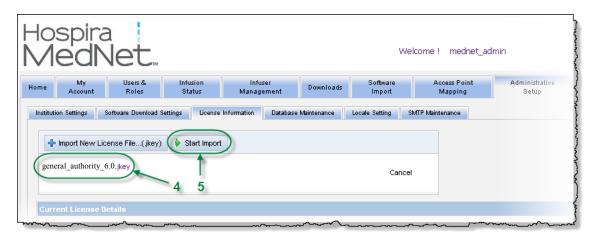
Use the following process to import a License.

- 1. While in the **License Information** tab, select Import New License File (must be a .jkey file type).
- 2. From the Choose File dialog box, find the desired file, then select it to populate the file name window.
- 3. Press **Open** to begin import of new license.



4. Verify the file in the window is the correct file.

5. Select Start Import.



6. Verify that the import was successful.



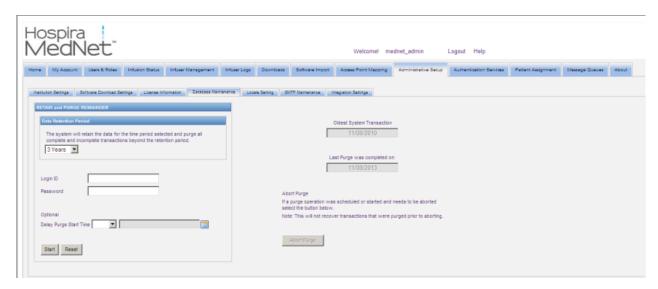
Database Maintenance

The **Database Maintenance** settings are used to rid or purge the database of old transactions, thereby freeing more space for more effective and speedy operation of your Hospira MedNet system. The designated owner of the database maintenance is usually the DB or system administrator.

We highly recommend that you backup your database. See the *Hospira MedNet Installation and Configuration Guide* for more information on that process.

Note: To avoid running out of server hard drive space, we suggest managing the size of the SQL Server Transactional Log file while purging is in process. Truncating the log files may be necessary with large databases.

- 1. In the **Data Retention Period** field, enter the time period for which you want to keep the data. you can select from
 - 6 months
 - 1 year
 - 2 years
 - 3 years
 - 4 years
- 2. Enter your user's Login ID.
- 3. Enter your Password.
- 4. You can also opt to set a future start time and date:
 - Using the drop-down list, select a **Start Time** (DB event time based).
 - Using the calendar, select a date.
- 5. Once satisfied with your choice, click **Start** or if you want to make a change, click **Reset** and re-enter the information.



6. Should you wish to abort the purging process, click on **Abort Purge**.

Note: Transactions purged prior to aborting cannot be recovered.

The oldest system transaction and last purge dates are displayed for your convenience.

Enhanced Asset Tracking

The **Enhanced Asset Tracking** section allows configuration of this optional feature.

Note: When Enhanced Asset Tracking is enabled, the Access Point Mapping tab is hidden.

- 1. Enter the Server Name (and port if required), the User ID, and Password.
- 2. Set the Preferred Identifier to be used by the Asset Tracking application to identify your infusers. Possible values are Infuser Serial Number (default), Device ID, and Asset ID.
- 3. If you are using a Real-Time Location System (RTLS), select the level of Location Detail:
- Space
- Zone/Space (default)
- Floor/Zone/Space
- Building/Floor/Zone/Space
- Site/Building/Floor/Zone/Space
 - 4. The current status is displayed once you save your configuration by clicking the **Save Changes** button. The following status messages can be displayed:
- Enhanced Asset Tracking is setup properly
- Enhanced Asset Tracking has NOT been setup properly
- Enhanced Asset Tracking is receiving location change events
- Enhanced Asset Tracking is ready but has not received location change events since the Hospira MedNet server was started
 - 5. After you have entered your information, click **Test Connection** to verify the connection. The following status messages can be displayed:
- Network failure trying to connect to asset tracking service
- Internal error while trying to ping asset tracking server
- Asset tracking server present but tracking service denied
- Asset tracker server present but tracking service is not available
- Successfully pinged to the Asset Tracking server

Possible conditions causing the internal error message include:

- Invalid asset tracking username or password
- Invalid preferred id type being used
- Host name or IP address missing for asset tracking server
- Any server error relating to retrieving asset information from external system

Locale Setting

Use the following process to select your preferred Hospira MedNet language.



- 1. Select Locale Setting.
- 2. Select the desired language from the Locale drop down list.
- 3. Click the **Save Changes** button.

SMTP Maintenance

Use the following screen to access SMTP Maintenance.

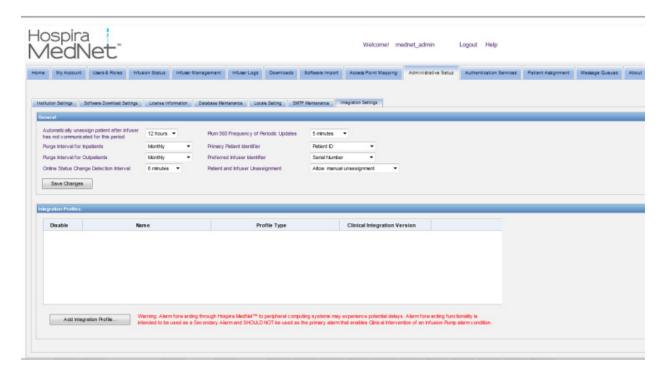


- SMTP Server (server name or address for the email server of the organization)
- SMTP Port
- SMTP User Name (20 character limit) (leave blank for non-authenticating SMTP servers)
- **SMTP Password (20 character limit)** (leave blank for non-authenticating SMTP servers)
- **Email** (email address of the administrator that will receive monthly messages about the database archives)
- Test Connection

Integration Settings

The **Integration Settings** tab is only available if Clinical Integration (Auto-Documentation and/or Auto-Programming and/or Alarm Forwarding) has been licensed and if you have View Protected Health Information privilege.

The information you set in the General window will be dictated by your specific integration system.



Navigating

- 1. At Automatically unassign patient after infuser has not communicated for this period, select from the following range:
 - 4 hours
 - 8 hours
 - 12 hours
 - 24 hours

Hospira MedNet will disassociate any patient from a pump that has not communicated to its server for the time period selected.

- 2. Select the **Purge interval for Inpatients**, that is how often can the information be discarded from the Hospira MedNet database:
 - Weekly
 - Monthly
 - Every 3 months
 - Every 6 months
 - Yearly
- 3. Select the Purge interval for Outpatients:
 - Weekly
 - Monthly
 - Every 3 months
 - Every 6 months
 - Yearly
- 4. The **Online Status Change Detection** indicates online/offline status of the Plum 13.x and LifeCare PCA infusers. Hospira MedNet can forward the information on at one of the selected intervals from:
 - 6 minutes
 - 8 minutes
 - 10 minutes
 - 15 minutes
- 5. For the Plum 360, and Sapphire, the **Frequency of Periodic Updates** allows you to select how often the infuser sends periodic status information to Hospira MedNet while a therapy is running. Use the drop-down list to select from:
 - 30 seconds
 - 60 seconds
 - 90 seconds
 - 2 minutes
 - 2.5 minutes
 - 3 minutes
 - 3.5 minutes
 - 4 minutes
 - 4.5 minutes
 - 5 minutes
- 6. Select a **Primary Patient Identifier**. This will most likely be dictated by the third-party admission system (ADT) used at your facility.
 - Medical Record Number
 - Patient ID
 - Alternate Patient ID
 - Patient Account Number
 - Visit ID
 - Alternate Visit ID

- 7. Select a **Preferred Infuser Identifier**. Once you select a Preferred Infuser ID, that ID will be used throughout the User Interface (UI).
 - Serial Number
 - Device ID
 - Asset ID
- 8. At Patient and Infuser Unassignment, select between:
 - Do not allow manual unassignment (this option provides only the Patient Assignment List view in the Patient Assignment tab that allows you to view patient/pump assignments)

or

- Allow manual unassignment (this option adds an additional tab in the Patient Assignment tab called Unassign that allows you to manually disassociate a patient from a pump)
- 9. Click **Save Changes** once you have made your selections.

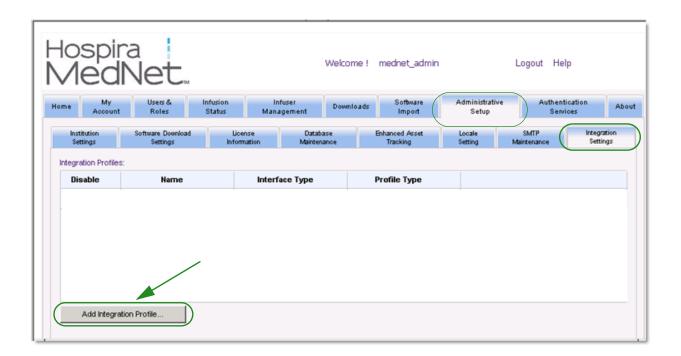
Integration Profiles

The Integration Profiles that can be set for the elements that are licensed are:

- Auto-Documentation Status
- Auto-Documentation Events
- Auto-Programming
- Alarm Forwarding
- Patient Assignment Status Change

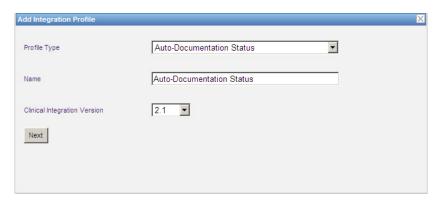
Note: As each profile is created, a confirmation message appears and the profile name, type and clinical integration version displays. Profiles can be disabled, edited, or deleted (see instructions after profile creations).

Following are the steps to create a profile. In each case, you will need to select **Add Integration Profile...**



Profile for Auto-Documentation Status

- 1. At **Profile Type**, select **Auto-Documentation Status** from the drop-down list.
- 2. At **Name**, accept either the default (Auto-Documentation Status) or enter a name of your choice.
- 3. At Clinical Integration Version, select 2.1, or select 2.0, depending on your system.



- 4. Click Next.
- 5. At **Receiver Host**, enter a valid server host name or an IP Address.
- 6. At **Receiver Port**, enter a port. The port must be an integer from 1 to 65535.
- 7. At **Receiver Path**, enter the path of your choice (optional field).
- 8. Place a checkmark in the box next to **Use secure transmission when sending messages to the receiving system** if you wish to use that optional selection.



- 9. Click Next.
- 10. Place a check mark next to the selections you wish to enable:
 - Only transmit messages for infusers that are powered on and programmed.
 - Only transmit messages for infusers associated with a patient.
 - Transmit infuser online messages.
 - Transmit infuser offline messages.
 - Transmit messages while infuser is off.



- 11. Click Next.
- 12. Select the infuser types for which messages are to be transmitted.

Note: Only licensed infusers display.

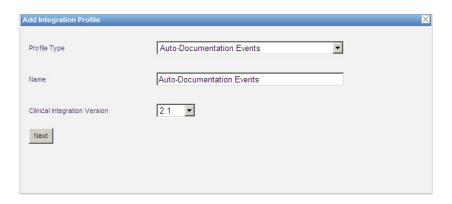


13. Click Save Changes. Your Auto-Documentation Status profile has been created.

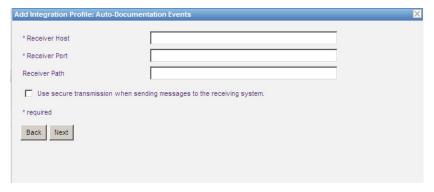
Profile for Auto-Documentation Events

Once you have clicked on Add Integration Profile...

- 1. At **Profile Type**, select **Auto-Documentation Events** from the drop-down list.
- 2. At Name, accept either the default or enter a name of your choice.
- 3. At **Clinical Integration Version**, only the 2.1 default is available for Auto-Documentation Events.



- 4 Click Next
- 5. At **Receiver Host**, enter a valid server host name or an IP Address.
- 6. At **Receiver Port**, enter a port. The port must be an integer from 1 to 65535.
- 7. At **Receiver Path**, enter the path of your choice (optional field).
- 8. You may select to place a check mark in the box next to Use secure transmission when sending messages to the receiving system (optional field).

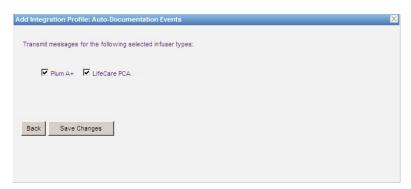


- 9. Click Next.
- 10. You may select to place a check mark in the box next to **Only transmit messages for infusers associated with a patient** if you wish (optional selection).



- 11. Click Next.
- 12. Select the infuser types for which messages are to be transmitted.

Note: Only licensed infusers display.

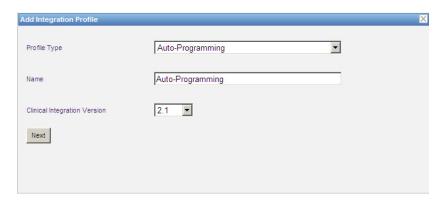


13. Click Save Changes. Your Auto-Documentation Events profile has been created.

Profile for Auto-Programming

Once you have clicked on Add Integration Profile...

- 1. At **Profile Type**, select **Auto-Programming** from the drop-down list.
- 2. At Name, accept either the default or enter a name of your choice.
- 3. At Clinical Integration Version, select 2.1, or select 2.0, depending on your system.



- 4. Click Next.
- 5. At **Receiver Host**, enter a valid server host name or an IP Address.
- 6. At **Receiver Port**, enter a port. The port must be an integer from 1 to 65535.
- 7. At **Receiver Path**, enter the path of your choice (optional field).
- 8. You may select to place a check mark in the box next to Use secure transmission when sending messages to the receiving system (optional field).



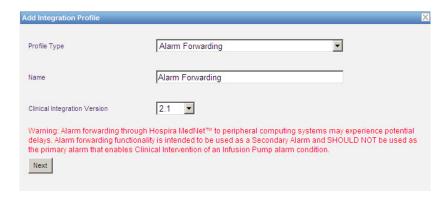
9. Click Save Changes. Your Auto-Programming profile has been created.

Profile for Alarm Forwarding

Once you have clicked on **Add Integration Profile...**

- 1. At **Profile Type**, select **Alarm Forwarding** from the drop-down list.
- 2. At Name, accept either the default or enter a name of your choice.
- 3. At Clinical Integration Version, allow the 2.1 default. Only 2.1 is available for Alarm Forwarding.

WARNING! Alarm forwarding through Hospira MedNet to peripheral computing systems may experience potential delays. Alarm forwarding functionality is intended to be used as a Secondary Alarm and SHOULD NOT be used as the primary alarm that enables Clinical Intervention of an Infusion Pump alarm condition.



- 4. Click Next.
- 5. At **Receiver Host**, enter a valid server host name or an IP Address.
- 6. At **Receiver Port**, enter a port. The port must be an integer from 1 to 65535.
- 7. At **Receiver Path**, enter the path of your choice (optional field).
- 8. You may select to place a check mark in the box next to Use secure transmission when sending messages to the receiving system (optional field).



- 9. Click Next.
- 10. You may select to place a check mark in the box next to **Only transmit messages for infusers associated with a patient** if you wish (optional selection).



- 11. Click Next.
- 12. Select the infuser types for which messages are to be transmitted.

Note: Only licensed infusers display.



13. Click Next.

- 14. Select events that will be sent to the alarm forwarding system from the following:
 - Air-in-Line Alarm
 - Barcode Error Alarm
 - Callback Alarm
 - Cassette Door Open Alarm
 - Check Cassette Alarm
 - Check Flowstop Alarm
 - Check Injector Alarm
 - Check Settings Alarm
 - Check Syringe Alarm
 - Check Vial Alarm
 - Depleted Battery Alarm
 - Distal Occlusion Alarm
 - Emergency Stop Alarm
 - Flow Restriction Alarm

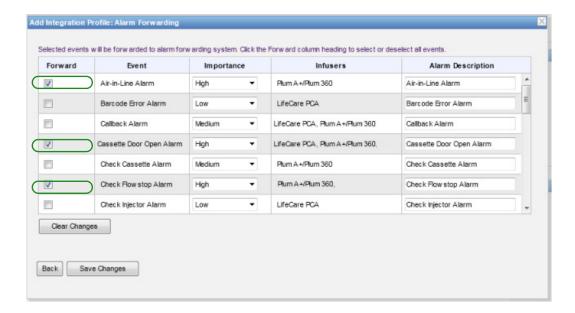
- Infusion Completed
- Infusion Near Completion Alarm
- Lockout Violation Alarm
- Low Battery Alarm
- Malfunction Alarm
- Pendant Fault Alarm
- Power Loss Alarm
- Proximal Occlusion Alarm
- Pump Idle Alarm
- Service Battery Alarm
- Service Charger Alarm
- Syringe Empty Alarm
- Warning Alarm

The editable alarm description and corresponding infusers are in the right columns.

- Place a check mark in the Forward column
- Select the Importance using the drop-down list.

Use the scroll bar to navigate up and down.

Helpful Hint: Click the Forward column heading to select or deselect all events.



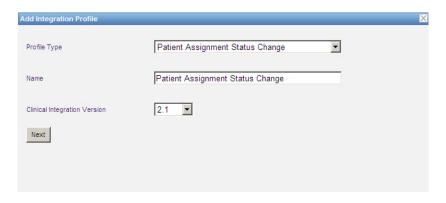
Note: Whatever you enter into the Alarm Description field is sent in the message to the third-party clinical system when the alarm occurs. The Importance level selected also is transmitted to the third-party clinical system when the alarm occurs.

15. Click **Save Changes**. Your Alarm Forwarding profile has been created.

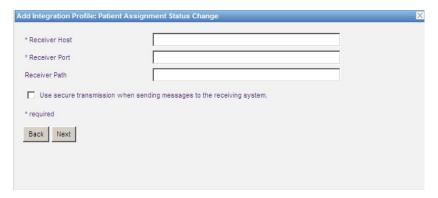
Profile for Patient Assignment Status Change

Once you have clicked on Add Integration Profile...

- 1. At **Profile Type**, select **Patient Assignment Status Change** from the drop-down list.
- 2. At Name, accept either the default or enter a name of your choice.
- 3. At **Clinical Integration Version**, allow the 2.1 default. Only 2.1 is available for Patient Assignment Status Change.



- 4. Click Next.
- 5. At **Receiver Host**, enter a valid server host name or an IP Address.
- 6. At **Receiver Port**, enter a port. The port must be an integer from 1 to 65535.
- 7. At **Receiver Path**, enter the path of your choice (optional field).
- 8. You may select to place a check mark in the box next to Use secure transmission when sending messages to the receiving system (optional field).



9. Click Next.

and/or

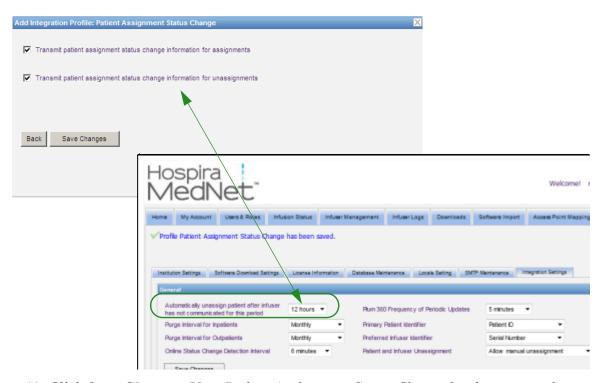
10. Select to Transmit patient assignment status change information for assignments.

Transmit patient assignment status change information for unassignments.

Note: When Hospira MedNet is advised by the third-party clinical system that patients are associated with an infuser, a message is transmitted if the assignment check box has been

checked.

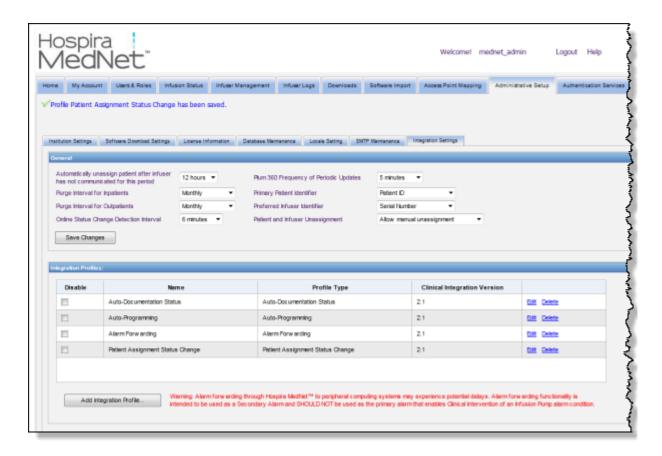
When Hospira MedNet is advised by the third-party clinical system that patients are disassociated from an infuser, or if patients are disassociated from an infuser manually or automatically by Hospira MedNet, a message is transmitted if the unassignment check box is checked.



11. Click Save Changes. Your Patient Assignment Status Change has been created.

Disable, Edit or Delete a Profile

You can select to **Disable** a profile in order to substitute or use another created profile. To disable, simply place a checkmark in the box next to the profile you wish to disable in the Disable column.



To **Edit** a profile:

1. Click on **Edit** and you will be taken to the first screen. The information you created will be present.

To **Delete** a profile:

1. Click on **Delete** and the data you provided is erased from each of the selected profile's screens. The selected profile to be deleted also disappears from the list of profiles.

Chapter 12: Authentication Services

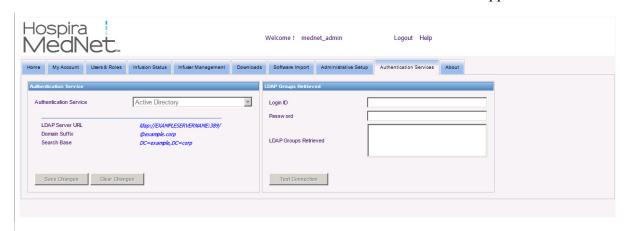
Overview

The Authentication Services configuration is part of the installation of Hospira MedNet Software. This allows the Hospira MedNet server to connect with the LDAP server if LDAP is used in your institution.

Note: Only users with the appropriate login privileges can see the Authentication Services view.

Authentication Information

Click the **Authentication Services** tab. The Authentication Services view appears:



Note: Buttons are enabled only if LDAP has been installed.

1. To change the Authentication Service, select the appropriate service from the drop-down list and click **Save Changes**.

Note: LDAP Server URL, Domain Suffix, and Search Base cannot be changed in this view. The software must be reinstalled if a change to these parameters is required.

2. You can test the LDAP connection by entering your Login ID and Password. Click the **Test Connection** button to display a list of groups from the LDAP server.

Note: Login ID, Password, and LDAP Groups Retrieved are not saved when you navigate away from this tab or logout.

The Authentication Services view includes the following fields and buttons:

Field/Label	Information
Authentication Service	View or select the Active Directory (or None)
LDAP Server URL	View the server name and port
Domain Suffix	Domain suffix used by the authentication server
Search Base	LDAP search string
Login ID	Login ID for the LDAP server, used to test the LDAP connection and map a user to the HMSS
Password	Password for the Login ID entered
LDAP Groups Retrieved	List of groups from the LDAP server
Save Changes	Save changes or clear changes
Clear Changes	
Test Connection	Authenticates the Login ID and password through the Authentication Service, retrieves the LDAP groups associated with the Login ID, and displays the LDAP groups in the LDAP Groups Retrieved list box

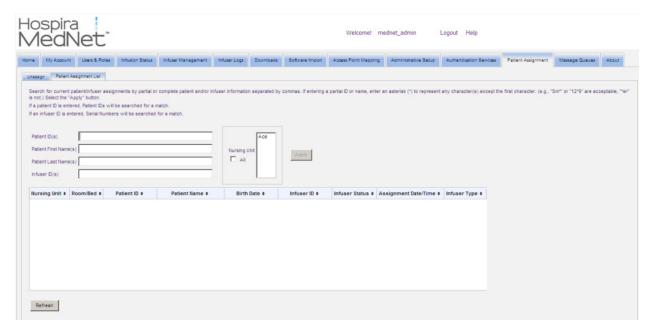
Chapter 13: Patient Assignment

Overview

Patient Assignment can only be seen if you have View Protected Health Information privilege. The Patient Assignment List view is the default. The **Unassign** tab is only available when the appropriate integration profile has been created and appears in addition to the **Patient Assignment List** tab.

The Patient Assignment view is to allow you to determine the association of a patient with an infuser.

Navigating the Patient Assignment List



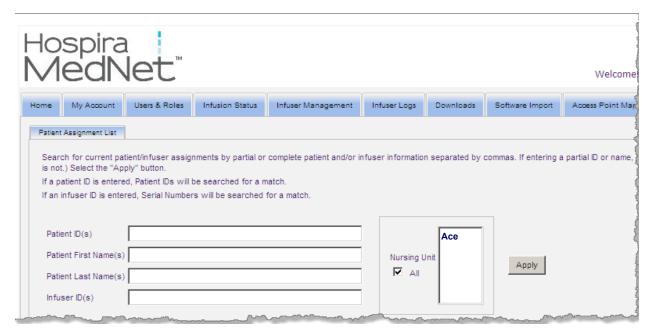
You can find the Patient/Infuser association by using any or a combination of the Patient ID, the Patient First Name, the Patient Last Name, the Infuser ID or if you want to see the entire list, by selecting a Nursing Unit, or all Nursing Units.

You can use an asterisk (*) to represent any character except as the first character. For example, if you were looking for a patient with a last name starting with "Sm", you would enter **Sm*** but could not use *Sm. If you were entering either the Patient ID or Infuser ID, you could enter one or more digits followed by the asterisk, i.e., **2*** or have the asterisk in the middle of the sequence, i.e., **12*9**.

If you wish to search for more than one Patient or Infuser, you can do so using complete or partial information as described above and separating the information by commas (,). For instance, you could enter at Patient Last Name(s) **Smith**, **Smythe**, **Sm*e**.

Click on **Apply** to populate the fields containing the patient/infuser assignment(s).

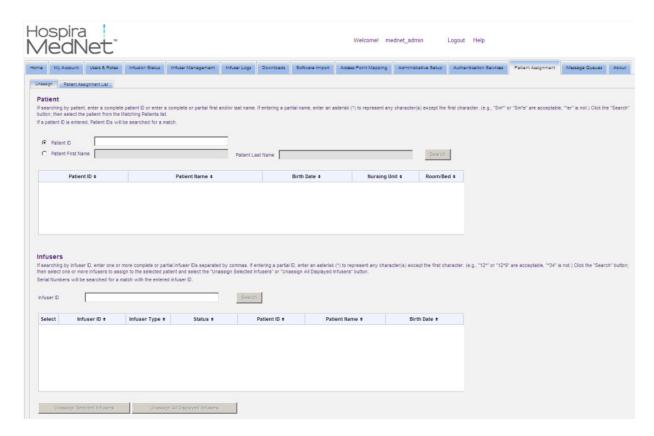
Field/Label	Information
Nursing Unit	The nursing unit information provided by the third-party clinical system
Room/Bed	Room and bed number as received from the third-party clinical system
Patient ID	Patient identification number
Patient Name	Patient Name
Birth Date	Birth date of the patient
Infuser ID	Logical ID of the infuser
Infuser Status	Indicates whether the infuser is running, stopped, or unassigned
Assignment Date/Time	The date and time when patient/infuser assignment occurs
Infuser Type	The licensed infuser type



The screen does refresh automatically every five minutes or you can click the **Refresh** button to get the most current information instantly.

Navigating Unassignments

If you created a **Profile for Patient Assignment Status Change** as part of the Administrative Setup's Integration Settings, the Unassign view displays.

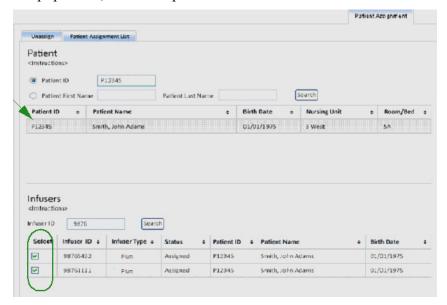


If searching by patient, enter a complete patient ID or enter a complete or partial first and/or last name. If entering a partial name, enter an asterisk (*) to represent any character(s) except as the first character. Then click **Search**.

If searching by infuser ID, enter one or more complete or partial infuser IDs separated by commas. If entering a partial ID, enter an asterisk (*) to represent any character(s) except as the first character. Then click **Search**.

Field/Label	Information
Patient ID	Patient identification number
Patient Name	Patient Name
Birth Date	Birth date of the patient
Nursing Unit	The nursing unit information provided by the third-party clinical system
Room/Bed	The room and bed number associated with the patient from the third-party clinical system

Once the fields are populated, select the patient.



Field/Label	Information
Select	Check boxes to indicate the infuser ID affected
Infuser ID	Logical ID of the infuser
Infuser Type	The licensed infuser type
Status	Assigned or Unassigned
Patient ID	Patient identification number
Patient Name	Patient name
Birth Date	Patient date of birth

Place a check mark in the box next to the infuser from which you want to unassign the patient and click **Unassign Selected Infusers**. The patient selected will no longer be assigned to those infusers.

or

Click **Unassign All Displayed Infusers**. The patient selected will no longer be assigned to any infuser.

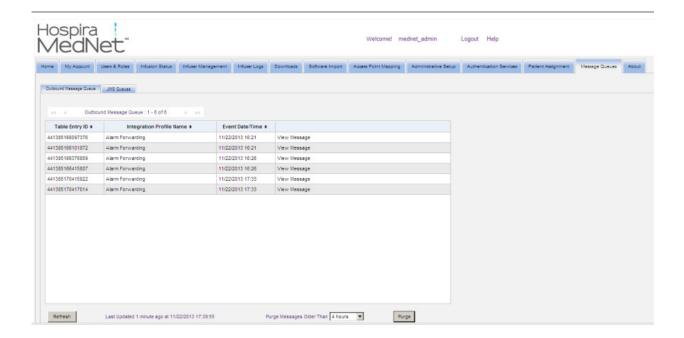
Chapter 14: Message Queues

Overview

The real-time Message Queues view allows you to track outbound messages to a third-party clinical system that are awaiting to be transmitted and JMS Queues which contain messages incoming from the infuser(s).

Navigating

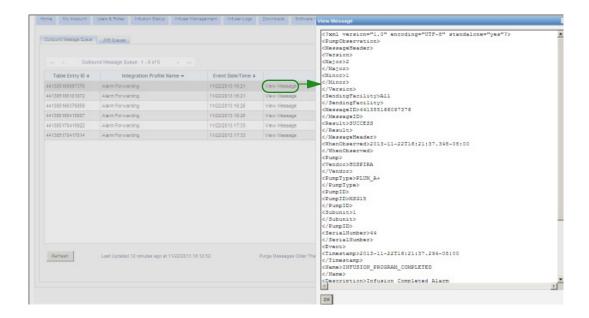
Click the Message Queues tab to access the view. The Outbound Message Queue displays.



The following table describes the Outbound Message Queue fields:

Field/Label	Information
Table Entry ID	Unique identification number of the outbound message. This column can be sorted in ascending or descending order.
Integration Profile Name	The type name of the Integration Profile, i.e., Auto-Programming, Alarm Forwarding, Auto-Documentation, etc.
Event Date/Time	The event message date and time. This column can be sorted in ascending or descending order.
Purge	Messages will be purged that are older than the selected time. The default is 4 hours. (Alarm messages are only retained for 24 hours.)

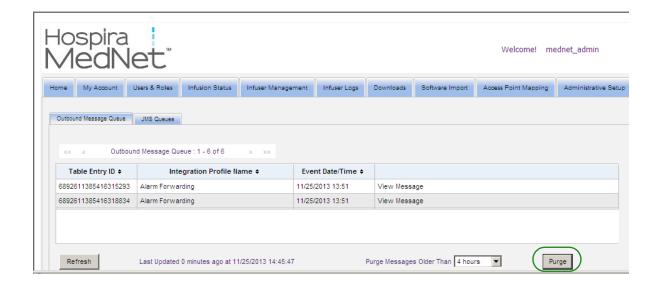
To see a specific message, click on View Message adjacent to the transaction you wish to see. Click **OK** to close the message.



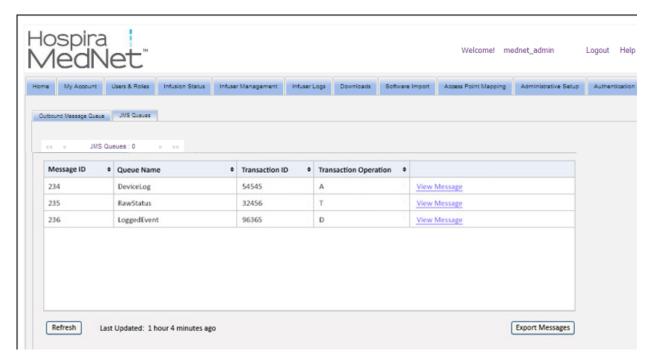
Click the **Refresh** button to update the screen to current time.

Click the **Purge** button when you want messages to be purged. Use the drop-down list to select a time. The messages older than the time selected will be permanently removed.

- 30 minutes
- 1 hour
- 2 hours
- 4 hours
- 8 hours
- 12 hours
- 16 hours
- 20 hours



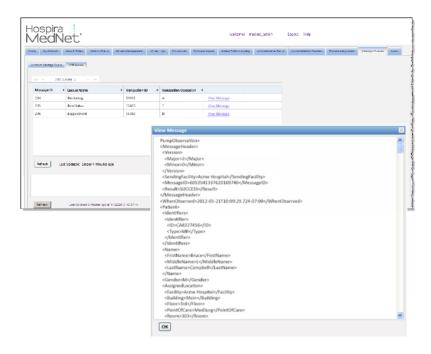
Click on the **JMS Queues** tab and the transactions display.



The following table describes the JMS Queue fields.

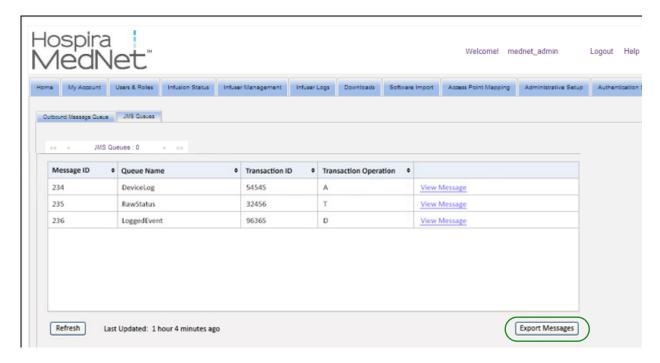
Field/Label	Information
Message ID	Unique identification number from the infuser associated with the incoming message. This column can be sorted in ascending or descending order.
Queue Name	The name of the log type. This column can be sorted in ascending or descending order.
Transaction ID	This column can be sorted in ascending or descending order.
Transaction Operation	This column can be sorted in ascending or descending order.
Export Messages	Allows you to export messages to a location of your choice.

To see a specific message, simply click on **View Message** adjacent to the transaction you wish to see. Click **OK** to close the message.



Click the **Refresh** button to update the screen to current time.

Click **Export Messages** to access the Windows browser and designate a location where you want to transfer the JMS Queues messages.



Notes:

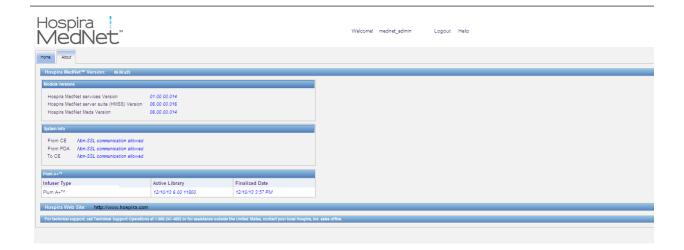
Chapter 15: About Hospira MedNet Software

Overview

The About view displays the following system information:

- Hospira MedNet Software version and Module Versions
- Status to and from CE -- shows SSL communication configuration
- Status from PDA -- shows SSL communication configuration (applies to Hospira MedNet Programmer only)
- For each licensed infuser type:
 - Active Library
 - Finalized Date
- Hospira Web site
- Hospira Technical Support phone number

Click the **About** tab on the navigation bar and the About view appears.



Notes:

Introduction Chapter 16: Reports

Chapter 16: Reports

Introduction

Hospira MedNet Reports are intended to serve the following purposes:

- to help hospitals assess their compliance with Hospira MedNet safety software
- to understand best practice information as it relates to IV infusion therapy
- to track infusion devices and their usage within the institution

Hospira MedNet Reports are designed for use by various staff members:

Nurse Managers, Risk Managers, and Quality Managers

The following reports are used by Nurse Managers, Risk Managers, and Quality Managers:

 Infusion Summary • Line Usage Analysis Auto-Programs with Total Program Unmatched Activity Medication Medications Selected Most Commonly Override Variance Override Variance **Infused Medications** by Time of Day Detail Summary • PCA History • Auto-Programming · Medications Infused PCA Utilization

Pharmacists

The following reports are used by Pharmacists:

• Next IV Due Software Download • Edit Variance Detail • Edit Variance Summary Most Commonly Override Variance Override Variance PCA Utilization **Infused Medications** Detail Summary • Auto-Programming · Auto-Programs with Unmatched Medication

Biomedical, IT, and Materials Management Staff

The following reports are used by Biomedical, IT, and Materials Management Staff:

- Asset Tracker Asset Utilization Event/Alarm Log Software Download
- Infuser Status

Senior Leadership

The following reports are used by Senior Leadership:

• Infusion Summary • Edit Variance Detail • Line Usage Analysis

Physicians

The following reports are used by Physicians:

Edit Variance Summary
 Edit Variance Detail

Chapter 16: Reports Introduction

Hospira MedNet Reports can be categorized by the type of report:

Asset Management

Examples of asset management reports include the Asset Tracker, Asset Utilization, Infuser Status, and Event/Alarm Log reports. These reports provide data to help users efficiently manage their entire inventory of infusers. The data is utilized as part of a root cause analysis for adverse drug events. Also, the data is used by biomeds to determine the sequence of events for malfunction evaluations.

Operational Efficiency

Examples of Operational Efficiency reports include the Medications Selected by Time of Day, Total Program Activity, Next IV Due, and PCA History reports. Hospira MedNet Software reports offer value by showing current information about the operational status of infusers and medications delivered.

Clinical Reports - High Level

Examples of high-level clinical reports include the Infusion Summary, Line Usage Analysis, and Most Commonly Infused Medications reports. These reports are graphical in nature and provide a quick overview of the usage of Hospira MedNet and infuser functionality. They provide the support for quality initiatives to ensure maximization of Hospira MedNet Software.

Clinical Reports - Drill Down/Detail

Examples of Drill Down/Detail clinical reports include the Medications Infused (by Medication, by CCA, by Service Line), Override and Edit Summary, and Detail, and PCA Utilization reports. These detail reports are text-based and support the data found in the high-level reports. Drill Down/Detail clinical reports are used to manage large amounts of data generated from the infusers. The data provided by the Medications Infused report can be prioritized to determine which medications and/or CCAs require a more detailed analysis. Once prioritized, the analysis of the Variance Detail reports are more manageable and provide actionable data.

Note: Should you wish to view Hospira MedNet data across facilities and nursing units, we recommend that you contact the Advanced Knowledge Center or, if outside the USA, your local Hospira Representative.

Introduction Chapter 16: Reports

Report Formats

Hospira MedNet Reports use the following formats:

Format	Description
Table	Standard report format showing data in rows and columns
Pie Chart	Shows data in pies containing individual slices which total to 100% in each pie
Line Graph	Shows data as one or more continuous lines, typically across a period of time
Bar Graph	Shows data as bars which are often stacked to indicate different results within an individual bar, typically across a period of time
Crosstab	Shows a comprehensive view of data in a grid, with subtotals for each section. Totals are typically provided for both rows and columns

Reports Terminology

The following terms are used in Hospira MedNet Reports:

Term	Description
CCA	Acronym for Clinical Care Area, a patient group for which the infusion therapy parameters are the same. A CCA may be the same as a physical nursing unit, or may encompass a patient population or a clinical use. For example, the following may be defined as CCAs: ICU, Blood Products, Med/Surg, Orthopedics, and Endoscopy.
Device	The Device name (also known as Logical ID) is an identifier assigned to each device during manufacturing. The value assigned is the letters "LN" followed by the last six digits of the MAC address.
Edit	The user responded to an alert by changing the value entered.
Hard Limit Alert	An alert presented to the user when a Hard Limit is exceeded. The user's response depends on the infuser.
Infusion	A single medication and concentration (which may consist of multiple sequential containers of fluid) infused on a patient. A single infusion is associated with one or more programs.
	Reports that represent infusions include: Line Usage Analysis, Medications Selected by Time of Day, Most Commonly Infused Medications, Next IV Due, and PCA Utilization.
Hospira MedNet Usage Compliance	Usage compliance is achieved when the clinician selects a medication entry from the drug library list.
Offline	An infuser is considered Offline if it has not communicated with the Hospira MedNet server within the past five minutes.
Online	An infuser is considered Online if it has communicated with the Hospira MedNet server within the past five minutes.
Override	The user responded to an alert by acknowledging it and accepting the value entered.

Chapter 16: Reports Introduction

Term	Description
Partial Dose or Partial Attempt	A partial PCA dose may be delivered by the LifeCare PCA if any of the following occur: interrupting delivery by pressing [START/STOP], opening the door, loss of power, reaching the dose limit, emptying the vial or a malfunction alarm.
Program	Infuser settings made by the clinician which can result in an alert. These include the settings to start a new infusion and changes to the dose or rate.
	One or more programs may be associated with an infusion.
	For infuser information, see the related infuser's System Operating Manual.
	Reports that represent programs include: Infusion Summary, Medications Infused by Medication, CCA, or Service Line, Override Variance Summary, Override Variance Detail, Summary, Edit Variance Detail, and Total Program Activity.
Report Options	Configurations entered by the user to define the desired report output (for example, Time Period, CCA, Medication, etc.).
Rule Set	The type of rule for the medication in the drug library.
	Rule set information is detailed in the Hospira MedNet Meds User Guide.
Soft Limit Alert	An alert presented to the user when a Soft Limit is exceeded. The user may choose to edit or override the value entered in response to the alert.
Unknown CCA or	Mismatch between what the infuser reports and the information available on the server.
Unknown Drug	Unknown CCA and Unknown Drug are reported when Hospira MedNet has received data from a pump that was using a drug library that was not finalized on the same Hospira MedNet server that the reports are run from.
	Often related to situations in which there has been a migration of data or transfer of servers. New infusers are occasionally shipped with test data. When connected to the Hospira MedNet server, this data may appear in Hospira MedNet reports as Unknown.
Variance	A calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit.
	Variance is defined as (Initial Dose – Limit Violated) / Limit Violated, expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations.

See Glossary on page 219 for other terms used in Hospira MedNet Software.

Introduction Chapter 16: Reports

Reports List

The following table shows each report, the infusers supported, and its suggested audience.

Report *provides real-time information	Plum A+	LifeCare PCA	Sapphire Plus*	Suggested Audience
Asset Management				
Asset Tracker	X	X	Х	Biomed, IT, Materials Management
Asset Utilization	х	X	х	Biomed, IT, Materials Management
Event/Alarm Log	Х	X	X	Nursing, Pharmacy, Risk Management
Infuser Status*	Х	Х	Х	Biomed, IT, Materials Management
Software Download*	Х	X	Х	For Hospira Field Service Use
Operational Efficiency				
Medications Selected by Time of Day	X		X	Nursing, Pharmacy
Total Program Activity	X	X	Х	Nursing, Pharmacy
Next IV Due*	Х	X	X	Pharmacy
PCA History		X		Nursing, Pharmacy
Auto-Programming	X	X	X	Nursing, Pharmacy
Auto-Programs with Unmatched Medication	X		X	Nursing, Pharmacy
Clinical Reports - High Level				
Infusion Summary	X	X	X	Nursing, Pharmacy, Leadership
Line Usage Analysis	х			Nursing, Pharmacy, Materials Management, Leadership

Chapter 16: Reports Introduction

Report *provides real-time information	Plum A+	LifeCare PCA	Sapphire Plus*	Suggested Audience
Most Commonly Infused Medications	Х	Х	Х	Nursing, Pharmacy
Clinical Reports - Drill Down/	Detail			
Medications Infused by				
Medication	Х	X	X	Nursing, Pharmacy
CCA	Х	Х	Х	Nursing, Pharmacy
Service Line	Х	Х	Х	Nursing, Pharmacy
Override Variance Summary	X	Х	X	Nursing, Pharmacy, Leadership
Override Variance Detail	X	Х	Х	Nursing, Pharmacy
Edit Variance Detail	X	Х		Nursing, Pharmacy
Edit Variance Summary	Х	Х		Nursing, Pharmacy, Leadership
PCA Utilization		X		Nursing, Pharmacy

^{*}SapphirePlusTM is a trademark of Q Core Medical Ltd.

Introduction Chapter 16: Reports

Access to Reports

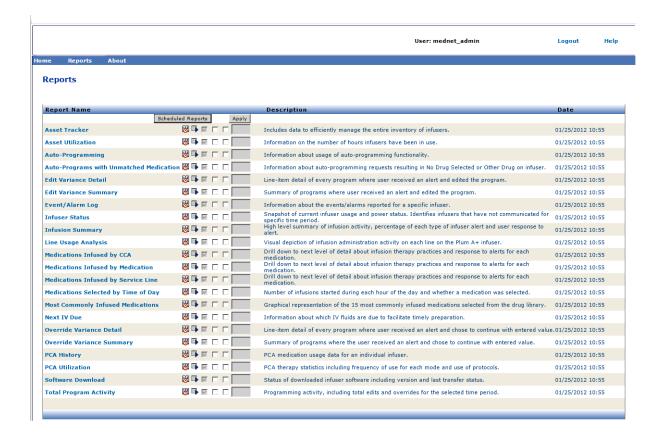
Hospira MedNet reports can be accessed from any web browser configured to point to the Hospira MedNet server. You must have a user account in order to access reports. Contact your Hospira MedNet system administrator for a user account and the address to link to the server home page.

Configuring Report Access

Users are permitted to view only reports that are available to their assigned privilege. The Administrator uses the **Apply** button to set the reports to either a Full or Limited role.

An Administrator can specify limited access to reports by defining a user and the related roles. To configure limited access ("Reports Limited"), follow the instructions below.

1. On the Logged In Home View, click **Hospira MedNet Performance**. The Reports view appears, as shown in the following example.



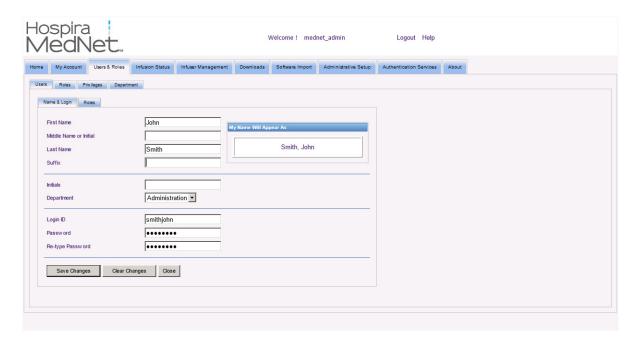
Note: The **Apply** button and the associated check boxes are only accessible to those with Administrator privileges.

Chapter 16: Reports Introduction

2. The Administrator determines which reports the user will be given access to with the Reports Limited role. Check the box next to the appropriate report(s) in the column shown in the example below.

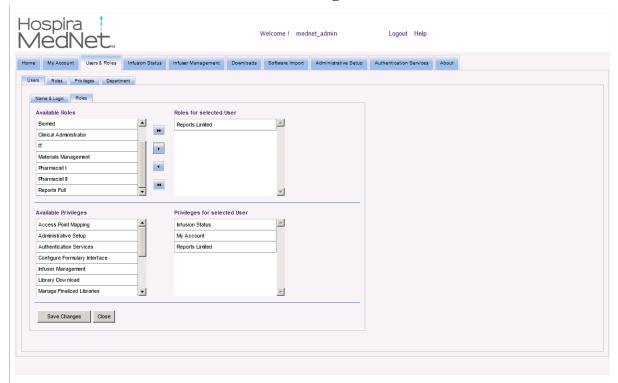


- 3. Click Apply.
- 4. Create the user with the Reports Limited role, as shown in the two screens below. First click the primary **Users & Roles** tab.
- 5. Click the secondary Users tab below that.
- 6. Click the **Add** button at the bottom of the screen.
- 7. At the **Name & Login** tab, input the user's name, login ID, and password (at a minimum).



Introduction Chapter 16: Reports

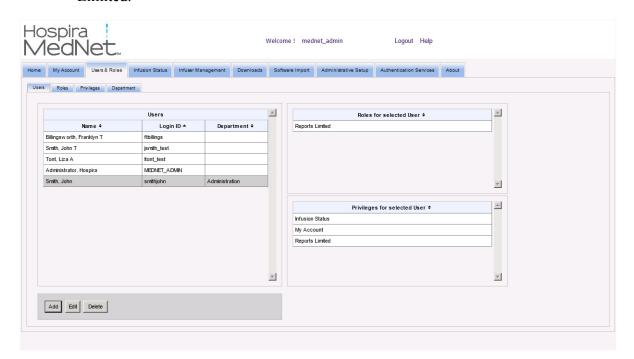
- 8. Click Save Changes.
- 9. Click the Roles tab next to Name & Login.



- 10. From the Available Roles list, choose "Reports Limited" and click the right arrow. Reports Limited will show under Roles for selected user.
- 11. Click Save Changes.

Chapter 16: Reports Introduction

12. Click **Close** to return to **Users**. The Roles for selected User box shows "Reports Limited."



The user only has access to the reports that were specified by the Administrator, as shown in the example below.



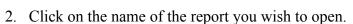
See Chapter 3: My Account on page 9 and Chapter 4: Users and Roles on page 17 for more information about user account management.

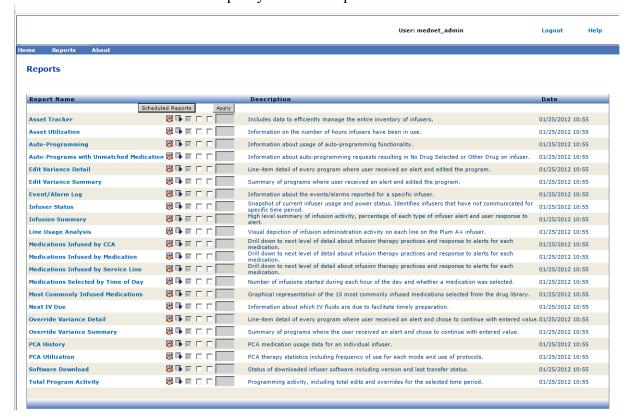
Navigating Reports Chapter 16: Reports

Navigating Reports

All reports are listed in the Reports view of the application. Users are permitted to view only reports that are available to their assigned privilege.

1. On the Logged In Home View, click **Hospira MedNet Performance**. The Reports view appears, as shown below.





The **Report Options** screen then appears and displays the available options for the report you selected. For a list of report options, and to view the **Report Options** screens, refer to the description for each individual report later in this chapter.

Running a Report

You may run any of the reports that are listed in the Reports view. To run a report, open the **Report Options** screen, select the desired options, then click **Submit**. Report results will be displayed in the Reports Viewer window.

Note: It may take up to 5 minutes after an infusion completes to display accurate data on a report.

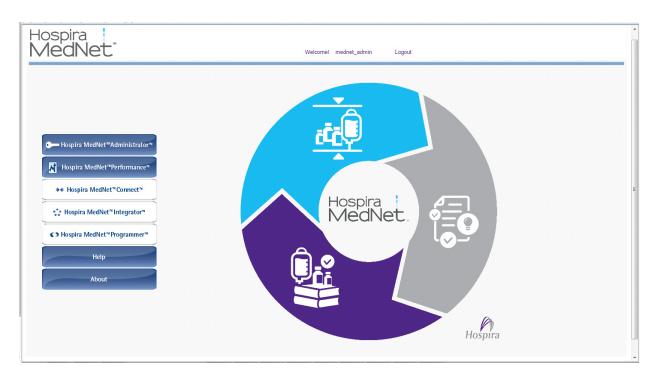
Note: If you attempt to view more than one report output at a time, navigating through one of the reports may produce an error.

Chapter 16: Reports Navigating Reports

Scheduling Reports

Hospira MedNet Software uses the Jasper Reports application, which schedules reports to run at predetermined times, intervals, or days of the week. Scheduled report output may be sent to a location on your network, such as a folder. It can be sent to a printer, an email address, or list.

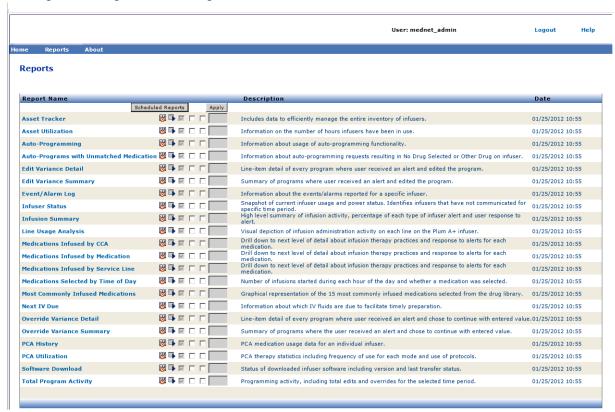
From the Hospira MedNet Software home page, click on Hospira MedNet Performance.



The Reports view appears, as in the example that follows.

Navigating Reports Chapter 16: Reports

The first icon to the right of the report name is used to schedule reports. The second icon to the right of the report name is used to run a report in the background. (For information on this field and capability, see Running a Report in the Background on page 119.) The date to the right of the report description is the Report Publish Date; this is the date the software was installed.



1. To Schedule a report, click on the Calendar Icon to the right of the desired report.

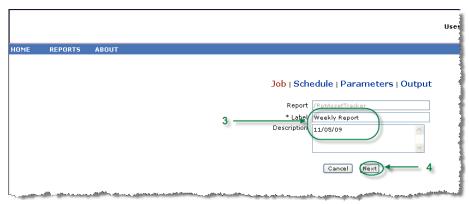


Chapter 16: Reports Navigating Reports

2. Click Schedule Job.



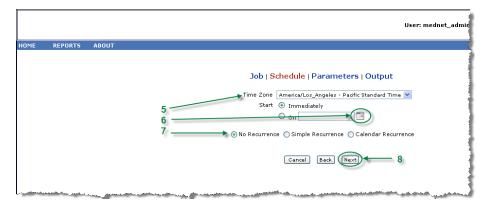
3. Complete the Job information.



- a. Specify the name of the report in the Report field.
- b. The Label field is required and is used to identify the report.
- c. Add additional notes in the Description field.

4. Click Next.

The Schedule screen appears.



5. Select the time zone.

Navigating Reports Chapter 16: Reports

- 6. Specify the desired start date by clicking on the calendar icon on the right.
- 7. Specify the recurrence schedule. When you specify the recurrence schedule, other options may appear due to the simple recurrence or calendar recurrence selections.
 - a. **No recurrence** means it is one-time only. However, you can set the time zone from the drop-down list and either start the report immediately or set a specific date by typing it in or using the calendar icon to select a date from it.
 - b. **Simple recurrence** allows you to schedule the job to recur at fixed time intervals. Once you select to start immediately or specify the start date/time you can determine how many times or for how long the job repeats:
 - Every (the interval between jobs, in minutes, hours, days or weeks)
 - Indefinitely (until you delete the job)
 - Times (runs the specified number of times)
 - Until (runs until a calendar date is reached. Use the calendar to select the date)
 - **c.** Calendar recurrence allows you to set a high level of detail:

Start date (immediately or type in the date or use the calendar)

End Date (type in the date or use the calendar)

*Minutes (0-60)

*Hours (24-hour clock)

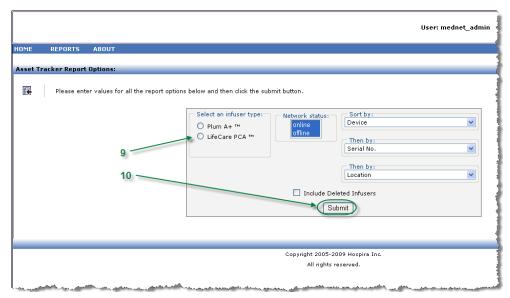
Every Day or Week Days or Month Days (for Month Days select the date of the month)

Months (select "All" or make a specific selection)

You can enter multiple minutes or hours as well as ranges, separated by commas. For example, entering 0, 15, 20, 45 for the minutes and 9-17 for the hours, runs the report every 15 minutes from 9:00 a.m. to 5:45 p.m. Enter an asterisk () to run the job every minute or every hour.

8. Click Next.

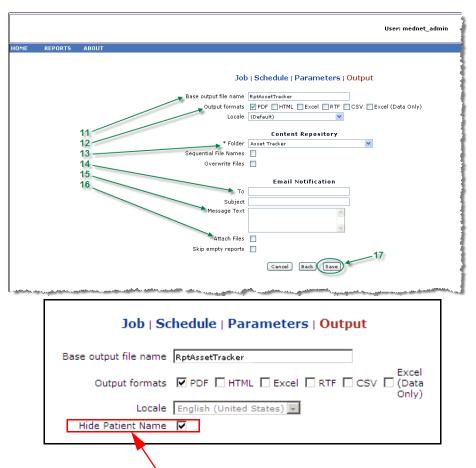
The Report Options screen is displayed:



- 9. Complete the required information. See additional information in this chapter for specific reports.
- 10. Click Submit.

Chapter 16: Reports Navigating Reports

The Output screen appears:



Note: If you have **View Protected Health Information** privilege, the Hide Patient Name checkbox displays for the following reports: Auto-Programming, Auto Programs with Unmatched Medication, Event/Alarm Log and Next IV Due.

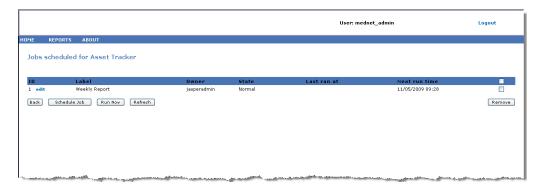
- 11. Specify the base output file name.
- 12. Specify the output format.
- 13. Specify the report destination by choosing a folder from the drop-down list.
 - Check the **Sequential File Names** (not an option if **No Recurrence** was selected), and/or the **Overwrite Files** boxes, if applicable.
- 14. Specify the email notification parameters (optional) by typing the email address in the **To** box and the subject in the **Subject** box.
- 15. Enter a description in the **Message Text** box.
- 16. Check the **Attach Files** box to receive a report file attachment via email (optional).
- 17. Click **Save**. The report is scheduled for Asset Tracker.

Important: When creating a scheduled report to run within the same scheduling parameters for two different infusers, you will need to give the reports different names.

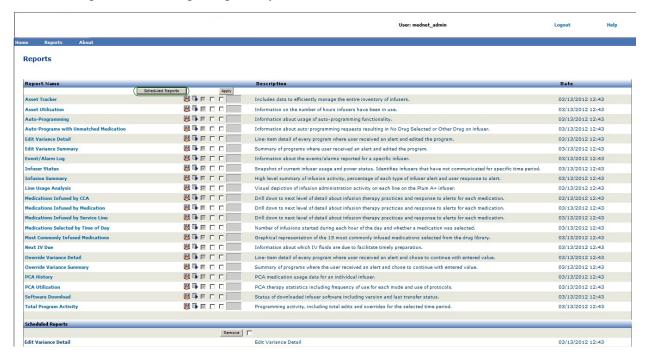
Navigating Reports Chapter 16: Reports

The edit option allows you to change the scheduled report options (see below).

To un-schedule the report, place a check in the Remove box and click the **Remove** button.



To view the scheduled reports at the bottom of the Reports View, click the **Scheduled Reports** button at the top of the list of reports. By clicking on the scheduled report name, you can also run that report with the report options you had selected.

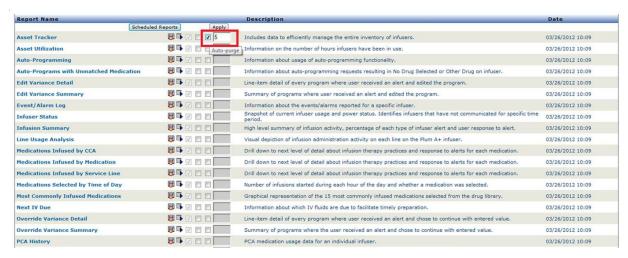


Chapter 16: Reports Navigating Reports

Auto-purge of Scheduled Reports

For a report that has been scheduled to run, the Administrator can specify the number of days to keep the generated, scheduled report output.

For example, in the screen below, the scheduler-generated "Asset Tracker" report will be kept for 5 days; it will be deleted after that time period.



- 1. In the column shown above, place a check mark next to the report to be auto-purged.
- 2. Under the Apply button column, specify the number of days the report output should be kept before it is deleted.
- 3. Click Apply.

Navigating Reports Chapter 16: Reports

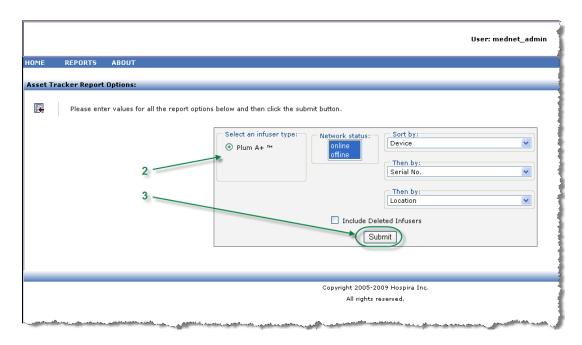
Running a Report in the Background

Run in Background is a "just-in-time" version of the scheduled reports. Rather than do formal scheduling of the report, Run in Background uses the same scheduling wizard, but runs the report immediately as a background task.

1. To run the report in the background, click on the second icon from the left below.



The Report Options screen is displayed:

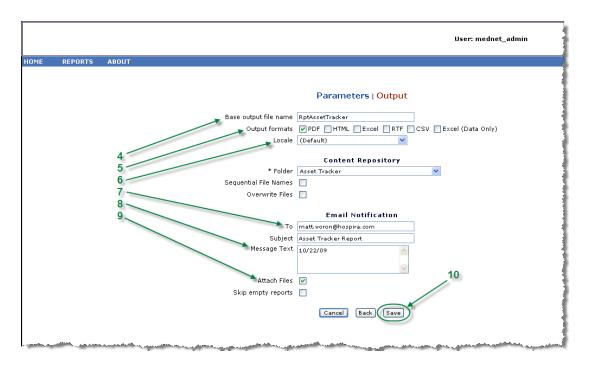


2. Complete the required information. See additional information in this chapter for your specific report.

Chapter 16: Reports Navigating Reports

3. Click Submit.

The Output screen appears:



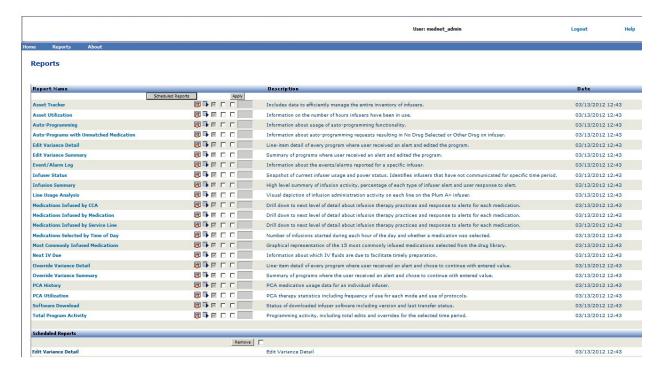
Note: If you have View Protected Health Information privileges, the Hide Patient Name checkbox displays for the following reports: Auto-Programming, Auto Programs with Unmatched Medication, Event/ Alarm Log and Next IV Due.



- 4. Specify the base output file name.
- 5. Specify the output format.
- 6. Specify the report destination or repository by choosing a folder from the drop-down list.
 - Check the **Sequential File Names** (not an option if **No Recurrence** was selected), and/or the **Overwrite Files** boxes, if applicable.
- 7. Specify the email notification parameters (optional) by typing the email address in the **To** box and the subject in the **Subject** box.
- 8. Enter a description in the **Message Text** box.
- 9. Check the **Attach Files** check box to receive a report file attachment via email (optional).
- 10. Click Save.

Navigating Reports Chapter 16: Reports

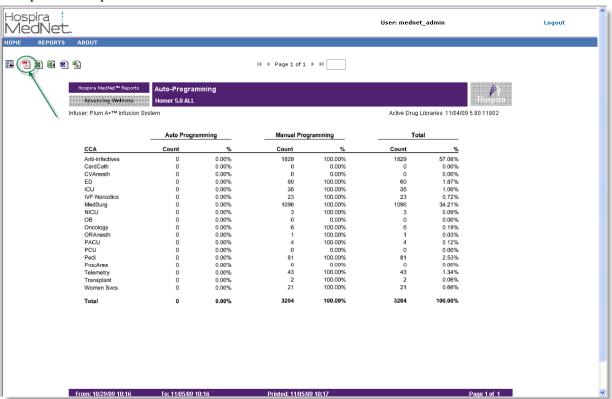
To view the reports run in the background at the bottom of the Reports View, click the **Scheduled Reports** button at the top of the list of reports. By clicking on the report name, you can also run that report with the report options you had selected.



Chapter 16: Reports Navigating Reports

Printing a Report

You can print any report that you generate. To print a report, convert the report into a PDF file, and print the report from the PDF document.



When printing a scheduled report that has more than one page, you will need to click the scheduled report button again.

Navigating Reports Chapter 16: Reports

Report Conventions

The following conventions are common to all reports:

- Users with the appropriate privileges may generate reports using the Reports view.
- Drop-down lists display all valid selections. Items contained in drop-down lists may vary based upon your previous input and the system configuration.
- If a report features more than one sort criterion, the first field, Sort By, is required while the remaining Then By fields are optional.
- Reports only display data existing in your system. A report's content may vary depending upon your data and the time period selected.
- Reports may span multiple pages; if so, the report may be navigated using the buttons a the top of the page.
- Users may employ a "wildcard," or asterisk [*], to expand search terms. For example, the wildcard [13*] returns all data, such as Serial Number, that begins with the numbers "13".
- If there is no data to display for a report or a field, a message displays to alert you that there is no data to display. When a report is grouped by CCA or Medication, and there is no data for a particular CCA or medication, a message will alert you to that effect.
- Reports will not display a medication's concentration when it has not been defined in the drug library.

Note: Reports illustrated in this User Guide are intended to represent layout and typical content rather than actual data provided by any infuser or drug library.

Report Display Format

Reports contain the following three main sections:

- **Page Header:** The page header appears on the top of every page. The first page displays the report title and hospital name. Subsequent pages display the report title only.
- **Detail**: The details appear in the middle of every page and contain the report data.
- **Page Footer:** The page footer appears at the bottom of every page, and displays the time period of the report, print date, and page number.

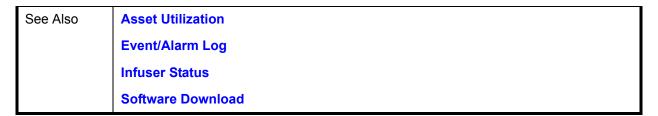
Chapter 16: Reports Asset Tracker

Asset Tracker

The following table provides detailed information about the Asset Tracker report.

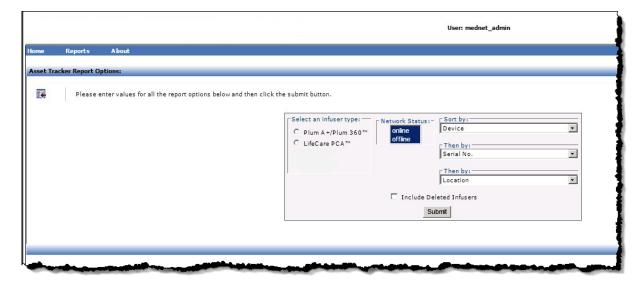
	Asset Tracker
Users	Biomedical, IT, Materials Management
Synopsis	The Asset Tracker report includes data to help the user efficiently manage the entire inventory of infusers.
	Information is provided to track and identify infusers that have not communicated with the network for extended periods of time, and to verify that all infusers have the correct version of Hospira MedNet Meds installed.
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	None
Report Options	Infuser Type: Licensed infuser type(s)
Options	Sort by: Device, Serial Number, Location, CCA, Hours of use in last 30 days (Increasing/Decreasing), Hours of use in last 90 days (Increasing/Decreasing)
	The user may select a combination of any three sort criteria.
	Include Deleted Infusers
Usage Notes	Adjunct to the Asset Utilization and Infuser Status reports.
	Infusers are grouped by their network status (offline or online).
	An infuser is considered offline if it has not communicated with the Hospira MedNet server within the past five minutes.
	The library version is highlighted in yellow for all infusers that do not have the current library version. This allows infusers that need a library update to be quickly identified.
	Plum A+3 infusers may be sorted by device in order to see all three modules in each device grouped together.
	In order to monitor infuser usage to assure that each is used somewhat equally, the number of hours of use for each infuser over the last 30- and 90-day period is also included.
	Hours of use include the time when the infuser's power is turned on, including standby and delayed start modes.
	Hours of use for the last 30 days and last 90 days are calculated based on the date the report is run.

Asset Tracker Chapter 16: Reports



Report Options

The following graphic displays the Report Options screen for Asset Tracker.



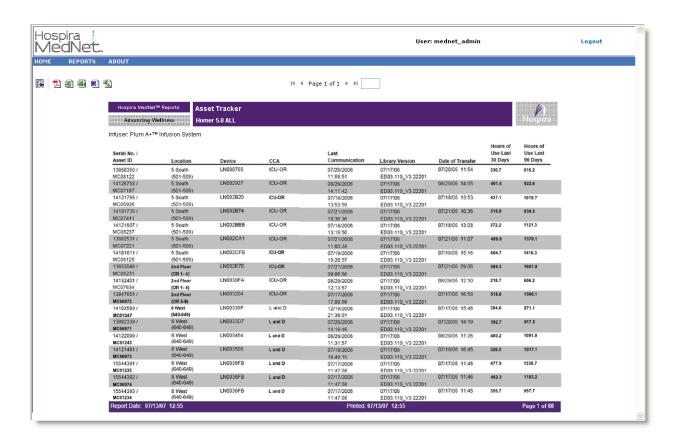
Chapter 16: Reports Asset Tracker

Report Details

This section provides report details and an illustration of the **Asset Tracker** report for one type of infuser.

Plum A+ and LifeCare PCA						
Field/Column Label	Description					
Network Status	Online is when Hospira MedNet Software has received a valid status message or log message from the infuser within the past five minutes.					
	Offline is when Hospira MedNet Software has not received a valid status message or log message from the infuser within the past five minutes.					
Serial No./Asset ID	The infuser's serial number and asset ID					
Location	The physical location of the wireless access point with which the infuser last communicated.					
	Location names match Access Point Description in the Access Point Mapping Screen or are based on Enhanced Asset Tracking.					
Device	The logical ID of the infuser					
CCA	The CCA to which the infuser was last assigned					
Last Communication	Date and time the infuser last communicated with Hospira MedNet Software.					
Library Version	The Hospira MedNet Meds drug library version on the infuser					
Date of Transfer	Date of the drug library transfer					
Hours of Use Last 30 Days	Number of hours the infuser has been in use in the last 30 days					
Hours of Use Last 90 Days	Number of hours the infuser has been in use in the last 90 days					

Asset Tracker Chapter 16: Reports



Chapter 16: Reports Asset Utilization

Asset Utilization

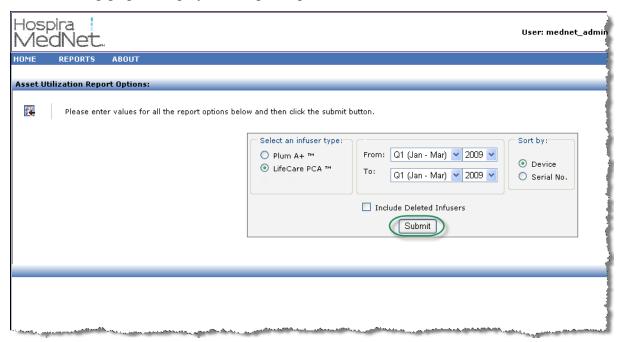
The following table provides detailed information about the **Asset Utilization** report.

	Asset Utilization
Users	Biomedical, IT, Materials Management
Synopsis	Asset Utilization allows efficient management of the entire inventory of infusers by providing information on the number of hours infusers have been in use.
	Reported for each infuser are the actual number of hours of use per month, and the average usage for the selected time period.
	Similarly, the report provides the average hours of use per month and for the selected time period for the entire infuser population.
Report Format	Crosstab
Infusers	Licensed infusers
Report Differences by Infuser	None
Report Options	Infuser Type: Licensed infuser type(s)
Орионъ	From: To: Quarter and Year: For example, Q1 (Jan - Mar) 2015
	Sort by: Device, Serial Number
	Include Deleted Infusers
Usage Notes	Adjunct to the Asset Tracker report:
	When cross-referenced with the Asset Tracker report, the user can determine whether low usage is the result of an infuser not communicating with the network, as well as when it last communicated, and where it was located at the time.
	Up to four consecutive quarters can be reported.
	Hours of use include the time when the infuser's power is turned on, including standby and delayed start modes.
	Average Number of Infusers Used Per Day: If an infuser was on during a given day, it is counted as being in use for the day.
	Sort the report by Device to see all of the infusers in a Plum A+3 grouped together.
See Also	Asset Tracker
	Event/Alarm Log
	Software Download

Asset Utilization Chapter 16: Reports

Report Options

The following graphic displays the Report Options screen for Asset Utilization.

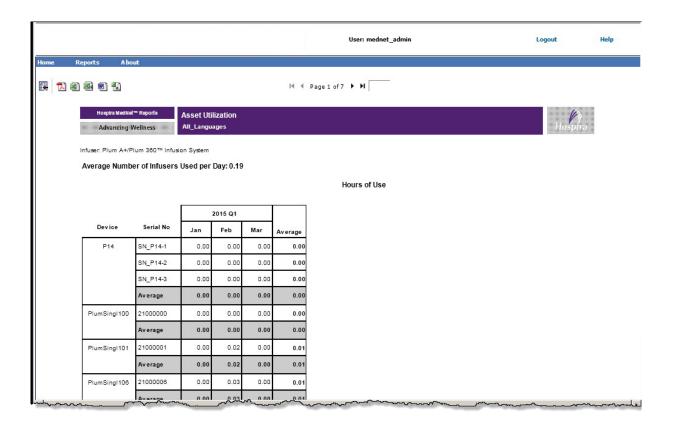


Report Details

This section provides report details and an illustration of the **Asset Utilization** report for one type of infuser.

Plum A+/Plum 360 and LifeCare PCA				
Field/Column Label	Description			
Infuser Type	Licensed infuser types			
Device	Logical ID of the infuser			
Serial Number	Serial number of the infuser			
Average Number of Devices Used Per Day	Average number of devices used per day within the date range selected			
Hours of Use	Hours of use per month per device within the date range selected			
	Average hours of use per month across entire infuser population			
	Average hours of use for all months across entire infuser population			
Sort By	Device or Serial Number			

Chapter 16: Reports Asset Utilization



Auto-Programming Chapter 16: Reports

Auto-Programming

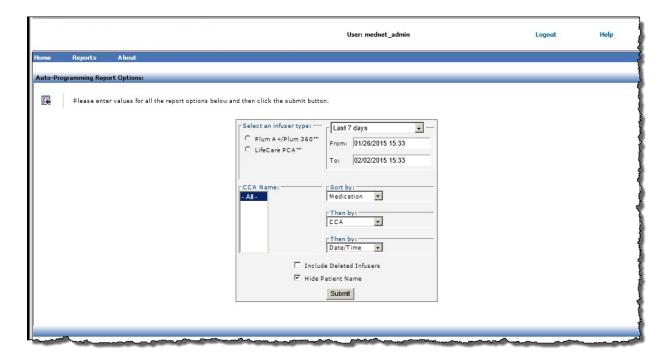
The following table provides detailed information about the **Auto-Programming** report.

	Auto-Programming
Users	Nurse Manager, Pharmacist
Synopsis	Provides information about the usage of the Auto-Programming functionality when Hospira MedNet Software is integrated with a BCMA system using Hospira MedNet Programmer.
Report Format	Table
Infusers	Licensed infusers
Report Options	Infuser Type: Licensed infuser type(s)
Орионѕ	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range)
	CCA Name
	Sort by: Serial Number, Medication, CCA, Date/Time, Device. The user may select a combination of any three sort criteria
	Include Deleted Infusers
	Hide Patient Name. If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name)
Usage Notes	The Auto-Programming report provides a summary section that contains Auto-Programming and Manual Programming information for each CCA during the report period.
	Also, it provides a Manual Programming Detail section that provides detailed information about each infusion the clinician performed without using the Auto-Programming function. This section includes information, such as the infuser's Network Status, to help determine why Auto-Programming may not have been utilized.
	Auto programs that result in No Drug Selected (Plum A+/Plum 360) are included in this report.
See Also	Auto-Programs with Unmatched Medication

Chapter 16: Reports Auto-Programming

Report Options

The following graphic displays the Report Options screen for Auto-Programming.



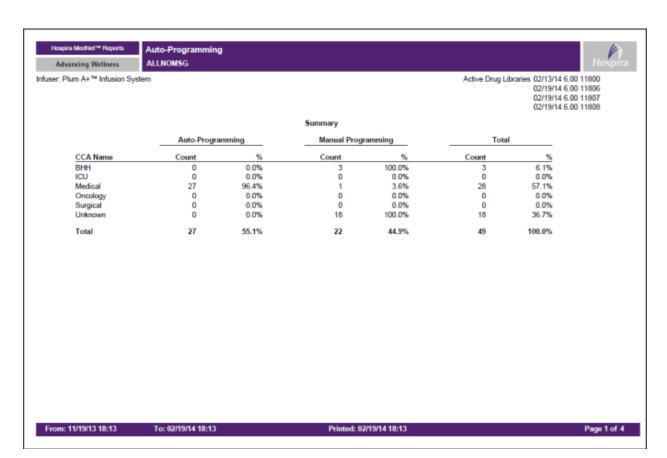
Auto-Programming Chapter 16: Reports

Report Details

This section provides report details and an illustration of the **Auto-Programming** report for one type of infuser and a summary.

Plum A+/Plum 360 and LifeCare PCA					
Field/Column Label	Description				
Infuser Type	Licensed infusers				
Medication*	Medication's display name and concentration, or unknown				
CCA Name	CCA selected when the auto-program occurred				
Date/Time	Date and time from the start of infusion				
Day of Week	Day of the week				
Serial Number	Infuser's serial number				
Device	Infuser's logical ID				
Patient Name*	Patient name				
Caregiver Name*	Caregiver's name				
Unit*	Nursing unit				
Room/Bed*	Room and bed number				
*Information provided by Bo	CMA system				
	Summary and Manual Programming Report				
Summary	Number and percentage of Auto-Programming and manual programming events by CCA				
Manual Programming Detail	Medication, CCA, Date/Time, Serial Number, Device are shown for each manual program				
Total	Sum of Total Count values				
Note: LifeCare PCA include programming detail and Ma	es: Auto-programming summary, Manual programming summary, Auto- anual programming detail.				

Chapter 16: Reports Auto-Programming



Infuser: Plum A+™ Infusio	on System								Hospira
	,		Auto-P	rogramming D	etail				
Medication	CCA Name	Date/Time	Day of Week	Serial Number	Device	Patient Name	Caregiver Name	Unit	Room/Bee
Blood Products - 10 mL	Medical	02/13/2014 13:01:50	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:02:46	Thursday	987456	ManisPlum3 60	**********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:04:12	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:05:11	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:06:31	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:07:43	Thursday	987456	ManisPlum3 60	**********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:08:56	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:10:02	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 10 mL	Medical	02/13/2014 13:11:01	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 12 mL	Medical	02/13/2014 13:12:39	Thursday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 12 mL	Medical	02/18/2014 13:43:10	Tuesday	987456	ManisPlum3 60	**********	Dhanush, Sekar R	Ace	301 / A
Blood Products - 12 mL	Medical	02/18/2014 17:45:08	Tuesday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/14/2014 10:56:58	Friday	987456	ManisPlum3 60	*********		Ace	301 / A
No Drug Selected	Medical	02/14/2014 15:22:36	Friday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 11:50:10	Tuesday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 13:26:22	Tuesday	987456	ManisPlum3 60	*********	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 13:28:36	Tuesday	987456	ManisPlum3 60	******	Dhanush, Sekar R	Ace	301 / A

Auto-Programming Chapter 16: Reports

Auto-Programming Infuser: Plum A+™ Infusion System Auto-Programming Detail Medication **CCA Name** Date/Time Day of Week Serial Number Device Patient Name Caregiver Name Unit Room/Bed No Drug Selected Medical 02/18/2014 13:30:44 Tuesday 987456 ManisPlum3 60 Dhanush, Sekar R Ace 301/A ManisPlum3 02/18/2014 13:31:38 Tuesday No Drug Selected Medical 987456 Dhanush, Sekar R Ace 301 / A No Drug Selected Medical 02/18/2014 13:33:35 Tuesday 987456 ManisPlum3 Dhanush, Sekar R Ace 301/A ManisPlum3 60 No Drug Selected Medical 02/18/2014 14:02:05 Tuesday 987456 Dhanush, Sekar R Ace 301 / A ManisPlum3 60 No Drug Selected Medical 02/18/2014 15:19:41 Tuesday 987456 Dhanush, Sekar R Ace 301 / A ManisPlum3 No Drug Selected Medical 02/18/2014 15:21:34 Tuesday 987456 Dhanush, Sekar R Ace 301 / A ManisPlum3 No Drug Selected Medical 02/18/2014 15:22:35 Tuesday 987456 Dhanush, Sekar R Ace 301/A No Drug Selected Medical 02/18/2014 15:33:27 Tuesday 987456 ManisPlum3 Dhanush, Sekar R Ace 301 / A ManisPlum3 Unknown Medical 02/13/2014 13:15:14 Thursday 987456 Ace 301 / A 02/13/2014 17:33:26 Thursday ManisPlum3 301 / A Unknown Medical 987456 Ace

	Manu	ual Programming Detai	ı		
Medication	CCA Name	Serial Number	Device	Date/Time	Day of Week
Adenosine Syringe	BHH	987456	ManisPlum360	02/19/2014 14:36:56	Wednesday
Adenosine Syringe	BHH	987456	ManisPlum360	02/19/2014 18:05:16	Wednesday
DOPamine (Other)	Medical	987456	ManisPlum360	02/19/2014 13:09:57	Wednesday
Unknown	BHH	987456	ManisPlum360	02/19/2014 13:30:13	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/11/2014 10:58:59	Tuesday
Unknown	Unknown	987456	ManisPlum360	02/11/2014 16:27:01	Tuesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 09:58:55	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 10:00:04	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 10:54:35	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 11:23:30	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 13:27:27	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 13:29:57	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 15:03:59	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 16:46:18	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 16:46:19	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/12/2014 17:46:05	Wednesday
Unknown	Unknown	987456	ManisPlum360	02/13/2014 09:29:26	Thursday
Unknown	Unknown	987456	ManisPlum360	02/13/2014 09:30:02	Thursday
Unknown	Unknown	987456	ManisPlum360	02/13/2014 11:44:38	Thursday
Unknown	Unknown	987456	ManisPlum360	02/13/2014 11:45:09	Thursday
Unknown	Unknown	987456	ManisPlum360	02/13/2014 11:47:23	Thursday
Unknown	Unknown	987456	ManisPlum360	02/13/2014 11:52:18	Thursday

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To: 02/19/14 18:13

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Auto-Programs with Unmatched Medication

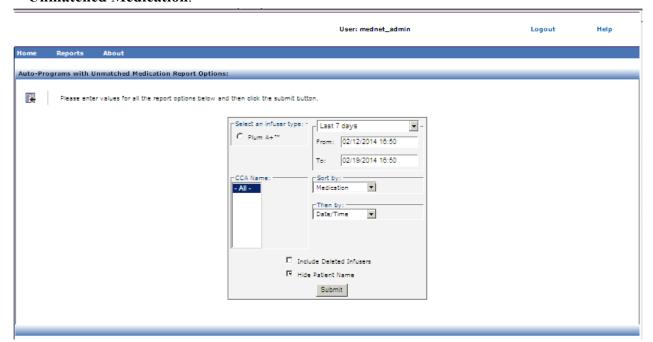
The following table provides detailed information about the Auto-Programs with Unmatched Medication report.

Note: Auto-Programs with Unmatched Medication is an optional feature and is only visible on your menu if it is part of your licensed package.

Auto-Programs with Unmatched Medication			
Users	Nurse Manager, Pharmacist		
Synopsis	Provides information about Auto-Programming requests that resulted in No Drug Selected or Other Drug on the infuser. Auto-Programming functionality is available when Hospira MedNet Software is integrated with a BCMA system using Hospira MedNet Programmer.		
Report Format	Table		
Infusers	Licensed infusers		
Report Differences by Infuser	None		
Report Options	Infuser Type: Licensed infuser type(s)		
	<i>Time Period:</i> Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).		
	CCA Name		
	Medication		
	Sort by: Medication, Date/Time, CCA, Unit, Location, Caregiver ID, Caregiver Name, Patient Name (if View Protected Health Information privilege assigned), External ID, Order ID.		
	The user may select a combination of any two sort criteria.		
	Include Deleted Infusers		
	Hide Patient Name. If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name)		
Usage Notes	This report provides a mechanism to evaluate auto programs which resulted in No Drug Selected or Other Drug on the infuser. This occurs when the External ID in the drug library does not match the one provided by the BCMA, or if concentration parameters or units do not match.		
See Also	Auto-Programming		

Report Options

The following graphic displays the Report Options screen for Auto-Programs with Unmatched Medication.



Report Details

This section provides report details and an illustration of the **Auto-Programs with Unmatched Medication** report.

Plum A+/Plum 360			
Field/Column Label	Description		
Date/Time	Date and time		
CCA	CCA selected when the auto-program occurred		
Location	Description of the access point to which the infuser was communicating		
Caregiver ID*	ID of the caregiver		
Caregiver Name*	Name of the caregiver		
Patient ID*	Patient identification number		
Patient Name*	Patient name		
Unit*	Nursing unit		
External ID*	External ID of the medication being programmed		
Order ID*	Order number (ID) associated with the medication being programmed		
Medication*	Medication being programmed		
*Information provided by BCMA system			

Hospira MedNet™ Reports

Advancing Wellness

Auto-Programs with Unmatched Medication ALLNOMSG



Infuser: Plum A+™ Infusion System

Active Drug Libraries 02/13/14 6.00 11800 02/19/14 6.00 11806 02/19/14 6.00 11807 02/19/14 6.00 11808

Medication Date/Time	External ID	Order ID CCA Name	Caregiver ID Caregiver Name	Patient ID Patient Name	Unit Location
Argatroban 1/4 Strength 125 mg/500 mL 02/18/14 13:33	349	90005 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED
Argatroban 1/4 Strength 125 mg/500 mL 02/18/14 15:19	349	80001 Medical	IOPUser Dhanush, Sekar R	MR8001	Ace WIRED
Argatroban 1/4 Strength 500 mL 02/18/14 15:33	35001	80004 Medical	IOPUser Dhanush, Sekar R	MR8004	Ace WIRED
Argatroban 1/4 Strength 1 125 mg/500 mL 02/18/14 14:01	349	90005 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED
Argatroban 1/8 Strength 125 mg/500 mL 02/18/14 15:21	35000	80002 Medical	IOPUser Dhanush, Sekar R	MR8002	Ace WIRED
Blood Products 50 mg/250 mL 02/14/14 15:21	104899	60013 Medical	IOPUser Dhanush, Sekar R	MR613	Ace WIRED
Blood Products 7 mg/111 mL 02/18/14 11:49	104899999	10002 Medical	IOPUser Dhanush, Sekar R	MR1102	Ace WIRED
Blood Products 7 mg/111 mL 02/18/14 13:26	1048999	10002 Medical	IOPUser Dhanush, Sekar R	MR9000	Ace WIRED
Blood Products 23 mg/234 mL 02/18/14 13:28	1048999	90001 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED

From: 02/12/14 18:14 To: 02/19/14 18:14 Printed: 02/19/14 18:14 Page 1 of 2

Auto-Programs with Unmatched Me Infuser: Plum A+™ Infusion System	dication					Hospira
Blood Products 300 mL 02/18/14 13:30	1048999	90001 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED	
Blood Products 7 mg/33 mL 02/18/14 13:31	1048999	90002 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED	
HYDROmorphone (Stnd) 75 mg/150 mL 02/18/14 13:33	62	90005 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED	
HYDROmorphone (Stnd) 75 mg/150 mL 02/18/14 15:19	62	80001 Medical	IOPUser Dhanush, Sekar R	MR8001	Ace WIRED	
HYDROmorphone (Stnd) 1 75 mg/150 mL 02/18/14 14:01	62	90005 Medical	IOPUser Dhanush, Sekar R	MR9001	Ace WIRED	
HYDROmorphone (StndsTest) 75 mg 02/18/14 15:22	620	80003 Medical	IOPUser Dhanush, Sekar R	MR8003	Ace WIRED	

From: 02/12/14 18:14 To: 02/19/14 18:14 Printed: 02/19/14 18:14 Page 2 of 2

Chapter 16: Reports Edit Variance Detail

Edit Variance Detail

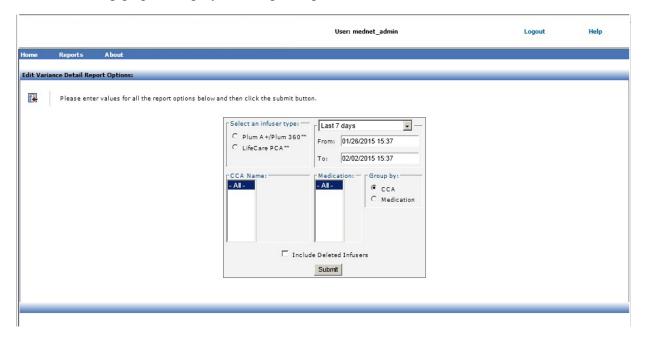
The following table provides detailed information about the Edit Variance Detail report.

	Edit Variance Detail
Users	Pharmacist, Nurse Manager, Risk Manager
Synopsis	Provides a line-item detail of every infuser program where the user received an alert and then proceeded to edit the program.
	These edits suggest that a potential ADE (Adverse Drug Event) has been avoided
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Includes user edits to Soft Limit alerts and/or Hard Limit alerts as applicable, per licensed infuser.
Report	Infuser Type: Licensed infuser type(s)
Options	<i>Time Period</i> : Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Medication
	Group by: CCA, Medication
	Include Deleted Infusers
Usage Notes	Variance is a calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit. Variance is defined as (Initial Dose – Limit Violated) / Limit Violated. It is expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.
	The report can be run by CCA or by Medication and contain data for selected CCAs or medications or for all CCAs and medications. Running the report by Medication for high risk medications can easily identify any variances for these medications.
	Initial Dose is the programmed value that triggered the alert. Final Dose is the value accepted at final confirmation when the infuser was started. If several alerts were encountered during a programming sequence, the Final Dose value in the report will be the same for each alert.
	The date and time of each alert are also displayed in the report.
See Also	Edit Variance Summary
	Override Variance Detail
	Override Variance Summary

Edit Variance Detail Chapter 16: Reports

Report Options

The following graphic displays the Report Options screen for Edit Variance Detail.



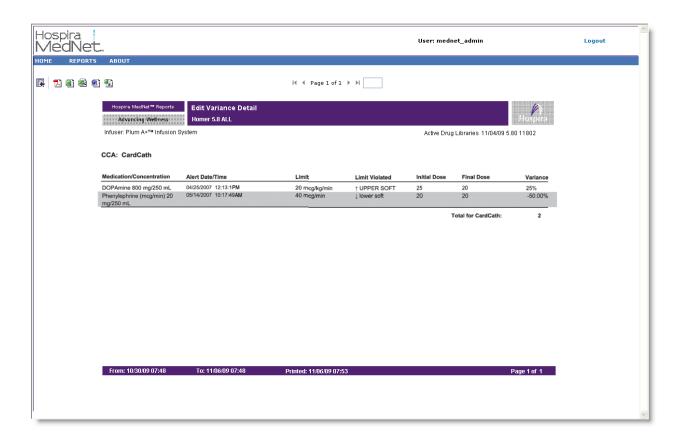
Report Details

This section provides report details and illustrations of the Edit Variance Detail report.

Plum A+/Plum 360		
Field/Column Label	Description	
Medication/Concentration ¹ or CCA	Medication name if results are grouped by CCA; CCA name if results are grouped by medication.	
Alert Date/Time	Date and time of each alert	
Limit	Amount and Units	
Limit Violated	Upper Soft, Lower Soft, Upper Hard, Lower Hard	
Initial Dose	Initial amount entered by user	
Final Dose	Final amount entered by user	
Variance	Defined as (Initial Dose – Limit Violated) / Limit Violated	
	The result is expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations.10,000% is the maximum displayable variance.	
¹ Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500		

mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."

Chapter 16: Reports Edit Variance Detail

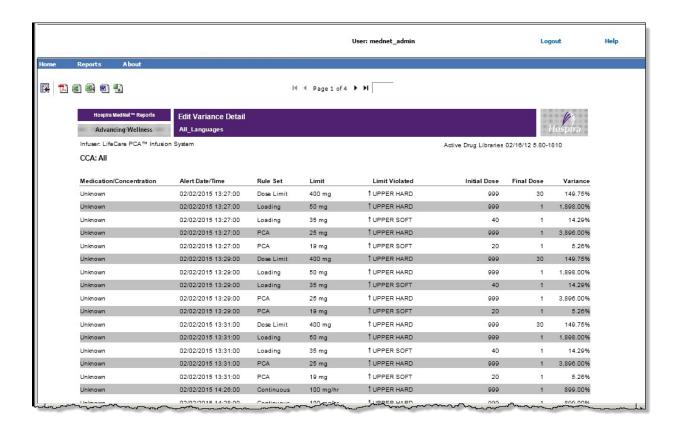


Edit Variance Detail Chapter 16: Reports

LifeCare PCA		
Field/Column Label	Description	
Medication/Concentration ¹ or CCA	Medication name if results are grouped by CCA; CCA name if results are grouped by medication.	
Alert Date/Time	Date and time of each alert	
Rule Set	LifeCare PCA: Loading, Continuous, PCA, Dose Limit	
Limit	Amount and Units	
Limit Violated	Upper Soft, Lower Soft, Upper Hard, Lower Hard	
Initial Dose	Initial amount entered by user	
Final Dose	Final amount entered by user	
Variance	Defined as (Initial Dose – Limit Violated) / Limit Violated	
	The result is expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations.10,000% is the maximum displayable variance.	

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL".

Chapter 16: Reports Edit Variance Detail



Edit Variance Summary Chapter 16: Reports

Edit Variance Summary

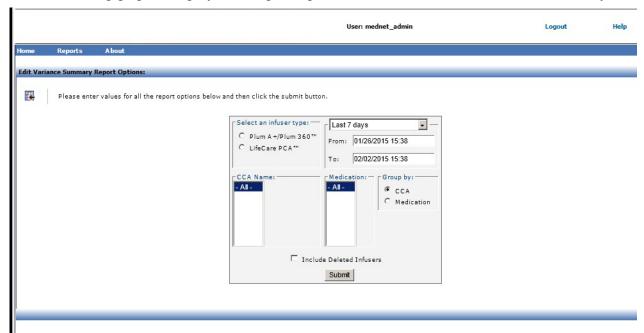
The following table provides detailed information about the Edit Variance Summary report.

	Edit Variance Summary
Users	Pharmacist, Nurse Manager, Risk Manager
Synopsis	Provides a summary of infuser programs where the user received an alert then proceeded to edit the program. These edits suggest that a potential ADE has been avoided.
	Contains the same data as Edit Variance Detail except that it averages the number of occurrences of edits for each medication/alert type combination (Lower Hard, Lower Soft, Upper Soft, and Upper Hard).
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Includes user edits to Soft Limit alerts and/or Hard Limit alerts as applicable, per licensed infuser.
Report	Infuser Type: Licensed infuser type(s)
Options	<i>Time Period</i> : Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Medication
	Group by: CCA, Medication
	Include Deleted Infusers
Usage Notes	Variance is a calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit. Variance is defined as (Mean Initial Dose – Limit Violated) / Limit Violated. It is expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.
	The report can be run by CCA or Medication and contain data for selected CCAs or medications or for all CCAs and medications. Running the report by Medication for high risk medications can easily identify any variances for these medications.
	Initial Dose is the programmed value that triggered the alert. Final Dose is the value accepted at final confirmation when the infuser was started.
See Also	Edit Variance Detail
	Override Variance Detail
	Override Variance Summary

Chapter 16: Reports Edit Variance Summary

Report Options Screen

The following graphic displays the Report Options screen for the Edit Variance Summary.



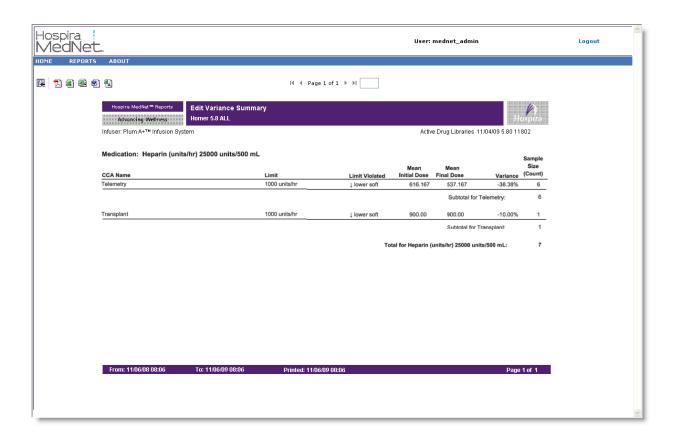
Report Details

This section provides report details and illustrations of the Edit Variance Summary report.

Plum A+/Plum 360		
Field/Column Label	Description	
Medication/Concentration ¹ or CCA	You may choose to group the report results by either Medication or CCA.	
Limit	Amount and Units	
Limit Violated	Upper Soft, Lower Soft, Upper Hard, Lower Hard	
Mean Initial Dose	Average of initial doses entered	
Mean Final Dose	Average of final doses entered	
Variance	Defined as (Mean Initial Dose – Limit Violated) / Limit Violated	
	The result is expressed as a percentage, and it is shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations.10,000% is the maximum displayable variance.	
Sample Size (Count)	Number of programs that exceed the limit	
¹ Medication/Concentration is comprised of the displayed name of the medication and its concentration		

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."

Edit Variance Summary Chapter 16: Reports

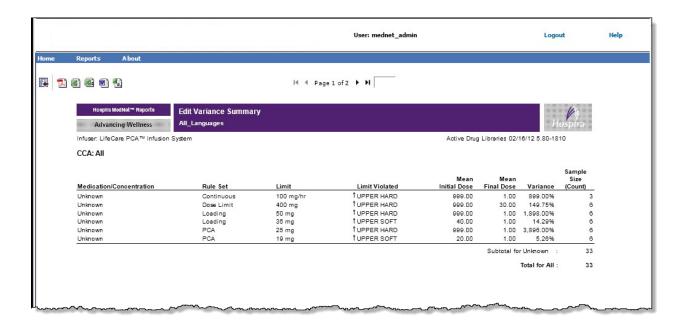


Chapter 16: Reports Edit Variance Summary

LifeCare PCA		
Field/Column Label	Description	
Medication/ Concentration ¹ or CCA	You may choose to group the report results by either Medication or CCA.	
Rule Set	LifeCare PCA: Loading, Continuous, PCA, Dose Limit	
Limit	Amount and Units	
Limit Violated	Upper Hard, Lower Hard, Upper Soft, Lower Soft	
Mean Initial Dose	Average of initial doses entered	
Mean Final Dose	Average of final doses entered	
Variance	Defined as (Mean Initial Dose – Limit Violated) / Limit Violated The result is expressed as a percentage, and it is shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations.10,000% is the maximum displayable variance.	
Sample Size (Count)	Number of programs that exceed the limit	

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL".

Edit Variance Summary Chapter 16: Reports



Chapter 16: Reports Event/Alarm Log

Event/Alarm Log

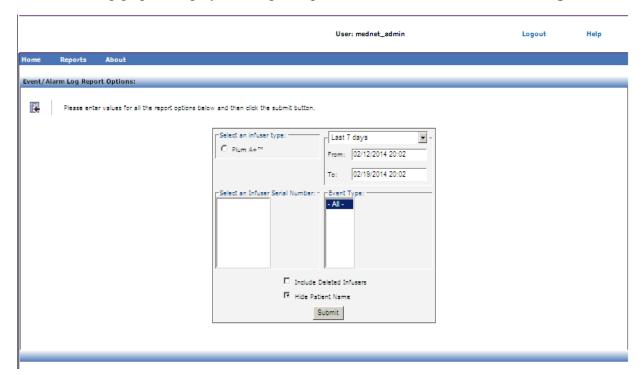
The following table provides detailed information about the Event/Alarm Log report.

	Event/Alarm Log
Users	Biomedical, IT, Materials Management, Risk Manager
Synopsis	Provides a detailed look at all events, alarms, and alerts associated with an infuser in chronological order.
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Contains a listing of all logged events and alarms reported by an infuser. Specific items reported depend on the type of infuser.
Report Options	Infuser Type: Licensed infuser type(s) Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12
	months, Other (specific date range).
	Serial Number
	Event Type: All
	Include Deleted Infusers
	Hide Patient Name. If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name)
Usage Notes	This report displays all data recorded in the infuser's event log. Typically, this report would be used when doing a root cause analysis for a patient incident involving an infusion device. The user can select the specific device by serial number and specify the time period to review (for example, Since 12 a.m. today, Last 24 hours, Last 48 hours, Last 7 days, etc.). One or more infusers may be selected.
	The Event/Alarm Log report is primarily intended to be run in order to identify events on, or issues with, a particular infuser. Since each infuser reports hundreds or thousands of events daily, report performance may be significantly affected when the report user selects more than a single infuser or selects a time period longer than 7 days.
	Certain events are displayed in different color text.
	Battery warnings are displayed in blue text.
	•Alarms are displayed in red text.
	•New drug library versions are displayed in green text.
	Event descriptions for each infuser can be found in the appendices of this guide.
See Also	Asset Tracker
	Asset Utilization
	Software Download

Event/Alarm Log Chapter 16: Reports

Report Options Screen

The following graphic displays the Report Options screen for the Event/Alarm Log.

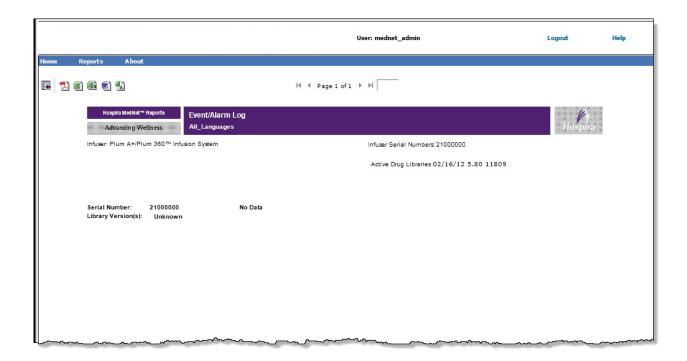


Report Details

This section provides report details and an illustration of the Event/Alarm Log.

Plum A+/Plum 360 and LifeCare PCA		
Field/Column Label	Description	
Infuser Serial Number	Serial number of the infuser	
Infuser Library Version(s)	Library version(s) which were active during specified time period	
Event Date	Date of event	
Description	Description of event	
	Battery warnings are highlighted in blue, and other warnings are highlighted in red. New drug libraries are highlighted in green.	
	See the appropriate infuser System Operating Manual for more information about infuser events and alarms.	

Chapter 16: Reports Event/Alarm Log



Infuser Status Chapter 16: Reports

Infuser Status

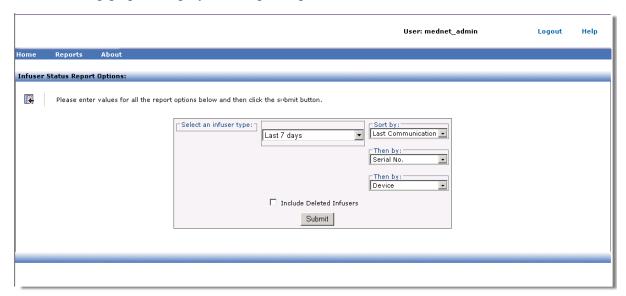
The following table provides detailed information about the Infuser Status report.

	Infuser Status
Users	Biomedical, IT, Materials Management
Synopsis	Provides a snapshot of current infuser usage and power status and identifies infusers that have not communicated for a specified time period.
Report Format	Table, Pie Charts
Infusers	Licensed infusers
Report Differences by Infuser	None
Report Options	Infuser Type: Licensed infuser type(s)
Орионз	<i>Time Period</i> : Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	Sort By: Last Communication, Serial Number, Device, Last CCA, Last Location, Last Infusing, Asset Tag.
	The user may select a combination of any three sort criteria.
	Include Deleted Infusers
Usage Notes	The Infusion Status and Power Status pie charts show the real-time status for infusers that are currently online.
	The numbers and percentages reported refer only to those infusers that are online.
	Infusing refers to infusers that are currently online and infusing.
	Idle refers to infusers that are online and not currently infusing.
	A legend box is displayed defining the color, number, percentage of infusers per slice, and totals for each pie chart.
	The <i>Idle Infusers</i> list provides details about infusers that are online and not currently infusing.
	The <i>Infusers Not Communicating</i> list provides details about the last known status of infusers which have not communicated in the selected time period.
See Also	Asset Tracker
	Asset Utilization
	Software Download

Infuser Status Chapter 16: Reports

Report Options Screen

The following graphic displays the Report Options screen for Infuser Status.



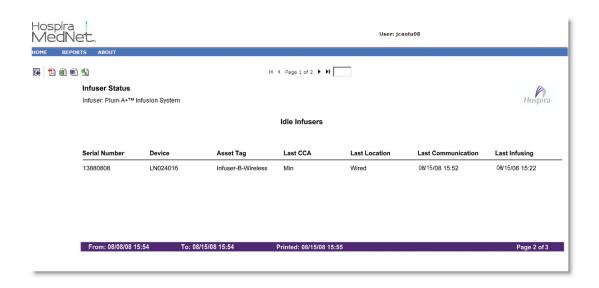
Report Details

This section provides report details and illustrations of the Infuser Status report.

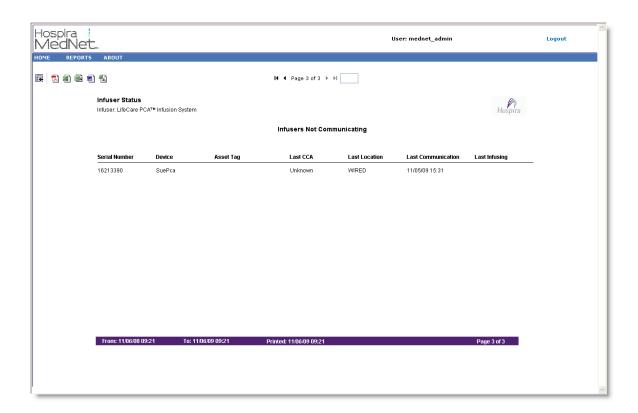
Plum A+/Plum 360 and LifeCare PCA		
Pie Chart	Description	
Infusion Status	Idle: Percentage of online infusers which are currently idle.	
	Infusing: Percentage of online infusers which are currently infusing.	
Power Status	AC: Percentage of online infusers currently using AC power.	
	Battery: Percentage of online infusers currently using battery power.	
Table ¹	Description	
Idle Infusers	Serial Number, Device, Asset Tag, Last CCA, Last Location, Last Communication, Last Infusing	
Infusers Not Communicating	Serial Number, Device, Asset Tag, Last CCA, Last Location, Last Communication, Last Infusing	
¹ Table displays information for infusers whose last communication was within the selected time period.		

Infuser Status Chapter 16: Reports





Chapter 16: Reports Infuser Status



Infusion Summary Chapter 16: Reports

Infusion Summary

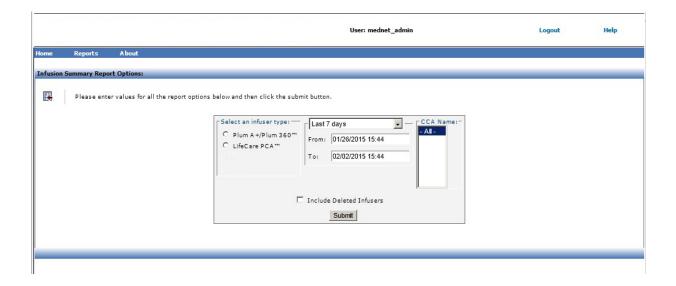
The following table provides detailed information about the **Infusion Summary** report.

	Infusion Summary
Users	Nurse Manager, Risk Manager, Quality Manager, Pharmacist
Synopsis	Provides a high level summary of infusion activity, including the percentage of each type of alert supported by the infuser as well as the users' responses to the alerts (Edit or Override).
Report Format	Pie chart
Infusers	Licensed infusers
Report Differences by Infuser	This report contains pie charts indicating Total Programs and Alerts according to each licensed infuser type.
Report	Infuser Type: Licensed infuser type(s)
Options	<i>Time Period</i> : Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Include Deleted Infusers
Usage Notes	The pie charts displayed in the report provide a summary of infusion activity, including Total Programs, Alerts, Soft Limit Alerts, and Hard Limit Alerts (LifeCare PCA).
	The Total Programs pie shows clinicians' compliance with using the drug library.
	The Alerts pie shows the percentage of programs where each type of alert occurred. (Note: The clinician may encounter more than one alert during a programming sequence.)
	The Soft Limit Alerts and Hard Limit Alerts pies show the clinician's response to each type of alert. Specifically, did the clinician override the alert and continue programming or did the clinician edit the value? This information is useful to determine whether dosing limits are set correctly.
	An edit made to a program in response to an alert suggests that a potential ADE (Adverse Drug Event) has been avoided. More than a very small number of overrides in response to an alert may indicate the Rule Set is too restrictive and does not reflect actual practice in the hospital.
	The Total Programs pie represents compliance with using the safety software.
	Plum A+ software version 13.4 or above is required in order to see information about Hard Limits in this report. Version 13.4 also enables this report to differentiate between Simple Delivery and No Drug Selected.
See Also	Line Usage Analysis, Edit Variance Summary
	Edit Variance Detail, Override Variance Summary, Override Variance Detail

Chapter 16: Reports Infusion Summary

Report Options Screen

The following graphic displays the Report Options screen for the Infusion Summary report.

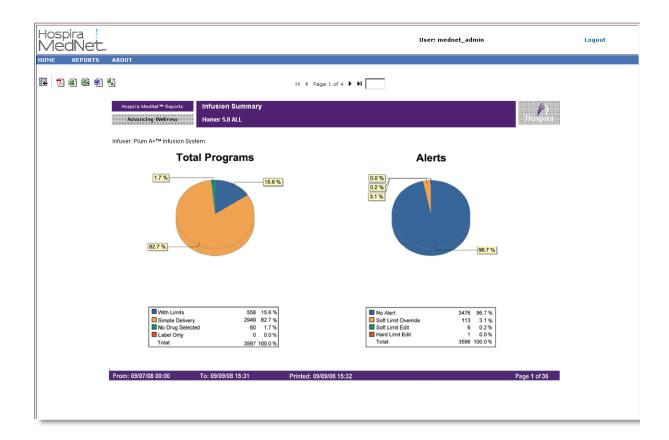


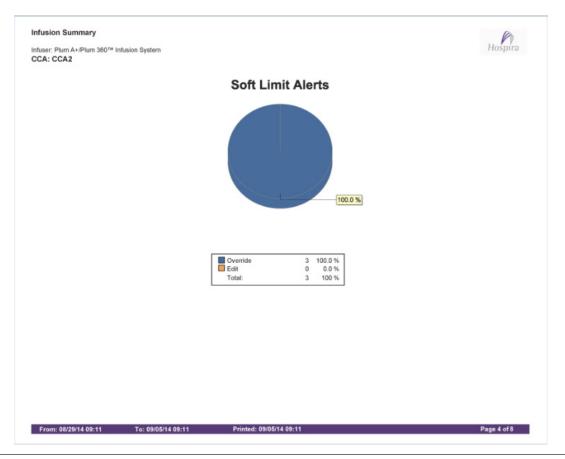
Report Details

The following section provides report details and illustrations of the Infusion Summary report.

Plum A+		
	Pie Chart	Contents
Total Progra	ams	With Limits, Label Only, Simple Delivery, No Drug Selected
Alerts		No Alert, Hard Limit Edit, Soft Limit Edit, Soft Limit Override
Soft Limit A	Alerts	Edit, Override
Note:	Each slice is a different color and indicates the percentage of alerts in each category. A legend box defines the color, number, percentage of alerts for each slice, and totals for the chart.	

Infusion Summary Chapter 16: Reports

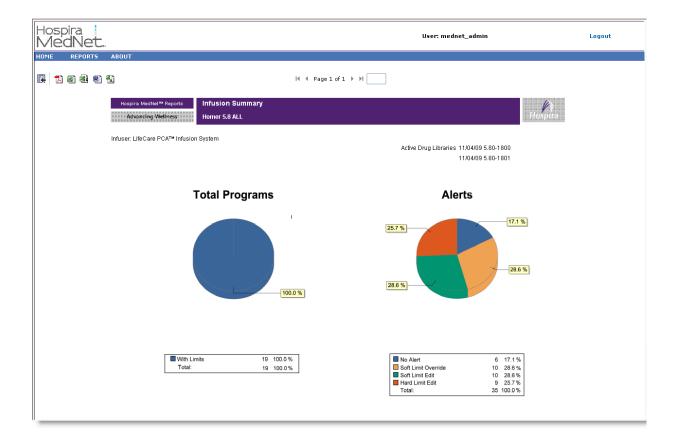




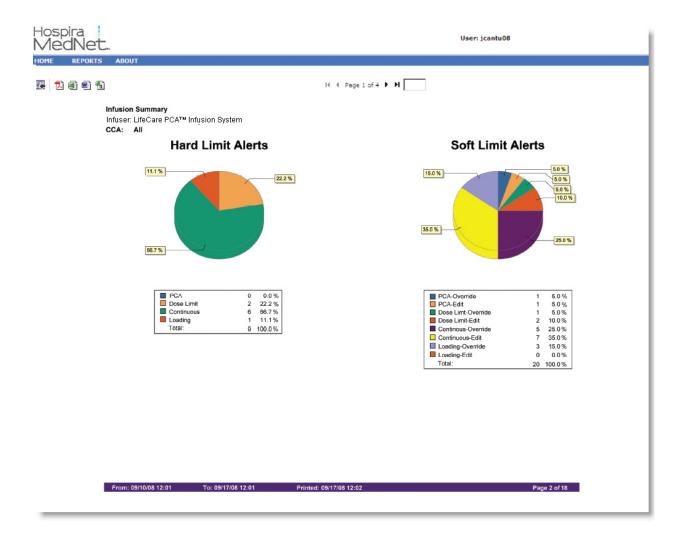
Chapter 16: Reports Infusion Summary

LifeCare PCA		
Pie Chart	Contents	
Total Programs	With Limits	
Alerts	No Alert, Soft Limit Edit, Soft Limit Override, Hard Limit Edit	
Hard Limit Alerts	Loading, PCA, Continuous, Dose Limit	
Soft Limit Alerts	Loading-Edit, Loading-Override, PCA-Edit, PCA-Override, Continuous-Edit, Continuous-Override, Dose Limit-Edit, Dose Limit-Override	
	rent color and indicates the percentage of alerts in each category. es the color, number, percentage of alerts for each slice, and totals	

A legend box defines the color, number, percentage of alerts for each slice, and totals for the chart.



Infusion Summary Chapter 16: Reports



Chapter 16: Reports Line Usage Analysis

Line Usage Analysis

The following table provides detailed information about the Line Usage Analysis report.

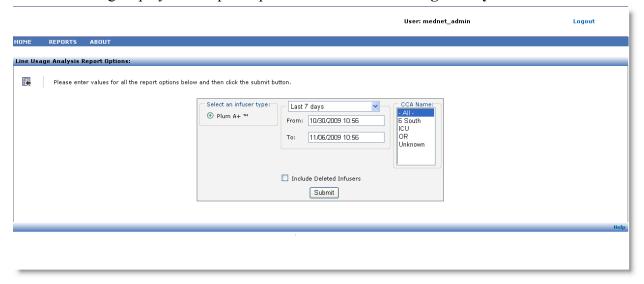
Note: The Line Usage option will only appear in the Reports Menu if your infuser type is licensed.

	Line Usage Analysis
Users	Nurse Manager, Pharmacist, Materials Management
Synopsis	Provides a visual depiction of infusion administration activity on each of two lines on the Plum A+, and, Plum 360 infuser.
Report Format	Pie Chart
Infuser	Licensed infusers
Report Differences by Infuser	None
Report Options	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Include Deleted Infusers
Usage Notes	Three pie charts indicate the relative usage of line A and line B, as well as the specific use of each line (Simple Delivery, Standard Program, Loading Dose, and Multistep). In addition, the delivery mode use for Line B is shown (Concurrent or Piggyback).
	Simple Delivery indicates that the drug library was not used, or the clinician selected "No Drug Selected."
	The Line B pie chart can be evaluated to help ensure that the use of Line B is optimized with regard to Concurrent and Piggyback delivery modes.

Line Usage Analysis Chapter 16: Reports

Report Options Screen

The following displays the Report Options screen for Line Usage Analysis.

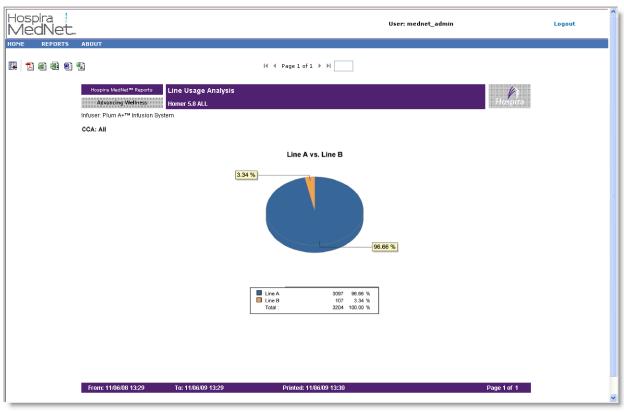


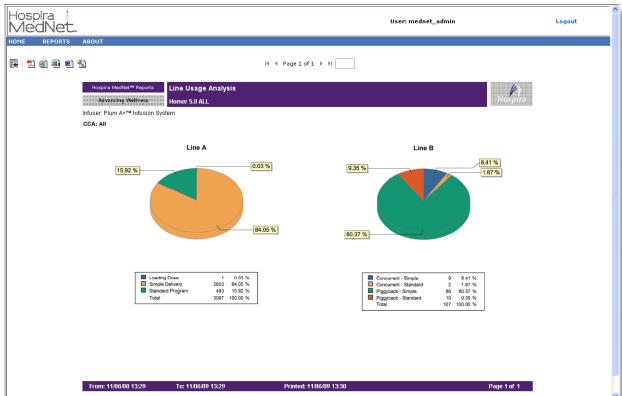
Report Details

This section provides report details and an illustration of the Line Usage Analysis report.

Plum A+	
Pie Chart	Contents
Line A vs. Line B	Percentage of infusions on Line A, Percentage of infusions on Line B
Line A	Percentage of infusions: •Simple Delivery •Standard Program •Loading Dose •Multistep
Line B	Percentage of infusions: •Concurrent - Simple •Concurrent - Standard •Concurrent - Loading •Concurrent - Multistep •Piggyback - Simple •Piggyback - Standard •Piggyback - Loading •Piggyback - Multistep
Note: A legend box define for each slice, and	es the color, number, percentage of programs per infusion type totals for the chart.

Chapter 16: Reports Line Usage Analysis





Medications Infused Chapter 16: Reports

Medications Infused

The tables in this section are common to the following reports:

- Medications Infused by CCA
- Medications Infused by Medication
- Medications Infused by Service Line

	Medications Infused
Users	Nurse Manager, Pharmacist, Risk Manager
Synopsis	This report allows the user to drill down into the next level of detail about infusion therapy practices and provides information on the clinician's response to alerts for each individual medication. The report can be viewed by CCA, Medication, or Service Line.
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Includes Soft Limit alerts and/or Hard Limit alerts as applicable, per licensed infuser.
Report Options	Infuser Type: Licensed infuser type(s)
Options	<i>Time Period</i> : Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name (by CCA and Medication views)
	Medication (by CCA and Medication views)
	Service Line (by Service Line view)
	Sort by: Medication (by CCA and by Service Line views) or CCA (by Medication view), Frequency, Total Alerts
	Include Deleted Infusers

Chapter 16: Reports Medications Infused

Usage There are three ways to view the Medications Infused report, as follows: Notes Medications Infused by CCA: The user can determine which medications are the most problematic from an alert perspective, review infusion therapy practices, and adjust the Rule Sets accordingly. Medications Infused by Medication: The user can compare the number of alerts and the response to those alerts for an individual medication across all CCAs. With an understanding of which CCAs have the same Rule Sets defined, differences in infusion therapy practice among CCAs will stand out. Select high risk medications to narrow the amount of data in the report. Medications Infused by Service Line: A service line represents a medical or surgical specialty, such as Oncology, Pediatrics, Labor and Delivery, Critical Care, etc. The service line mapping functionality in Hospira MedNet Meds normalizes CCA definition at each site to a common denominator to support system-wide analysis. For example, Hospital A has CCA 3 North that is an adult medicine unit, while Hospital B of the same healthcare system has CCA 5 South that is the adult medicine unit. Because Hospital A maps 3 North to the service line Medicine-Adult, and Hospital B maps 5 South to Medicine-Adult, infusion therapy practices for similar patients populations can be compared between sites. See Also Infusion Summary, Edit Variance Detail, Edit Variance Summary, Override Variance Detail, Override Variance Summary

Medications Infused Chapter 16: Reports

The following table provides details for all Medications Infused reports

Licensed Infusers	
Field/Column Label	Description
CCA ¹	Name of CCA (if results are grouped by medication)
Medication/Concentration ²	Name and concentration of medication (if results are grouped by CCA or Service Line)
Service Line ³	Name of Service Line
Frequency ⁴	Number of programs
Total Alerts ⁵	Total number of alerts
Hard Limit Alerts •Lower: Total, Edit •Upper: Total, Edit	Number and percentage of Hard Limit alerts and Edits for both lower and upper limits
Soft Limit Alerts •Lower: Total, Override, Edit •Upper: Total, Override, Edit	Number and percentage of Soft Limit Alerts, Edits, and Overrides for both lower and upper limits
Final Program - Confirmed	Number and percentage of times that the clinician has chosen to confirm the program on the initial confirmation screen on the infuser without any changes.
Final Program - Changed	Number and percentage of times that the clinician has chosen to edit or go back at the initial confirmation screen on the infuser. Even if this is done more than once and the clinician eventually confirms the program, it is counted as a single edit. Not all infusers support this functionality. For those infusers, the report will show a value of "0."

Appears in *Medications Infused by CCA* and *Medication Infused by Medication* reports only.

Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."

The **Report Options** screen appears, displaying the available options for the report you selected.

³Appears in Medications Infused by Service Line report only.

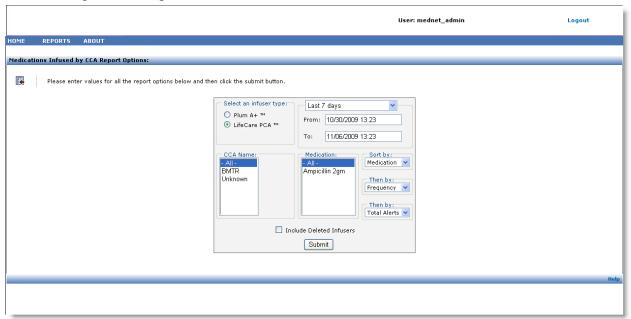
⁴Frequency is equal to the sum of the Final Program values for Confirm and Edit.

⁵A program can have no alerts or can have one or more alerts.

Chapter 16: Reports Medications Infused

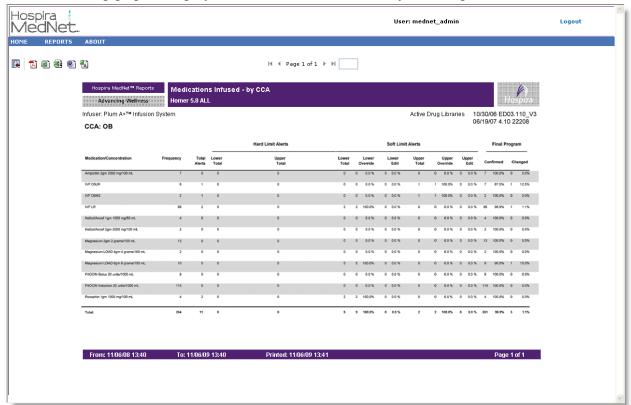
Medications Infused by CCA

This section contains samples of the Report Options screen for **Medication Infused by CCA**, and a sample of the report.



Medications Infused by CCA - Plum A+

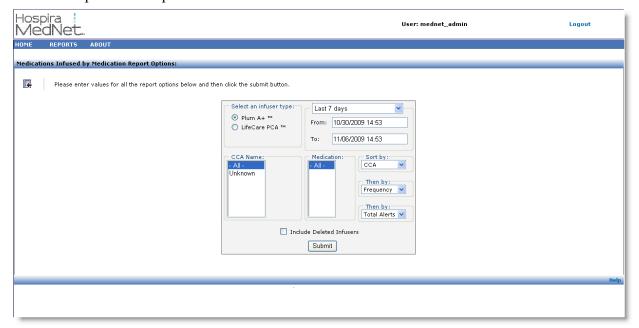
The following graphic displays the **Medications Infused by CCA** report. .



Medications Infused Chapter 16: Reports

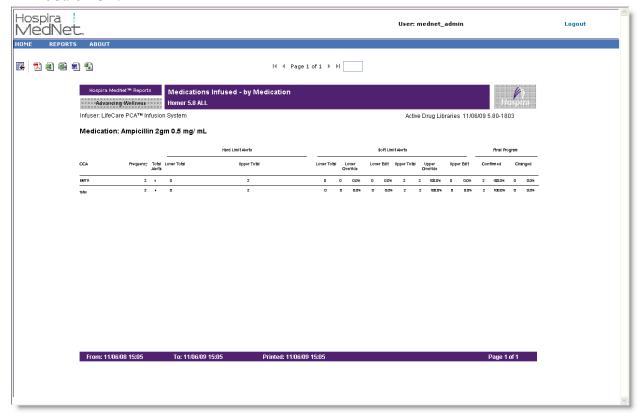
Medications Infused by Medication

This section contains the Report Options screen for the **Medications Infused by Medication**, and a sample of the report.



Medications Infused by Medication - LifeCare PCA

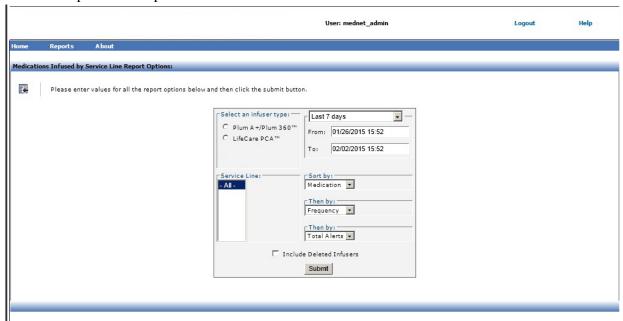
The following graphic displays the **Medications Infused by Medication** report for the LifeCare PCA.



Chapter 16: Reports Medications Infused

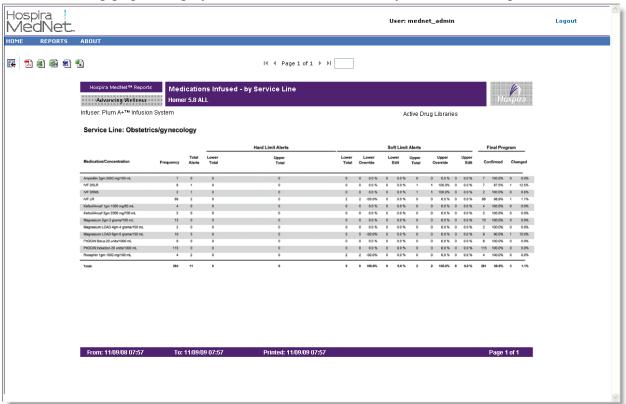
Medications Infused By Service Line

This section contains the Report Options screen for the **Medications Infused By Service Line**, and a sample of the report.



Medications Infused By Service Line

The following graphic displays the **Medications Infused by Service Line** report.



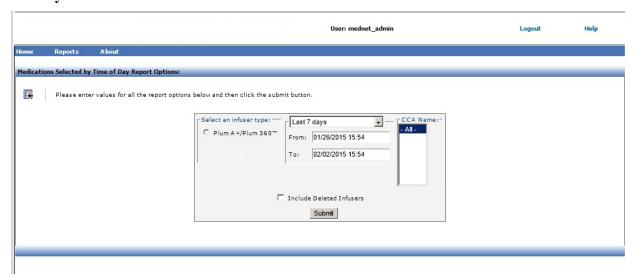
Medications Selected by Time of Day

The following table provides detailed information about the **Medications Selected by Time of Day** report.

Medications Selected by Time of Day	
Users	Nurse Manager, Risk Manager
Synopsis	Displays a bar graph showing the number of infusions started during each hour of the day, including whether or not the clinician selected a medication in the drug library.
Report Format	Bar graph
Infusers	Licensed infusers
Report Differences by Infuser	Plum A+: No Medication Selected includes infusions for which the user chose No Drug Selected
Report Options	Infuser Type: Licensed infuser type(s)
Options	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range)
	CCA Name
	Include Deleted Infusers
Usage Notes	This report may be used to determine whether there is a difference in compliance with using the drug library during different times of the day. Selecting different days or time periods may show that compliance differs at busy times of the day or for different shifts.
	Medications Selected by Time of Day evaluates infusions to determine whether or not a medication was selected. Specifically, the report includes the time of day that the infusion was started and whether a medication in the drug library was selected. Typically, after an infusion is started, rate changes are made and new bags hung without the need to reselect the medication. If a new medication is selected, however, it is counted as a new infusion.
See Also	Infusion Summary
	Total Program Activity

Report Options Screen

The following graphic displays the Report Options screen for **Medications Selected by Time of Day**.



Report Details

This section provides report details and an illustration of the **Medications Selected by Time** of Day report for one type of infuser.

Plum A+/Plum 360		
Field/Label	Description	
Medication Selected	Number of infusions where a medication was selected.	
No Medication Selected	Number of infusions where a medication was not selected.	
Each bar includes the number of infusions initiated during a one hour period.		



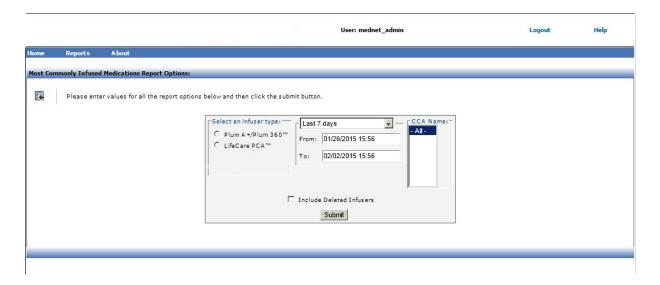
Most Commonly Infused Medications

The following table provides detailed information about the **Most Commonly Infused Medications** report.

	Most Commonly Infused Medications
Users	Nurse Manager, Pharmacist
Synopsis	Provides a graphical representation of the 15 most commonly infused medications selected from the drug library
Report Format	Pie chart
Infusers	Licensed infusers
Report Differences by Infuser	None
Report	Infuser Type: Licensed infuser type(s)
Options	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Include Deleted Infusers
Usage Notes	This report can assist in determining compliance with the drug library, since only medications infused using the library will be reported.
	LifeCare PCA: There will typically be less than 15 medications reported since it is likely that only a few medications are administered via this method.
	Infusions where the medication is not known are not included. For example: No Drug Selected or Other Drug.
	Medications not included in the top 15 as well as those totaling less than 1% of total infusions will be grouped together and displayed as "Other."
See Also	Medications Selected by Time of Day

Report Options Screen

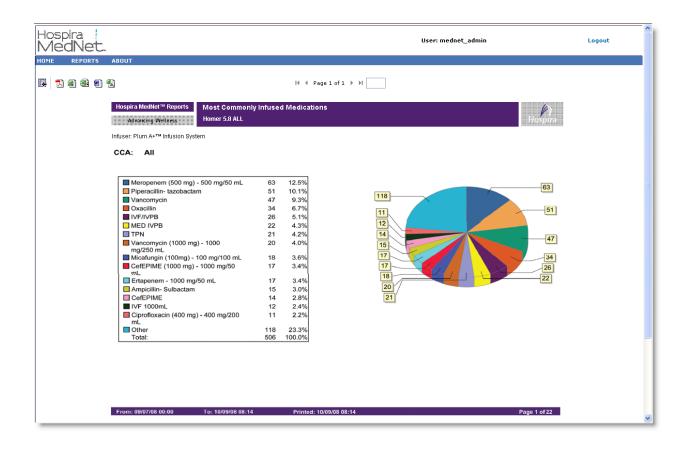
The following graphic displays the Report Options screen for **Most Commonly Infused Medications**.



Report Details

This section provides report details and an illustration of the **Most Commonly Infused Medications** report.

Plum A+/Plum 360 and LifeCare PCA	
Pie Chart	Description
Most Commonly Infused Medications	The top 15 infused medications are displayed. Medications with different concentrations appear in different slices. If the report contains more than 15 medications, a slice named "Other" contains medications not included in the top 15 as well as those accounting for less than 1%.
Note: A legend box defines the each slice, and totals for	color, number, and percentage of infusions per medication for the chart.



Next IV Due Chapter 16: Reports

Next IV Due

The following table provides detailed information about the Next IV Due report.

	Next IV Due
Users	Pharmacist
Synopsis	Provides the pharmacist with information about which IV fluids are due in order to facilitate timely preparation
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	LifeCare PCA: For PCA Only mode, Current Rate and Time IV Due are not displayed. Remaining Volume should be used to determine when the next vial is likely to be due.
Report Options	Infuser Type: Licensed infuser type(s)
Оршоно	Lead Time in Hours
	Remaining VTBI less thanmL
	Exclude containers less than mL (Plum A+/Plum 360 only)
	Patient Name: (if View Protected Health Information privilege is assigned).
	CCA Name
	Medication
	Sort by: Medication, Time IV Due, Patient Name (with View Protected Health Information privilege)
	Include Deleted Infusers
	Hide Patient Name. If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name.)

Chapter 16: Reports Next IV Due

Usage Notes

The Next IV Due report is a tool for the pharmacist to manage IV solution replenishment. The report shows the volume remaining for each medication and the "Time IV Due" to help efficiently schedule the admixture of replacement solutions. Data provided in this report will help minimize nursing calls for new IV bags and reduce pharmacy time spent managing admixture services.

Lead Time in Hours is required

Remaining VTBI less than is optional. If it is specified, the report uses the value as a filter so that infusions with a larger VTBI are not shown.

Exclude containers less than is optional. If it is specified, the report uses the value as a filter so that smaller containers are not shown. The container size is the VTBI programmed by the user. This setting may be useful to help eliminate "noise" that would otherwise be created by antibiotic piggybacks.

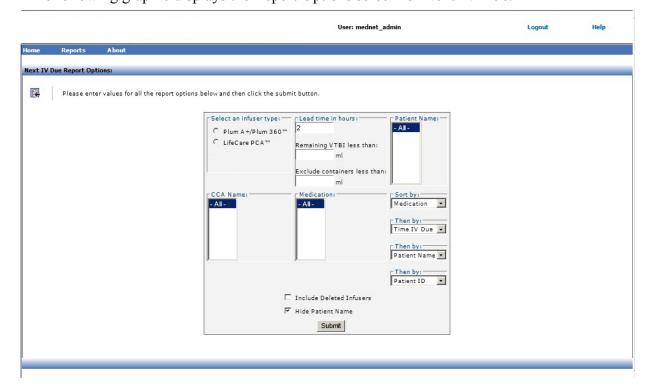
This report contains information about currently running infusions only. For example, if there is an infusion on both the primary and secondary lines, and the secondary infusion is currently running, the primary infusion will not be included.

Time IV Due is calculated based on the infuser's determination of remaining VTBI, which in turn is based on the VTBI entered by the clinician. For multistep infusions, Time IV Due is based on the step that is currently infusing. For LifeCare PCA, the volume of every vial is assumed to be 30 mL.

While patient information is not displayed for a Hospira MedNet BCMA implementation, this report should still be useful, especially if most of the IVs are mixed in a batch mode once or twice a day and there are only a handful of medications that require special attention, such as those that are high cost or have limited stability in solution. By selecting a specific CCA and the desired medications, the report can be cross-referenced to the pharmacy IV records to determine which patient is on which IV.

Report Options Screen

The following graphic displays the Report Options screen for **Next IV Due**.



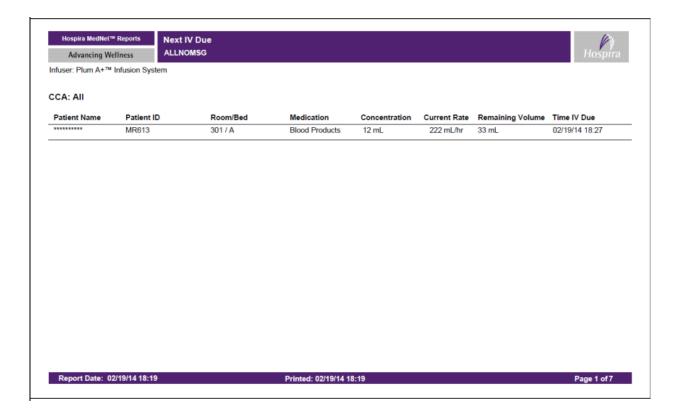
Next IV Due Chapter 16: Reports

Report Details

This section provides report details and an illustration of the **Next IV Due** report for one type of infuser.

Plum A+/Plum 360	
Field/Column Label	Description
Patient Name	Patient name
Patient ID	Patient identification number
Room/Bed	Room and bed number
Medication ¹	Name of medication
Concentration	Medication concentration
Current Rate	Current flow rate of infusion
Remaining Volume	Remaining volume at time of report
Time IV Due ¹	Date and time IV is due
¹ You may sort report results by	this field.

Chapter 16: Reports Next IV Due



Override Variance Detail Chapter 16: Reports

Override Variance Detail

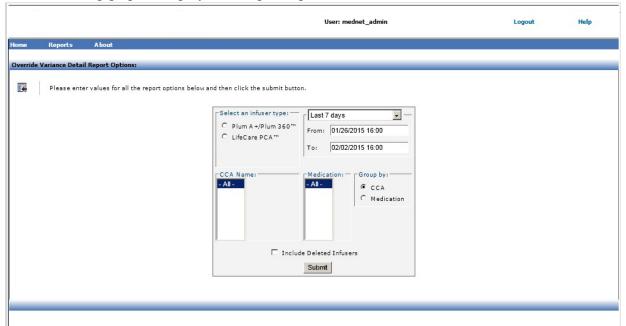
The following table provides detailed information about the **Override Variance Detail** report.

	Override Variance Detail
Users	Pharmacist, Nurse Manager, Risk Manager
Synopsis	Provides a line-item detail of every infuser program where the user received an alert and chose to continue with the entered value. Frequent overrides to a limit may indicate that it may not be set properly to account for actual clinical practice in the hospital.
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Includes user overrides to Soft Limit alerts, as applicable for each infuser type
Report	Infuser Type: Licensed infuser type(s)
Options	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Medication
	Group by: CCA, Medication
	Include Deleted Infusers
Usage Notes	Variance is a calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit. Variance is defined as (Initial Dose – Limit Violated) / Limit Violated, expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.
	The report can be run by CCA or Medication and can contain data for selected CCAs or medications or for all CCAs and medications. Running the report by Medication for high risk medications can easily identify any variances for these medications.
	Initial Dose is the programmed value that triggered the alert. Final Dose is the value accepted at final confirmation when the infuser was started. If several alerts were encountered during a programming sequence, the Final Dose value in the report will be the same for each alert.
	The date and time of each alert are also displayed in the report.
See Also	Edit Variance Summary
	Edit Variance Detail
	Override Variance Summary

Chapter 16: Reports Override Variance Detail

Report Options Screen

The following graphic displays the Report Options screen for **Override Variance Detail**.



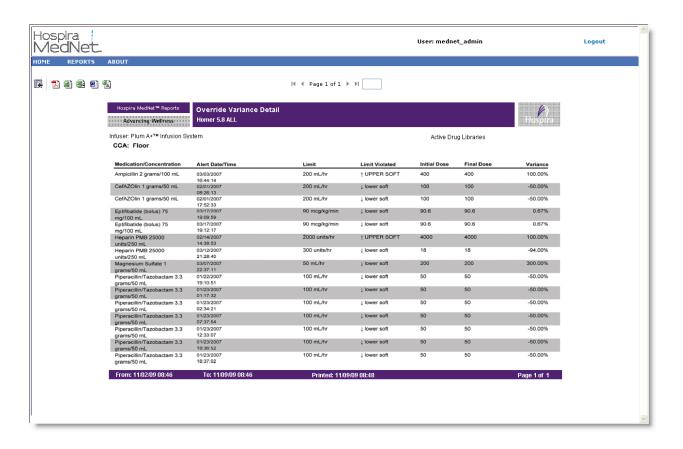
Report Details

This section provides report details and illustrations of the **Override Variance Detail** report.

Plum A+/Plum 360	
Field/Label	Description
Medication/Concentration ¹ or CCA	Medication name if results are grouped by CCA, CCA name if results are grouped by medication.
Alert Date/Time	Date and time of each alert
Limit	Amount and Units
Limit Violated	Upper Soft or Lower Soft
Initial Dose	Initial amount entered by user
Final Dose	Final amount entered by user
Variance	Defined as (Initial Dose – Limit Violated) / Limit Violated
	The result is expressed as a percentage and shown as a negative number for Lower Limit violations, and as a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."

Override Variance Detail Chapter 16: Reports

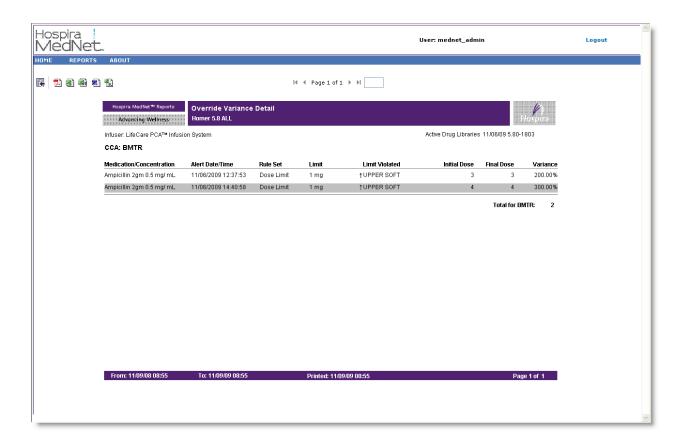


Chapter 16: Reports Override Variance Detail

LifeCare PCA	
Field/Label	Description
Medication/Concentration ¹ or CCA	Medication name if results are grouped by CCA. CCA name if results are grouped by medication.
Alert Date/Time	Date and time of each alert
Rule Set	LifeCare PCA: Loading, Continuous, PCA, Dose Limit
Limit	Amount and Units
Limit Violated	LifeCare PCA: Upper Soft, Lower Soft
Initial Dose	Initial amount entered by user
Final Dose	Final amount entered by user
Variance	Defined as (Initial Dose – Limit Violated) / Limit Violated
	The result is expressed as a percentage and shown as a negative number for Lower Limit violations, and as a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/ 250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."

Override Variance Detail Chapter 16: Reports



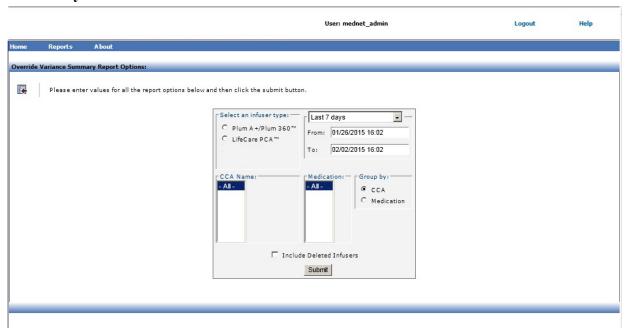
Override Variance Summary

The following table provides detailed information about the **Override Variance Summary** report.

	Override Variance Summary
Users	Pharmacist, Nurse Manager, Risk Manager
Synopsis	Provides a summary of infuser programs where the user received an alert and chose to continue with the entered value.
	Frequent overrides to a limit may indicate that it may not be set properly to account for actual clinical practice in the hospital.
	Contains the same data as Override Variance Detail except that it sums the number of occurrences of Overrides for each Alert Type.
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Includes user overrides to Soft Limit alerts as applicable, per infuser type
Report Options	Infuser Type: Licensed infuser type(s)
Options	<i>Time Period</i> : Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Medication
	Group by: CCA, Medication
	Include Deleted Infusers
Usage Notes	Variance is a calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit. Variance is defined as (Initial Dose – Limit Violated) / Limit Violated. It is expressed as a percentage, and shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.
	The report can be run by CCA or Medication and can contain data for selected CCAs or medications or for all CCAs and medications. Running the report by Medication for high risk medications can easily identify any variances for these medications.
	Initial Dose is the programmed value that triggered the alert. Final Dose is the value accepted at final confirmation when the infuser was started.
See Also	Edit Variance Summary
	Edit Variance Detail
	Override Variance Detail

Report Options Screen

The following graphic displays the Report Options screen for the **Override Variance Summary**.

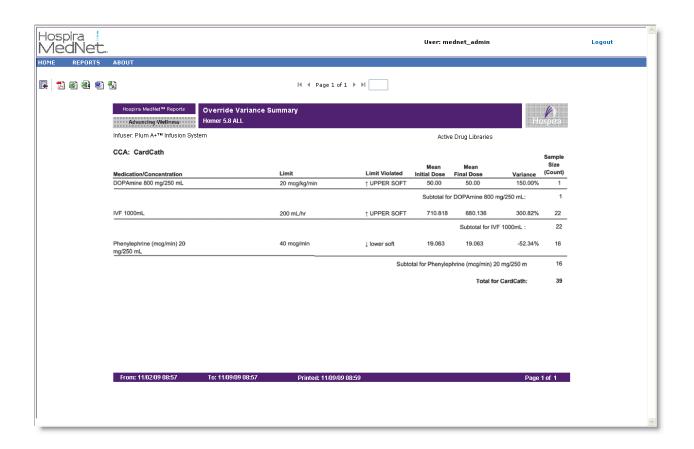


Report Details

This report details section describes features, and provides graphic examples of the **Override Variance Summary** report.

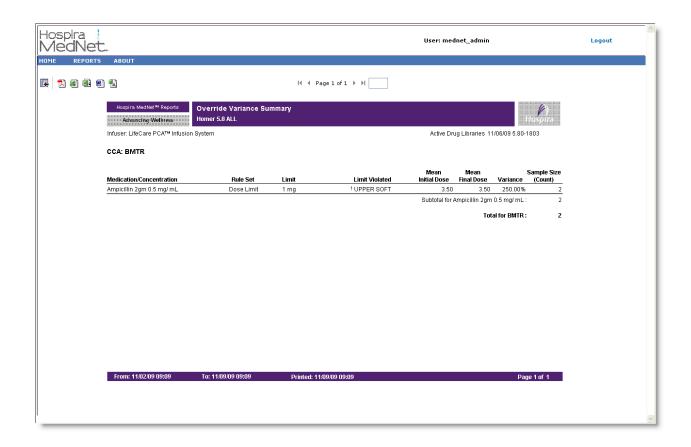
Plum A+/Plum 360	
Field/Column Label	Description
Medication/Concentration ¹ or CCA	Medication name if results are grouped by CCA, CCA name if results are grouped by medication.
Limit	Amount and Units
Limit Violated	Upper Soft or Lower Soft
Mean Initial Dose	Average of initial doses entered
Mean Final Dose	Average of final doses entered
Variance	Defined as (Mean Initial Dose – Limit Violated) / Limit Violated The result is expressed as a percentage and shown as a negative number for Lower Limit violations, and as a positive number for Upper Limit violations.10,000% is the maximum displayable variance.
Sample Size (Count)	Number of programs that exceed the limit

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."



LifeCare PCA	
Field/Label	Description
Medication/Concentration ¹ or CCA	Medication name if results are grouped by CCA; CCA name if results are grouped by medication.
Rule Set	LifeCare PCA: Loading, Continuous, PCA, Dose Limit
Limit	Amount and Units
Limit Violated	LifeCare PCA: Upper Soft, Lower Soft
Mean Initial Dose	Average of initial doses entered
Mean Final Dose	Average of final doses entered
Variance	Defined as (Mean Initial Dose – Limit Violated) / Limit Violated The result is expressed as a percentage and shown as a negative number for Lower Limit violations, and as a positive number for Upper Limit violations. 10,000% is the maximum displayable variance.
Sample Size (Count)	Number of programs that exceed the limit

¹Medication/Concentration is comprised of the displayed name of the medication and its concentration value. If a displayed name for a particular medication includes concentration (for example, Drug 500 mg/ 250 mL), Medication/Concentration may appear as "Drug 500 mg/250 mL 500 mg/250 mL."



PCA History Chapter 16: Reports

PCA History

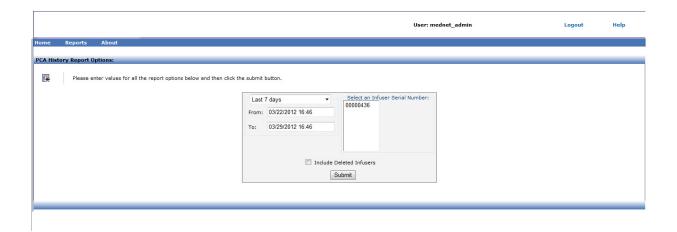
The following table provides detailed information about the **PCA History** report.

	PCA History
Users	Nurse, Nurse Manager
Synopsis	This report allows the user to obtain PCA medication usage data for an individual infuser.
Report Format	Table
Infusers	LifeCare PCA
Report Options	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	Serial Number
	Include Deleted Infusers
Usage Notes	The user specifies an infuser and the time period for the report. The output contains a summary of the infusion settings, history of drug infusion data, and PCA attempts by hour. This information may be useful to report total amounts of medication infused, or calculating oral medication needs when transitioning patients off of PCA therapy.
	The Medication Delivered and PCA Attempts sections indicate a time period for the program. The value reported for the end of the time period may be the start time of the new program or the end of the report period if Hospira MedNet is unable to determine the precise end of the program.
	Continuous Rate values reported in the Medication Delivered section are estimated based on the programmed Continuous rate setting. This value is reported in the Program Settings section. These values do not take into account the time during which the infuser was paused or stopped. Continuous Rate displays zero in the hourly time periods after a Dose Limit has been reached.
	The Medication Delivered and PCA Attempts sections will not display a row for any hour period in which no medication was delivered or no PCA attempts were made.
	If an infusion lasts less than five minutes, the Medication Delivered recorded in the report will not match the Medication Delivered on the infuser. However, the infusion can be seen in real time in the Infusion Status view.

Chapter 16: Reports PCA History

Report Options Screen

The following graphic displays the Report Options screen for PCA History.

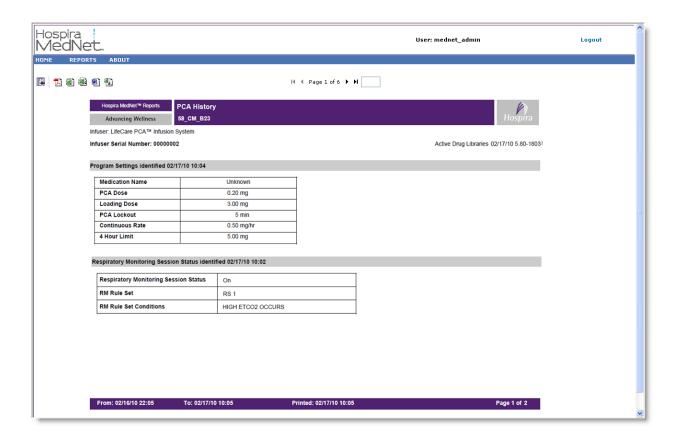


Report Details

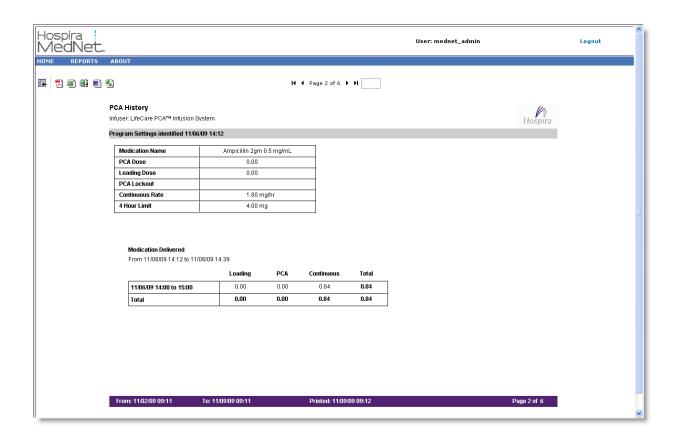
This section provides report details and an illustration of the PCA History report.

LifeCare PCA	
Field/Label	Description
	Program Settings Section
Drug Name	Name of medication
PCA Dose	Programmed PCA dose
PCA Lockout	Time duration of lockout
Loading Dose	Programmed loading dose
Continuous Rate	Programmed Continuous Rate
X Hour Limit	Programmed Dose Limit
	X refers to the number of hours that the Dose Limit was programmed.
	PCA History Section
Medication Delivered	Loading, PCA, Continuous, Total
	Displayed for each hour during the report period
PCA Attempts	Completed, Partial, Denied
	Attempts displayed for each hour during the report period.
	orogram settings made on the infuser, the Medication Name, ockout, Loading Dose, Continuous Rate, and/or Hour Limit may

PCA History Chapter 16: Reports



Chapter 16: Reports PCA History



PCA Utilization Chapter 16: Reports

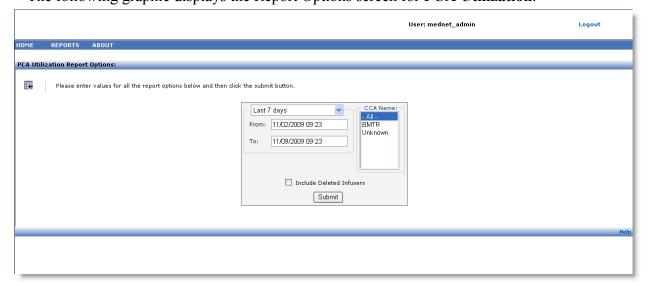
PCA Utilization

The following table provides detailed information about the PCA Utilization report.

	PCA Utilization
Users	Pharmacist, Nurse Manager
Synopsis	Provides statistics regarding PCA therapy, such as the frequency of use for each mode as well as the use of protocols
Report Format	Table
Infusers	LifeCare PCA
Report Options	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).
	CCA Name
	Include Deleted Infusers
Usage Notes	The PCA Utilization report provides a variety of statistics regarding how PCA therapy is used in the hospital. For each CCA, the user can see which medications and modes of therapy are used most often. In addition, the user can assess how frequently clinicians are using the protocol feature of the LifeCare PCA (if protocols have been defined in the drug library).

Report Options Screen

The following graphic displays the Report Options screen for PCA Utilization.

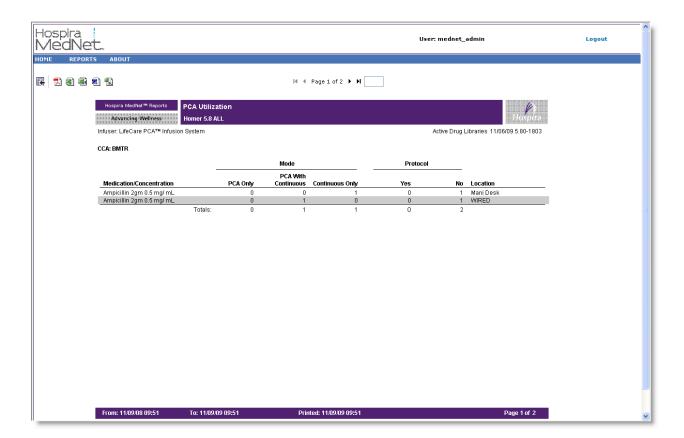


Chapter 16: Reports PCA Utilization

Report Details

This section provides report details and an illustration of the **PCA Utilization** report for the LifeCare PCA infuser.

LifeCare PCA		
Field/Label	Description	
Medication/Concentration	Medication name and displayed concentration	
Mode	PCA Only, PCA With Continuous, Continuous Only Totals for each mode appear at the bottom of the report	
Protocol	Yes/No, indicates whether a protocol was used	
Location	Access point description	



Software Download Chapter 16: Reports

Software Download

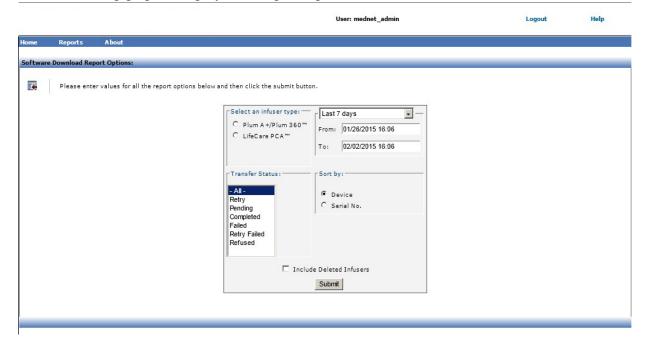
The following table provides detailed information about the **Software Download** report.

Software Download			
Users	Biomedical, IT, Materials Management		
Synopsis	Provides data for each infuser on its software version and latest transfer status.		
Report Format	Table		
Infusers	Licensed infusers		
Report Differences by Infuser	None		
Report Options	Infuser Type: Licensed infuser type(s)		
	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).		
	Transfer Status: All, Retry, Pending, Completed, Failed, Retry Failed, Refused		
	Sort by: Device, Serial Number		
	Include Deleted Infusers		
Usage Notes	Software download will be managed by Hospira Field Service Representatives. This is not a customer activity.		
	The report includes all infusers able to receive software download from Hospira MedNet. It does not include infusers requiring a firmware upgrade (i.e., a new plug and play module).		
See Also	Asset Tracker		
	Asset Utilization		
	Event/Alarm Log		

Chapter 16: Reports Software Download

Report Options Screen

The following graphic displays the Report Options screen for Software Download.

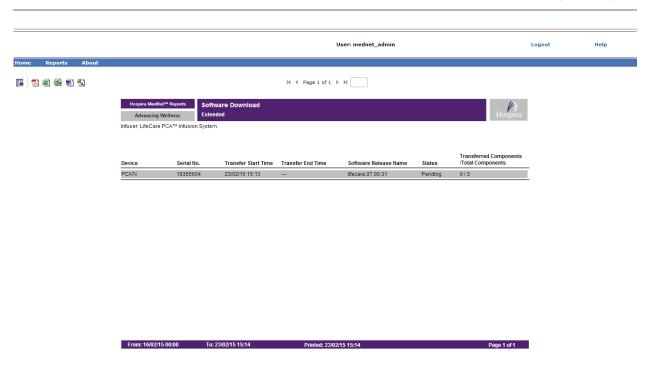


Report Details

This section provides report details and an illustration of the Software Download report.

Plum A+/Plum 360 and LifeCare PCA			
Field/Label	Description		
Device	The logical ID of the infuser		
Serial Number	The infuser's serial number		
Transfer Start Time	Date and time transfer began		
Transfer End Time	Date and time transfer ended (or "" if it has not completed)		
Software Release Name	Name of software release transferred		
Status	Download status received from the device (for example, Retry, Pending, Completed, Failed, Retry Failed, Refused)		
Transferred Components/ Total Components	The number of successfully downloaded, and total number of components Appears as a ratio (for example, 3/5)		
Note: The report can	be filtered by Infuser Type and Transfer Status.		

Software Download Chapter 16: Reports



Chapter 16: Reports Total Program Activity

Total Program Activity

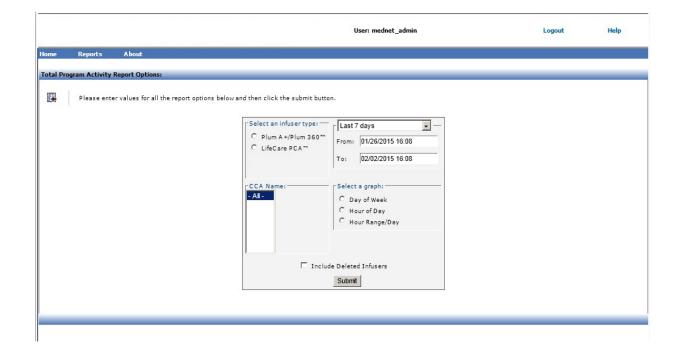
The following table provides detailed information about the **Total Program Activity** report.

Total Program Activity		
Users	Nurse Manager, Risk Manager	
Synopsis	Provides a view of all programming activity including total edits and overrides for the selected time period. This quick overview indicates how appropriate the library limits are for clinical practice.	
Report Format	Line graph	
Infusers	Licensed infusers	
Report Differences by Infuser	The LifeCare PCA version does not include a "Medication Selected" line. A medication is always selected because the infuser requires the user to scan a vial with a recognized barcode.	
Report Options	Infuser Type: Licensed infuser type(s)	
	Time Period: Since 12 a.m. today, Since 12 a.m. yesterday, Last 12 hours, Last 24 hours, Last 48 hours, Last 7 days, Last 30 days, Last 3 months, Last 6 months, Last 12 months, Other (specific date range).	
	CCA Name	
	Select a Graph: Day of Week, Hour of Day, Hour Range/Day	
	Include Deleted Infusers	
Usage Notes	Total program activity includes the line graphs of the total number of programs, as well as total programs with a medication selected, total number of edits, and total number of overrides for each time period.	
	A single program may include multiple edits and/or overrides.	
	Select a Graph may be changed to view the results differently: by Day of Week, Hour of Day, or Hour Range per Day. Using different views of results may facilitate the discovery of practice variations by time of day or day of week.	
	Since the report displays results by day (Hour of Day, Hour Range/Day), or by week (Day of Week), you should select a time period of a minimum of one day or one week, accordingly. Using longer time periods may provide more meaningful results.	
See Also	Infusion Summary	
	Line Usage Analysis	

Total Program Activity Chapter 16: Reports

Report Options Screen

The following graphic displays the Report Options screen for Total Program Activity.



Chapter 16: Reports Total Program Activity

Report Details

This section provides report details for each type of infuser and an illustration of the **Total Program Activity** report.

Plum A+/Plum 360 and LifeCare PCA				
Field/Label	Description			
Total Programs	Number of total programs			
Med Selected (Does not include LifeCare PCA)	Number of medications selected			
Edits	Number of edits			
Overrides	Number of overrides			
Select a Graph Options				
Hour of Day	Reports display a graph of four lines with data points for each hour of the day.			
	Horizontal axis displays time periods for each hour of the day, expressed in military time.			
Day of Week	Reports display a graph of four lines with data points for each day of the week.			
	Horizontal axis displays days of the week, arranged Sunday through Saturday.			
Hour Range/Day	Reports display a graph of four lines with data points for each day of the week.			
	Days of the week are abbreviated as: Su, M, Tu, W, Th, F, and Sa.			
	Horizontal axis displays time periods labeled 0000-0600, 0600-1200, 1200-1800, and 1800-2400, with the abbreviation for each day of the week (for example, 1800-2400 Su).			

Note: Since the reports display results by day or week, you should select a time period of a minimum of one day or one week, accordingly.

Total Program Activity Chapter 16: Reports



Chapter 16: Reports Total Program Activity

Notes:

Appendix A: Hospira MedNet Integrator

Hospira MedNet Integrator provides interfaces to a hospital's enterprise level applications and serves as the conduit for the exchange of data between infusers, the Hospira MedNet server, and a variety of hospital information systems. This functionality is also known as auto documentation. Hospira MedNet Integrator can also support an interface from the pharmacy system to Hospira MedNet Meds.

When interfaced to a BCMA (Bar Code Medication Administration) or EMR (Electronic Medical Record) system, Hospira MedNet Integrator supports electronic documentation of IV administration events into the patient record. This integration also allows the BCMA system to incorporate the IV infusion rate into the Five Rights verification process.

When interfaced to a monitoring system, Hospira MedNet Integrator supports the display of current program values (medication, concentration, dose, rate, and volume infused) as well as events such as start, stop, or rate change in the patient record.

Integrations with BCMA, EMR, or monitoring systems may require a workflow that provides the ability to associate the patient with the infuser.

The workflow for the clinician is as follows:

- Scan the patient identification, the medication container and the pump using the BCMA or eMAR (Electronic Medication Administration Record) system and its bar code scanner
- Program the infuser based on the physician's order
- Confirm the programming and start the infusion

Once the infusion has started, Hospira MedNet sends the program values (medication/ concentration, dose, rate, volume infused) back to the other system (for review and documentation).

When interfaced to a pharmacy system, Hospira MedNet Integrator's Formulary Interface provides a mechanism for the pharmacist to assure that medication entries in the drug library are synchronized with the hospital formulary. (See *Hospira MedNet Meds User Guide*.)

Note: The specific functionality available to you will depend on your institution's Hospira MedNet software license.

Setting up Hospira MedNet Integrator for BCMA integration

• Define a bar code strategy for identifying each channel of the infusers that will be used and affix the bar code label to each channel

WARNING! To ensure that information is sent to the Bar Code Medication. Administration (BCMA) system from the correct infuser, Hospira strongly recommends that before you go-live with Hospira MedNet Integrator, you verify the bar code label affixed to each infuser corresponds to the correct channel.

Important:

Please compare the infuser data on the infuser with the data received from the BCMA. In the event of a discrepancy, please chart the infuser data manually.

Notes:

Appendix B: Hospira MedNet Programmer

Hospira MedNet Programmer provides the ability for an IV medication order from the BCMA (Bar Code Medication Administration) system to be translated into operational settings that can automatically populate on the infuser. This functionality is also known as auto-programming.

The integration with a BCMA system supports electronic documentation of IV administration events into the patient record, allows the BCMA system to incorporate the IV infusion rate into the Five Rights verification process, and reduces the number of steps to manually program the infuser as well as the potential for programming errors.

Hospira MedNet Programmer provides two level of functionality:

- Medication ID Programming where the medication name and concentration are automatically populated on the infuser
- Complete Auto-Programming where the medication name and concentration along with the dose, rate, and volume to be infused are automatically populated on the infuser

Both Medication ID Programming and Complete Auto-Programming help ensure that the drug library limits for each medication are enforced.

The workflow for the clinician is as follows:

- Scan the patient identification, the medication container, and the pump using the BCMA application and its bar code scanner
- Enter any other required programming values on the infuser (for example, for Medication ID Programming, rate, and volume to be infused)
- Confirm the program and start the infusion

Once the infusion has started, Hospira MedNet sends the program values (medication/concentration, dose, rate, volume to be infused, and duration) back to the BCMA system (for review and documentation).

How Hospira MedNet Programmer Works

- The medication order parameters received from the BCMA system are compared to those in the Hospira MedNet Meds library based on the External ID associated with the medication.
- After verifying the order is within the allowed parameters, the Hospira MedNet software sends the program parameters to the infuser
- All data entry and infusion parameters are validated by the clinician at the infuser according to the physician's order
- The clinician always has the option of programming the infuser manually

The auto-programming feature is intended to be used each time the clinician hangs a new IV container.

Note: The specific functionality available to you will depend on your institution's Hospira MedNet software license.

Setting up Hospira MedNet Programmer

- Ensure your Medication List import file contains the External ID used by the BCMA system when patient orders are sent to Hospira MedNet (see *Hospira MedNet Meds User Guide*)
- Define a bar code strategy for identifying each channel of the infusers that will be used; affix the bar code label to each channel

WARNING! To ensure a therapy is being sent to the correct infuser, Hospira strongly recommends that before go-live with Hospira MedNet Programmer you verify the bar code label affixed to each infuser corresponds to the correct channel to which the software sends auto-programming information.

Important:

Please verify the auto-program received from the BCMA system matches the auto-program received on the infuser before starting the therapy. In addition, please verify that the auto-program response from the infuser matches the auto-program response received by the BCMA system.

Error Handling

The Hospira MedNet software will reject or modify medication orders under certain conditions. When a medication order is rejected, an error message is sent to the BCMA system and no values display on the infuser.

Rejected Orders

Medication orders are rejected when the following occurs:

- Dose rate units in the medication order are not supported by the infuser
- Dose rate units in the medication order do not match the dose rate units for the corresponding medication entry in the drug library
- The infuser and/or channel scanned by the clinician is unknown or offline
- The channel is currently infusing and cannot accept a new program
- The medication order contains a program parameter(s) that exceeds the range accepted by the infuser and/or CCA
- The patient weight on the infuser does not match the patient weight in a weight-based order (Plum A+ infuser only)
- The channel has already been programmed for Standby or Delayed Start

Note: If an order is rejected by the infuser, Hospira MedNet automatically sends a message to the BCMA to inform of the rejection and the reason for it.

Modified Orders

The information displayed on the infuser will be modified as follows:

- The Hospira MedNet software attempts to convert a strength value contained in the medication order to a related unit in order to successfully match a medication entry in the drug library; applies to grams and units family only. For example, 2 grams is converted to 2000 mg.
- The Hospira MedNet software will round dose, rate, and patient weight values received from the BCMA system according to the level of precision that can be accepted by the infuser. For example, if Hospira MedNet receives a rate of 45.6667 mL/hour from the BCMA system, a rate of 45.7 mL/hr will be sent to the infuser.
- When the Hospira MedNet software is unable to identify a medication entry corresponding to the medication in the order, the program parameters will be sent to the pump and the medication will be displayed as "No Drug Selected" for the Plum A+ and Plum 360.

Note:	Medication orders that consist of more than one additive will generally display as "No I	Drug
	Selected".	

Notes:

Appendix C: Enhanced Asset Tracking

The optional Enhanced Asset Tracking feature integrates Hospira MedNet and radio frequency identification (RFID) location information from an external real-time location system (RTLS).

General Information

A RFID tag is attached to each infuser. Each tag is configured to communicate its location frequently. Please see your vendor information for details.

RFID tags have an estimated battery life of up to five years.

The description of the location depends on the level of detail maintained in the RTLS system.

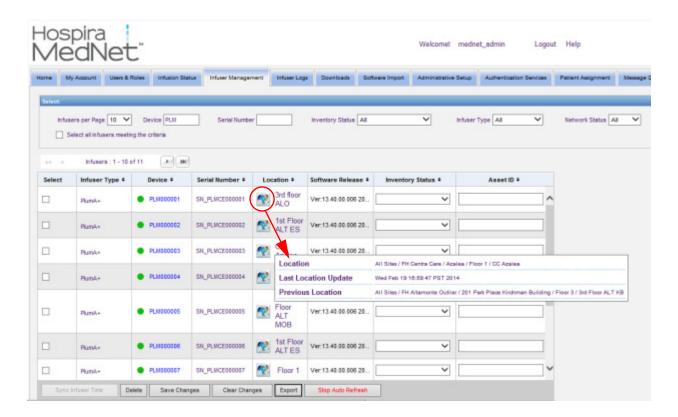
Enhanced Asset Tracking (EAT) is a licensed feature that can be **Enabled** or **Disabled**. When **Enabled** and connected to an asset tracking server that is registered with Hospira MedNet, the infusers' location information becomes available.

Navigating

1. Log in and access Hospira MedNet Administrator.



- 2. Select the Infuser Management tab or the Downloads tab.
- 3. The information in the Location column is provided by the RTLS. The same location information is also used in Hospira MedNet reports.
- 4. Hover over the icon next to the infuser's Location to see a pop-up showing the current location, last update time, and previous location. The location is displayed as it is specified in the RTLS.



Note: If you click on the icon next to the location of the infuser, you will be taken to the asset tracking server.

For additional information, please refer to the RLTS vendor's documentation.

Appendix D: User Roles and Privileges

Privilege ID	Privilege Title	1 Administrator	2 Administrator Limited	3 Clinical Administrator	4 Reports Limited	5 Reports Full	6 Pharmacist I	7 Pharmacist II	8 Biomed	9 IT	10 Materials Management
1	My Account	х	X	X	X	X	x	X	X	X	x
2	Users & Roles	Х	Х	Х							
3	Administrative Setup	X	Х	Х						x	
4	Reports Limited				Х						
5	Reports Full	x	Х	X		X	х	x	х	x	x
6	Library Download	x	Х	X					х	x	x
7	Infuser Management	х	Х	Х					х	x	x
8	Access Point Mapping	х	Х						х	X	x
9	Manage Finalized Libraries	Х		Х				Х			
10	Manage Worksheets	х		х			х	х			
11	View Drug Libraries	х	х	х			х	x			
12	Software Management	х	х						х	x	х
13	View Medications	х	Х	х			х	X			
14	Manage Medications	х		х				х			
15	Configure Formulary Interface	х		х							
16	Authentication Services	х								х	
17	Infusion Status	х	Х	Х	X	Х	х	X	х	x	x
18	Manage Patient/Pump Assignments	х									
19	View Protected Health Information	Must be setup									
20	Manage Message Queues	х								х	
21	Infuser Logs	х	Х						х	X	х
22	Administrative Setup/ Database Maintenance									X	

Note: Shaded rows indicate privileges for Hospira MedNet Meds.

Notes:

Appendix E: Character String Specifications

Field	Minimum Length	Maximum Length	Characters Allowed	Interior Spaces Allowed
Password	8	20	Any printable character	Yes
Login ID	8	20	Any printable character	No
First Name	0	20	Any printable character	Yes
Middle Name	0	10	Any printable character	Yes
Last Name	0	20	Any printable character	Yes
Suffix	0	10	Any printable character	Yes
Initials	0	5	Any printable character	Yes
Role Name	1	50	Any printable character	Yes
LDAP Group Name	0	50	Any printable character	Yes
Role Description	0	1024	Any printable character	Yes
Patient ID	0	20	Any printable character	Yes
Patient First Name	0	30	Any printable character	Yes
Patient Last Name	0	50	Any printable character	Yes
Infuser ID	0	32	Any printable character	Yes

Note: If you have the View Protected Health Information privilege, Patient ID, Patient First Name, Patient Last Name, Infuser ID each have a minimum of 0 and a maximum of 100.

Notes:

Appendix F: Troubleshooting

Problem	Reason	Solution
Infuser status displays as "Requested" for a very long time in the Library Download view	The download to the infuser failed for one of the following reasons: •The library download page did not refresh •The library is invalid •The infuser is not connected to the network •The infuser rejected the library	 Click Refresh. If the problem is not resolved: a. Turn off and unplug the infuser from AC power for two minutes b. Switch infuser connectivity: if wireless, connect an Ethernet cable; if wired, disconnect the Ethernet cable Select the infuser, click Cancel. Attempt the library download again. If the problem continues, contact Hospira.
Difficulties logging in	Security settings in Internet Explorer may be set too high	Adjust security settings in Internet Explorer to Medium privacy and Local Intranet Zone.
Events are not displayed in the server	Infuser has not been connected long enough to the server, or the infuser is in low battery state	If the infuser is in low battery state, connect to AC power and wait at least ten minutes. If the problem is not resolved: 1. Turn off and unplug the infuser from AC power for approximately two minutes, then reconnect AC and turn back on or Switch the infuser's connectivity: if wireless, connect an Ethernet cable; if wired, disconnect the Ethernet cable 2. Replace the battery If the problem continues, contact Hospira.

System Logs

Hospira MedNet Software system logs can be useful when troubleshooting. They are located in a location similar to the one specified below.

To access system logs:

1. Using any text editor, enter the path below to access Hospira MedNet Software system logs:

C:\Hospira\Hospira-MedNet-6.1\jboss-4.2.3.GA\server\hmssv6\log

and

C:\Hospira\Hospira-MedNet-6.1\virgo-tomcat-server-3.6.1.RELEASE\serviceability\logs

Note: The Hospira MedNet Software version number, as well as the JBoss application server location, could be different from what is specified above, depending on how Hospira MedNet Software is installed and set up.

Notes:

Glossary

Active Drug Library	Worksheet that has been finalized and is available to send to infusers				
Archived Drug Library	Previously active library				
BCMA	Acronym for Bar Code Medication Administration system				
Callback Notification	Setting that configures the infuser to emit an audible tone				
CCA (Clinical Care Area)	Patient group in which the infusion therapy parameters are the same				
	A CCA may be the same as a physical nursing unit or may encompass a patient population or a clinical use. For example, the following may be defined as CCAs: ICU, Blood Products, Med/Surg, Orthopedics, Endoscopy, etc.				
CE	Acronym for Connectivity Engine that allows the infuser to communicate with a wired or wireless network				
Concurrent Delivery (Plum A+)	Setting for Line B mode				
Container Volume	Volume of the bag, bottle, or vial used to define a medication entry				
Continue Rate	Delivery rate after the VTBI amount has been infused				
CSV file	Comma separated value file format used by the software for importing and exporting certain files				
Custom Syringe or Vial	Bar coded sterile empty vial that is custom-filled by a pharmacy				
Default Occlusion Pressure	Pressure at which the infuser will sound the distal occlusion alarm				
Delayed Start	Programming option that allows the infusion to be started at a later time				
	Similar to standby				
Deliver Together	Setting for the Plum A+ that defines the type of delivery mode, piggyback or concurrent				
Diluent Amount	Volume of fluid in which a medication is diluted				
Distal Occlusion	Blockage between the infuser and the patient				
Dose Limit (LifeCare PCA)	User-programmable parameter specifying the maximum amount of drug that can be administered via LifeCare PCA dose and continuous delivery in a programmable rolling time period consisting of discrete accumulation periods of six minutes				
	Note: When the default drug library is used, a 1-hour or 4-hour Dose Limit period may be selected in Biomed mode. When a user-defined drug library is used, a 1-hour, 4-hour, 6-hour, or 12-hour Dose Limit period may be specified for each medication.				

Drug Library	Collection of medication entries and infuser settings that, when used with compatible infusers, may reduce the frequency of human errors by restricting the ways in which medications can be administered
Drug Library Worksheet	Drug library that can be edited but cannot be sent to infusers until it is finalized
Edit	The user responded to an alert by changing the value entered
Enable Delay/Standby	Infuser setting for Plum A+ that allows the infuser to be programmed for a waiting period before a therapy begins
External ID	An identifier for a Medication. Each Medication in the Medication List must have a unique External ID
Finalized Drug Library	Drug library that has been approved for use on infusers and can no longer be changed
Finalization	The act of approving a Worksheet and making it the Active library
Full Rule Set	Type of rule set that allows medication entries to be configured with a medication name, complete or partial concentration, specific dosing unit, and corresponding dose rate limits
Hard Limit	Upper and/or lower limits for the selected medication and selected CCA that cannot be overridden (Plum A+ and LifeCare PCA)
	Hard limits are not required to be defined for a medication
	Hard limits may vary for different CCAs
Hard Limit Alert	An alert presented to the user when a hard limit is exceeded. The user's response depends on the infuser: for Plum A+ and LifeCare PCA, the user must edit the value entered so that it does not exceed the hard limit.
HIS	Acronym for Hospital Information System
Infusion	Single medication and concentration infused on a patient
	An infusion may be associated with one or more programs
KVO (keep vein open)	Very low delivery rate that may reduce the potential for clot formation at the catheter tip
Label Only Rule Set (Plum A+)	Type of rule set that allows medication entries to be configured with a medication name, complete or partial concentration, and specific dosing unit
	Dose rate limits cannot be assigned to a "Label Only" medication entry
	The "No Rule Set" icon is displayed on the infuser when this type of rule set is used
LDAP	Acronym for Lightweight Directory Access Protocol, a network protocol that enables applications to use a company's existing network directory listing for user names and passwords, thus allowing the company's network administrators to manage login access to multiple applications from one central source. For example, users can use their company's network login information with the same credentials (user name and password) to access Hospira MedNet Software

LifeCare PCA Lockout Interval	Programmed time interval specifying the minimum time that must pass after a loading dose or PCA dose (bolus) is administered; this time interval specifies when the next PCA dose can begin. Requests made during the lockout interval are denied.				
LifeCare PCA Vial	Vial compatible with the infuser that is either prefilled with drug by Hospira (standard vial) or filled by the hospital pharmacy (custom vial)				
Limited Rule Set (Plum A+)	Type of rule set that allows medication entries to be configured with a medication name, optional diluent volume, and rate limits				
	Dosing units for a Limited rule set includes mL/hour				
Loading Dose	Optional dose which can be administered at any time by the clinician during the programmed therapy (LifeCare PCA only)				
Master Drug Formulary	Comprehensive list of medications and rule sets defined for use in a drug library				
Maximum Dose Rate	Highest rate at which the infuser can be programmed to run				
Medication Entry	Rule set defined for a unique combination of a medication and concentration				
Medication List	List of medications used by the hospital. The Medication List is used to define drug libraries				
Multistep	Programming option that allows delivery in steps or phases with different parameters for each step				
Occlusion	Blockage in the tubing set that prevents the infuser from infusing fluid into the patient. Possible causes of occlusions are kinked or plugged tubing				
Override	The user responded to an alert by acknowledging it and accepting the value entered				
Piggyback Mode (Plum A+)	Programming option that allows the delivery of a secondary container while delivery from the primary is suspended. When the secondary container has completed delivery of the volume to be infused, the primary resumes delivery				
Prime					
Fillie	Clear out or purge air from the tubing. Same as Purge				
Program	Clear out or purge air from the tubing. Same as Purge Infuser settings made by the clinician which can result in an alert. These include the settings to start a new infusion and changes to the dose or rate:				
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	Infuser settings made by the clinician which can result in an alert. These include the settings to start a new infusion and changes to the dose or rate: • For the Plum A+, changing a bag, bottle, or syringe is not considered a new program if no other setting was changed • For the LifeCare PCA, changing a vial is not considered a new program if no other setting was changed One or more programs may be associated with an infusion				

Protocols (LifeCare PCA)	Frequently used therapy settings which can be recalled making it unnecessary for the clinician to program the same settings each
	time. Protocols are determined by the health care facility
Proximal Occlusion	Blockage between the infuser and the fluid container
Purge	Clear out or purge air from the tubing. Same as Prime
Report Options	Configurations entered by the user to define the desired report output. Examples include Time period, CCA, Medication, etc.
Rule Set	Constraints that are assigned to medication entries. The type of rule for the medication in the drug library
	 For LifeCare PCA, Rule Sets include PCA, Continuous, Loading, or Dose Limit
	Rule sets can include both soft and hard limits. The Plum A+ has a single rule set
Service Line	A designation used in reports to aggregate data across multiple CCAs or facilities. Each CCA is mapped to a Service Line. For example, a service line called Med/Surg may be used to examine data from the CCAs Four West, Five North, and Five East in a single hospital
Soft Limit	Upper and/or lower dose limits for the selected medication and selected CCA that can be overridden. Soft limits for a particular medication may vary across CCAs
Soft Limit Alert	An alert presented to the user when a soft limit is exceeded. The user may choose to edit or override the value entered in response to the alert
Standby	Programming option that allows the infusion to be started at a later time. Similar to delayed start
Standard Syringe (LifeCare PCA)	Prefilled, bar-coded vial. Standard syringes are also known as prefilled medication vials
Variance	Variance is a calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit.
	Variance is defined as (Initial Dose - Limit Violated) / Limit Violated, expressed as a percentage, shown as a negative number for Lower Limit violations and a positive number for Upper Limit violations.
VTBI	Acronym for Volume To Be Infused
Worksheet	Draft drug library that has not yet been finalized

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Note: Please refer to the System Operating Manual for information on each infuser.