

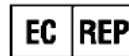
Hospira MedNet™

SOFTWARE USER GUIDE



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

430-98301-001 (C, 2015-08)



Hospira UK Limited
Horizon, Honey Lane, Hurley,
Maidenhead, SL6 6RJ, UK

Notes

Hospira MedNet™ Software

User Guide

Rx Only

REF 16037-75-01

IMPORTANT

Refer to this User Guide for complete instructions for use, warnings, and cautions associated with the Hospira MedNet™ 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™ Software. The help files included with the Hospira MedNet™ 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 doctor's orders.

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

**Hospira Advanced Knowledge Centre
1-800-241-4002
Available 24 hours a day (in the USA)**









For assistance outside the USA, contact your local Hospira Representative

For device feature compatibility with Hospira MedNet™ and/or to obtain a copy of this guide, contact the Hospira Advanced Knowledge Centre or your local Hospira representative, if outside the USA.

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

Change History

Part Number	Description of Change	Pages Changed
430-98301-001 (C, 2015-08)	Initial Release	

Symbols	Description
	Caution
	Warning
	CE Mark
	Catalogue Number
 Hospira, Inc., 275 North Field Drive, Lake Forest, IL 60045, USA	Manufacturer
	Authorised Representative in the European Union
RxOnly	CAUTION: Federal (USA) law restricts this device to sale by or on the order of a doctor or other licensed practitioner
	Consult Instructions for Use
	Date of Manufacture

Notes:

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Chapter 1: Introduction

Hospira MedNet™ 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 MedNet™ suite of software also includes a separate application, Hospira MedNet™ Meds™.

Hospira MedNet™ software enhances safety at the point of care with highly customisable 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 MedNet™ 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 MedNet™ 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 licence.

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

Hospira MedNet™ Connect™ establishes the connectivity between the Hospira MedNet™ server and the infusers. It incorporates ethernet and wireless components allowing Hospira MedNet™ Meds™ and Hospira MedNet™ Administrator™ to exchange information with infusers.

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.

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

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

Hospira MedNet™ Programmer™ 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™ Software User Guide**, Appendix B.

Terminology

This document uses the following conventions:

- References to specific values are approximations only, unless otherwise indicated.
- The terms “Hospira MedNet™ 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™ Software is installed, except as authorised by Hospira.
- Do not enable automatic updates to operating systems on computers on which Hospira MedNet™ 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 back up 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 Centre.

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 licencing and Hospira's compatibility matrix.

Transferring Data

- Ensure that only one instance of the Hospira MedNet™ Meds™ 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.

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 195):

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 193).

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



4. Depending on your software licence, 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.

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 screenshot shows the 'My Account' page in the Hospira MedNet software. At the top, there is a navigation bar with tabs: Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About. The 'My Account' tab is selected. Below the navigation bar, there are two main sections: 'My Account' and 'Access Information'. The 'My Account' section contains fields for First Name (Cecile), Middle Name or Initial, Last Name (Hospira), Suffix, Initials, Department (none), My Name Will Appear As (Hospira, Cecile), Choose the view to display after login (Home (Default)), and Logout Time (No). There are 'Save Changes' and 'Clear Changes' buttons. The 'Access Information' section contains fields for Login ID (MedNetGuide), Current Password, New Password, and Re-type New Password, with a 'Change Password' button. Below this, there are two dropdown menus: 'Roles' (Administrator, Administrator Limited, Biomed) and 'Privileges' (Access Point Mapping, Administrative Setup, Authentication Services, Configure Formulary Interface, Infuser Management, Infusion Status). At the bottom left, there is a 'Locale Setting' section with a 'Locale' dropdown (English (United States)) and a 'Save Locale' button.

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 193 for more information.

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 195](#)):
 - Name
 - Middle Name or Initial
 - Surname
 - Suffix
 - Initials
 - Department (select from drop-down list)

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

2. Click **Save Changes**.

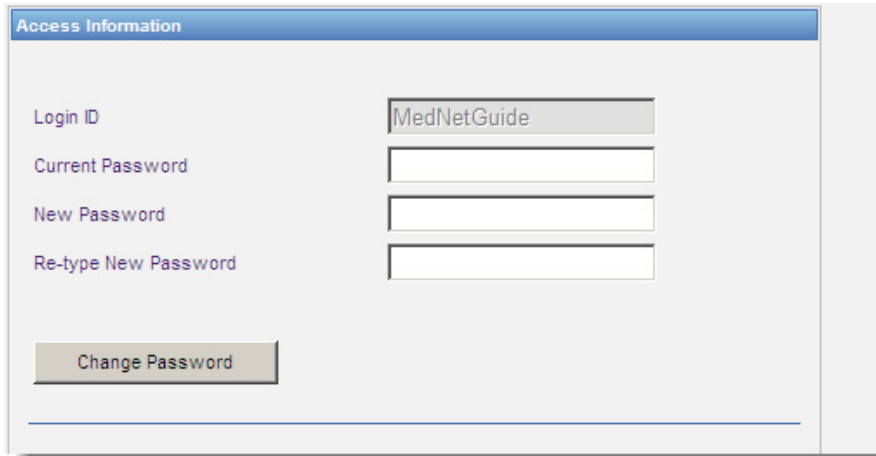
Changing Your Password

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.

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

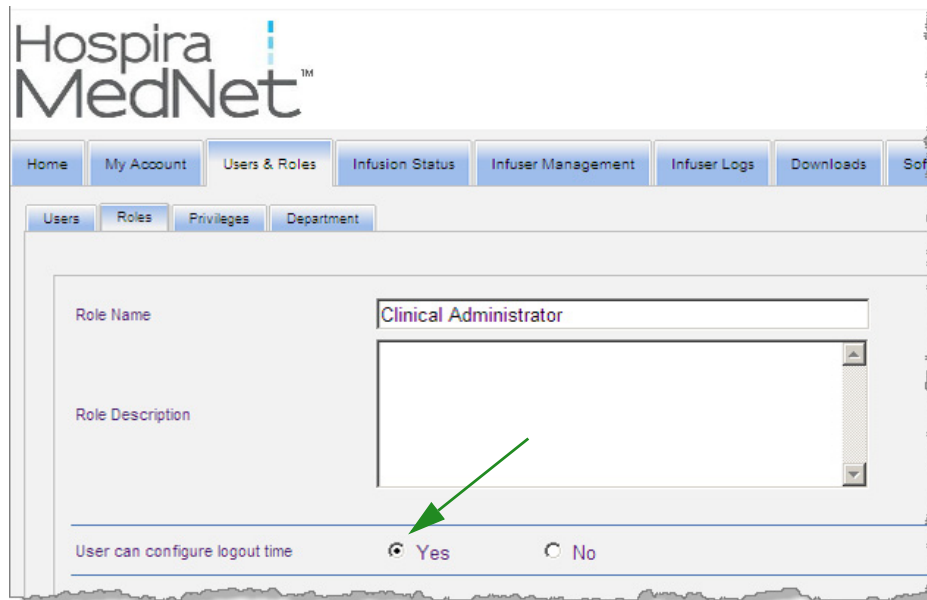
The default Logout Time is 30 minutes. In order to change that time, you will need to have a role that allows you to do so.

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

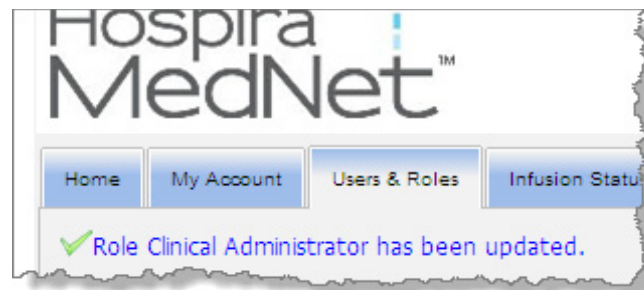


4. Click **Edit**.

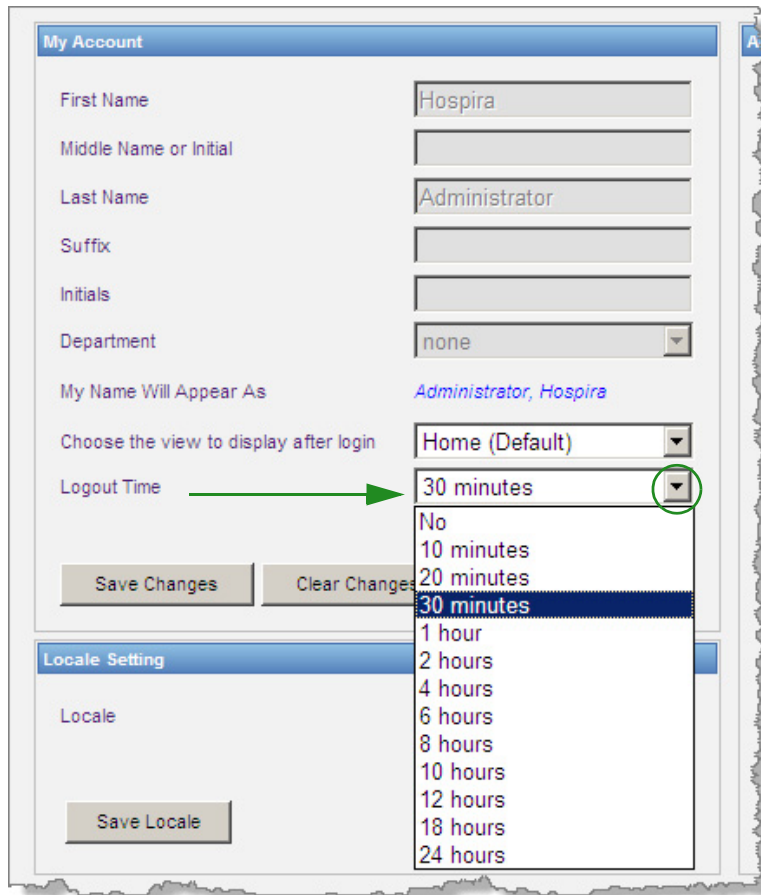
5. At **User can configure logout time**, click **Yes**.



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



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



The screenshot shows the 'My Account' settings page. The 'Logout Time' dropdown menu is open, displaying a list of options: No, 10 minutes, 20 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 18 hours, and 24 hours. A green arrow points to the 'Logout Time' label, and a green circle highlights the dropdown arrow. Below the dropdown menu are 'Save Changes' and 'Clear Changes' buttons. The 'Locale Setting' section is visible below, with a 'Save Locale' button.

Field	Value
First Name	Hospira
Middle Name or Initial	
Last Name	Administrator
Suffix	
Initials	
Department	none
My Name Will Appear As	Administrator, Hospira
Choose the view to display after login	Home (Default)
Logout Time	30 minutes

Locale Setting

Locale

Save Locale

- Click **Save Changes**.

Notes:

Chapter 4: Users and Roles

Overview

Authorised 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 193](#).

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 authorised 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 Finalised 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.

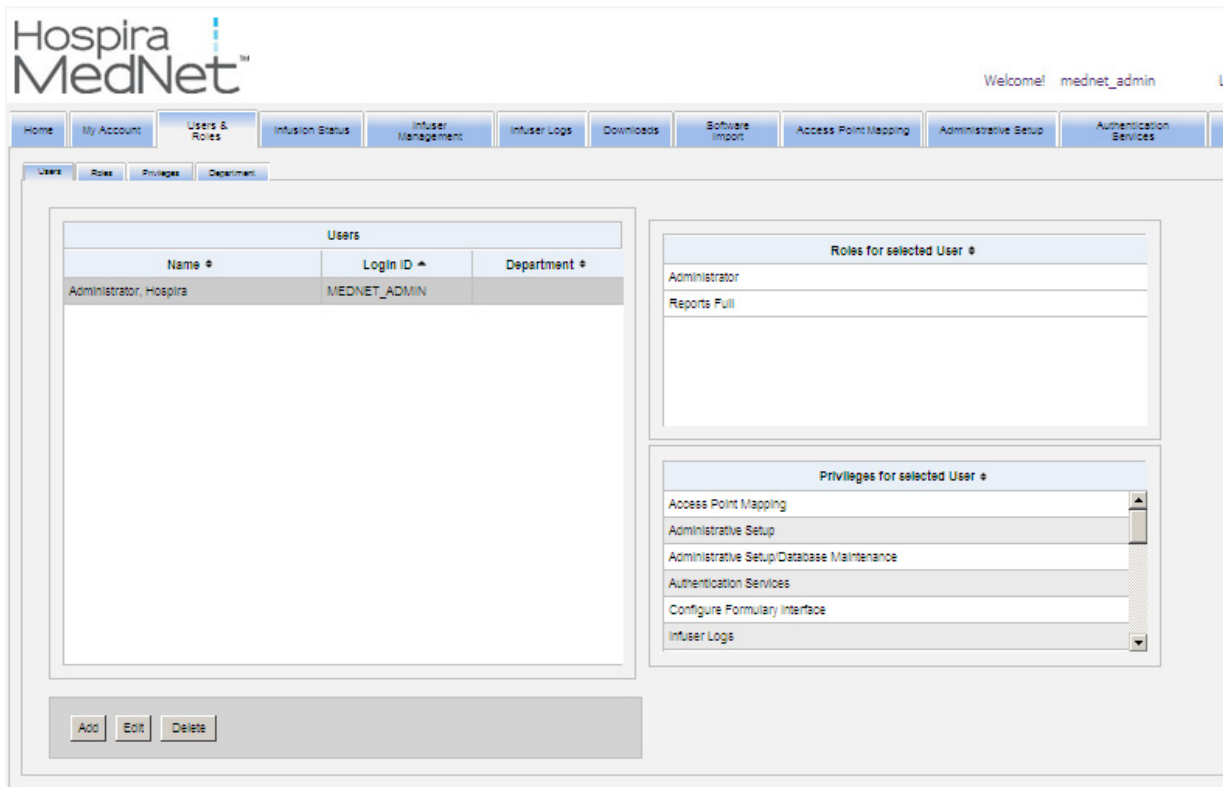
Departments

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

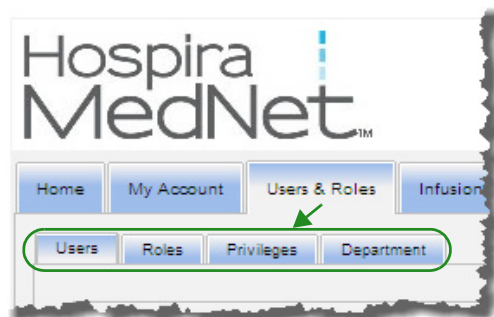
Navigating

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.

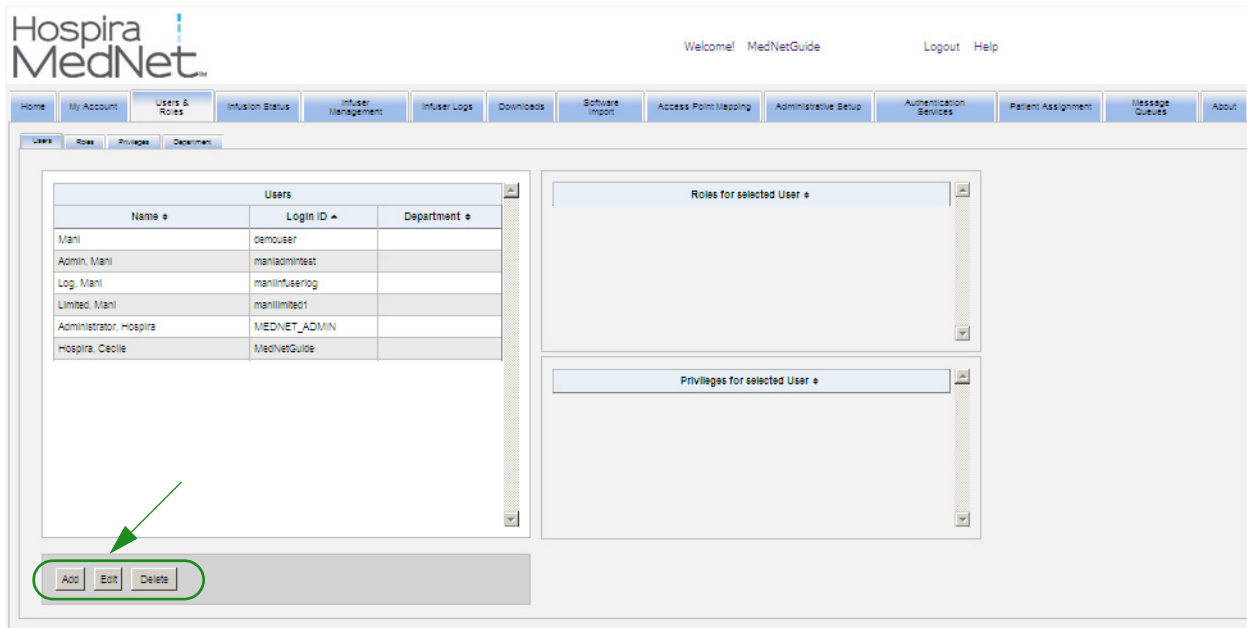


You may focus on Users, Roles, Privileges or Departments in this view. Click the tab to change the view.



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 195](#)):
 - Name
 - Middle Name or Initial
 - Surname
 - 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

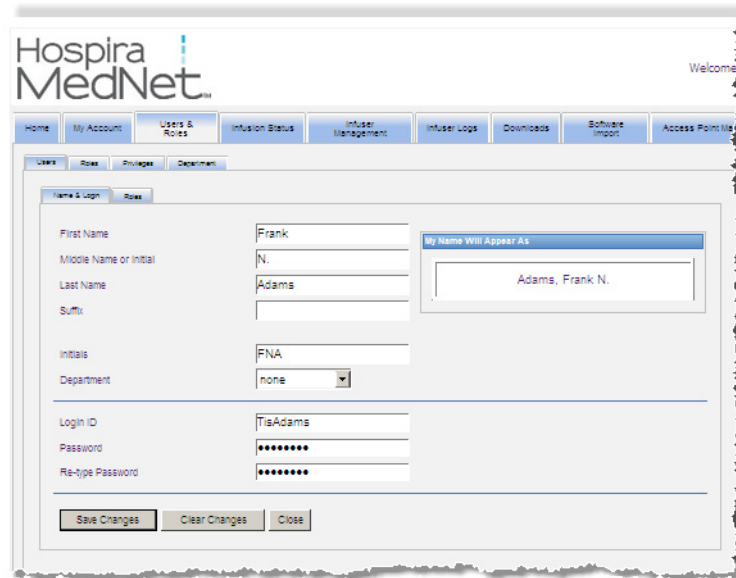
3. Click **Save Changes** to save the new user. The confirmation message appears.



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.

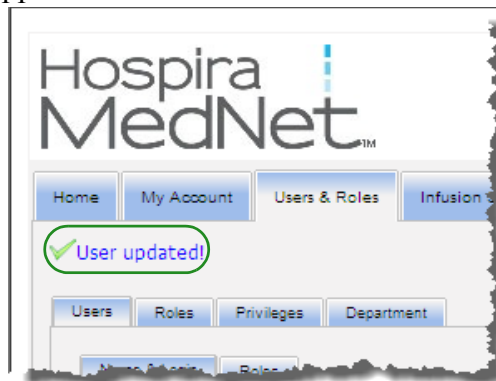


The screenshot shows the Hospira MedNet User Edit window. The window has a header with the Hospira MedNet logo and a "Welcome" message. Below the header is a navigation bar with buttons for Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Import, and Access Point Manager. The main content area is divided into tabs: Users, Roles, Privileges, and Department. The Users tab is active, and the Name & Login sub-tab is selected. The form contains the following fields:

- First Name: Frank
- Middle Name or Initial: N.
- Last Name: Adams
- Suffix: (empty)
- Initials: FNA
- Department: none (dropdown menu)
- Login ID: TriAdams
- Password: (masked with asterisks)
- Re-type Password: (masked with asterisks)

At the bottom of the form are three buttons: Save Changes, Clear Changes, and Close. A preview box on the right shows "My Name Will Appear As" followed by "Adams, Frank N."

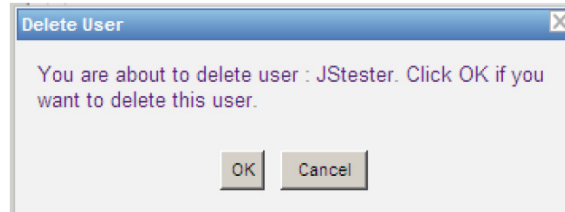
2. Make changes to the applicable fields, and click **Save Changes**. The message "User Updated!" appears.



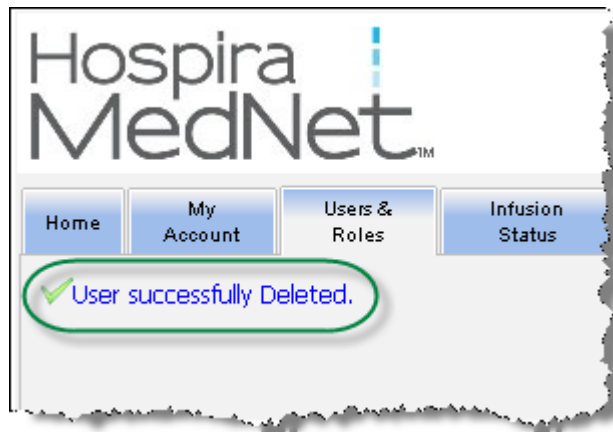
3. If there are no further edits to be made, click **Close**.

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:

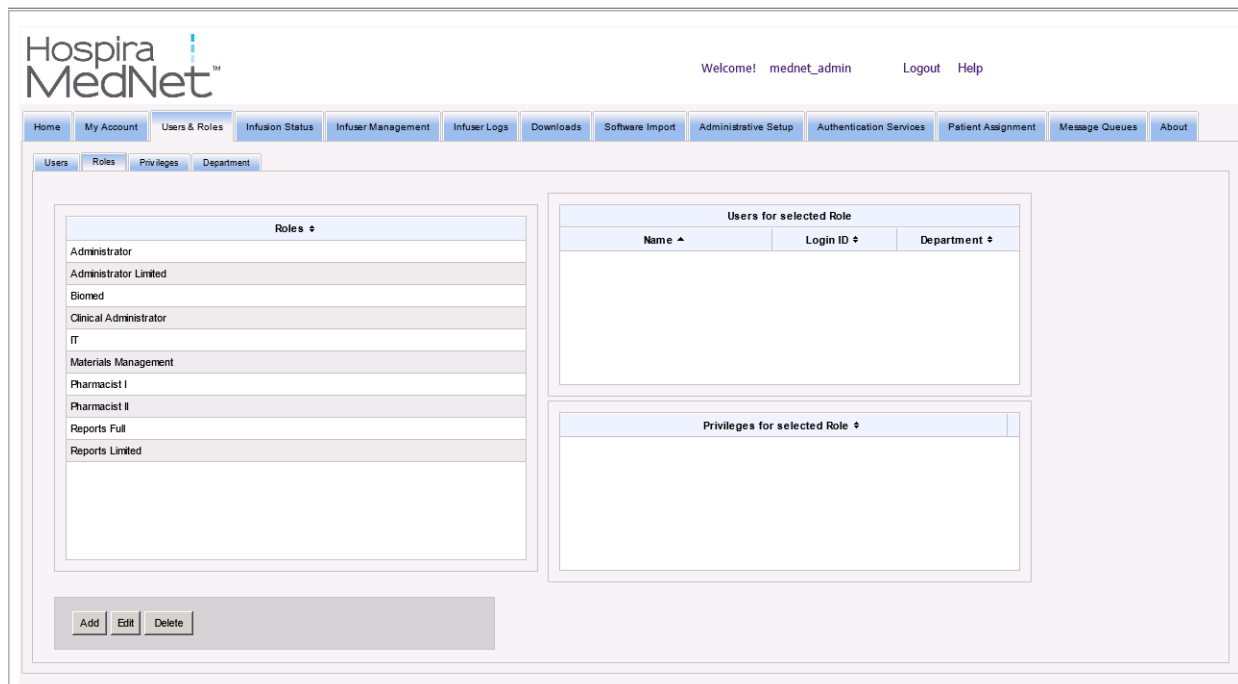


2. Click **OK** and the user is deleted from the list of users.
3. The following confirmation message appears.



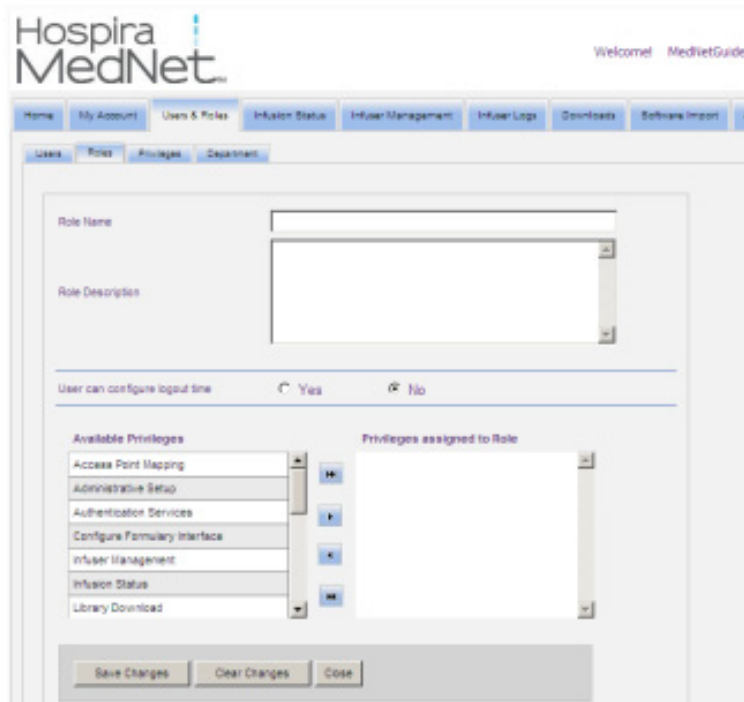
Adding, Editing, or Deleting a Role and its Privileges

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.



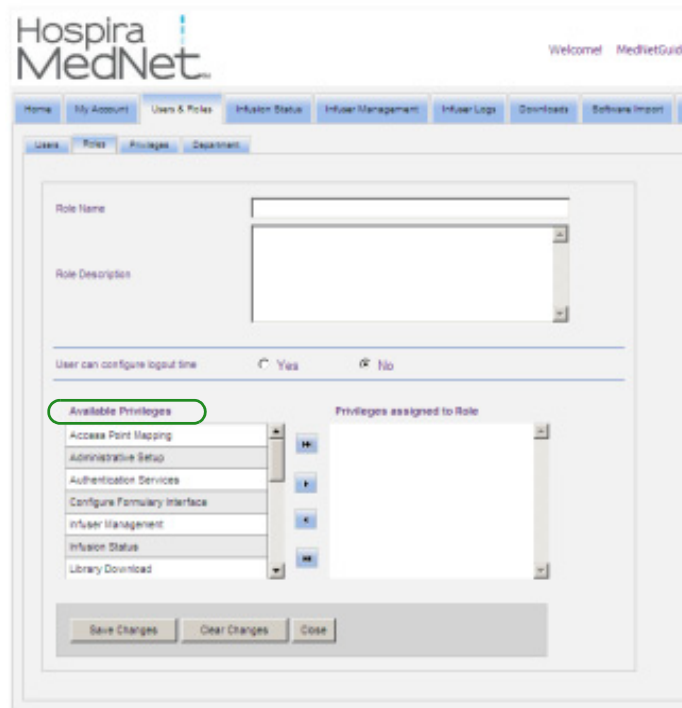
To add a role:

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



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

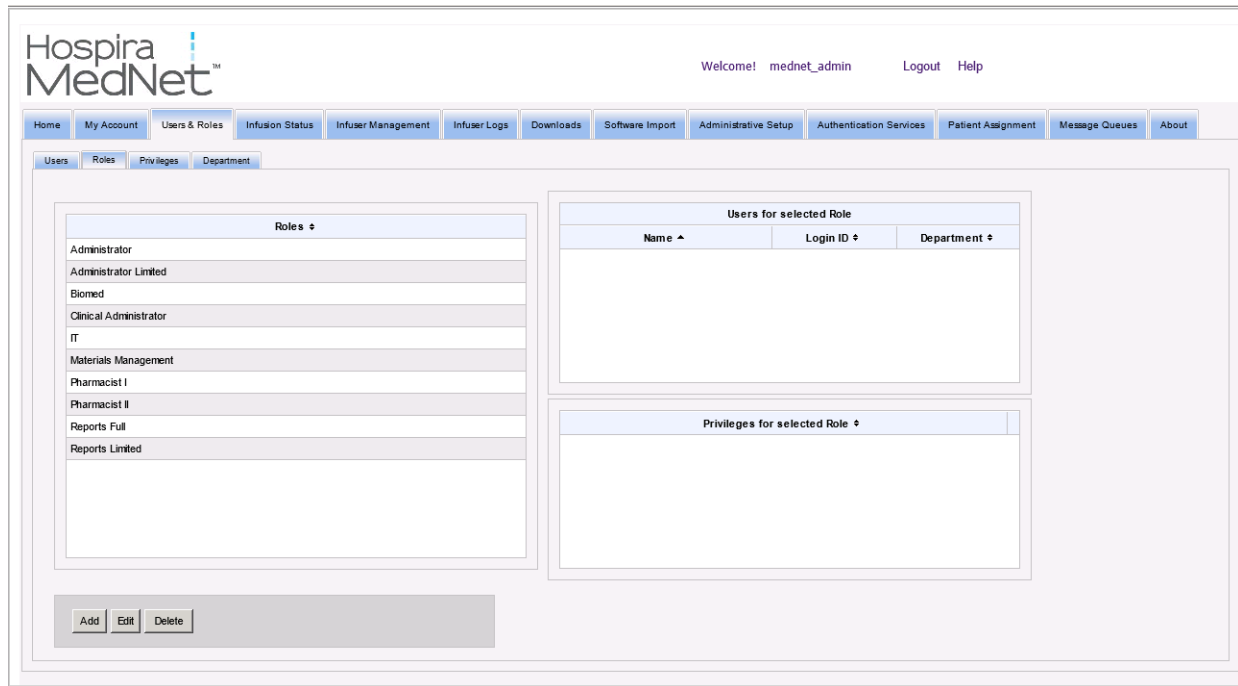
Note: **Available Privileges** are displayed. You may want to assign them at this time by following the instructions below.



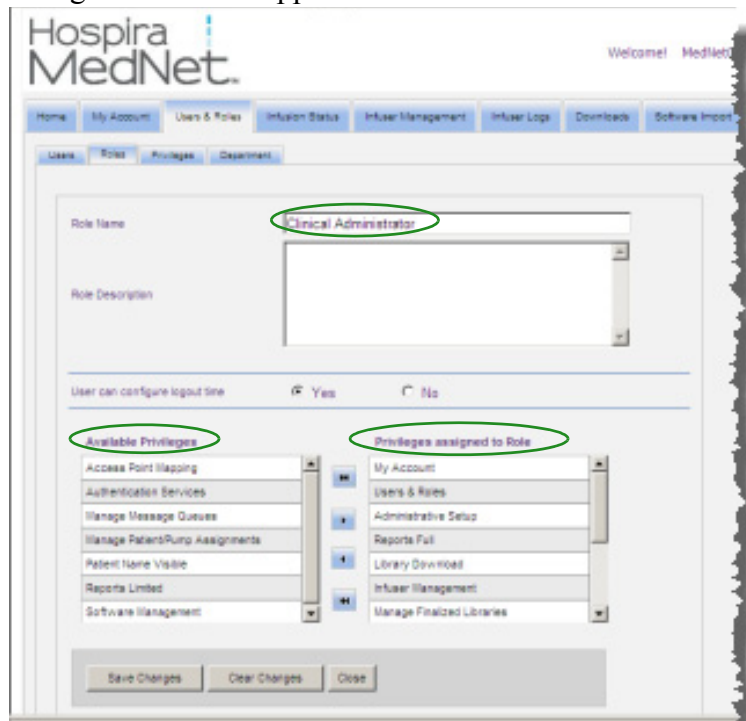
3. Highlight one selection at a time from the **Available privileges** list. Using the add (>) button, assign the privileges to the role; then, click **Save Changes** when done.
4. Click **Close**.

To edit a role:

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



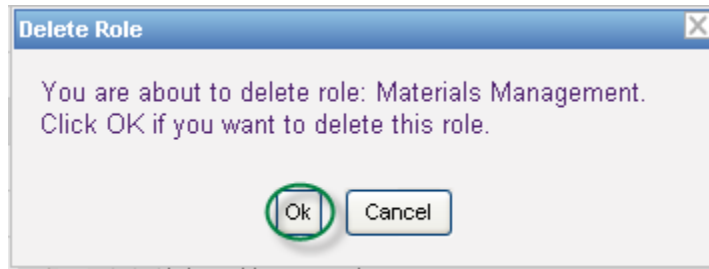
The following window will appear.



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**.
3. Click **Close**.

To delete a role:

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



To view Roles:

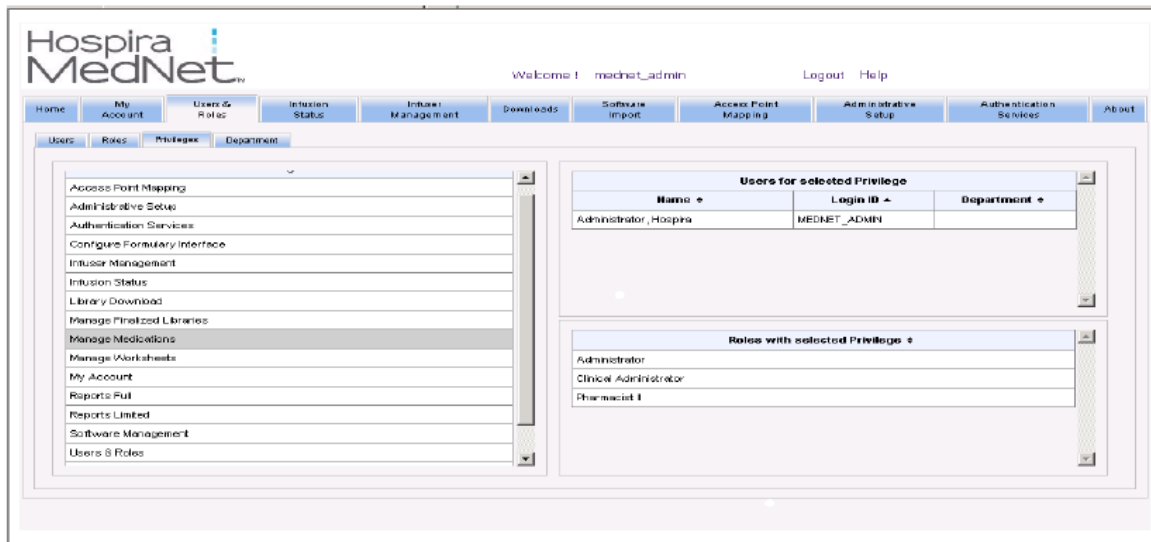
In the Users & Roles view, click the **Roles** tab, highlight a role and the Users for selected Role displays as well as the privileges for the selected Role. Should you select to do so, you can edit from this view.

Name	Login ID	Department
Administrator, Hospira	MEDNET_ADMIN	
Billingsworth, Franklyn T	ftbillings	

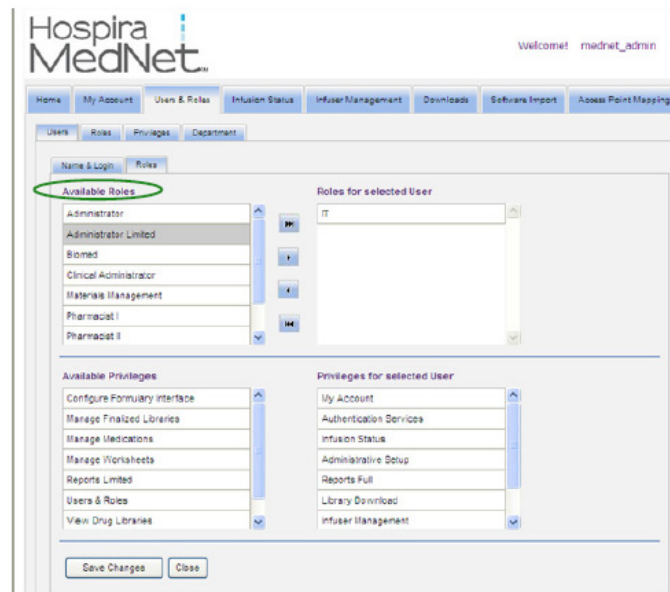
Privileges for selected Role
Access Point Mapping
Administrative Setup
Authentication Services
Configure Formulary Interface
Infuser Management
Library Download

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**.

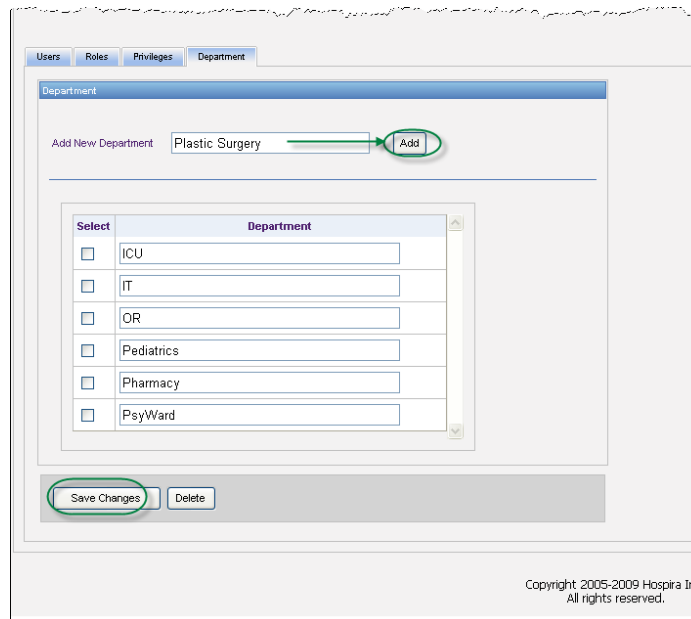
Adding, Editing, or Deleting a Department

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.

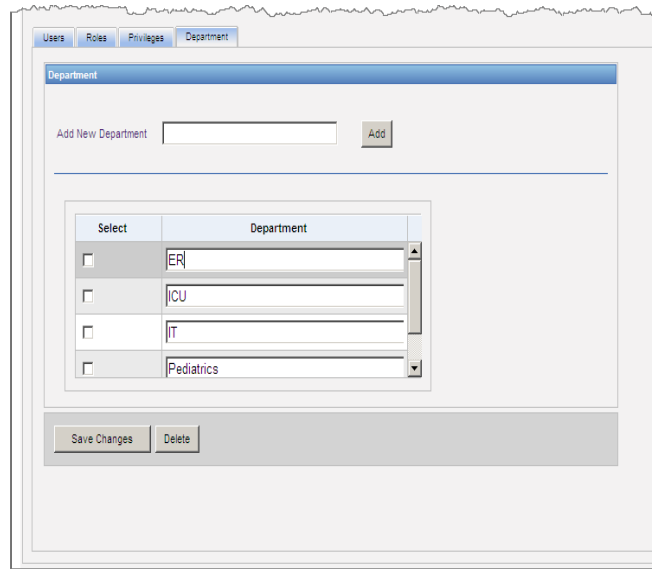


2. Click **Save Changes**.

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.



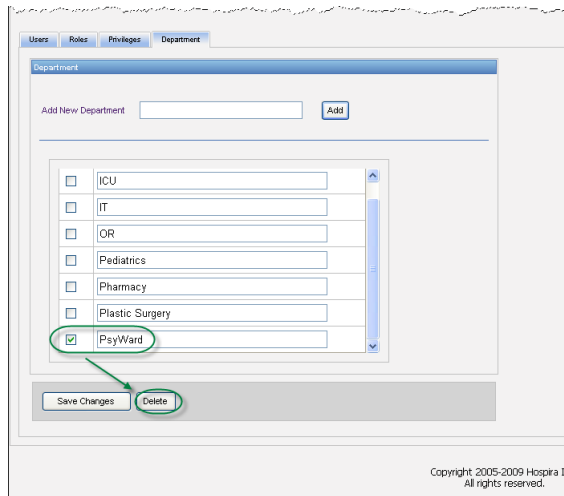
2. Click **Save Changes**.

The following confirmation message appears.

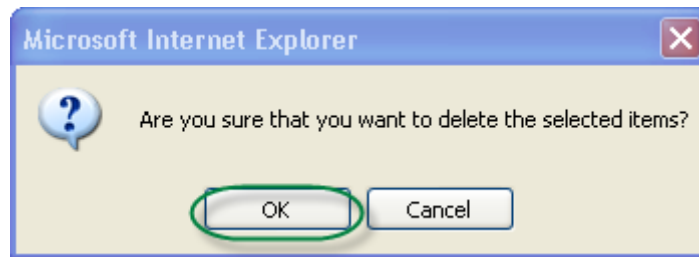


To delete a department:

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:

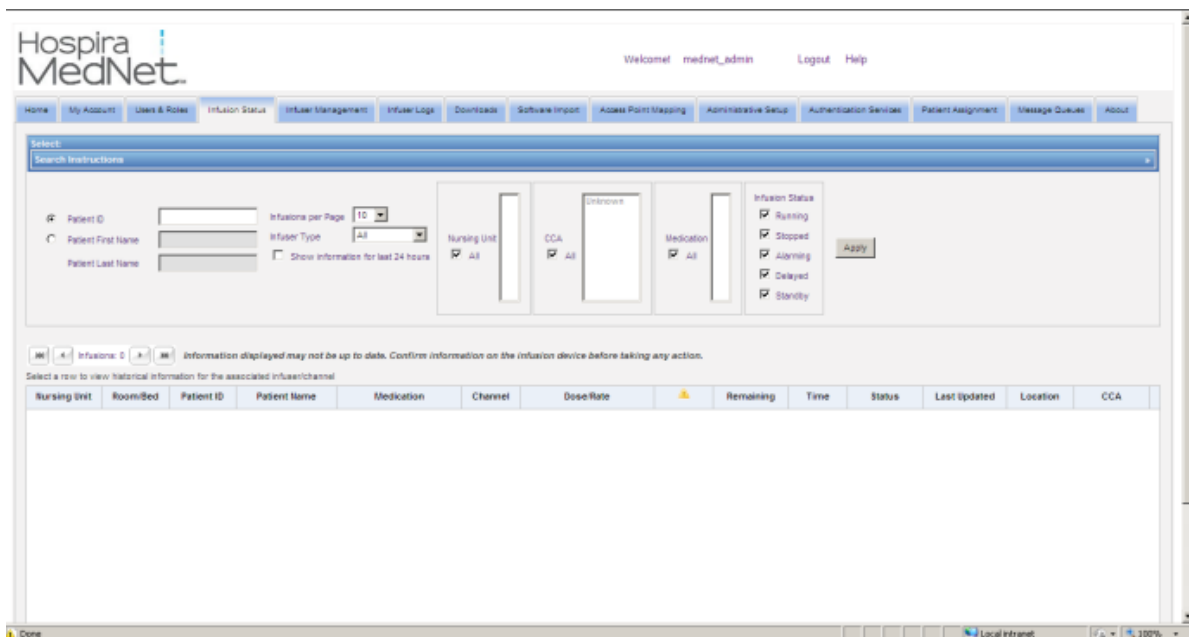
Chapter 5: Infusion Status

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 Name and Patient Surname. You can use the wildcard (“*”) after just the first letter of the patient’s name or surname or enter a partial name or surname 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** tickbox 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.

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

The screenshot shows the Hospira MedNet software interface. At the top, there is a navigation menu with options like Home, My Account, User Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Support, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Center, and About. The main content area is titled 'Infusion Status' and contains a search bar and several filter sections. The filters include Patient ID, Patient First Name, Patient Last Name, Infusions per Page (set to 10), Infuser Type (All), Nursing Unit (All), and Medication (All). Below the filters, there is a table with the following columns: Nursing Unit, Room/Bed, Patient ID, Patient Name, Medication, Channel, Dose/Rate, Remaining, Time, Status, Last Updated, Location, CCA, Serial Number, and Infuser Type. The table contains one row of data: Magnesium Sulfate Loading Do... in channel A, with a dose/rate of 99 ml/hr, 00.0 mL remaining, and a status of 'Running'. At the bottom of the page, there is a footer with 'Printer Friendly Version', 'Stop Auto Refresh', and 'Last Updated 3 minutes ago at 10/08/2013 13:45:19'.

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**.


The screenshot shows the Hospira MedNet software interface. At the top, there is a navigation menu with options like Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About. Below the navigation menu, there are search and filter options for Patient ID, Patient First Name, Patient Last Name, Infusions per Page, Infuser Type, Nursing Unit, Medication, and Infusion Status. A modal window titled 'Infusion History Snapshot' is open, displaying a table of infusion data. The table has the following columns: Nursing Unit, Room/Bed, Patient ID, Patient Name, Medication, Dose/Rate, Remaining, Time, Status, Last Updated, and Location. The table contains five rows of data, showing various medications and their infusion rates and remaining volumes.

Nursing Unit	Room/Bed	Patient ID	Patient Name	Medication	Dose/Rate	Remaining	Time	Status	Last Updated	Location
				Adenosine Syringe 100 mcg/3...	14 ml/hr	20.5 mL	1 h 28 m	Running	11/21/2013 15:17	WIRED
				Adenosine Syringe 100 mcg/3...	20 ml/hr	23.5 mL	0 h 54 m	Stopped	11/21/2013 15:10	WIRED
				Antivenin CrotFab 150 mcg/3...	22 ml/hr	22.4 mL	1 h 1 m	Stopped	11/21/2013 15:01	WIRED
				Adenosine Syringe 100 mcg/3...	32 ml/hr	20.1 mL	0 h 58 m	Stopped	11/21/2013 14:59	WIRED
				Antivenin CrotFab 150 mcg/3...	11 ml/hr	28.2 mL	2 h 34 m	Stopped	11/21/2013 14:55	WIRED

Infusion Status View

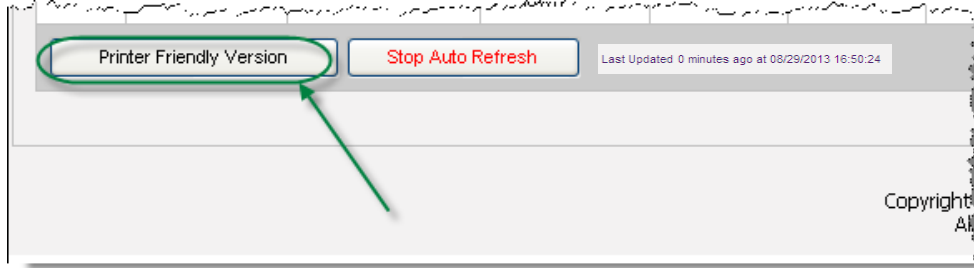
Note: The list will automatically refresh unless the **Stop Auto Refresh** button is clicked. Refresh can be resumed by clicking the **Start Auto Refresh** button.

The following table describes the Infusion Status view fields:

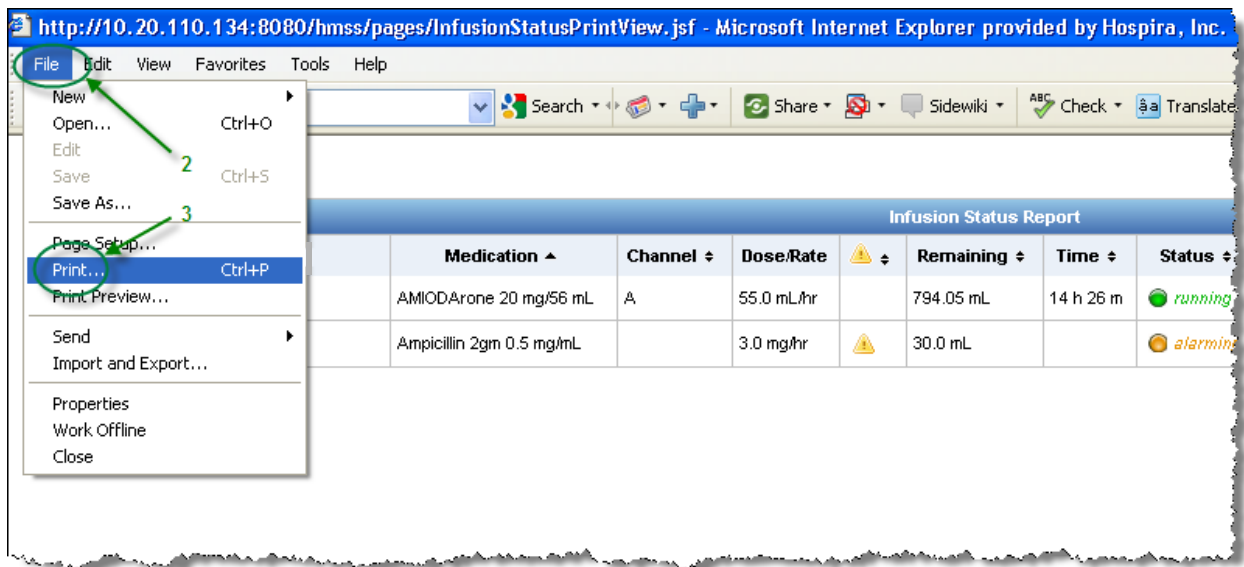
Field/Label	Information
Nursing Unit	Displays the Nursing Unit associated with Auto-Programming and Patient.
Room/Bed	Room number and Bed number.
Patient ID	Patient identifier.
Patient Name	Patient name that is visible only if the user has the View Protected Health Information privilege.
Medication	Medication 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.
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	For Plum A+ only, displays volume (mL) of infusion remaining.
Time	Displays the time remaining in the infusion. For Plum A+ only.
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 colour: Green = Running; Red = Stopped; Flashing 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 finalised medication libraries was on the infuser and, therefore, the infusion occurred with the existing library on the infuser (possibly a default medication library or the medication 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.

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.

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 synchronise 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.

The screenshot shows the Hospira MedNet web application interface for Infuser Management. The top navigation bar includes tabs for Home, My Account, Users & Roles, Infusion Status, **Infuser Management**, Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Parent Assignment, Message Queue, and About. The user is logged in as 'mednet_admin'.

Below the navigation bar is a search and filter section with the following fields:

- Infusers per Page: 10
- Device: [Empty]
- Serial Number: [Empty]
- Inventory Status: All
- Infuser Type: Plum A+
- Network Status: All
- Apply button

Below the search section is a table with the following columns: Select, Infuser Type, Device, Serial Number, Location, Software Release, Inventory Status, and Asset ID.

Select	Infuser Type	Device	Serial Number	Location	Software Release	Inventory Status	Asset ID
<input type="checkbox"/>	PlumA+	LN11FACEVA	Not Available	WIRED	Unknown	Active	
<input type="checkbox"/>	PlumA+	MSG12	82	WIRED	15.0.0.8 1959/12/31	Active	

At the bottom of the table, there are buttons for 'Sync Infuser Time', 'Delete', 'Save Changes', 'Clear Changes', 'Export', and 'Stop Auto Refresh'. Below the table is an 'Import Asset ID list ... (.csv)' button.

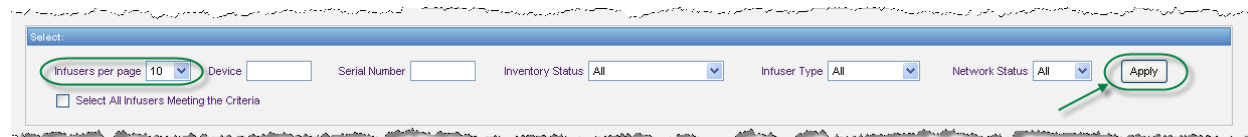
Infuser Management View

The following table describes the Infuser Management view fields:

Field/Label	Information
Select	Click on the tickbox 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.

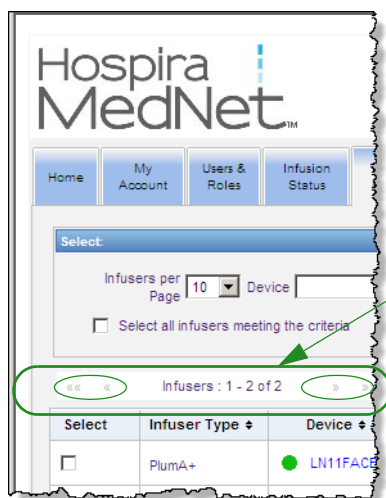
The following table describes the Infuser Management view filters. To filter, enter information or select a value from the drop-down lists, and click **Apply**.



Filter	Information
Infusers Per Page	<p>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.</p> <hr/> <p>Note: When All Infusers per page is selected the following buttons are disabled: Delete, Save Changes, Clear Changes, Sync Infuser Time.</p>
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.

The screenshot shows the Hospira MedNet web application interface. At the top, there is a navigation menu with options like Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About. Below the navigation is a search and filter section with dropdowns for 'Infusers per Page' (set to 10), 'Device', 'Serial Number', 'Inventory Status' (set to All), 'Infuser Type' (set to Plum A+), and 'Network Status' (set to All). There is an 'Apply' button and a checkbox for 'Select all infusers meeting the criteria'. Below this is a table of infusers. The table has columns: Select, Infuser Type, Device, Serial Number, Location, Software Release, Inventory Status, and Asset ID. Two infusers are listed: one with Device 'LN11FACEMAN' and Serial Number 'Not Available', and another with Device 'MSG12' and Serial Number '52'. A pop-up window is overlaid on the second row, displaying the following information:

Device	MSG12
Last Communication	08/29/2013 16:11
IP Address	10.20.108.224
Serial Number	52

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

This screenshot is a closer view of the infuser list from the previous image. The table shows two rows. The second row, for the 'MSG12' device, has a pop-up window overlaid on the 'Infuser Type' column. The pop-up window displays a photograph of the physical infuser device, which is a white and grey medical device with a screen and buttons.

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
- Scheduled for Service
- Servicing
- Inactive
- Cleaning
- Out for Repair
- 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.

The screenshot displays the Hospira MedNet web application interface for Infuser Management. At the top, there is a navigation bar with the Hospira MedNet logo and user information (Welcome! mednet_admin, Logout, Help). Below this is a menu bar with options: Home, My Account, Users & Roles, Infusion Status, Infuser Management (selected), Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About.

The main content area is titled 'Select' and contains search filters: 'Infusers per Page' (set to 100), 'Device', 'Serial Number', 'Inventory Status' (set to All), 'Infuser Type' (set to All), and 'Network Status' (set to All). There is an 'Apply' button and a checkbox for 'Select all infusers meeting the criteria'.

Below the filters, a table shows 'Infusers : 1 - 3 of 3'. The table has the following columns: Select, Infuser Type, Device, Serial Number, Location, Software Release, Inventory Status, and Asset ID. The first three rows are visible:

Select	Infuser Type	Device	Serial Number	Location	Software Release	Inventory Status	Asset ID
<input type="checkbox"/>	Plum A+Plum 360	Tran31297394	SN_Trans31297394	55:11:55:10:F0:0D	Ver:13.40.00.006 20...	[Dropdown]	[Input]
<input type="checkbox"/>	Plum A+Plum 360	Tran31297796	SN_Trans31297796	55:11:55:10:F0:0E	Ver:13.40.00.006 20...	Active	[Input]
<input type="checkbox"/>	PCA	Tran31297974	SN_Trans31297974	55:11:55:10:F0:0F	07.00.00 003	[Dropdown]	[Input]

The dropdown menu for the 'Inventory Status' column of the first row is open, showing the following options: Active, Scheduled for Service, Servicing, Inactive, Cleaning, Out for Repair, and No status.

At the bottom of the table, there are buttons for 'Sync Infuser Time', 'Delete', 'Save Changes', 'Clear Changes', 'Export', and 'Stop Auto Refresh'. Below the buttons is a link to 'Import Asset ID list ... (csv)'.

All online infusers with 802.11a/b/g wireless capability will automatically synchronise 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: Synchronisation will not happen during infusion.

Select the tickbox 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 synchronisation.

The screenshot displays the Hospira MedNet web application interface for Infuser Management. At the top, there is a navigation bar with the Hospira MedNet logo and user information (Welcome! mednet_admin, Logout, Help). Below the navigation bar, there are several tabs: Home, My Account, Users & Roles, Infuser Status, Infuser Management (selected), Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About. The main content area is titled 'Select' and includes a search bar with filters for Infusers per Page (10), Device, Serial Number, Inventory Status (All), Infuser Type (All), and Network Status (All). There is a checkbox labeled 'Select all infusers meeting the criteria'. Below the search bar, there is a table of infusers with 7 rows. The table has columns for Select, Infuser Type, Device, Serial Number, Location, Software Release, Inventory Status, and Asset ID. A green arrow points to the 'Sync Infuser Time' button at the bottom of the table. Below the table, there are buttons for Delete, Save Changes, Clear Changes, Export, and Stop Auto Refresh. At the bottom left, there is a link for 'Import Asset ID list (.csv)'.

Select	Infuser Type	Device	Serial Number	Location	Software Release	Inventory Status	Asset ID
<input type="checkbox"/>	PlumA+	Joe	16098611	WIRED	Ver:13.40.00.006 20...	Active	Plum A+
<input type="checkbox"/>	PCA	LifeCarePCA	20086000	WIRED	5.07	Active	LifeCare PCA
<input type="checkbox"/>	PlumA+	PlumTriple001	15934021	MedNet.WPAPSK	Ver:13.40.00.006 20...	Active	Plum A+3
<input type="checkbox"/>	PlumA+	PlumTriple001	15934022	MedNet.WPAPSK	Ver:13.40.00.006 20...	Active	Plum A+3
<input type="checkbox"/>	PlumA+	PlumTriple001	15934023	MedNet.WPAPSK	Ver:13.40.00.006 20...	Active	Plum A+3

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

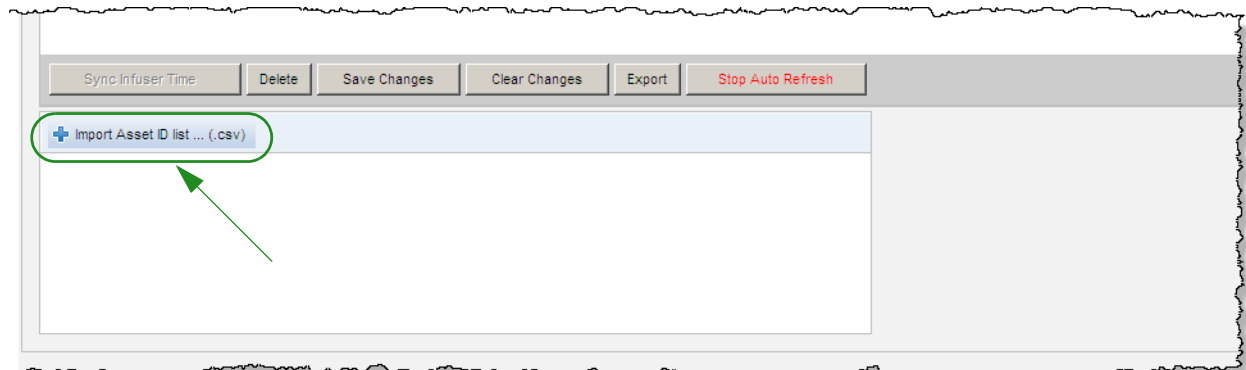
The Infuser Management view allows you to import or export a file containing a list of serial numbers and asset IDs.

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: <ul style="list-style-type: none"> • (blank) • Active • Scheduled for Service • Servicing • Inactive • Cleaning • Out for Repair • No Status

To import an Asset ID list:



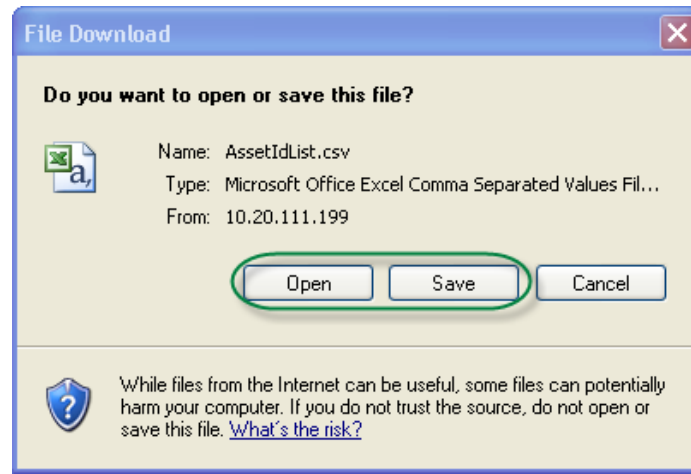
1. Click **Import Asset ID list ... (.csv)**. A Windows Explorer navigation window appears that allows you to browse for a **.csv** file containing the serial number and asset ID information.

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.

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.

The screenshot displays the Hospira MedNet software interface. At the top left is the logo "Hospira MedNet". To the right, there is a user greeting "Welcome!" followed by the username "mednet_admin" and links for "Logout" and "Help". Below this is a navigation menu with tabs: Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs (which is highlighted), Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About. The main content area is titled "Open Log Requests" and contains a table with the following columns: Infuser Type, Device, Serial Number, Date Range, Log Type, Duration, Timeout, % Complete, and Status. The table is currently empty. At the bottom of the main content area, there are three buttons: "Create Log Request", "Refresh", and "Clear Inactive Requests". A status message at the bottom center reads "Last Updated 5 minutes ago at 09/05/2013 13:31:53".

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.

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**.

Infuser Type	Device	Serial Number	Date Range	Log Type	Duration	Timeout	% Complete	Status
PlumA+	Tms2Plum152	13847555	09/01/2013 - 09/08/2...	All	0	4h	0%	Error: Disk Space

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.

Notes:

Chapter 8: Downloads

Overview

The Downloads view is used to download the active medication 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:

Select	Location	Device	Serial Number	Software Version	Library	Transfer Status
<input type="checkbox"/>	WRED	LV11FACEIAN	Not Available	Unknown		New Device
<input type="checkbox"/>	WRED	HS010	17672609	15.0.0.7 1999/12/31	07/31/13 6:00 11809	Failed
<input type="checkbox"/>	WRED	saandvice1	91910000	15.0.0.1 2013/07/31	07/31/13 6:00 11806	Completed
<input type="checkbox"/>	WRED	saandvice2	91910000	15.0.0.1 2013/07/31	07/31/13 6:00 11809	Completed

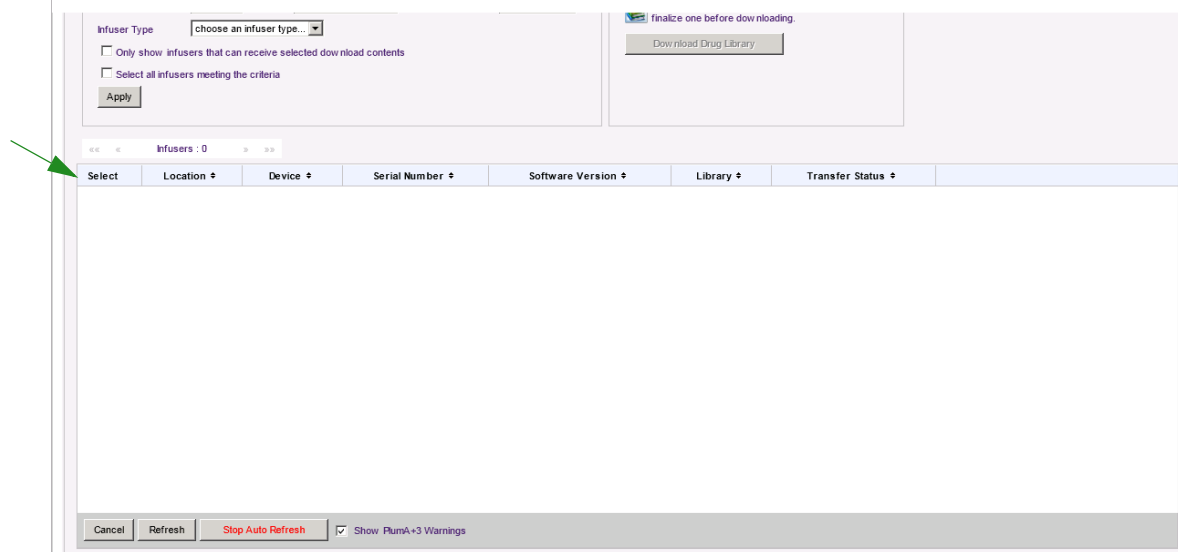
Note: The Downloads view automatically refreshes every 2 minutes to reflect any changes in the infusers' status.

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.

Downloads Fields

The following table describes the fields in the Downloads view:

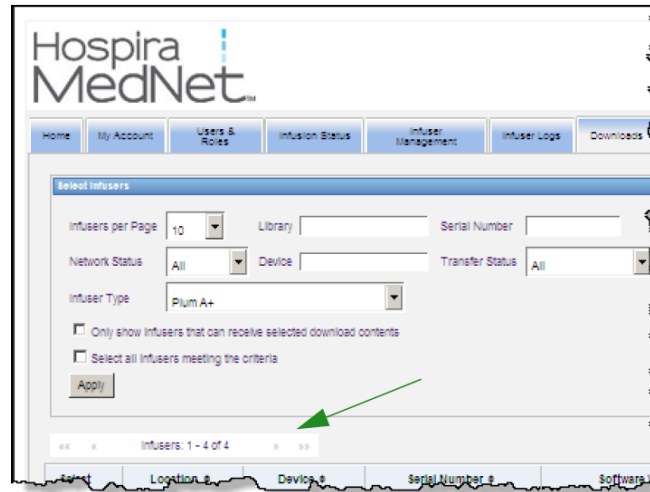


Field/Label	Information
Select	Click on the tickbox to select an infuser. Double click to deselect it.
Location	Descriptive physical location of the access point receiving data from the infuser or the access point that last communicated with the infuser.
Device	Logical ID of the infuser. The dot to the 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	<p>New Device: A medication library has never been downloaded to the infuser.</p> <p>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 medication library.</p> <p>Completed: The infuser has received a new library and it has been activated on the infuser by a clinician.</p> <p>Requested: The infuser is scheduled to receive a new medication library.</p> <p>Failed: An error occurred while the infuser was receiving a new medication library. The new medication library must be sent again before it can be activated by a clinician.</p> <p>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.</p> <p>Installing: The library is being downloaded from the CE to the infuser.</p>

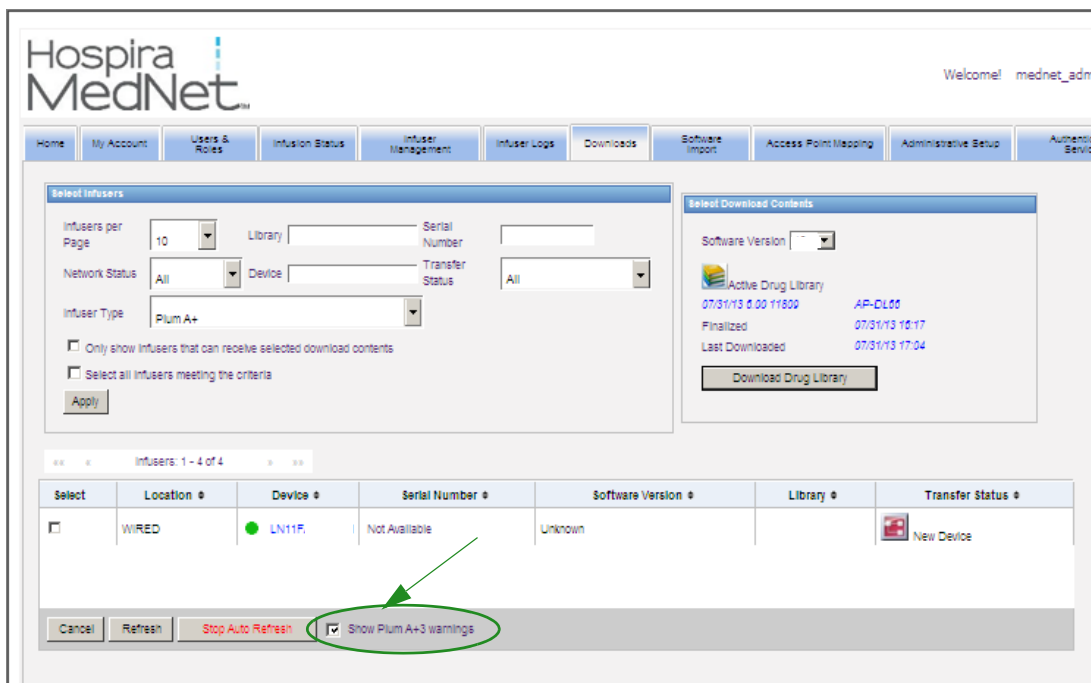
List of Infusers

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

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 medication 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

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 medication library, but the server has not yet begun the download.
- A previous medication 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 medication 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 medication library to the infuser.

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

Drug Libraries

Invalid Plum A+ Infusers Drug Libraries

If a Plum A+ infuser is turned off and plugged in, a minimal status message is generated that does not include the medication library name. If a medication library was downloaded and installed on the infuser, but the infuser was turned off before it has sent the medication 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 Centre).

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.

The screenshot displays the Hospira MedNet software interface. The top navigation bar includes 'Home', 'My Account', 'Users & Roles', 'Infusion Status', 'Infuser Management', 'Downloads', 'Software Import', 'Administrative Setup', 'Authentication Services', and 'About'. The 'Downloads' section is active, showing two panels: 'Select Infusers' and 'Select Download Contents'.

The 'Select Infusers' panel includes filters for 'Infusers per Page' (10), 'Library', 'Serial Number', 'Network Status' (All), 'Device', 'Transfer Status' (All), and 'Infuser Type' (PlumA+). There are checkboxes for 'Only show infusers that can receive selected download contents' and 'Select all infusers meeting the criteria', and an 'Apply' button.

The 'Select Download Contents' panel shows 'Software Version' (3.1x) and an 'Active Drug Library' section with the following details:

- 04/20/12 5:00:11847 TP-MML5-B-1146-1
- Finalized 04/20/12 09:19
- Last Downloaded 04/20/12 09:21

 Below this is a 'Download Drug Library' button.

Below the panels is a table of infusers. The table has columns: Select, Location, Device, Serial Number, Software Version, Library, and Transfer Status. The 'Select' column contains checkboxes. The 'Library' column shows 'DDL Version 1.0.0' in red text. The 'Transfer Status' column shows 'New Device'.

Select	Location	Device	Serial Number	Software Version	Library	Transfer Status
<input type="checkbox"/>	MedNet Testors	LNQ26568	14589716	03.13.00.005	DDL Version 1.0.0	New Device
<input type="checkbox"/>	Marla	12172010	12172010	uic.03.13.06	DDL Version 1.0.0	New Device

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 medication library version downloaded to the selected infusers is identified by the Medication 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.

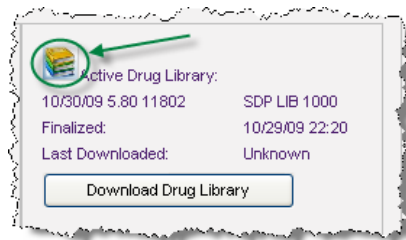
Drug Library Report

The Library Download view provides the following reports:

- Drug Library
- CCA Library
- Master Infuser and CCA Settings

To select a report:

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



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

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

Hospira MedNet Welcome mednet_admin [Help](#)

Drug Library	Infuser Type	Date Finalized	Library State
SDP LIB 1000	Plum A+	Oct 29 2009 22:20	Active

Rule Set Groups	Dosing Unit	LHL	LSL	USL	UHL	Other Settings	Assigned CCAs
Generic Name: amikacin 250 ml		External ID: 10005		Therapeutic Class: Other		Class ID: 101	
Displayed Name: amikacin 250 ml		Concentration: 100 mcg / 300 mL		Enable Standby: Yes		Enable Piggyback and Bolus from secondary: Yes	
Dose Rate Limits - Rate	mL/hr	10	20	30	40	High Risk Medication	No
Dose Rate Limits - VTBI	mL	10	20	30	40	Enable Bolus	No
Bolus Limits - Amount						Maximum Rate	
Bolus Limits - Time						Delivery at End of Infusion	KVO
Bolus Limits - Dose Rate							Default Rate: 1 mL/hr
Maximum Dose Rate:		Maximum Bolus Amount:		Therapies: Basic, Intermittent, Multistep, Piggyback			
Generic Name: Ampicillin 2gm		External ID: 10012		Therapeutic Class: Other		Class ID: 101	
Displayed Name: Ampicillin 2gm		Concentration: 150 mcg / 300 mL		Enable Standby: Yes		Enable Piggyback and Bolus from secondary: Yes	
Dose Rate Limits - Rate	mL/hr	10	20	30	40	High Risk Medication	No
Dose Rate Limits - VTBI	mL	10	20	30	40	Enable Bolus	No
Bolus Limits - Amount						Maximum Rate	
Bolus Limits - Time						Delivery at End of Infusion	KVO
Bolus Limits - Dose Rate							Default Rate: 1 mL/hr
Maximum Dose Rate:		Maximum Bolus Amount:		Therapies: Basic, Intermittent, Multistep, Piggyback			
Generic Name: Caffeine		External ID: 10023		Therapeutic Class: Other		Class ID: 101	
Displayed Name: Caffeine		Concentration: 300 grams / 600 mL		Enable Standby: Yes		Enable Piggyback and Bolus from secondary: Yes	
Dose Rate Limits - Rate	mL/kg/hr	1	4	8	9	High Risk Medication	No
Dose Rate Limits - VTBI	mL	1	3	5	7	Enable Bolus	No
Bolus Limits - Amount						Maximum Rate	
Bolus Limits - Time						Delivery at End of Infusion	KVO
Bolus Limits - Dose Rate							Default Rate: 1 mL/hr
Maximum Dose Rate:		Maximum Bolus Amount:		Therapies: Basic, Intermittent, Multistep, Piggyback			
Generic Name: Other Drug		External ID:		Therapeutic Class:		Class ID:	

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

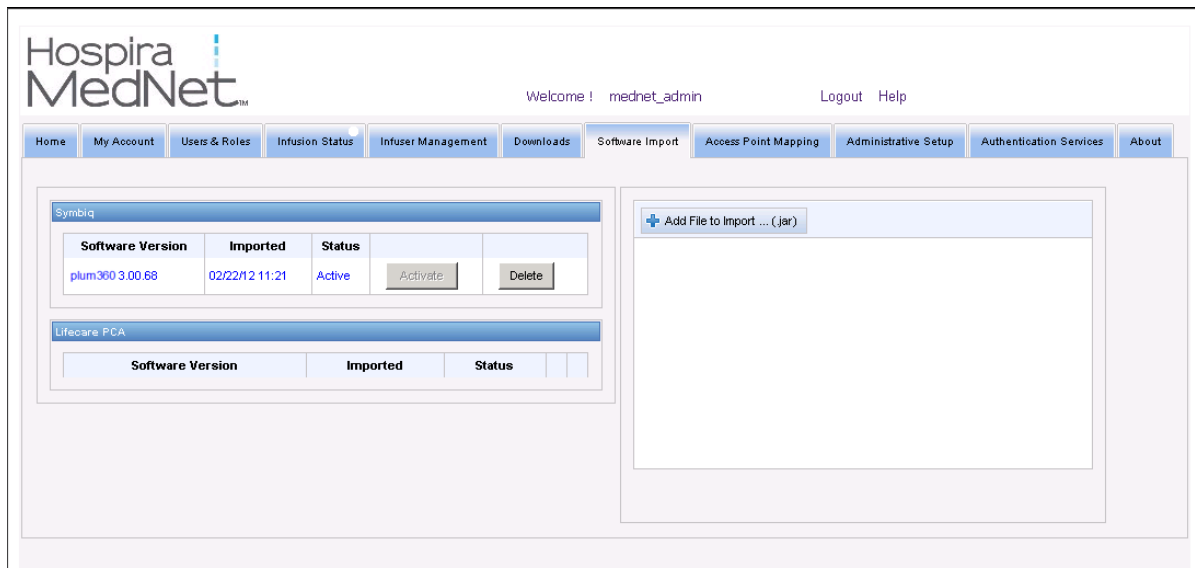
Chapter 9: Software Import

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 medication library. Before using the infuser in a clinical setting, a new medication 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.

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 191](#) for more information.

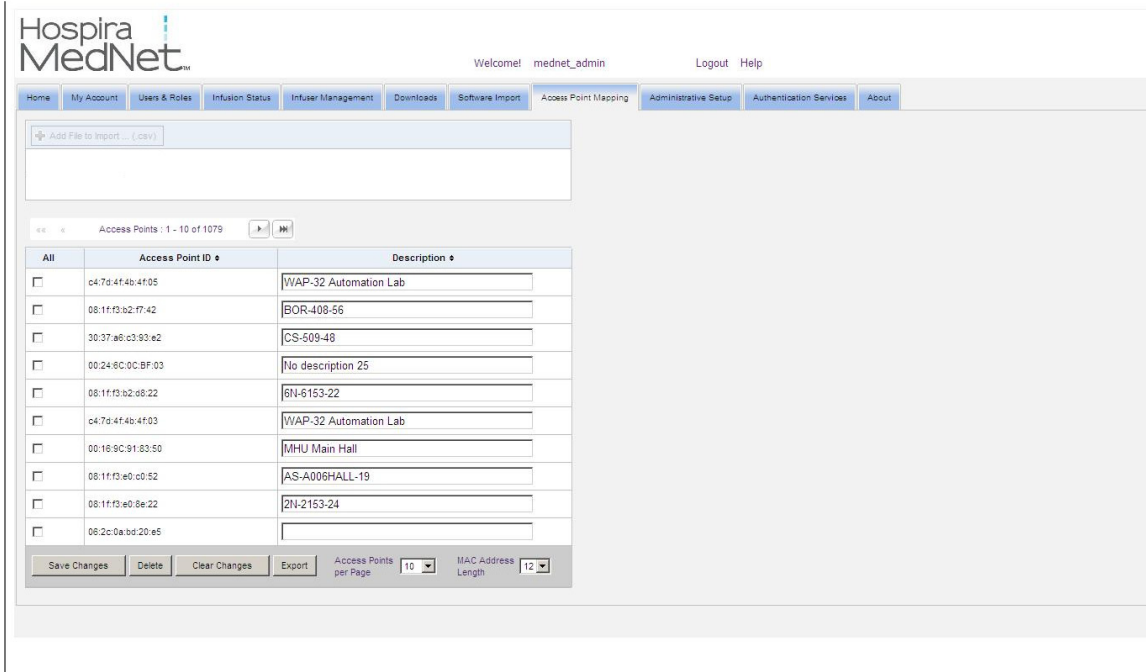
The following table describes the fields in the Access Point Mapping view:

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**.

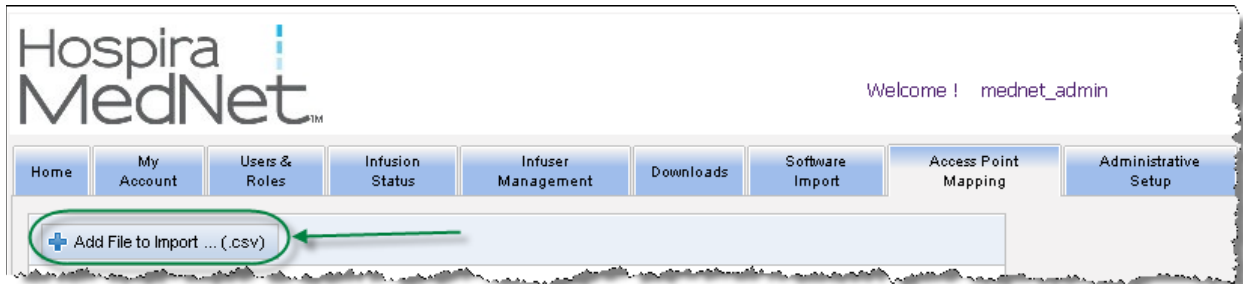
To delete an access point, enter a checkmark in the box next to the access point ID you want to delete, then click **Delete**.

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.

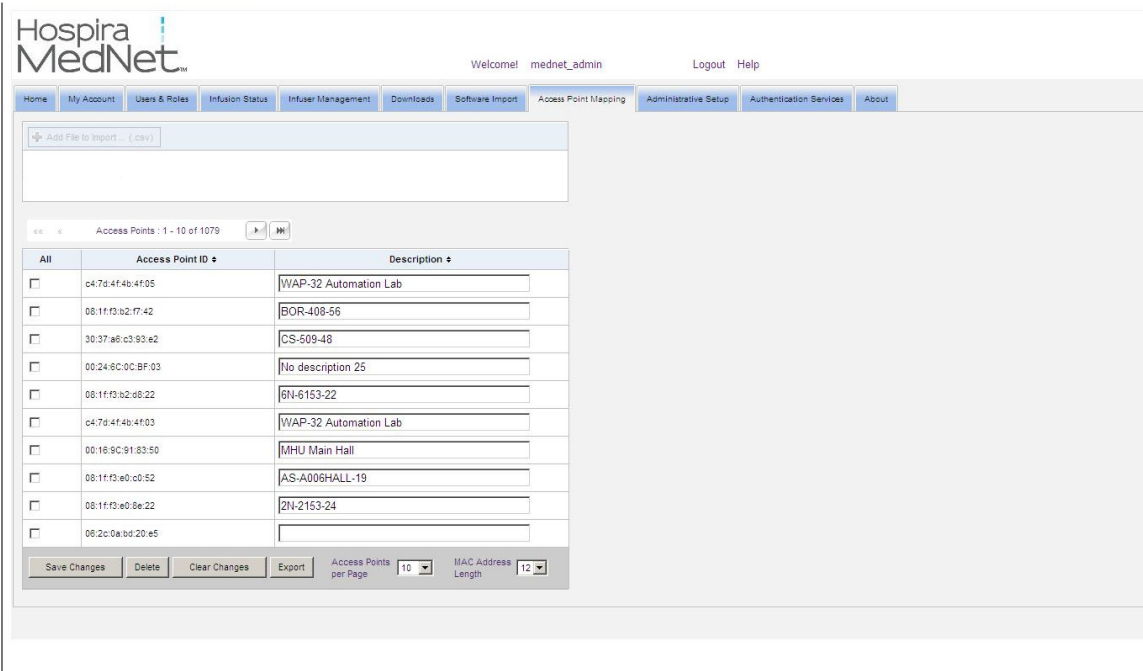


4. The upload may be cancelled by using the **Cancel** button.

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

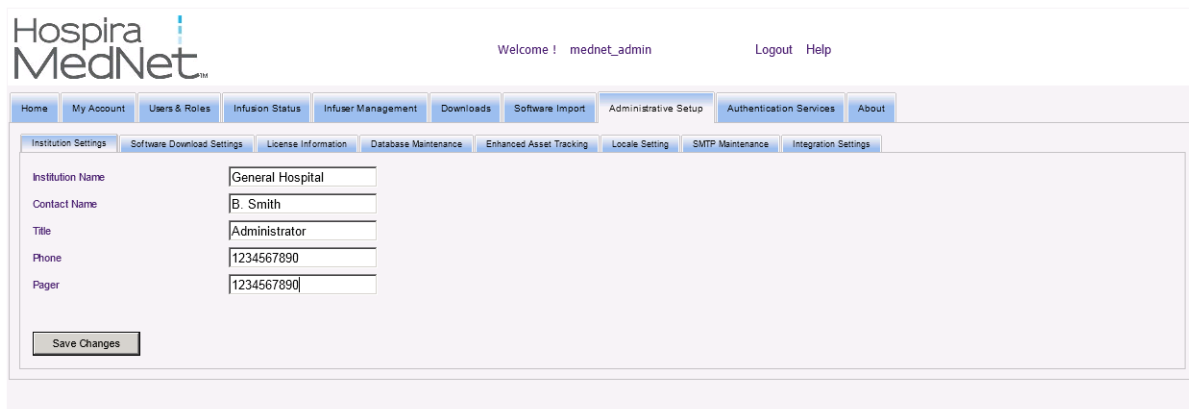
Overview

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 licence 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.



The screenshot shows the Hospira MedNet web interface. At the top left is the logo. In the center, it says "Welcome ! mednet_admin" and "Logout Help". Below this is a navigation bar with tabs: Home, My Account, Users & Roles, Infusion Status, Infuser Management, Downloads, Software Import, Administrative Setup (selected), Authentication Services, and About. Underneath is another set of tabs: Institution Settings (selected), Software Download Settings, License Information, Database Maintenance, Enhanced Asset Tracking, Locale Setting, SMTP Maintenance, and Integration Settings. The main content area shows a form for "Institution Settings" with the following fields: Institution Name (General Hospital), Contact Name (B. Smith), Title (Administrator), Phone (1234567890), and Pager (1234567890). A "Save Changes" button is at the bottom left of the form.

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**

The screenshot shows the Hospira MedNet administrative interface. The user is logged in as 'mednet_admin'. The navigation menu includes 'Home', 'My Account', 'Users & Roles', 'Infusion Status', 'Infuser Management', 'Downloads', 'Software Import', 'Access Point Mapping', 'Administrative Setup', 'Authentication Services', and 'About'. The 'Administrative Setup' sub-menu is open, showing 'Institution Settings', 'Software Download Settings', 'License Information', 'Database Maintenance', 'Enhanced Asset Tracking', 'Locale Setting', and 'SMTP Maintenance'. The 'Software Download Settings' section contains two input fields: 'Maximum Retries' with the value '3' and 'Minimum Retry Interval (in Seconds)' with the value '120'. A 'Save Changes' button is located below the fields.

Note: 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 Centre.

License Information

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

The screenshot shows the Hospira MedNet administrative interface with the 'License Information' section selected. The 'Import New License File... (.jkey)' button is visible. Below it, the 'Current License Details' section is populated with the following information:

Software Package	Enterprise
Infuser Type(s)	Plum A+ 12.x English (Domestic), PCA English (Domestic)
Integrator	Formulary Interface, Auto Documentation
Programmer	Complete Auto-Programming
Key Type	Temporary
License Expires On	License has expired. [03/22/12 3:38 PM]
Languages	
Enhanced Asset Tracking	Enhanced Asset Tracking without Monitoring

Current Licence Details include the following:

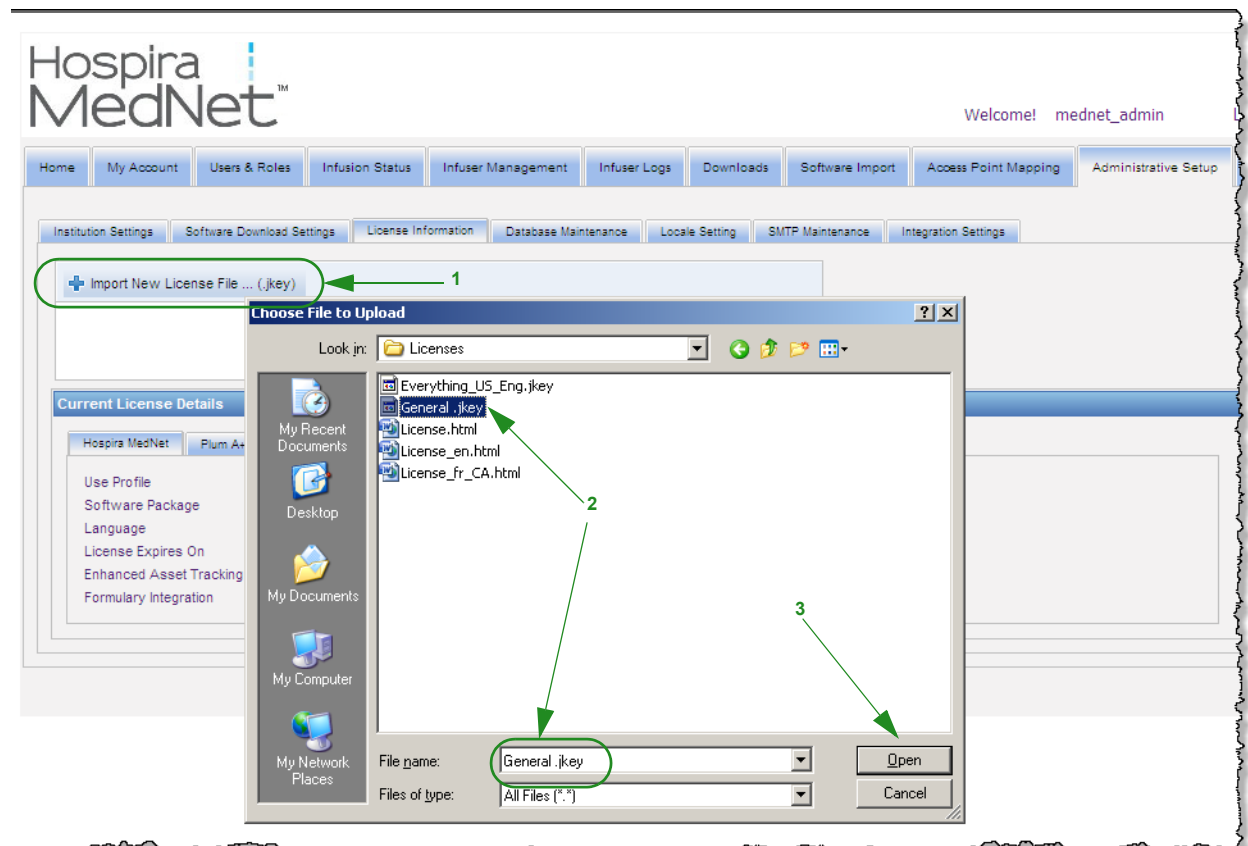
- Use Profile
- Software Package
- Languages
- Licence Expires On
- Enhanced Asset Tracking
- Formulary Integration
- Infuser(s) License(s)
- Auto-programming
- Auto-documentation
- Alarm Forwarding
- Medication Library Size Level 2

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

Importing a License

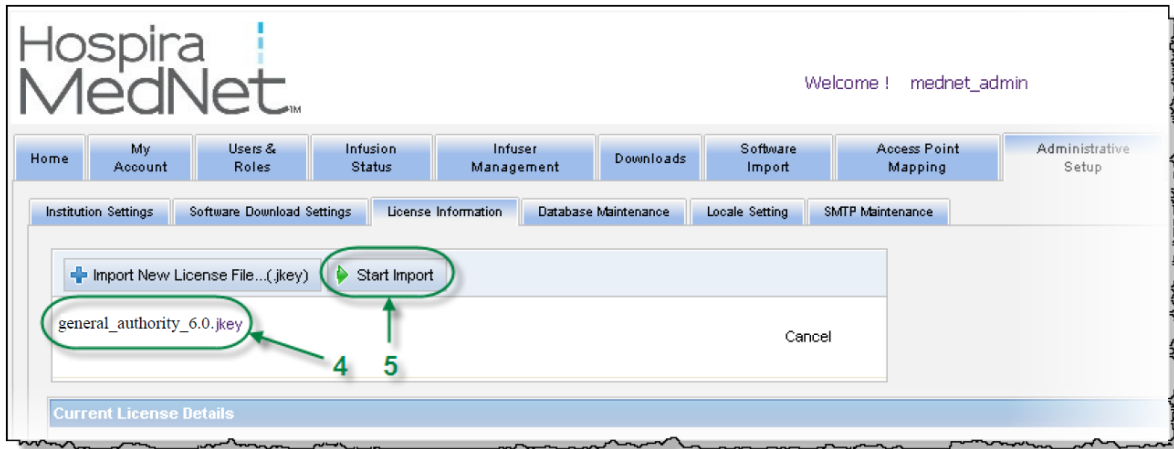
Use the following process to import a License.

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

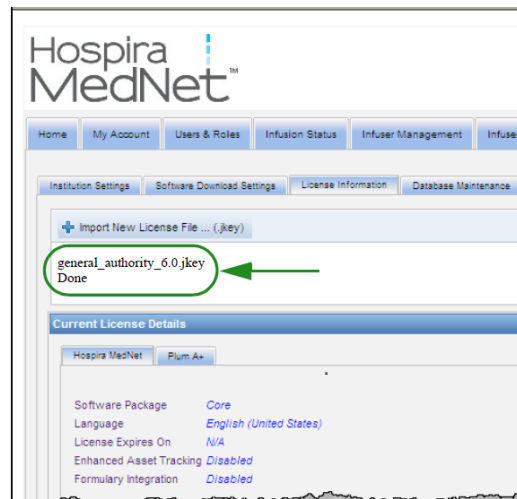


4. Verify the file in the window is the correct file.

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.

The screenshot shows the 'Database Maintenance' configuration page in the Hospira MedNet administrative interface. The page title is 'RETAIN and PURGE REMAINERS'. It features a 'Data Retention Period' dropdown menu currently set to '3 Years'. Below this are input fields for 'Login ID' and 'Password', and an 'Optional Delay Purge Start Time' field with a calendar icon. On the right side, there are two read-only fields: 'Oldest System Transaction' (11/08/2010) and 'Last Purge was completed on:' (11/08/2013). At the bottom right, there is an 'Abort Purge' button and a note: 'Abort Purge: If a purge operation was scheduled or started and needs to be aborted select the button below. Note: This will not recover transactions that were purged prior to aborting.' At the bottom left, there are 'Start' and 'Reset' buttons.

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.

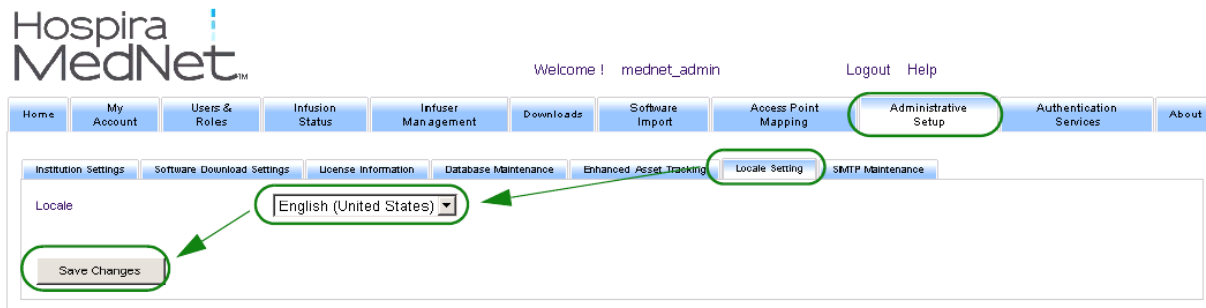
1. Enter the Server Name (and port if required), the User ID, and Password.
2. Set the Preferred Identifier to be used by the Asset Tracking application to identify your infusers. Possible values are Infuser Serial Number (default), Device ID, and Asset ID.
3. If you are using a Real-Time Location System (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

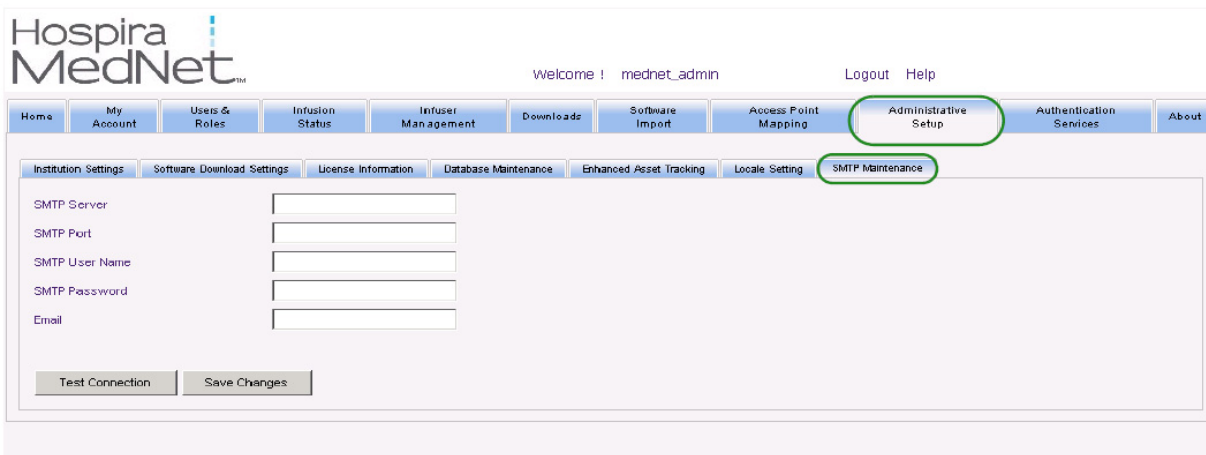
Use the following process to select your preferred Hospira MedNet language.



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.

The screenshot shows the Hospira MedNet Administrative Setup interface. The 'Integration Settings' tab is selected. The 'General' section includes the following settings:

- Automatically unassign patient after infuser has not communicated for this period: 12 hours
- Purge Interval for Inpatients: Monthly
- Purge Interval for Outpatients: Monthly
- Online Status Change Detection Interval: 6 minutes
- Plum A+ 15.x Frequency of Periodic Updates: 5 minutes
- Primary Patient Identifier: Medical Record Number
- Preferred Infuser Identifier: Serial Number
- Patient and Infuser Unassignment: Allow manual unassignment

Below the 'General' section is the 'Integration Profiles' table, which is currently empty. At the bottom of the page, there is a warning message: "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."

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 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, 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.

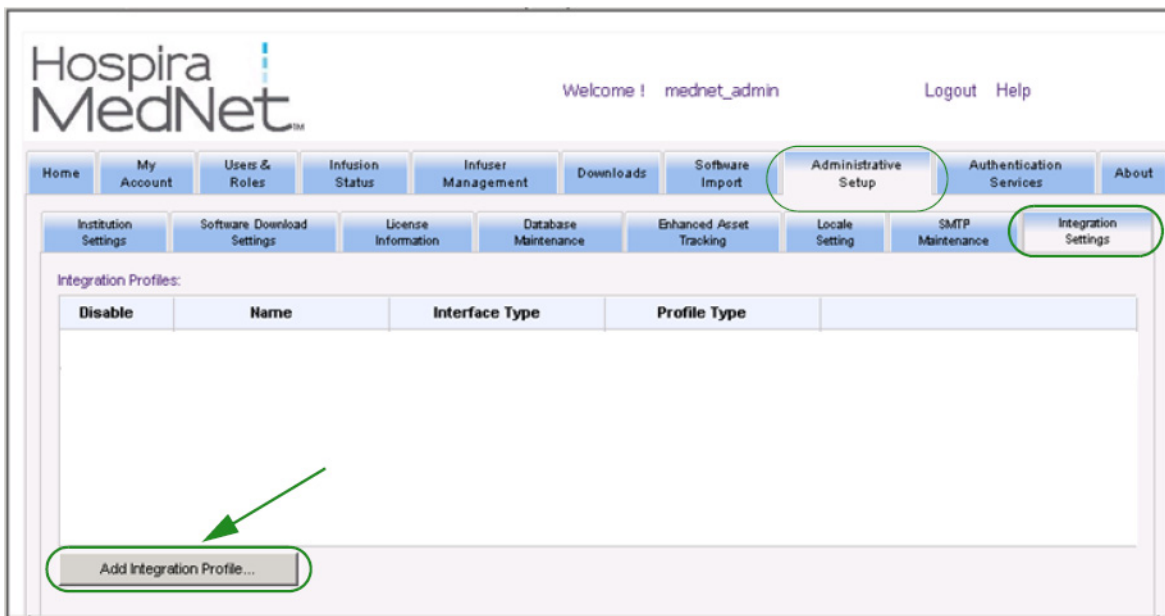
Integration Profiles

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

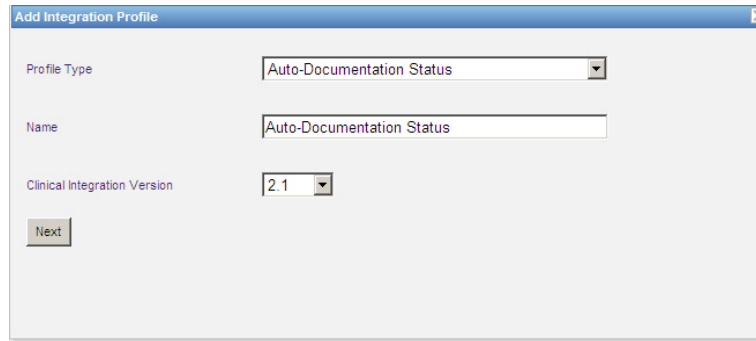
Note: As each profile is created, a confirmation message appears and the profile name, type and clinical integration version displays. Profiles can be disabled, edited, or deleted (see instructions after profile creations).

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



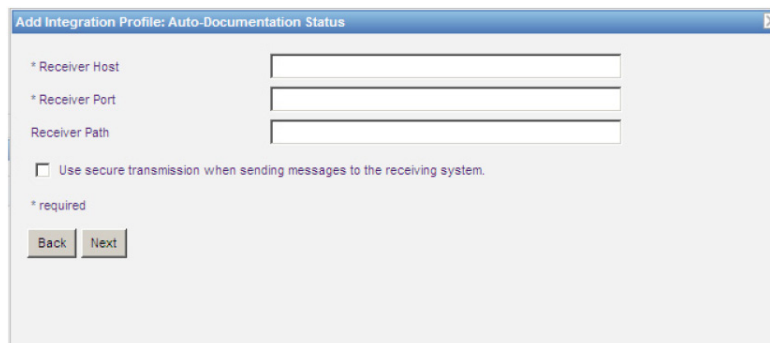
Profile for Auto-Documentation Status

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.



The screenshot shows a dialog box titled "Add Integration Profile". It contains three fields: "Profile Type" with a dropdown menu showing "Auto-Documentation Status", "Name" with a text box containing "Auto-Documentation Status", and "Clinical Integration Version" with a dropdown menu showing "2.1". A "Next" button is located at the bottom left of the dialog.

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.

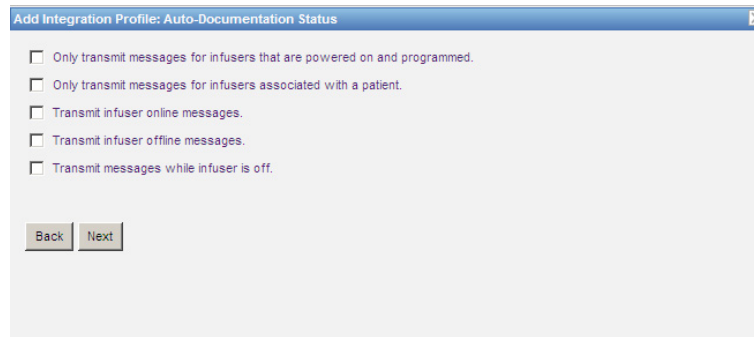


The screenshot shows a dialog box titled "Add Integration Profile: Auto-Documentation Status". It contains three required fields: "Receiver Host", "Receiver Port", and "Receiver Path", each with an empty text box. Below these is an unchecked checkbox labeled "Use secure transmission when sending messages to the receiving system." and a "* required" label. "Back" and "Next" buttons are located at the bottom left.

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.



Add Integration Profile: Auto-Documentation Status

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.

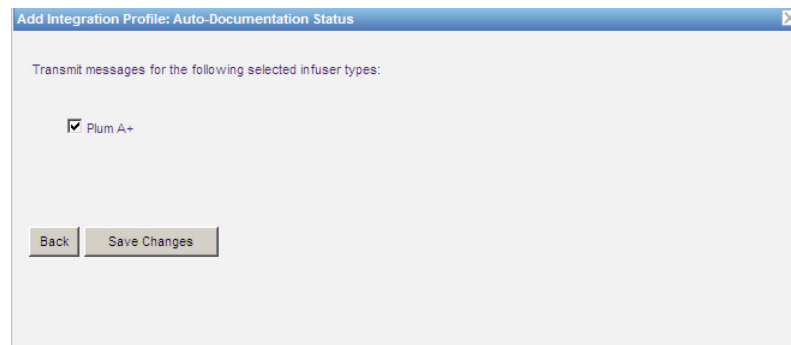
Transmit messages while infuser is off.

Back Next

11. Click **Next**.

12. Select the infuser types for which messages are to be transmitted.

Note: Only licensed infusers display.



Add Integration Profile: Auto-Documentation Status

Transmit messages for the following selected infuser types:

Plum A+

Back Save Changes

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...**

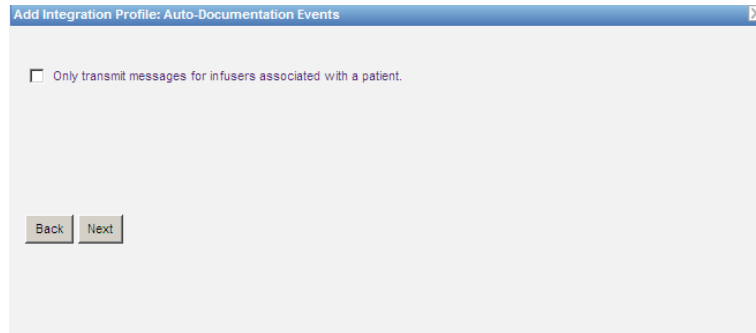
1. At **Profile Type**, select **Auto-Documentation Events** from the drop-down list.
2. At **Name**, accept either the default or enter a name of your choice.
3. At **Clinical Integration Version**, only the 2.1 default is available for Auto-Documentation Events.

The screenshot shows a dialog box titled "Add Integration Profile". It contains three fields: "Profile Type" (a dropdown menu with "Auto-Documentation Events" selected), "Name" (a text box with "Auto-Documentation Events" entered), and "Clinical Integration Version" (a dropdown menu with "2.1" selected). A "Next" button is located at the bottom left of the dialog.

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).

The screenshot shows a dialog box titled "Add Integration Profile: Auto-Documentation Events". It contains three text input fields: "Receiver Host", "Receiver Port", and "Receiver Path". Below these fields is a checkbox labeled "Use secure transmission when sending messages to the receiving system." with a "* required" label below it. At the bottom left, there are "Back" and "Next" buttons.

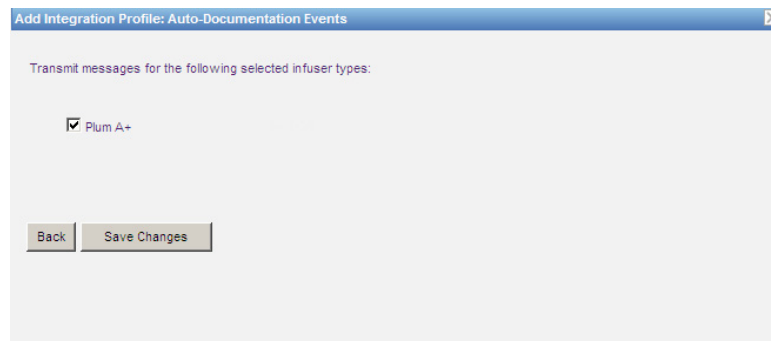
9. Click **Next**.
10. You may select to place a check mark in the box next to **Only transmit messages for infusers associated with a patient** if you wish (optional selection).



11. Click **Next**.

12. Select the infuser types for which messages are to be transmitted.

Note: Only licensed infusers display.

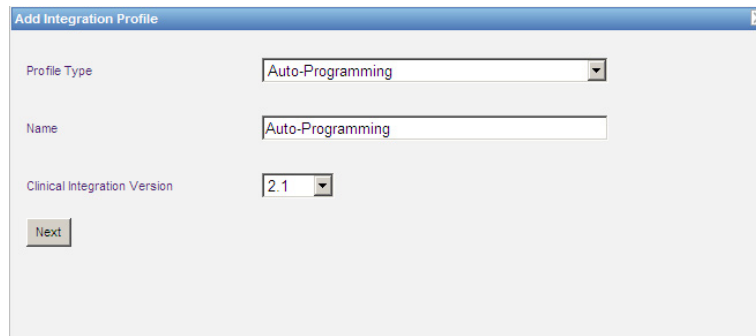


13. Click **Save Changes**. Your Auto-Documentation Events profile has been created.

Profile for Auto-Programming

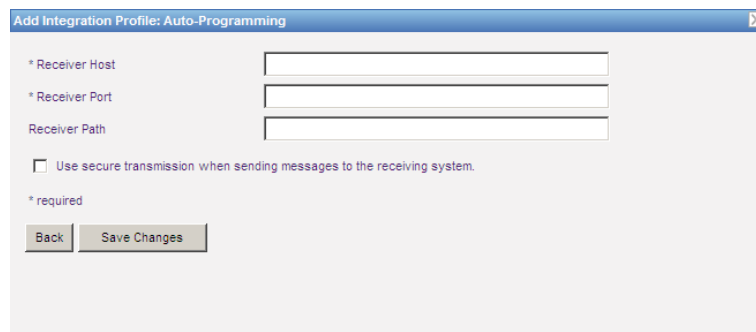
Once you have clicked on **Add Integration Profile...**

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.



The screenshot shows a dialog box titled "Add Integration Profile". It contains three fields: "Profile Type" (a dropdown menu with "Auto-Programming" selected), "Name" (a text input field with "Auto-Programming" entered), and "Clinical Integration Version" (a dropdown menu with "2.1" selected). A "Next" button is located at the bottom left of the dialog.

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).



The screenshot shows a dialog box titled "Add Integration Profile: Auto-Programming". It contains three text input fields: "* Receiver Host", "* Receiver Port", and "Receiver Path". Below these fields is a checkbox labeled "Use secure transmission when sending messages to the receiving system." which is currently unchecked. At the bottom left, there are two buttons: "Back" and "Save Changes".

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).

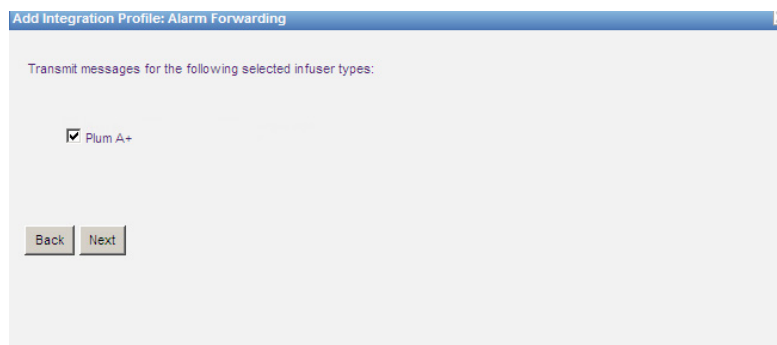
9. Click **Next**.
10. You may select to place a check mark in the box next to **Only transmit messages for infusers associated with a patient** if you wish (optional selection).



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.

Forward	Event	Importance	Infusers	Alarm Description
<input checked="" type="checkbox"/>	Air-in-Line Alarm	High	Plum A+/Plum 360	Air-in-Line Alarm
<input type="checkbox"/>	Barcode Error Alarm	Low	Plum A+/Plum 360	Barcode Error Alarm
<input type="checkbox"/>	Callback Alarm	Medium	Plum A+/Plum 360	Callback Alarm
<input checked="" type="checkbox"/>	Cassette Door Open Alarm	High	Plum A+/Plum 360	Cassette Door Open Alarm
<input type="checkbox"/>	Check Cassette Alarm	Medium	Plum A+/Plum 360	Check Cassette Alarm
<input checked="" type="checkbox"/>	Check Flow stop Alarm	High	Plum A+/Plum 360	Check Flow stop Alarm
<input type="checkbox"/>	Check Injector Alarm	Low	Plum A+/Plum 360	Check Injector Alarm

Clear Changes

Back Save Changes

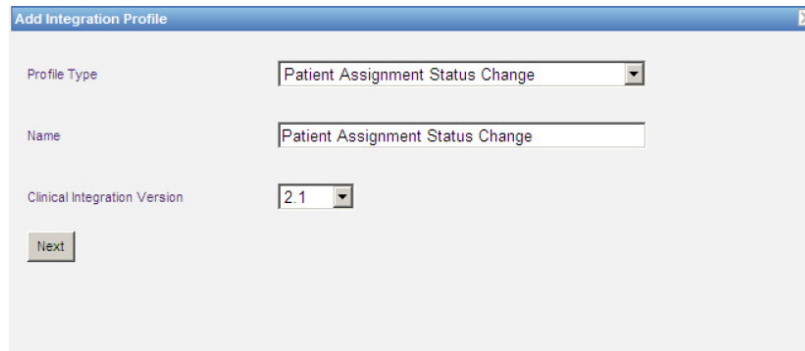
Note: Whatever you enter into the Alarm Description field is sent in the message to the third-party clinical system when the alarm occurs. The Importance level selected also is transmitted to the third-party clinical system when the alarm occurs.

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

Profile for Patient Assignment Status Change

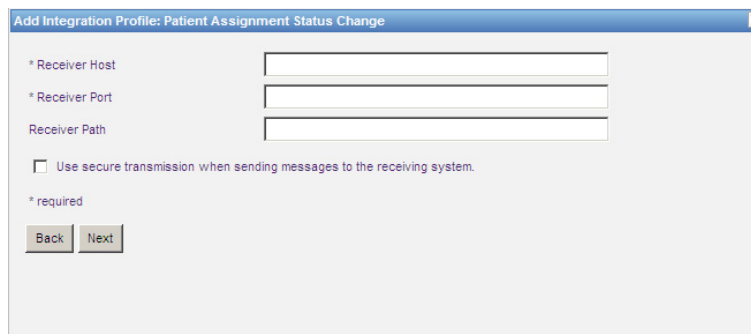
Once you have clicked on **Add Integration Profile...**

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.



The screenshot shows a window titled "Add Integration Profile". It contains three fields: "Profile Type" with a dropdown menu showing "Patient Assignment Status Change", "Name" with a text box containing "Patient Assignment Status Change", and "Clinical Integration Version" with a dropdown menu showing "2.1". A "Next" button is located at the bottom left of the window.

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).



The screenshot shows a window titled "Add Integration Profile: Patient Assignment Status Change". It contains three text input fields: "* Receiver Host", "* Receiver Port", and "Receiver Path". Below these fields is a checkbox labeled "Use secure transmission when sending messages to the receiving system." and a "* required" label. At the bottom left, there are "Back" and "Next" buttons.

9. Click **Next**.

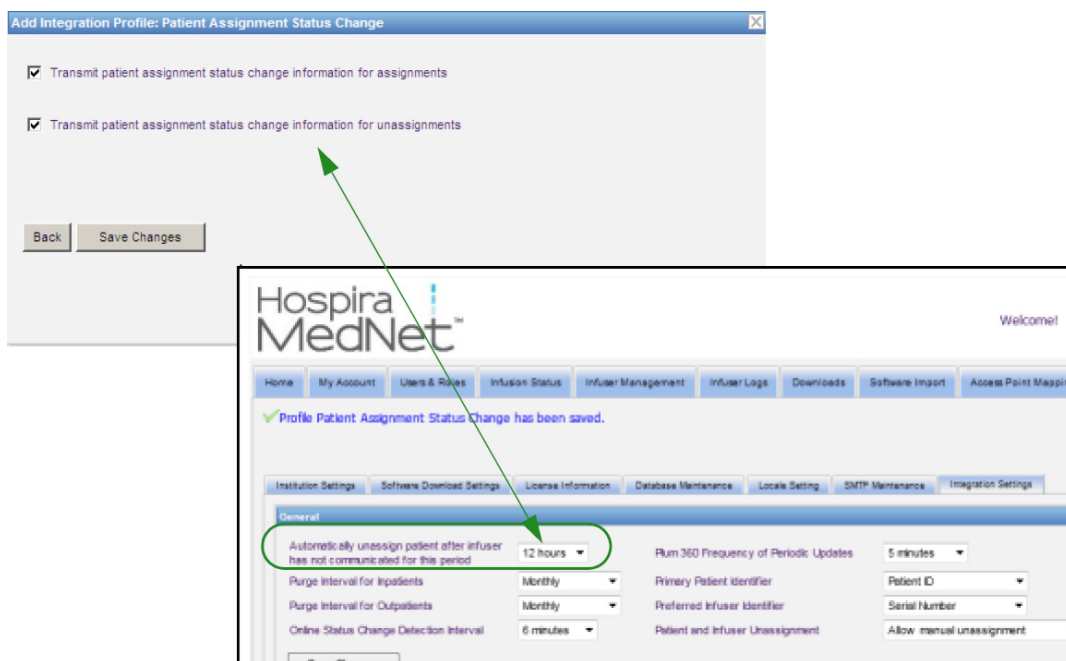
10. Select to **Transmit patient assignment status change information for assignments.**

and/or

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.

The screenshot shows the Hospira MedNet Administrative Setup interface. The top navigation bar includes 'Home', 'My Account', 'Users & Roles', 'Software Import', 'Administrative Setup', 'Authentication Services', and 'About'. The 'Administrative Setup' tab is active, and the 'Integration Settings' sub-tab is selected. A success message states: 'Profile Patient Assignment Status Change has been saved.' Below this, there are several configuration sections: 'General' with dropdowns for 'Automatically unassign patient after infuser has not communicated for this period' (12 hours), 'Purge Interval for Inpatients' (Monthly), 'Purge Interval for Outpatients' (Monthly), 'Online Status Change Detection Interval' (6 minutes), 'Plum 360 and Sapphire Frequency of Periodic Updates' (5 minutes), 'Primary Patient Identifier' (Patient ID), 'Preferred Infuser Identifier' (Serial Number), and 'Patient and Infuser Unassignment' (Do not allow manual unassignment). A 'Save Changes' button is present. Below the configuration sections is a table titled 'Integration Profiles:' with columns for 'Disable', 'Name', 'Profile Type', 'Clinical Integration Version', and 'Edit Delete'. The table lists four profiles: 'Auto-Documentation Status', 'Auto-Programming', 'Alarm Forwarding', and 'Patient Assignment Status Change'. Each row has a checkbox in the 'Disable' column and 'Edit Delete' links. At the bottom, there is an 'Add Integration Profile...' button and a warning message: '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.'

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 Clear Changes	Save changes or 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

The screenshot displays the Hospira MedNet Patient Assignment List interface. At the top, there is a navigation bar with the Hospira MedNet logo and user information (Welcome! mednet_admin Logout Help). Below this is a menu bar with various system options. The main content area is titled 'Patient Assignment List' and contains a search form. The search form includes text instructions: 'Search for current patient/infuser assignments by partial or complete patient and/or infuser information separated by commas. If entering a partial ID or name, enter an asterisk (*) to represent any character(s) except the first character. (e.g., "Sm*" or "12*9" are acceptable, "er" is not.) Select the "Apply" button. If a patient ID is entered, Patient IDs will be searched for a match. If an infuser ID is entered, Serial Numbers will be searched for a match.' The search form has four input fields: Patient ID(s), Patient First Name(s), Patient Last Name(s), and Infuser ID(s). To the right of these fields is a 'Nursing Unit' dropdown menu with 'All' selected and an 'Apply' button. Below the search form is a table with the following columns: Nursing Unit, Room/Bed, Patient ID, Patient Name, Birth Date, Infuser ID, Infuser Status, Assignment Date/Time, and Infuser Type. The table is currently empty. A 'Refresh' button is located at the bottom left of the table area.

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 infuser type: Plum A+

Hospira MedNet™

Welcome

Home My Account Users & Roles Infusion Status Infuser Management Infuser Logs Downloads Software Import Access Point Map

Patient Assignment List

Search for current patient/infuser assignments by partial or complete patient and/or infuser information separated by commas. If entering a partial ID or name, is not.) Select the "Apply" button.
 If a patient ID is entered, Patient IDs will be searched for a match.
 If an infuser ID is entered, Serial Numbers will be searched for a match.

Patient ID(s)

Patient First Name(s)

Patient Last Name(s)

Infuser ID(s)

Nursing Unit

All

Apply

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.

The screenshot shows the 'Unassign' view in the Hospira MedNet software. The page has a header with the logo and user information. A navigation menu is visible at the top. The main content area is divided into two sections: 'Patient' and 'Infusers'. The 'Patient' section has a search box for Patient ID, Patient First Name, and Patient Last Name, with a 'Search' button. Below this is a table with columns for Patient ID, Patient Name, Birth Date, Nursing Unit, and Room/Bed. The 'Infusers' section has a search box for Infuser ID and a 'Search' button. Below this is a table with columns for Select, Infuser ID, Infuser Type, Status, Patient ID, Patient Name, and Birth Date. At the bottom, there are two buttons: 'Unassign Selected Infusers' and 'Unassign All Displayed Infusers'.

If searching by patient, enter a complete patient ID or enter a complete or partial name and/or surname. 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.

The screenshot shows the 'Patient Assignment List' interface. In the 'Patient' section, the 'Patient ID' field is populated with 'P12345'. Below this, a table lists patient details: Patient ID (P12345), Patient Name (Smith, John Adams), Birth Date (01/01/1975), Nursing Unit (West), and Room/Bed (5A). A green arrow points to the Patient ID field in this table. In the 'Infusers' section, the 'Infuser ID' field is populated with '9876'. Below this, a table lists infuser details with columns: Select, Infuser ID, Infuser Type, Status, Patient ID, Patient Name, and Birth Date. Two infusers are listed, both with 'Assigned' status and Patient ID 'P12345'. A green circle highlights the 'Select' column, which contains checkmarks for both infusers.

Field/Label	Information
Select	Check boxes to indicate the infuser ID affected
Infuser ID	Logical ID of the infuser
Infuser Type	The 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 screenshot shows the Hospira MedNet software interface. At the top, there is a navigation menu with tabs: Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Import, Access Point Mapping, Administrative Setup, Authentication Services, Patient Assignment, Message Queues, and About. The 'Message Queues' tab is selected. Below the navigation menu, there are two sub-tabs: 'Outbound Message Queue' and 'JMS Queues'. The 'Outbound Message Queue' sub-tab is active, displaying a table of message entries. The table has four columns: 'Table Entry ID', 'Integration Profile Name', 'Event Date/Time', and 'View Message'. There are six rows of data. Below the table, there is a 'Refresh' button, a status message 'Last Updated 1 minute ago at 11/22/2013 17:39:55', a 'Purge Messages Older Than' dropdown menu set to '4 hours', and a 'Purge' button.

Table Entry ID	Integration Profile Name	Event Date/Time	View Message
441385166097376	Alarm Forwarding	11/22/2013 16:21	View Message
441385166101872	Alarm Forwarding	11/22/2013 16:21	View Message
441385166376859	Alarm Forwarding	11/22/2013 16:26	View Message
441385166415807	Alarm Forwarding	11/22/2013 16:26	View Message
441385170415922	Alarm Forwarding	11/22/2013 17:33	View Message
441385170417014	Alarm Forwarding	11/22/2013 17:33	View Message

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.

The screenshot displays the 'View Message' window. On the left, a table lists several messages. The first row is highlighted, and a green circle is drawn around the 'View Message' link in its third column. The right side of the window shows the XML payload of the selected message, which includes fields such as <MessageID>441385166097376</MessageID>, <Vendor>HOSPIRA</Vendor>, <PumpType>PLUM_A</PumpType>, and <EventName>INFUSION_PROGRAM_COMPLETED</EventName>.

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

The screenshot shows the Hospira MedNet software interface. The top navigation bar includes links for Home, My Account, Users & Roles, Infusion Status, Infuser Management, Infuser Logs, Downloads, Software Import, Access Point Mapping, and Administrative Setup. The main content area is titled "Outbound Message Queue" and displays a table with the following data:

Table Entry ID	Integration Profile Name	Event Date/Time	
6892611385416315293	Alarm Forwarding	11/25/2013 13:51	View Message
6892611385416318834	Alarm Forwarding	11/25/2013 13:51	View Message

At the bottom of the interface, there is a "Refresh" button, a status indicator "Last Updated 0 minutes ago at 11/25/2013 14:45:47", a "Purge Messages Older Than" dropdown menu set to "4 hours", and a "Purge" button circled in red.

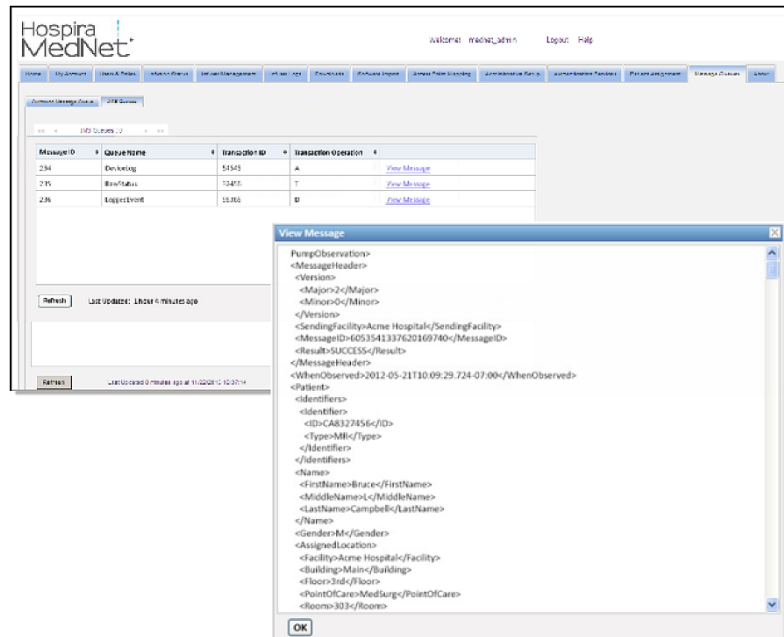
Click on the **JMS Queues** tab and the transactions display.

Message ID	Queue Name	Transaction ID	Transaction Operation	
234	DeviceLog	54545	A	View Message
235	RawStatus	32456	T	View Message
236	LoggedEvent	96365	D	View Message

The following table describes the JMS Queue fields.

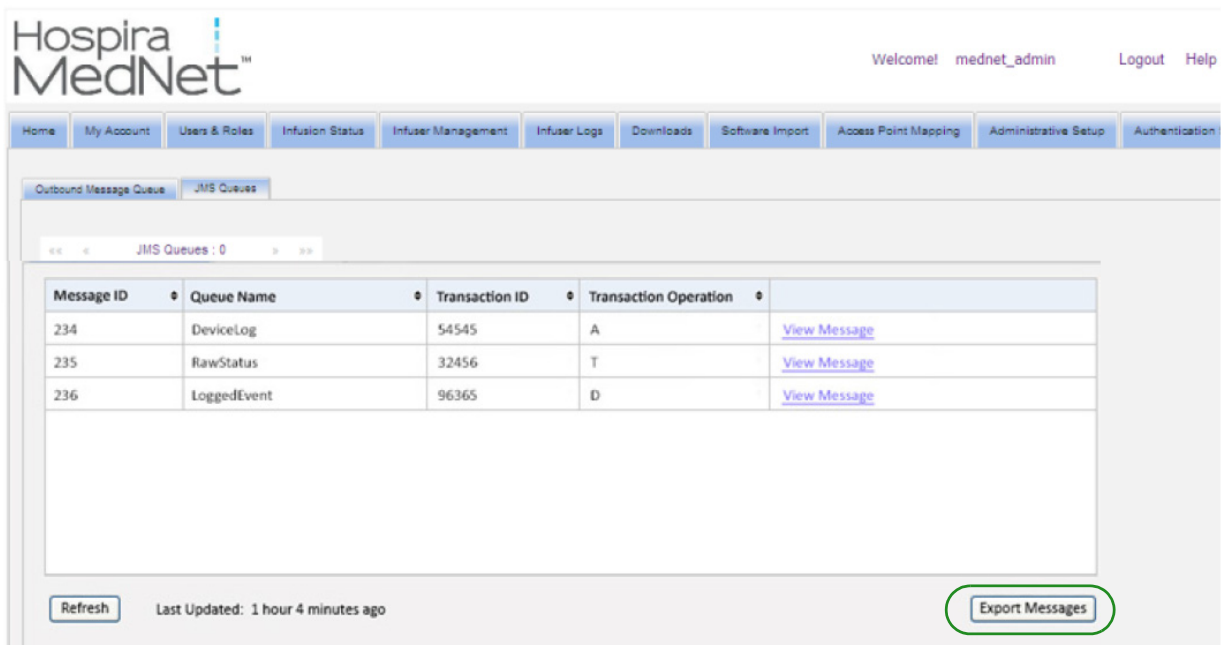
Field/Label	Information
Message ID	Unique identification number from the infuser associated with the incoming message. This column can be sorted in ascending or descending order.
Queue Name	The name of the log type. This column can be sorted in ascending or descending order.
Transaction ID	This column 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
 - Finalised Date
- **Hospira Web site**
- **Hospira Technical Support phone number**

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

The screenshot shows the 'About' view of the Hospira MedNet software. The top navigation bar includes 'Home' and 'About' tabs. The main content area is divided into several sections:

- Hospira MedNet™ Version:** 06.06.033
- Module Versions:**
 - Hospira MedNet services Version: 01.00.00.014
 - Hospira MedNet server suite (HMSS) Version: 06.00.00.016
 - Hospira MedNet Meds Version: 06.00.00.014
- System info:**
 - From CE: Non-SSL communication allowed
 - From PDA: Non-SSL communication allowed
 - To CE: Non-SSL communication allowed
- Plum 360™:**

Infuser Type	Active Library	Finalized Date
Plum 360™	12/10/13 6:00 11800	12/10/13 3:37 PM
- Hospira Web Site:** <http://www.hospira.com>

At the bottom, there is a note: "For technical support, call Technical Support Operations at 1-800-241-4992 or for assistance outside the United States, contact your local Hospira, Inc. sales office."

Notes:

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 Unmatched Medication”
- “Total Programme Activity”
- “Medications Selected by Time of Day”
- “Most Commonly Infused Medications”
- “Override Variance Detail”
- “Override Variance Summary”
- “Auto-Programming”
- “Medications Infused”

Pharmacists

The following reports are used by Pharmacists:

- “Next IV Due”
- “Software Download”
- “Edit Variance Detail”
- “Edit Variance Summary”
- “Most Commonly Infused Medications”
- “Override Variance Detail”
- “Override Variance 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 Utilisation”
- “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](#)”

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

Asset Management

Examples of asset management reports include the Asset Tracker, Asset Utilisation, 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 medication events. Also, the data is used by biomedics 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, and Next IV Due 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 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 Centre or, if outside the USA, your local Hospira Representative.

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 programmes. Reports that represent infusions include: <i>Line Usage Analysis, Medications Selected by Time of Day, Most Commonly Infused Medications, and Next IV Due.</i>
Hospira MedNet Usage Compliance	Usage compliance is achieved when the clinician selects a medication entry from the medication 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.

Term	Description
Programme	<p>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.</p> <p>One or more programmes may be associated with an infusion.</p> <p>For infuser information, see the related infuser's System Operating Manual.</p> <p>Reports that represent programmes 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.</p>
Report Options	<p>Configurations entered by the user to define the desired report output (for example, Time Period, CCA, Medication, etc.).</p>
Rule Set	<p>The type of rule for the medication in the medication library.</p> <p>Rule set information is detailed in the <i>Hospira MedNet Meds User Guide</i>.</p>
Soft Limit Alert	<p>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.</p>
Unknown CCA or Unknown Medication	<p>Mismatch between what the infuser reports and the information available on the server.</p> <p>Unknown CCA and Unknown Medication are reported when Hospira MedNet has received data from a pump that was using a medication library that was not finalised on the same Hospira MedNet server that the reports are run from.</p> <p>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.</p>
Variance	<p>A calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit.</p> <p>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.</p>

See [Glossary on page 199](#) for other terms used in Hospira MedNet Software.

Reports List

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

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

Report <i>*provides real-time information</i>	Plum A+	Suggested Audience
Line Usage Analysis	X	Nursing, Pharmacy, Materials Management, Leadership
Most Commonly Infused Medications	X	Nursing, Pharmacy
Clinical Reports - Drill Down/Detail		
Medications Infused by		
Medication	X	Nursing, Pharmacy
CCA	X	Nursing, Pharmacy
Service Line	X	Nursing, Pharmacy
Override Variance Summary	X	Nursing, Pharmacy, Leadership
Override Variance Detail	X	Nursing, Pharmacy
Edit Variance Detail	X	Nursing, Pharmacy
Edit Variance Summary	X	Nursing, Pharmacy, Leadership

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.

Report Name	Description	Date
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.	01/25/2012 10:55
Asset Utilization	Information on the number of hours infusers have been in use.	01/25/2012 10:55
Auto-Programming	Information about usage of auto-programming functionality.	01/25/2012 10:55
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	01/25/2012 10:55
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.	01/25/2012 10:55
Edit Variance Summary	Summary of programs where user received an alert and edited the program.	01/25/2012 10:55
Event/Alarm Log	Information about the events/alerts reported for a specific infuser.	01/25/2012 10:55
Infuser Status	Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	01/25/2012 10:55
Infusion Summary	High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	01/25/2012 10:55
Line Usage Analysis	Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	01/25/2012 10:55
Medications Infused by CCA	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Medication	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Service Line	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Selected by Time of Day	Number of infusions started during each hour of the day and whether a medication was selected.	01/25/2012 10:55
Most Commonly Infused Medications	Graphical representation of the 15 most commonly infused medications selected from the drug library.	01/25/2012 10:55
Next IV Due	Information about which IV fluids are due to facilitate timely preparation.	01/25/2012 10:55
Override Variance Detail	Line-item detail of every program where user received an alert and chose to continue with entered value.	01/25/2012 10:55
Override Variance Summary	Summary of programs where the user received an alert and chose to continue with entered value.	01/25/2012 10:55
Software Download	Status of downloaded infuser software including version and last transfer status.	01/25/2012 10:55
Total Program Activity	Programming activity, including total edits and overrides for the selected time period.	01/25/2012 10:55

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

- 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.

Report Name	Description	Date
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.	03/26/2012 10:09
Asset Utilization	Information on the number of hours infusers have been in use.	03/26/2012 10:09
Auto-Programming	Information about usage of auto-programming functionality.	03/26/2012 10:09
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	03/26/2012 10:09
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.	03/26/2012 10:09
Edit Variance Summary	Summary of programs where user received an alert and edited the program.	03/26/2012 10:09
Event/Alarm Log	Information about the events/alerts reported for a specific infuser.	03/26/2012 10:09
Infuser Status	Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	03/26/2012 10:09
Infusion Summary	High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	03/26/2012 10:09
Line Usage Analysis	Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	03/26/2012 10:09
Medications Infused by CCA	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/26/2012 10:09
Medications Infused by Medication	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/26/2012 10:09
Medications Infused by Service Line	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/26/2012 10:09
Medications Selected by Time of Day	Number of infusions started during each hour of the day and whether a medication was selected.	03/26/2012 10:09
Most Commonly Infused Medications	Graphical representation of the 15 most commonly infused medications selected from the drug library.	03/26/2012 10:09
Next IV Due	Information about which IV fluids are due to facilitate timely preparation.	03/26/2012 10:09
Override Variance Detail	Line-item detail of every program where user received an alert and chose to continue with entered value.	03/26/2012 10:09
Override Variance Summary	Summary of programs where the user received an alert and chose to continue with entered value.	03/26/2012 10:09
Software Download	Status of downloaded infuser software including version and last transfer status.	03/26/2012 10:09
Total Program Activity	Programming activity, including total edits and overrides for the selected time period.	03/26/2012 10:09

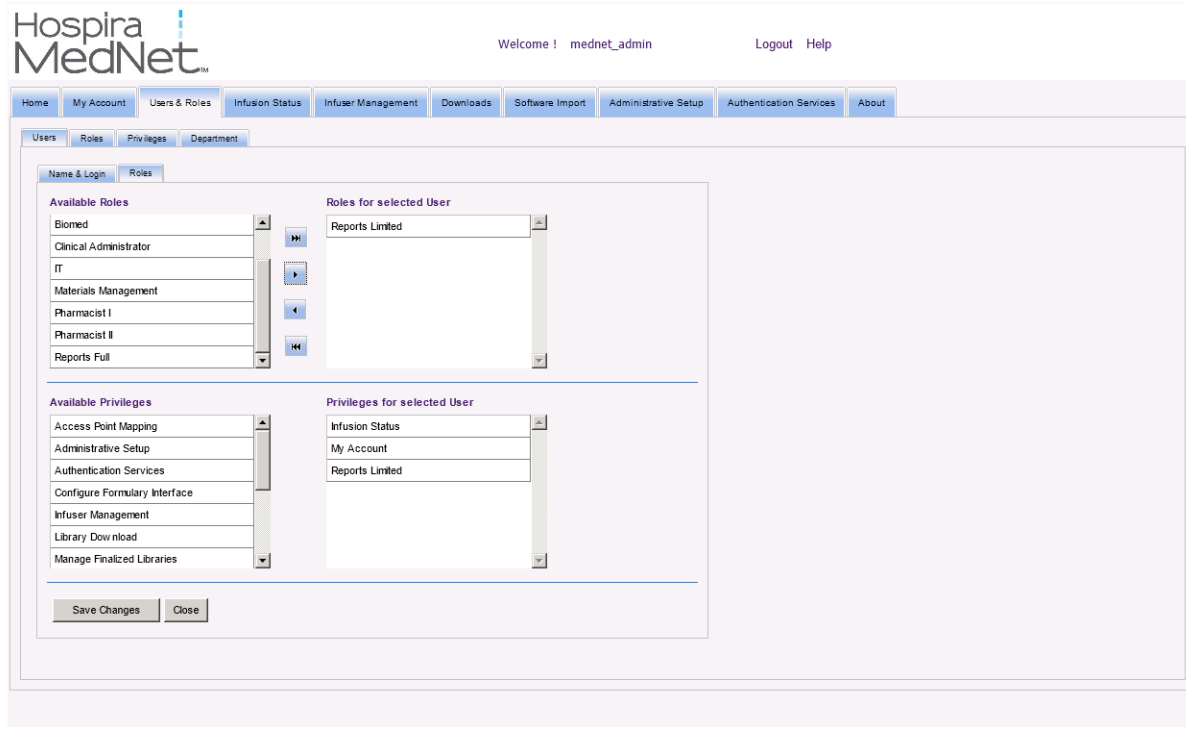
- Click **Apply**.
- Create the user with the Reports Limited role, as shown in the two screens below. First click the primary **Users & Roles** tab.
- Click the secondary **Users** tab below that.
- Click the **Add** button at the bottom of the screen.
- At the **Name & Login** tab, input the user's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

The screenshot shows the Hospira MedNet software interface. At the top, there is a navigation bar with tabs: Home, My Account, Users & Roles, Infusion Status, Infuser Management, Downloads, Software Import, Administrative Setup, Authentication Services, and About. The 'Users & Roles' tab is selected, and the 'Users' sub-tab is active. The 'Name & Login' section is filled out with the following information:

- First Name: John
- Middle Name or Initial: (empty)
- Last Name: Smith
- Suffix: (empty)
- Initials: (empty)
- Department: Administration
- Login ID: smithjohn
- Password: (masked with dots)
- Re-type Password: (masked with dots)

The 'My Name Will Appear As' field shows 'Smith, John'. Buttons for 'Save Changes', 'Clear Changes', and 'Close' are visible at the bottom.

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**.

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

The screenshot shows the Hospira MedNet interface. At the top, there is a navigation bar with 'Home', 'My Account', 'Users & Roles', 'Infusion Status', 'Infuser Management', 'Downloads', 'Software Import', 'Administrative Setup', 'Authentication Services', and 'About'. Below this, there are sub-tabs for 'Users', 'Roles', 'Privileges', and 'Department'. The main content area is divided into two panels. The left panel, titled 'Users', contains a table with the following data:

Name	Login ID	Department
Billingsworth, Franklyn T	ftbillings	
Smith, John T	jsmith_test	
Toni, Liza A	ltoni_test	
Administrator, Hospira	MEDNET_ADMIN	
Smith, John	smithjohn	Administration

The right panel, titled 'Roles for selected User', shows a dropdown menu with 'Reports Limited' selected. Below it, the 'Privileges for selected User' section lists 'Infusion Status', 'My Account', and 'Reports Limited'. At the bottom of the 'Users' panel, there are 'Add', 'Edit', and 'Delete' buttons.

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

The screenshot shows the Hospira MedNet interface for a user named 'dhanushmani'. The navigation bar includes 'Home', 'Reports', and 'About'. The main content area is titled 'Reports' and features a table with the following data:

Report Name	Description
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.
Asset Utilization	Information on the number of hours infusers have been in use.
Auto-Programming	Information about usage of auto-programming functionality.
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.

A red box highlights the first five rows of the table. A 'Scheduled Reports' button is located above the table.

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

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.
2. Click on the name of the report you wish to open.

Report Name	Description	Date
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.	01/25/2012 10:55
Asset Utilization	Information on the number of hours infusers have been in use.	01/25/2012 10:55
Auto-Programming	Information about usage of auto-programming functionality.	01/25/2012 10:55
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	01/25/2012 10:55
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.	01/25/2012 10:55
Edit Variance Summary	Summary of programs where user received an alert and edited the program.	01/25/2012 10:55
Event/Alarm Log	Information about the events/alarms reported for a specific infuser.	01/25/2012 10:55
Infuser Status	Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	01/25/2012 10:55
Infusion Summary	High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	01/25/2012 10:55
Line Usage Analysis	Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	01/25/2012 10:55
Medications Infused by CCA	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Medication	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Service Line	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Selected by Time of Day	Number of infusions started during each hour of the day and whether a medication was selected.	01/25/2012 10:55
Most Commonly Infused Medications	Graphical representation of the 15 most commonly infused medications selected from the drug library.	01/25/2012 10:55
Next IV Due	Information about which IV fluids are due to facilitate timely preparation.	01/25/2012 10:55
Override Variance Detail	Line-item detail of every program where user received an alert and chose to continue with entered value.	01/25/2012 10:55
Override Variance Summary	Summary of programs where the user received an alert and chose to continue with entered value.	01/25/2012 10:55
Software Download	Status of downloaded infuser software including version and last transfer status.	01/25/2012 10:55
Total Program Activity	Programming activity, including total edits and overrides for the selected time period.	01/25/2012 10:55

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.

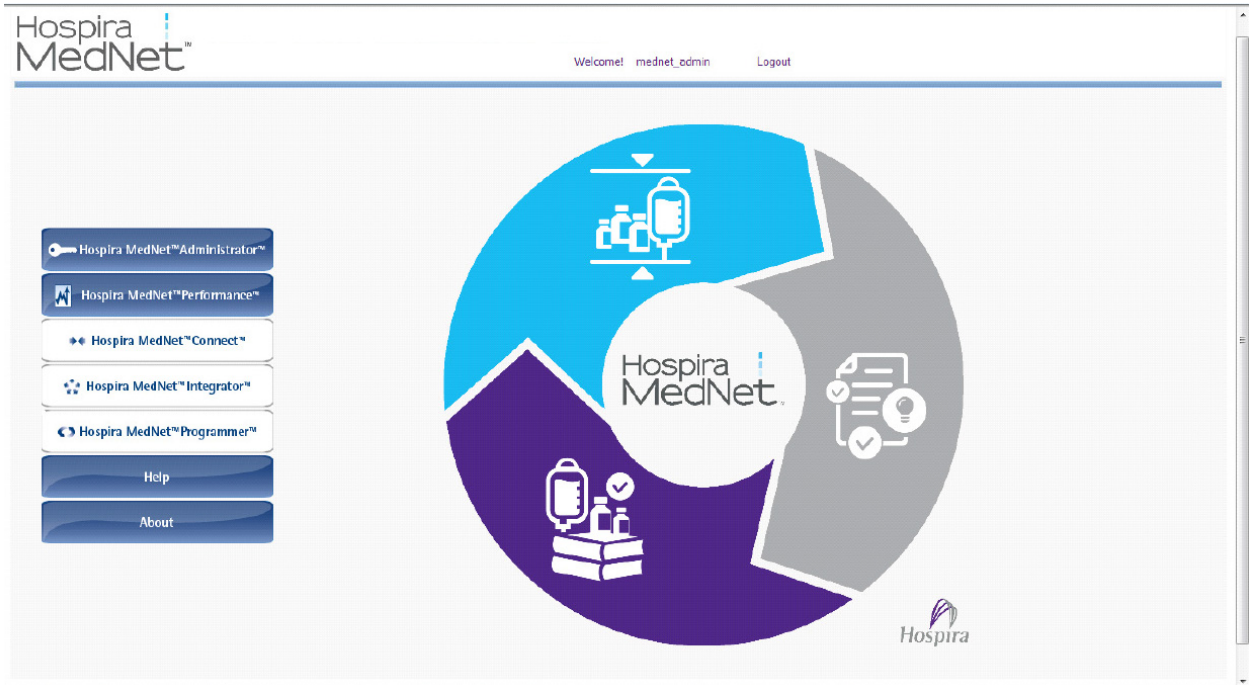
Note: It may take up to 5 minutes after an infusion completes to display accurate data on a report.

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

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.

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 120.) The date to the right of the report description is the Report Publish Date; this is the date the software was installed.

User: mednet_admin Logout Help

Home Reports About

Reports

Report Name	Scheduled Reports	Apply	Description	Date
Asset Tracker			Includes data to efficiently manage the entire inventory of infusers.	01/25/2012 10:55
Asset Utilization			Information on the number of hours infusers have been in use.	01/25/2012 10:55
Auto-Programming			Information about usage of auto-programming functionality.	01/25/2012 10:55
Auto-Programs with Unmatched Medication			Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	01/25/2012 10:55
Edit Variance Detail			Line-item detail of every program where user received an alert and edited the program.	01/25/2012 10:55
Edit Variance Summary			Summary of programs where user received an alert and edited the program.	01/25/2012 10:55
Event/Alarm Log			Information about the events/alarms reported for a specific infuser.	01/25/2012 10:55
Infuser Status			Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	01/25/2012 10:55
Infusion Summary			High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	01/25/2012 10:55
Line Usage Analysis			Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	01/25/2012 10:55
Medications Infused by CCA			Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Medication			Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Service Line			Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Selected by Time of Day			Number of infusions started during each hour of the day and whether a medication was selected.	01/25/2012 10:55
Most Commonly Infused Medications			Graphical representation of the 15 most commonly infused medications selected from the drug library.	01/25/2012 10:55
Next IV Due			Information about which IV fluids are due to facilitate timely preparation.	01/25/2012 10:55
Override Variance Detail			Line-item detail of every program where user received an alert and chose to continue with entered value.	01/25/2012 10:55
Override Variance Summary			Summary of programs where the user received an alert and chose to continue with entered value.	01/25/2012 10:55
Software Download			Status of downloaded infuser software including version and last transfer status.	01/25/2012 10:55
Total Program Activity			Programming activity, including total edits and overrides for the selected time period.	01/25/2012 10:55

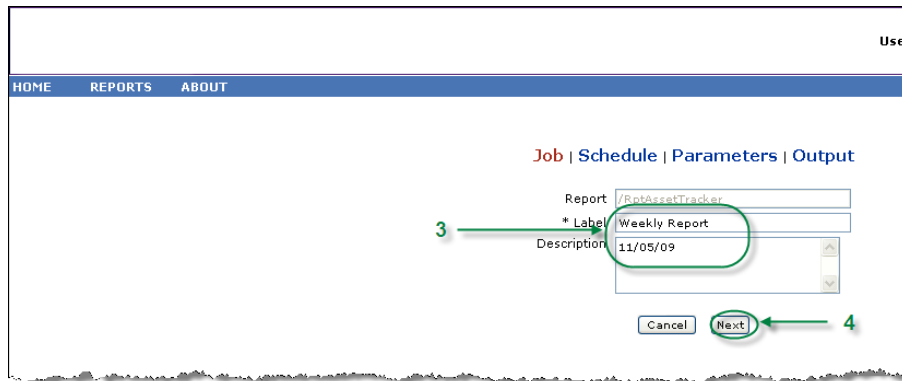
1. To Schedule a report, click on the Calendar Icon to the right of the desired report.

Report Name	Scheduled Reports	Apply	Description	Date
Asset Tracker			Includes data to efficiently manage the entire inventory of infusers.	01/25/2012 10:55
Asset Utilization			Information on the number of hours infusers have been in use.	01/25/2012 10:55
Auto-Programming			Information about usage of auto-programming functionality.	01/25/2012 10:55
Auto-Programs with Unmatched Medication			Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	01/25/2012 10:55
Edit Variance Detail			Line-item detail of every program where user received an alert and edited the program.	01/25/2012 10:55
Edit Variance Summary			Summary of programs where user received an alert and edited the program.	01/25/2012 10:55
Event/Alarm Log			Information about the events/alarms reported for a specific infuser.	01/25/2012 10:55
Infuser Status			Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	01/25/2012 10:55
Infusion Summary			High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	01/25/2012 10:55
Line Usage Analysis			Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	01/25/2012 10:55
Medications Infused by CCA			Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Medication			Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Service Line			Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Selected by Time of Day			Number of infusions started during each hour of the day and whether a medication was selected.	01/25/2012 10:55
Most Commonly Infused Medications			Graphical representation of the 15 most commonly infused medications selected from the drug library.	01/25/2012 10:55
Next IV Due			Information about which IV fluids are due to facilitate timely preparation.	01/25/2012 10:55
Override Variance Detail			Line-item detail of every program where user received an alert and chose to continue with entered value.	01/25/2012 10:55
Override Variance Summary			Summary of programs where the user received an alert and chose to continue with entered value.	01/25/2012 10:55
Software Download			Status of downloaded infuser software including version and last transfer status.	01/25/2012 10:55
Total Program Activity			Programming activity, including total edits and overrides for the selected time period.	01/25/2012 10:55

2. Click **Schedule Job**.



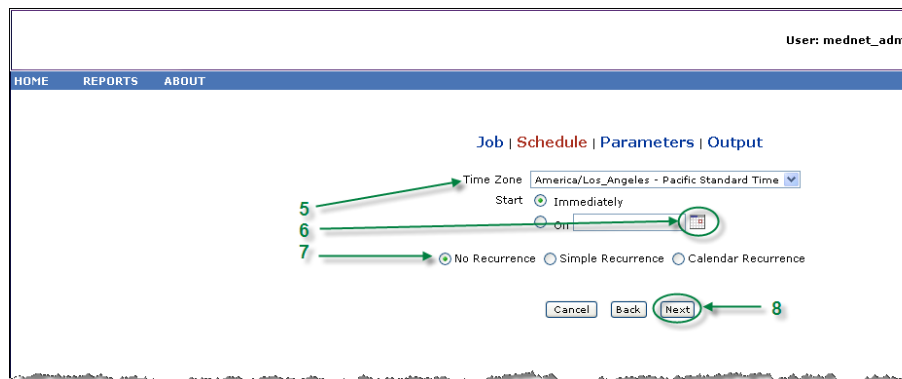
3. Complete the Job information.



- 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.

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:

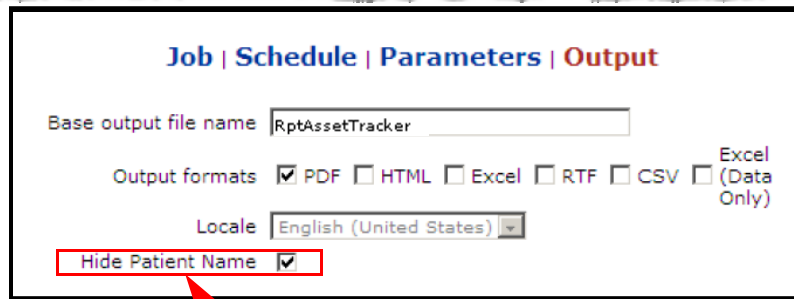
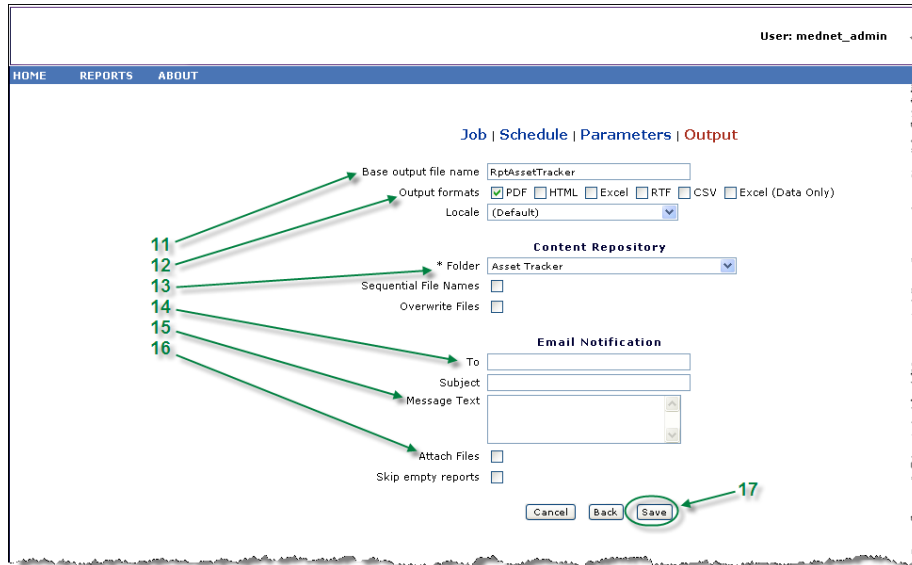
The screenshot displays the 'Asset Tracker Report Options' screen. At the top right, the user is identified as 'mednet_admin'. The navigation menu includes 'HOME', 'REPORTS', and 'ABOUT'. The main heading is 'Asset Tracker Report Options:'. Below this, a message states: 'Please enter values for all the report options below and then click the submit button.' The form contains the following elements:

- Select an infuser type:** A radio button is selected for 'Plum A+'.
- Network status:** Two buttons are present: 'online' (selected) and 'offline'.
- Sort by:** A dropdown menu is set to 'Device'.
- Then by:** A dropdown menu is set to 'Serial No.'.
- Then by:** A second dropdown menu is set to 'Location'.
- Include Deleted Infusers:** An unchecked checkbox.
- Submit:** A button at the bottom right of the form, circled in red.

Red arrows labeled '9' and '10' point to the 'Plum A+' radio button and the 'Submit' button, respectively. The footer text reads: 'Copyright 2005-2009 Hospira Inc. All rights reserved.'

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

The Output screen appears:



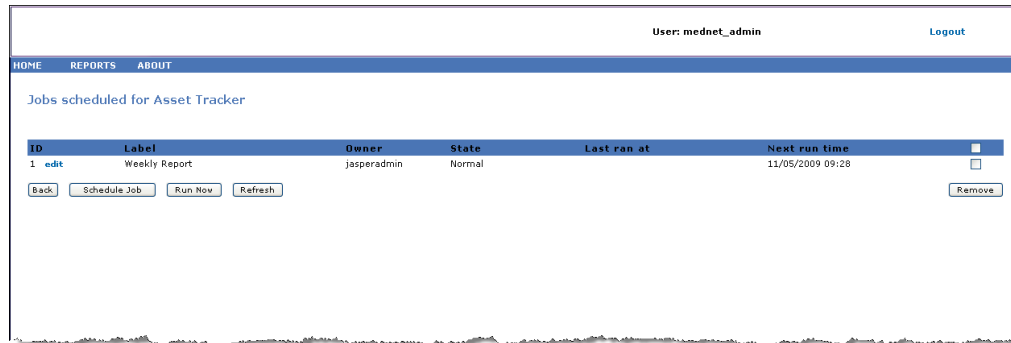
Note: If you have **View Protected Health Information** privilege, the Hide Patient Name tickbox displays for the following reports: Auto-Programming, Auto Programs with Unmatched Medication, Event/Alarm Log and Next IV Due.

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.

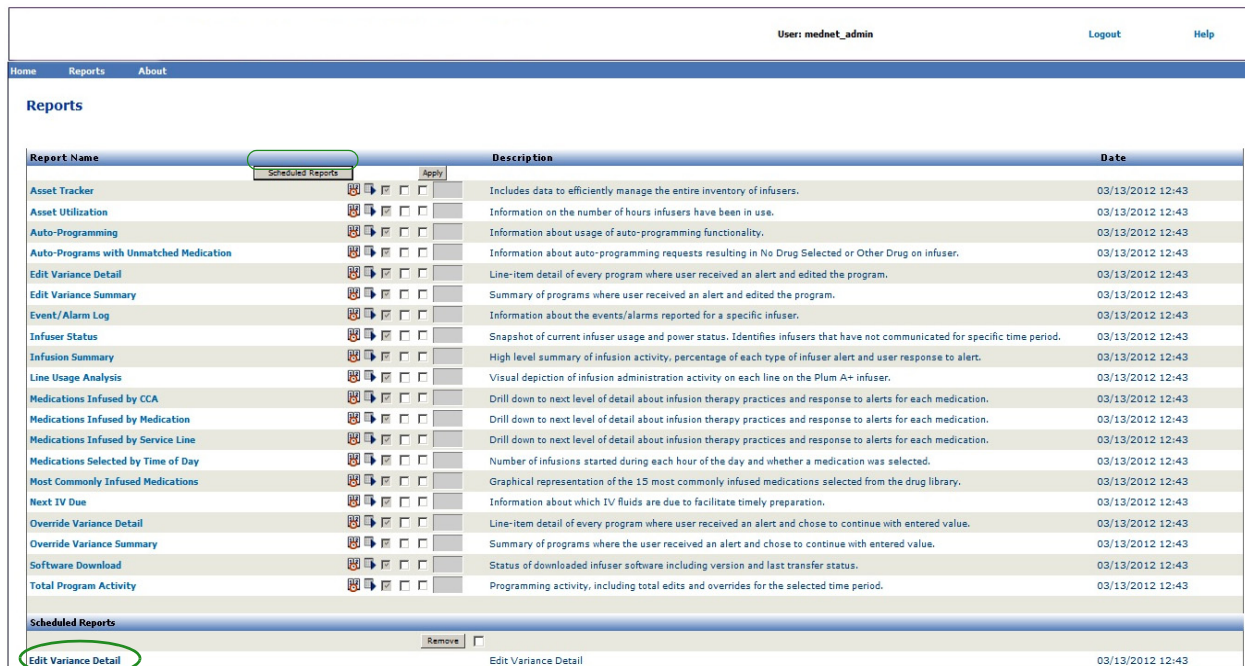
Important: When creating a scheduled report to run within the same scheduling parameters for two different infusers, you will need to give the reports different names.

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.



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.

Report Name	Description	Date
Scheduled Reports		
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.	03/26/2012 10:09
Asset Utilization	Information on the number of hours infusers have been in use.	03/26/2012 10:09
Auto-Programming	Information about usage of auto-programming functionality.	03/26/2012 10:09
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	03/26/2012 10:09
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.	03/26/2012 10:09
Edit Variance Summary	Summary of programs where user received an alert and edited the program.	03/26/2012 10:09
Event/Alarm Log	Information about the events/alerts reported for a specific infuser.	03/26/2012 10:09
Infuser Status	Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time periods.	03/26/2012 10:09
Infusion Summary	High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	03/26/2012 10:09
Line Usage Analysis	Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	03/26/2012 10:09
Medications Infused by CCA	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/26/2012 10:09
Medications Infused by Medication	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/26/2012 10:09
Medications Infused by Service Line	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/26/2012 10:09
Medications Selected by Time of Day	Number of infusions started during each hour of the day and whether a medication was selected.	03/26/2012 10:09
Most Commonly Infused Medications	Graphical representation of the 15 most commonly infused medications selected from the drug library.	03/26/2012 10:09
Next IV Due	Information about which IV fluids are due to facilitate timely preparation.	03/26/2012 10:09
Override Variance Detail	Line-item detail of every program where user received an alert and chose to continue with entered value.	03/26/2012 10:09
Override Variance Summary	Summary of programs where the user received an alert and chose to continue with entered value.	03/26/2012 10:09

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**.

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.

Report Name	Description	Date
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.	01/25/2012 10:55
Asset Utilization	Information on the number of hours infusers have been in use.	01/25/2012 10:55
Auto-Programming	Information about usage of auto-programming functionality.	01/25/2012 10:55
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	01/25/2012 10:55
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.	01/25/2012 10:55
Edit Variance Summary	Summary of programs where user received an alert and edited the program.	01/25/2012 10:55
Event/Alarm Log	Information about the events/alerts reported for a specific infuser.	01/25/2012 10:55
Infuser Status	Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	01/25/2012 10:55
Infusion Summary	High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	01/25/2012 10:55
Line Usage Analysis	Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	01/25/2012 10:55
Medications Infused by CCA	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Medication	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Infused by Service Line	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	01/25/2012 10:55
Medications Selected by Time of Day	Number of infusions started during each hour of the day and whether a medication was selected.	01/25/2012 10:55
Most Commonly Infused Medications	Graphical representation of the 15 most commonly infused medications selected from the drug library.	01/25/2012 10:55
Next IV Due	Information about which IV fluids are due to facilitate timely preparation.	01/25/2012 10:55
Override Variance Detail	Line-item detail of every program where user received an alert and chose to continue with entered value.	01/25/2012 10:55
Override Variance Summary	Summary of programs where the user received an alert and chose to continue with entered value.	01/25/2012 10:55
Software Download	Status of downloaded infuser software including version and last transfer status.	01/25/2012 10:55
Total Program Activity	Programming activity, including total edits and overrides for the selected time period.	01/25/2012 10:55

The Report Options screen is displayed:

User: mednet_admin

HOME REPORTS ABOUT

Asset Tracker Report Options:

Please enter values for all the report options below and then click the submit button.

Select an infuser type: Plum A+™

Network status: online offline

Sort by:

Then by:

Then by:

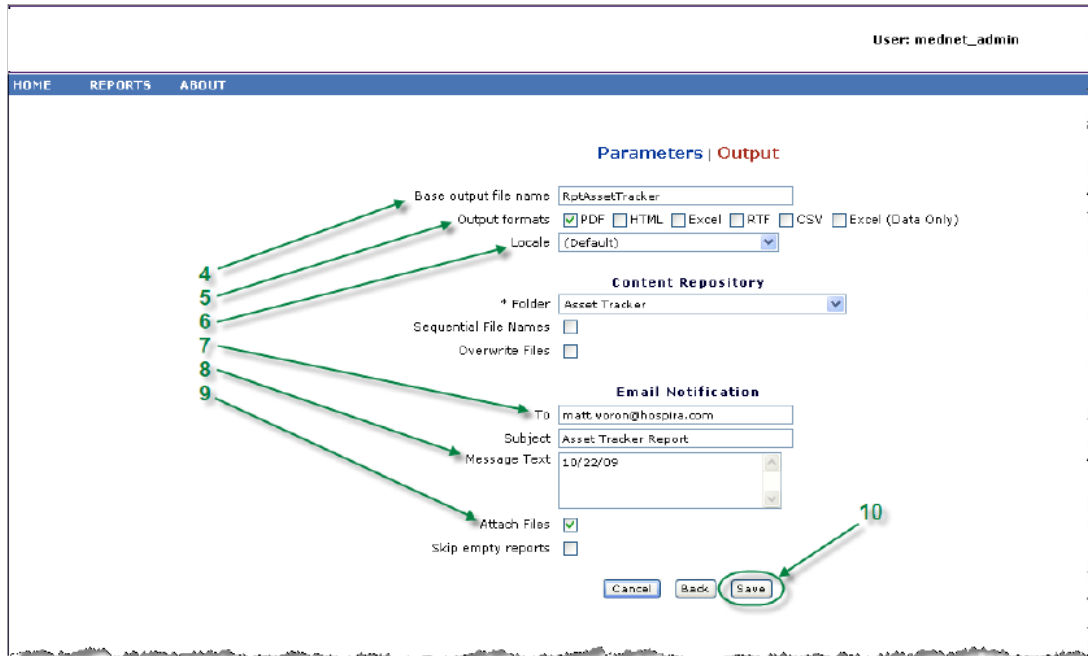
Include Deleted Infusers

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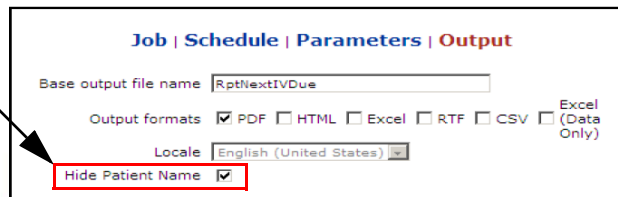
2. Complete the required information. See additional information in this chapter for your specific report.

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**.

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.

User: mednet_admin Logout Help

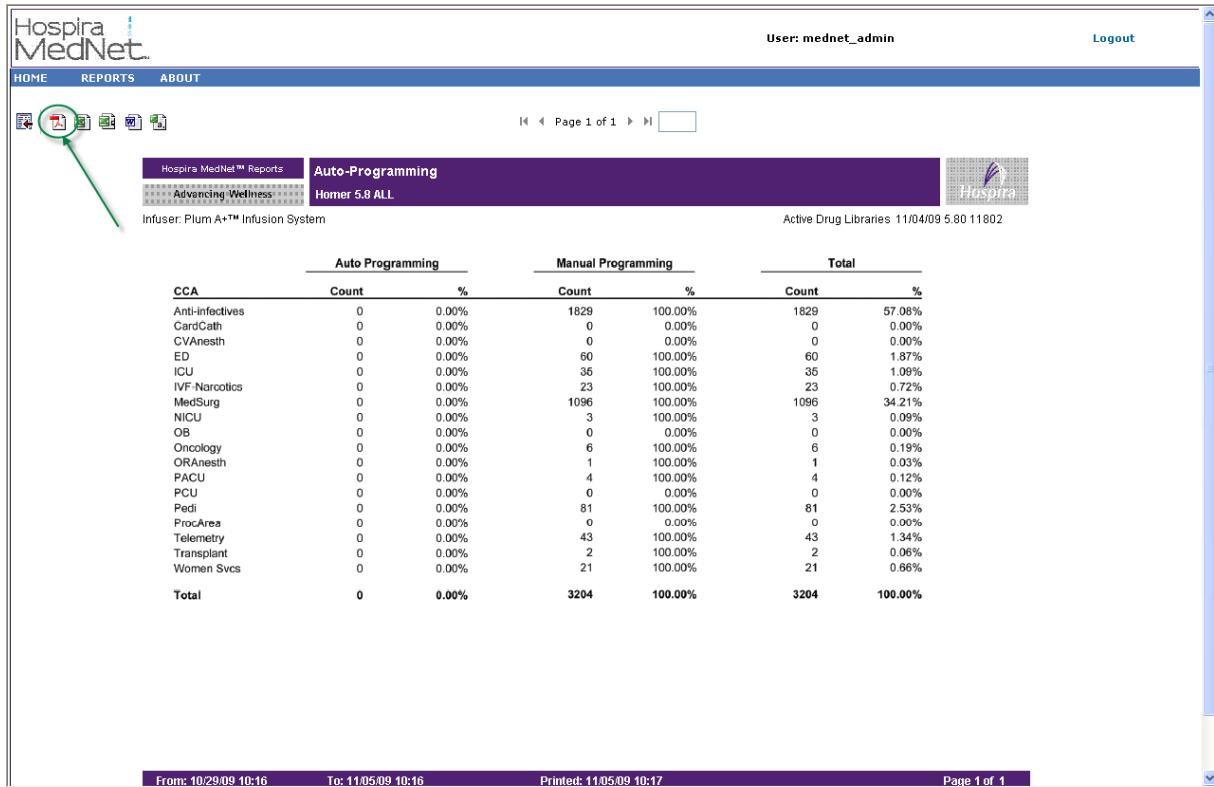
Home Reports About

Reports

Report Name	Description	Date
Scheduled Reports Apply		
Asset Tracker	Includes data to efficiently manage the entire inventory of infusers.	03/13/2012 12:43
Asset Utilization	Information on the number of hours infusers have been in use.	03/13/2012 12:43
Auto-Programming	Information about usage of auto-programming functionality.	03/13/2012 12:43
Auto-Programs with Unmatched Medication	Information about auto-programming requests resulting in No Drug Selected or Other Drug on infuser.	03/13/2012 12:43
Edit Variance Detail	Line-item detail of every program where user received an alert and edited the program.	03/13/2012 12:43
Edit Variance Summary	Summary of programs where user received an alert and edited the program.	03/13/2012 12:43
Event/Alarm Log	Information about the events/alerts reported for a specific infuser.	03/13/2012 12:43
Infuser Status	Snapshot of current infuser usage and power status. Identifies infusers that have not communicated for specific time period.	03/13/2012 12:43
Infusion Summary	High level summary of infusion activity, percentage of each type of infuser alert and user response to alert.	03/13/2012 12:43
Line Usage Analysis	Visual depiction of infusion administration activity on each line on the Plum A+ infuser.	03/13/2012 12:43
Medications Infused by CCA	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/13/2012 12:43
Medications Infused by Medication	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/13/2012 12:43
Medications Infused by Service Line	Drill down to next level of detail about infusion therapy practices and response to alerts for each medication.	03/13/2012 12:43
Medications Selected by Time of Day	Number of infusions started during each hour of the day and whether a medication was selected.	03/13/2012 12:43
Most Commonly Infused Medications	Graphical representation of the 15 most commonly infused medications selected from the drug library.	03/13/2012 12:43
Next IV Due	Information about which IV fluids are due to facilitate timely preparation.	03/13/2012 12:43
Override Variance Detail	Line-item detail of every program where user received an alert and chose to continue with entered value.	03/13/2012 12:43
Override Variance Summary	Summary of programs where the user received an alert and chose to continue with entered value.	03/13/2012 12:43
Software Download	Status of downloaded infuser software including version and last transfer status.	03/13/2012 12:43
Total Program Activity	Programming activity, including total edits and overrides for the selected time period.	03/13/2012 12:43
<div style="background-color: #4a7ebb; color: white; padding: 2px; border: 1px solid #ccc;"> Remove </div>		
Edit Variance Detail	Edit Variance Detail	03/13/2012 12:43

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.

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 at 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 medication 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 medication 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.

Asset Tracker

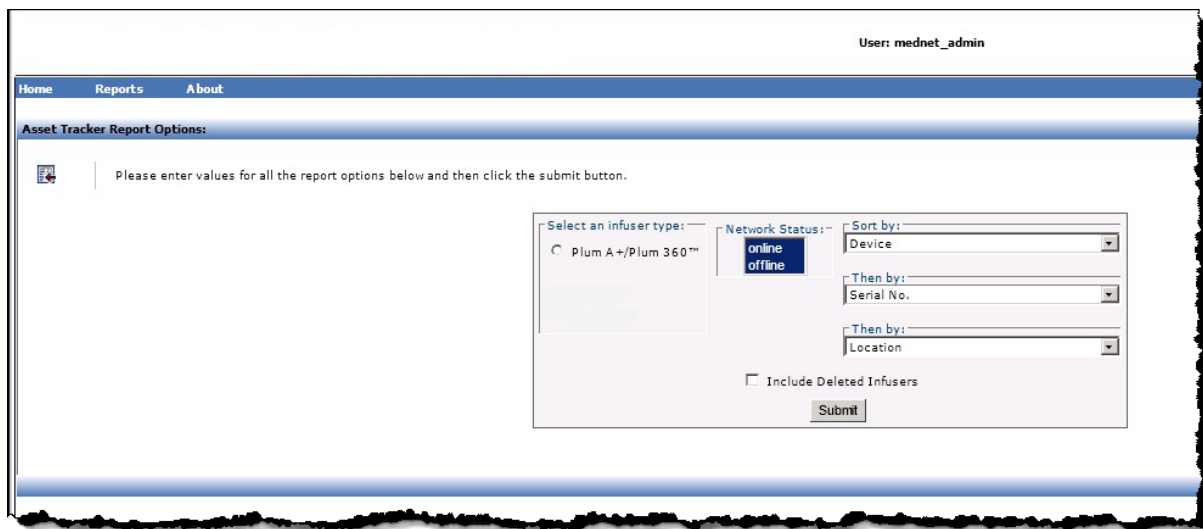
The following table provides detailed information about the Asset Tracker report.

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	<i>Infuser Type:</i> Licensed infuser type(s) <i>Sort by:</i> 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

<p>Usage Notes</p>	<p>Adjunct to the “Asset Utilisation” and “Infuser Status” reports.</p> <p>Infusers are grouped by their network status (offline or online).</p> <p>An infuser is considered offline if it has not communicated with the Hospira MedNet server within the past five minutes.</p> <p>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.</p> <p>Plum A+3 infusers may be sorted by device in order to see all three modules in each device grouped together.</p> <p>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.</p> <p>Hours of use include the time when the infuser’s power is turned on, including standby and delayed start modes.</p> <p>Hours of use for the last 30 days and last 90 days are calculated based on the date the report is run.</p>
<p>See Also</p>	<p>Asset Utilisation</p> <p>Event/Alarm Log</p> <p>Infuser Status</p> <p>Software Download</p>

Report Options

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



Report Details

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

Plum A+/Plum 360	
Field/Column Label	Description
Network Status	<p><i>Online</i> is when Hospira MedNet Software has received a valid status message or log message from the infuser within the past five minutes.</p> <p><i>Offline</i> is when Hospira MedNet Software has not received a valid status message or log message from the infuser within the past five minutes.</p>
Serial No./Asset ID	The infuser's serial number and asset ID
Location	<p>The physical location of the wireless access point with which the infuser last communicated.</p> <p>Location names match Access Point Description in the Access Point Mapping Screen or are based on Enhanced Asset Tracking.</p>
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 medication library version on the infuser
Date of Transfer	Date of the medication 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

Hospira MedNet™ Reports
 Advancing Wellness
 Asset Tracker
 Homer 5.6 ALL

Infuser: Plurim A+™ Infusion System

Serial No. / Asset ID	Location	Device	CCA	Last Communication	Library Version	Date of Transfer	Hours of Use Last 30 Days	Hours of Use Last 90 Days
13850350 / MC08122	5 South (501-509)	LN000765	ICU-OR	07/20/2006 11:59:51	ED03.110_V3 22201	07/20/06 11:54	330.7	816.2
14126758 / MC07187	5 South (501-509)	LN002927	ICU-OR	08/29/2006 14:11:42	ED03.110_V3 22201	08/29/06 14:05	401.4	922.6
14121795 / MC06926	5 South (501-509)	LN002B20	ICU-OR	07/18/2006 13:53:59	ED03.110_V3 22201	07/18/06 13:53	437.1	1019.7
14101736 / MC07431	5 South (501-509)	LN002B74	ICU-OR	07/21/2006 10:36:36	ED03.110_V3 22201	07/21/06 10:36	316.8	838.5
14121607 / MC03237	5 South (501-509)	LN002BBB	ICU-OR	07/18/2006 13:19:50	ED03.110_V3 22201	07/18/06 13:08	372.2	1121.3
13862531 / MC07221	5 South (501-509)	LN002CA1	ICU-OR	07/21/2006 11:03:38	ED03.110_V3 22201	07/21/06 11:07	489.9	1370.1
14101611 / MC08125	5 South (501-509)	LN002CFB	ICU-OR	07/19/2006 15:20:57	ED03.110_V3 22201	07/19/06 15:16	604.7	1416.3
13852048 / MC08231	2nd Floor (OR 1-4)	LN002E7E	ICU-OR	07/21/2006 09:06:56	ED03.110_V3 22201	07/21/06 09:06	589.3	1601.9
14132401 / MC07834	2nd Floor (OR 1-4)	LN0030FA	ICU-OR	08/29/2006 12:13:57	ED03.110_V3 22201	08/29/06 12:10	218.7	606.2
13847651 / MC06972	2nd Floor (OR 5-8)	LN003204	ICU-OR	07/17/2006 17:09:56	ED03.110_V3 22201	07/17/06 16:58	518.8	1566.1
14103589 / MC01247	6 West (640-648)	LN00336F	L and D	12/19/2006 21:39:01	ED03.110_V3 22201	07/17/06 15:46	304.6	871.1
13862339 / MC06971	6 West (640-649)	LN003307	L and D	07/20/2006 14:19:46	ED03.110_V3 22201	07/20/06 14:19	392.7	917.5
14122099 / MC01243	6 West (640-649)	LN003454	L and D	08/29/2006 11:31:57	ED03.110_V3 22201	08/29/06 11:26	400.2	1091.8
14121481 / MC06973	6 West (640-649)	LN003505	L and D	07/18/2006 16:49:15	ED03.110_V3 22201	07/18/06 16:45	326.5	1017.1
15544391 / MC01235	6 West (640-649)	LN0036FB	L and D	07/17/2006 11:47:08	ED03.110_V3 22201	07/17/06 11:46	477.9	1336.7
15544392 / MC06974	6 West (640-649)	LN0036FB	L and D	07/17/2006 11:47:08	ED03.110_V3 22201	07/17/06 11:46	462.3	1183.2
15544393 / MC01234	6 West (640-649)	LN0036FB	L and D	07/17/2006 11:47:08	ED03.110_V3 22201	07/17/06 11:45	355.7	957.7

Report Date: 07/13/07 12:55 Printed: 07/13/07 12:55 Page 1 of 88

Asset Utilisation

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

Asset Use	
Users	Biomedical, IT, Materials Management
Synopsis	<p>Asset Utilisation allows efficient management of the entire inventory of infusers by providing information on the number of hours infusers have been in use.</p> <p>Reported for each infuser are the actual number of hours of use per month, and the average usage for the selected time period.</p> <p>Similarly, the report provides the average hours of use per month and for the selected time period for the entire infuser population.</p>
Report Format	Crosstab
Infusers	Licensed infusers
Report Differences by Infuser	None

Report Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><i>From: To: Quarter and Year:</i> For example, Q1 (Jan - Mar) 2015</p> <p><i>Sort by:</i> Device, Serial Number</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>Adjunct to the Asset Tracker report:</p> <p>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.</p> <p>Up to four consecutive quarters can be reported.</p> <p>Hours of use include the time when the infuser's power is turned on, including standby and delayed start modes.</p> <p>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.</p> <p>Sort the report by Device to see all of the infusers in a Plum A+3 grouped together.</p>
See Also	<p>Asset Tracker</p> <p>Event/Alarm Log</p> <p>Software Download</p>

Report Options

The following graphic displays the Report Options screen for **Asset Utilisation**.

Report Details

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

Plum A+/Plum 360	
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

User: mednet_admin Logout Help

Home Reports About

Hospira MedNet™ Reports Asset Utilization Hospira
 Advancing Wellness All_Languages

Infuser: Plum A+/Plum 360™ Infusion System

Average Number of Infusers Used per Day: 0.19

Hours of Use

Device	Serial No	2015 Q1			Average
		Jan	Feb	Mar	
P14	SN_P14-1	0.00	0.00	0.00	0.00
	SN_P14-2	0.00	0.00	0.00	0.00
	SN_P14-3	0.00	0.00	0.00	0.00
	Average	0.00	0.00	0.00	0.00
PlumSingl100	21000000	0.00	0.00	0.00	0.00
	Average	0.00	0.00	0.00	0.00
PlumSingl101	21000001	0.00	0.02	0.00	0.01
	Average	0.00	0.02	0.00	0.01
PlumSingl106	21000006	0.00	0.03	0.00	0.01
	Average	0.00	0.03	0.00	0.01

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	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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)</p> <p>CCA Name</p> <p><i>Sort by:</i> Serial Number, Medication, CCA, Date/Time, Device. The user may select a combination of any three sort criteria</p> <p>Include Deleted Infusers</p> <p><i>Hide Patient Name.</i> If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name)</p>
Usage Notes	<p>The Auto-Programming report provides a summary section that contains Auto-Programming and Manual Programming information for each CCA during the report period.</p> <p>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.</p> <p>Auto programmes that result in No Medication Selected (Plum A+/Plum 360) are included in this report.</p>
See Also	Auto-Programs with Unmatched Medication

Report Options

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

User: mednet_admin Logout Help

Home Reports About

Auto-Programming Report Options:

Please enter values for all the report options below and then click the submit button.

Select an infuser type: Plum A+/Plum 360™

Last 7 days

From: 01/26/2015 15:33

To: 02/02/2015 15:33

CCA Name: - All -

Sort by: Medication

Then by: CCA

Then by: Date/Time

Include Deleted Infusers

Hide Patient Name

Submit

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	
Field/Column Label	Description
Infuser Type	Licensed infusers
Medication*	Medication's display name and concentration, or unknown
CCA Name	CCA selected when the auto-programme 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 BCMA 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 programme
Total	Sum of Total Count values

Hospira MedNet™ Reports		Auto-Programming		Hospira		
Advancing Wellness		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		
Summary						
CCA Name	Auto-Programming		Manual Programming		Total	
	Count	%	Count	%	Count	%
BHH	0	0.0%	3	100.0%	3	6.1%
ICU	0	0.0%	0	0.0%	0	0.0%
Medical	27	96.4%	1	3.6%	28	57.1%
Oncology	0	0.0%	0	0.0%	0	0.0%
Surgical	0	0.0%	0	0.0%	0	0.0%
Unknown	0	0.0%	18	100.0%	18	36.7%
Total	27	55.1%	22	44.9%	49	100.0%
From: 11/19/13 18:13		To: 02/19/14 18:13		Printed: 02/19/14 18:13		Page 1 of 4

Auto-Programming										Hospira
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	
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	
From: 11/19/13 18:13		To: 02/19/14 18:13		Printed: 02/19/14 18:13		Page 2 of 4				

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	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 13:31:38	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 13:33:35	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 14:02:05	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 15:19:41	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 15:21:34	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 15:22:35	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
No Drug Selected	Medical	02/18/2014 15:33:27	Tuesday	987456	ManisPlum360	*****	Dhanush, Sekar R	Ace	301 / A
Unknown	Medical	02/13/2014 13:15:14	Thursday	987456	ManisPlum360	*****		Ace	301 / A
Unknown	Medical	02/13/2014 17:33:26	Thursday	987456	ManisPlum360	*****		Ace	301 / A

From: 11/19/13 18:13 To: 02/19/14 18:13 Printed: 02/19/14 18:13 Page 3 of 4

Auto-Programming



Infuser: Plum A+™ Infusion System

Manual Programming Detail

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

From: 11/19/13 18:13 To: 02/19/14 18:13 Printed: 02/19/14 18:13 Page 4 of 4

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-Programmes with Unmatched Medication	
Users	Nurse Manager, Pharmacist
Synopsis	Provides information about Auto-Programming requests that resulted in No Medication Selected or Other Medication 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	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Medication</p> <p><i>Sort by:</i> 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.</p> <p>Include Deleted Infusers</p> <p><i>Hide Patient Name.</i> If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name)</p>
Usage Notes	This report provides a mechanism to evaluate auto programmes which resulted in No Medication Selected or Other Medication on the infuser. This occurs when the External ID in the medication 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**.

User: mednet_admin Logout Help

Home Reports About

Auto-Programs with Unmatched Medication Report Options:

Please enter values for all the report options below and then click the submit button.

Select an infuser type: - Last 7 days

Plum A+™ From: 02/12/2014 18:50

CCAs Name: To: 02/19/2014 18:50

- All - Sort by: Medication

Then by: Date/Time

Include Deleted Infusers

Hide Patient Name

Submit

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-programme 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		Auto-Programs with Unmatched Medication				Hospira
Advancing Wellness		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 Medication

Infuser: Plum A+™ Infusion System



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

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	<p>Provides a line-item detail of every infuser programme where the user received an alert and then proceeded to edit the programme.</p> <p>These edits suggest that a potential ADE (Adverse Medication Event) has been avoided</p>
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 Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Medication</p> <p><i>Group by:</i> CCA, Medication</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>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 <i>(Initial Dose – Limit Violated) / Limit Violated</i>. 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.</p> <p>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.</p> <p>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.</p> <p>The date and time of each alert are also displayed in the report.</p>
See Also	<p>Edit Variance Summary</p> <p>Override Variance Detail</p> <p>Override Variance Summary</p>

Report Options

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


The screenshot shows the 'Edit Variance Detail Report Options' screen. At the top, the user is identified as 'mednet_admin' with 'Logout' and 'Help' links. The page has a navigation bar with 'Home', 'Reports', and 'About'. The main content area contains a form with the following elements:

- A message: "Please enter values for all the report options below and then click the submit button."
- A dropdown menu for "Select an infuser type:" with "Plum A+/Plum 360™" selected.
- A date range selector set to "Last 7 days" with "From: 01/26/2015 15:37" and "To: 02/02/2015 15:37".
- A dropdown menu for "CCA Name:" with "- All -" selected.
- A dropdown menu for "Medication:" with "- All -" selected.
- A "Group by:" section with radio buttons for "CCA" (selected) and "Medication".
- An "Include Deleted Infusers" checkbox, which is currently unchecked.
- A "Submit" button at the bottom of the form.

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



User: mednet_admin
Logout

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Hospira MedNet™ Reports

Edit Variance Detail



Advancing Wellness
Homer 5.8 ALL

Infuser: Plum A+™ Infusion System Active Drug Libraries 11/04/09 5.80 11802

CCA: CardCath

Medication/Concentration	Alert Date/Time	Limit	Limit Violated	Initial Dose	Final Dose	Variance
DOPamine 800 mg/250 mL	04/25/2007 12:13:1PM	20 mcg/kg/min	↑ UPPER SOFT	25	20	25%
Phenylephrine (mcg/min) 20 mg/250 mL	05/14/2007 10:17:49AM	40 mcg/min	↓ lower soft	20	20	-50.00%
Total for CardCath:						2

From: 10/30/09 07:48
To: 11/06/09 07:48
Printed: 11/06/09 07:53
Page 1 of 1

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	<p>Provides a summary of infuser programmes where the user received an alert then proceeded to edit the programme. These edits suggest that a potential ADE has been avoided.</p> <p>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).</p>
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 Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Medication</p> <p><i>Group by:</i> CCA, Medication</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>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.</p> <p>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.</p> <p>Initial Dose is the programmed value that triggered the alert. Final Dose is the value accepted at final confirmation when the infuser was started.</p>
See Also	<p>Edit Variance Detail</p> <p>Override Variance Detail</p> <p>Override Variance Summary</p>

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 programmes that exceed the limit
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, Medication 500 mg/250 mL), Medication/Concentration may appear as “Medication 500 mg/250 mL 500 mg/250 mL.”	

Hospira MedNet™ Reports **Edit Variance Summary**

Advancing Wellness Homer 5.8 ALL

Infuser: Plum A+™ Infusion System Active Drug Libraries: 11/04/09 5:00 11802

Medication: Heparin (units/hr) 25000 units/500 mL.

CCA Name	Limit	Limit Violated	Mean Initial Dose	Mean Final Dose	Variance	Sample Size (Count)
Telemetry	1000 units/hr	↓ lower soft	616.167	537.167	-38.38%	6
Subtotal for Telemetry:						6
Transplant	1000 units/hr	↓ lower soft	900.00	900.00	-10.00%	1
Subtotal for Transplant:						1
Total for Heparin (units/hr) 25000 units/500 mL:						7

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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	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>Serial Number</p> <p><i>Event Type:</i> All</p> <p>Include Deleted Infusers</p> <p><i>Hide Patient Name.</i> If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name)</p>
Usage Notes	<p>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.</p> <p>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.</p> <p>Certain events are displayed in different colour text.</p> <ul style="list-style-type: none"> • Battery warnings are displayed in blue text. • Alarms are displayed in red text. • New medication library versions are displayed in green text. <p>Event descriptions for each infuser can be found in the appendices of this guide.</p>
See Also	<p>Asset Tracker</p> <p>Asset Utilisation</p> <p>Software Download</p>

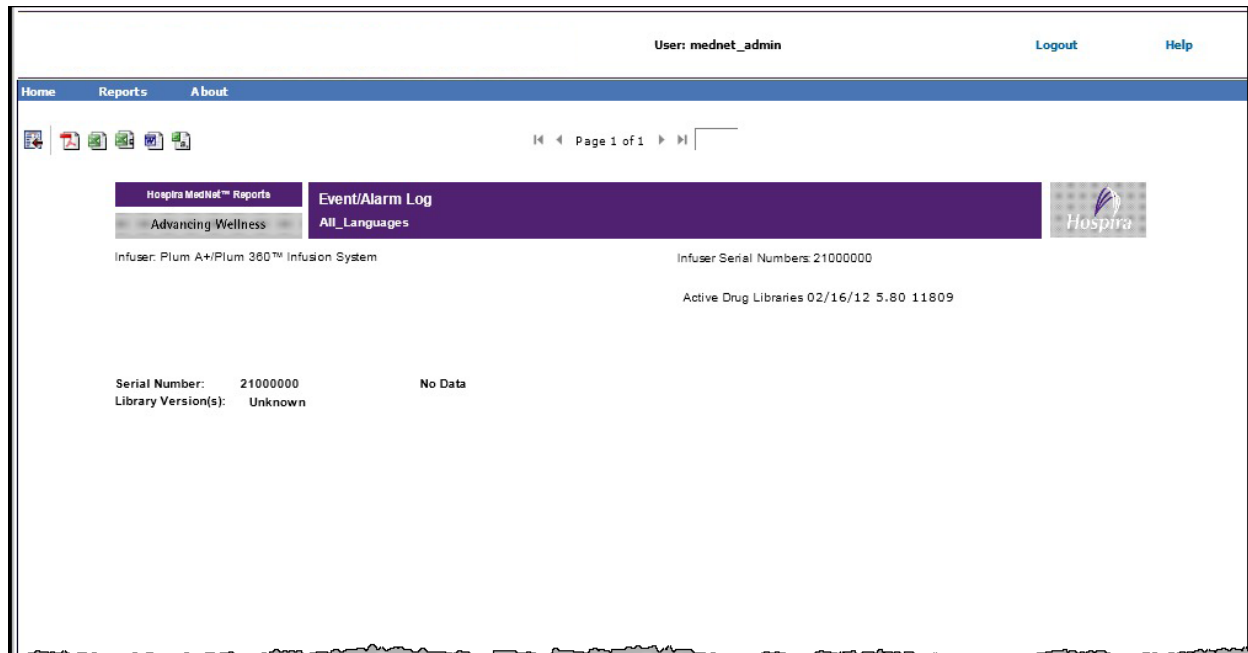
Report Options Screen

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	
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	<p>Description of event</p> <p>Battery warnings are highlighted in blue, and other warnings are highlighted in red. New medication libraries are highlighted in green.</p> <p>See the appropriate infuser System Operating Manual for more information about infuser events and alarms.</p>



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	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p><i>Sort By:</i> Last Communication, Serial Number, Device, Last CCA, Last Location, Last Infusing, Asset Tag.</p> <p>The user may select a combination of any three sort criteria.</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>The Infusion Status and Power Status pie charts show the real-time status for infusers that are currently online.</p> <p>The numbers and percentages reported refer only to those infusers that are online.</p> <p>Infusing refers to infusers that are currently online and infusing.</p> <p>Idle refers to infusers that are online and not currently infusing.</p> <p>A legend box is displayed defining the colour, number, percentage of infusers per slice, and totals for each pie chart.</p> <p>The <i>Idle Infusers</i> list provides details about infusers that are online and not currently infusing.</p> <p>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.</p>
See Also	<p>Asset Tracker</p> <p>Asset Utilisation</p> <p>Software Download</p>

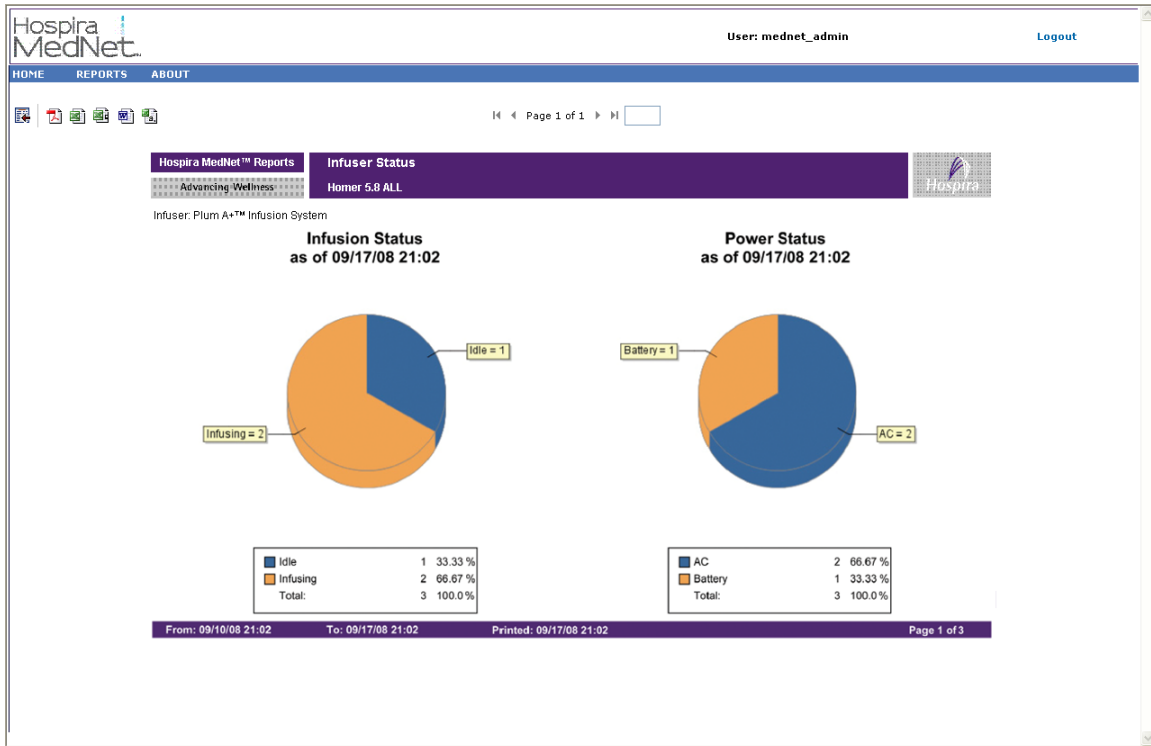
Report Options Screen

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	
Pie Chart	Description
Infusion Status	<i>Idle</i> : Percentage of online infusers which are currently idle. <i>Infusing</i> : Percentage of online infusers which are currently infusing.
Power Status	<i>AC</i> : Percentage of online infusers currently using AC power. <i>Battery</i> : 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.	



Hospira MedNet™ Reports | **Infuser Status**
Infuser: Plum A+™ Infusion System

Idle Infusers

Serial Number	Device	Asset Tag	Last CCA	Last Location	Last Communication	Last Infusing
13880808	LN024016	Infuser-B-Wireless	Min	Wired	08/15/08 15:52	08/15/08 15:22

From: 08/08/08 15:54 To: 08/15/08 15:54 Printed: 08/15/08 15:55 Page 2 of 3

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 Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>The pie charts displayed in the report provide a summary of infusion activity, including Total Programs, Alerts, Soft Limit Alerts, and Hard Limit Alerts.</p> <p>The Total Programs pie shows clinicians' compliance with using the medication library.</p> <p>The Alerts pie shows the percentage of programmes where each type of alert occurred. (Note: The clinician may encounter more than one alert during a programming sequence.)</p> <p>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.</p> <p>An edit made to a programme in response to an alert suggests that a potential ADE (Adverse Medication 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.</p> <p>The Total Programs pie represents compliance with using the safety software.</p> <p>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 Medication Selected.</p>
See Also	<p>Line Usage Analysis, Edit Variance Summary</p> <p>Edit Variance Detail, Override Variance Summary, Override Variance Detail</p>

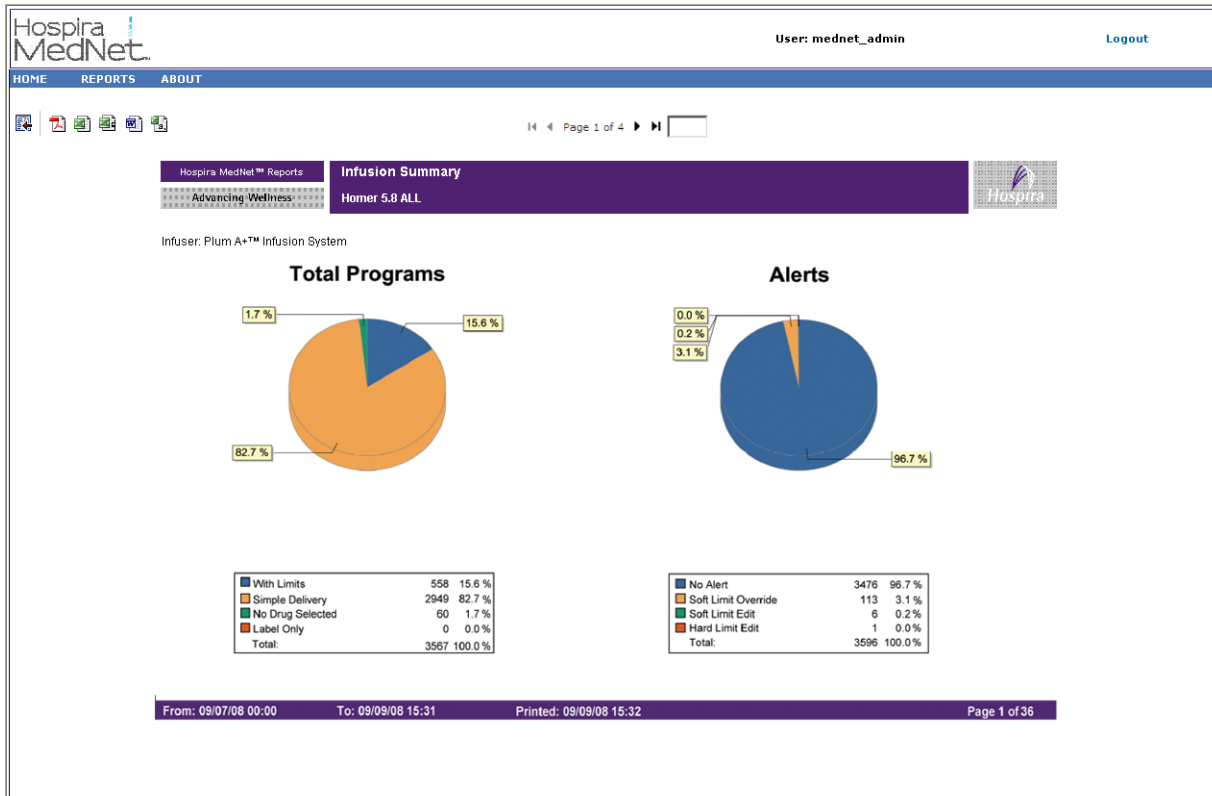
Report Options Screen

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 Programmes	With Limits, Label Only, Simple Delivery, No Medication Selected
Alerts	No Alert, Hard Limit Edit, Soft Limit Edit, Soft Limit Override
Soft Limit Alerts	Edit, Override
<p>Note: Each slice is a different colour and indicates the percentage of alerts in each category. A legend box defines the colour, number, percentage of alerts for each slice, and totals for the chart.</p>	

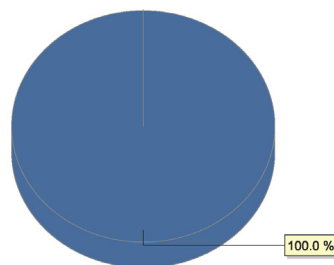


Infusion Summary

Infuser: Plum A+/Plum 360™ Infusion System
CCA: All



Soft Limit Alerts



Override	6	100.0 %
Edit	0	0.0 %
Total:	6	100 %

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	<p><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).</p> <p>CCA Name</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>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).</p> <p>Simple Delivery indicates that the medication library was not used, or the clinician selected “No Medication Selected.”</p> <p>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.</p>

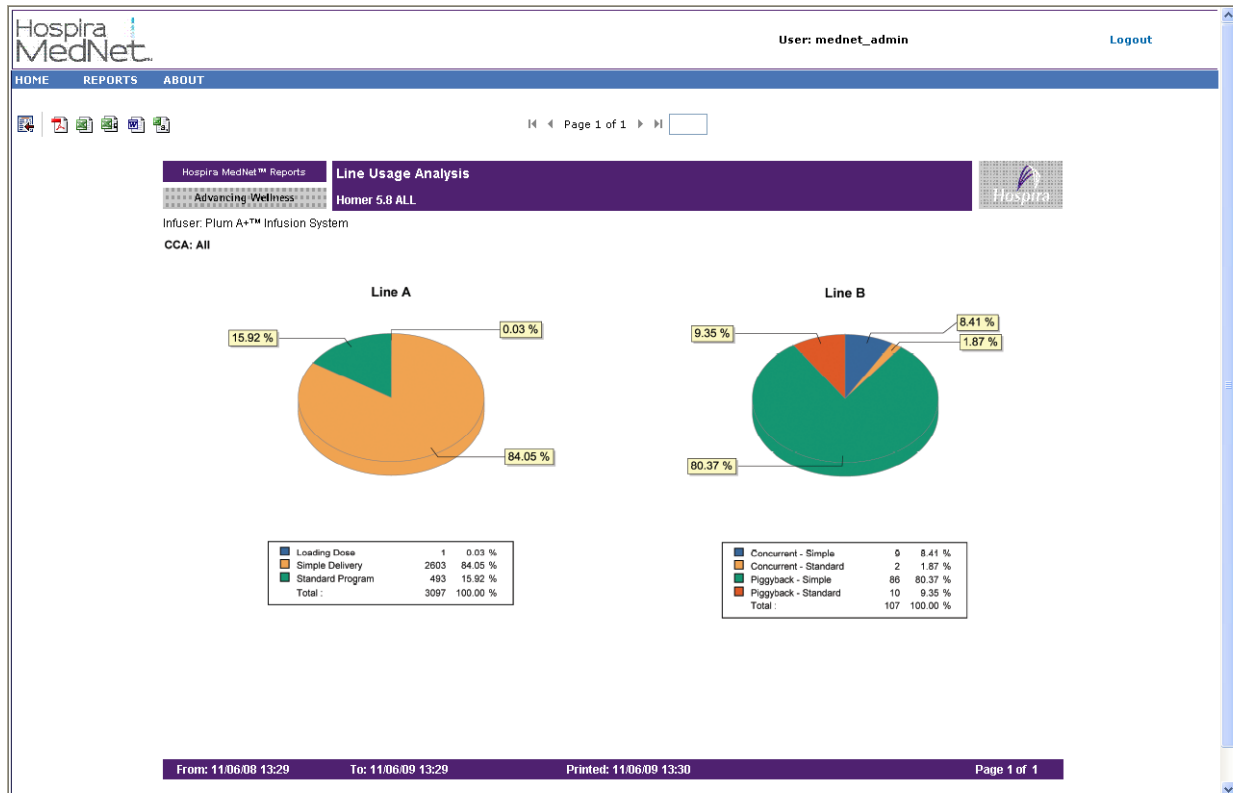
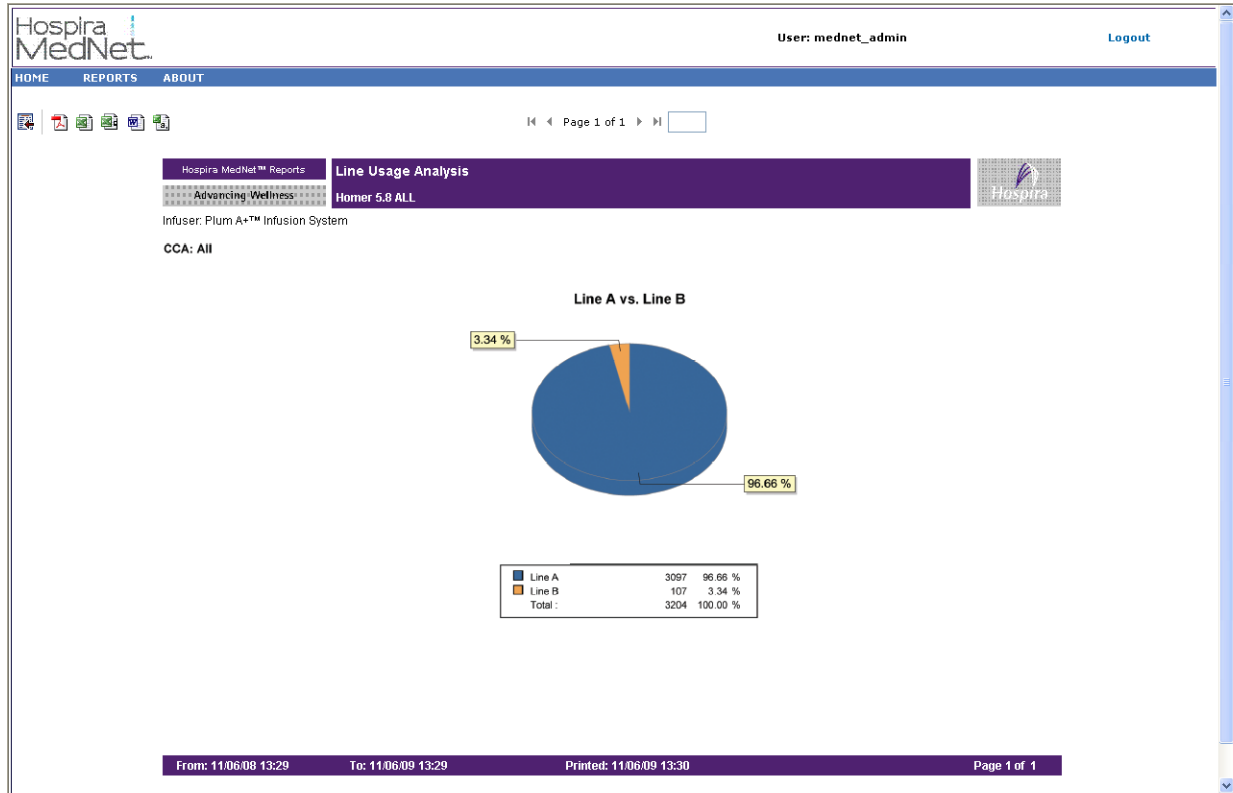
Report Options Screen

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+/Plum 360	
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: <ul style="list-style-type: none"> • Simple Delivery • Standard Programme • Loading Dose • Multistep
Line B	Percentage of infusions: <ul style="list-style-type: none"> • Concurrent - Simple • Concurrent - Standard • Concurrent - Loading • Concurrent - Multistep • Piggyback - Simple • Piggyback - Standard • Piggyback - Loading • Piggyback - Multistep
<p>Note: A legend box defines the colour, number, percentage of programmes per infusion type for each slice, and totals for the chart.</p>	



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	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p><i>CCA Name</i> (by CCA and Medication views)</p> <p><i>Medication</i> (by CCA and Medication views)</p> <p><i>Service Line</i> (by Service Line view)</p> <p><i>Sort by:</i> Medication (by CCA and by Service Line views) or CCA (by Medication view), Frequency, Total Alerts</p> <p>Include Deleted Infusers</p>

Usage Notes	<p>There are three ways to view the Medications Infused report, as follows:</p> <p><i>Medications Infused by CCA:</i> The user can determine which medications are the most problematic from an alert perspective, review infusion therapy practices, and adjust the Rule Sets accordingly.</p> <p><i>Medications Infused by Medication:</i> 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.</p> <p><i>Medications Infused by Service Line:</i> A service line represents a medical or surgical specialty, such as Oncology, Paediatrics, Labour and Delivery, Critical Care, etc. The service line mapping functionality in Hospira MedNet Meds normalises 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.</p> <p>Frequency is the number of programmes, including rate changes. Soft and Hard Limit Alerts sections include all edits and overrides encountered during the programme sequence. Note that multiple edits and/or overrides can occur during a single programme sequence. The Final Program section includes how many programmes were confirmed and how many were changed at the initial confirmation screen. Note that the Frequency will be equal to the sum of Final Program Confirmed and Final Program Changed.</p> <p>The final confirmation screen is the clinician's opportunity to review the programming settings one last time. Any edits to the final programme suggest that this second look gives the clinician an opportunity to avoid a potential ADE because the clinician changed the value before confirming the program</p>
See Also	<p>Infusion Summary, Edit Variance Detail, Edit Variance Summary, Override Variance Detail, Override Variance Summary</p>

The following table provides details for all **Medications Infused** reports

Plum A+/Plum 360	
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 programmes
Total Alerts ⁵	Total number of alerts
Hard Limit Alerts <ul style="list-style-type: none"> • Lower: Total, Edit • Upper: Total, Edit 	Number and percentage of Hard Limit alerts and Edits for both lower and upper limits
Soft Limit Alerts <ul style="list-style-type: none"> • 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 programme 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.
<p>¹Appears in <i>Medications Infused by CCA</i> and <i>Medication Infused by Medication</i> reports only.</p> <p>²Medication/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, Medication 500 mg/250 mL), Medication/Concentration may appear as “Medication 500 mg/250 mL 500 mg/250 mL.”</p> <p>³Appears in Medications Infused by Service Line report only.</p> <p>⁴Frequency is equal to the sum of the Final Programme values for Confirm and Edit.</p> <p>⁵A programme can have no alerts or can have one or more alerts.</p>	

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

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. .

Medication/Concentration	Frequency	Total Alerts	Hard Limit Alerts		Soft Limit Alerts			Final Program										
			Lower Total	Upper Total	Lower Total	Lower Override	Lower Edit	Upper Total	Upper Override	Upper Edit	Confirmed	Changed						
Ampicilin 2gm 2000 mg/100 mL	7	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	7	100.0%	0	0.0%			
IVF D5LR	8	1	0	0	0	0	0.0%	0	0.0%	1	100.0%	0	0.0%	7	87.5%	1	12.5%	
IVF D5NS	2	1	0	0	0	0	0.0%	0	0.0%	1	100.0%	0	0.0%	2	100.0%	0	0.0%	
IVF LR	89	2	0	0	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	88	98.9%	1	1.1%	
Katrol/Ancef 1gm 1000 mg/50 mL	4	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%	0	0.0%	
Katrol/Ancef 2gm 2000 mg/100 mL	2	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	
Magnesium 2gm 2 grams/100 mL	13	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13	100.0%	0	0.0%	
Magnesium LOAD 4gm 4 grams/100 mL	2	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	
Magnesium LOAD 8gm 8 grams/150 mL	10	5	0	0	5	5	100.0%	0	0.0%	0	0.0%	0	0.0%	9	90.0%	1	10.0%	
PHOCN Baku 20 units/1000 mL	8	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	100.0%	0	0.0%	
PHOCN Induction 20 units/1000 mL	115	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	115	100.0%	0	0.0%	
Rocophen 1gm 1000 mg/100 mL	4	2	0	0	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%	0	0.0%	
Total:	264	11	0	0	9	9	100.0%	8	8.8%	2	2	100.0%	8	8.8%	261	98.9%	3	1.1%

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 - Plum A+

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

CCA	Frequency	Total Alerts	Hard Limit Alerts		Soft Limit Alerts					Final Program			
			Lower Total	Upper Total	Lower Total	Lower Override	Lower Edit	Upper Total	Upper Override	Upper Edit	Confirmed	Changed	
08	7	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total:	7	0	0	0	0	0	0.0%	0	0.0%	0	0.0%	7	100.0%

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.

Medication/Concentration	Frequency	Total Alerts	Hard Limit Alerts		Soft Limit Alerts						Final Program							
			Lower Total	Upper Total	Lower Total	Lower Override	Lower Edit	Upper Total	Upper Override	Upper Edit	Confirmed	Changed						
Ampicillin 2gm 2000 mg/100 mL	7	0	0	0	0	0	0	0	0	0	0	0	7	100.0%	0	0.0%		
IVF DSLR	8	1	0	0	0	0	0	0	0	1	1	100.0%	0	0.0%	7	87.5%	1	12.5%
IVF DONS	2	1	0	0	0	0	0	0	0	0	1	100.0%	0	0.0%	2	100.0%	0	0.0%
IVF LR	89	2	0	0	2	2	100.0%	0	0	0	0	0.0%	0	0.0%	89	98.9%	1	1.1%
Indinavir 1gm 1000 mg/50 mL	4	0	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	4	100.0%	0	0.0%
Rufinidol 2gm 2000 mg/100 mL	2	0	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	2	100.0%	0	0.0%
Magnesium 2gm 2 grams/100 mL	13	0	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	13	100.0%	0	0.0%
Magnesium LOAD 4gm 4 grams/100 mL	2	0	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	2	100.0%	0	0.0%
Magnesium LOAD 6gm 6 grams/100 mL	10	5	0	0	5	5	100.0%	0	0	0	0	0.0%	0	0.0%	9	90.0%	1	10.0%
PINDIN Dolas 20 units/1000 mL	8	0	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	8	100.0%	0	0.0%
PINDIN Induction 20 units/1000 mL	115	0	0	0	0	0	0.0%	0	0	0	0	0.0%	0	0.0%	115	100.0%	0	0.0%
Rocaprin 1gm 1000 mg/100 mL	4	2	0	0	2	2	100.0%	0	0	0	0	0.0%	0	0.0%	4	100.0%	0	0.0%
Total	264	11	0	0	9	9	100.0%	0	0	2	2	100.0%	0	0.0%	261	98.9%	3	1.1%

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 medication 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 Medication Selected
Report Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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)</p> <p>CCA Name</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>This report may be used to determine whether there is a difference in compliance with using the medication 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.</p> <p><i>Medications Selected by Time of Day</i> 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 medication 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.</p>
See Also	<p>Infusion Summary</p> <p>Total Programme Activity</p>

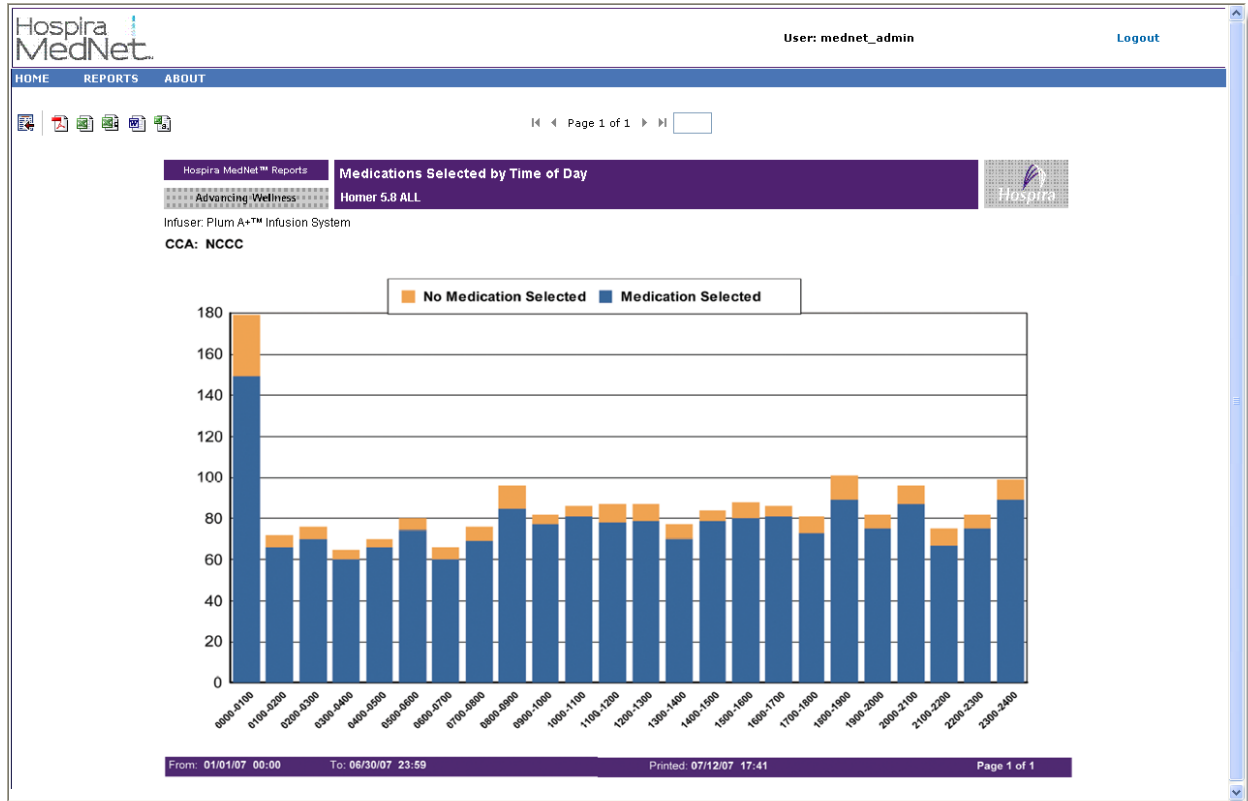
Report Options Screen

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 medication library
Report Format	Pie chart
Infusers	Licensed infusers
Report Differences by Infuser	None
Report Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>This report can assist in determining compliance with the medication library, since only medications infused using the library will be reported.</p> <p>Infusions where the medication is not known are not included. For example: No Medication Selected or Other Medication.</p> <p>Medications not included in the top 15 as well as those totalling less than 1% of total infusions will be grouped together and displayed as “Other.”</p>
See Also	<p>Medications Selected by Time of Day</p> <p>Medications Infused By Service Line</p>

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	
Pie Chart	Description
Most Commonly Infused Medications	<p>The top 15 infused medications are displayed. Medications with different concentrations appear in different slices.</p> <p>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%.</p>
<p>Note: A legend box defines the colour, number, and percentage of infusions per medication for each slice, and totals for the chart.</p>	

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MedNet

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Hospira MedNet™ Reports

Most Commonly Infused Medications

Advancing Wellness
Homer 5.8 ALL

Infuser: Plum A+™ Infusion System

CCA: All

Meropenem (500 mg) - 500 mg/50 mL	63	12.5%
Piperacillin- tazobactam	51	10.1%
Vancomycin	47	9.3%
Oxacillin	34	6.7%
IVF/IVPB	26	5.1%
MED IVPB	22	4.3%
TPN	21	4.2%
Vancomycin (1000 mg) - 1000 mg/250 mL	20	4.0%
Micafungin (100mg) - 100 mg/100 mL	18	3.6%
CefEPIIME (1000 mg) - 1000 mg/50 mL	17	3.4%
Ertapenem - 1000 mg/50 mL	17	3.4%
Ampicillin- Sulbactam	15	3.0%
CefEPIIME	14	2.8%
IVF 1000mL	12	2.4%
Ciprofloxacin (400 mg) - 400 mg/200 mL	11	2.2%
Other	118	23.3%
Total:	506	100.0%

From: 09/07/08 00:00
To: 10/09/08 08:14
Printed: 10/09/08 08:14
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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	Current Rate and Time IV Due are displayed.
Report Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p>Lead Time in Hours</p> <p>Remaining VTBI less than __ mL</p> <p>Exclude containers less than __ mL (Plum A+/Plum 360 only)</p> <p><i>Patient Name:</i> (if View Protected Health Information privilege is assigned).</p> <p>CCA Name</p> <p>Medication</p> <p><i>Sort by:</i> Medication, Time IV Due, Patient Name (with View Protected Health Information privilege)</p> <p>Include Deleted Infusers</p> <p><i>Hide Patient Name.</i> If selected, the patient name will be replaced by asterisks. (View Protected Health Information privilege must be assigned to see Patient Name.)</p>

Usage Notes	<p>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.</p> <p>Lead Time in Hours is required</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
-------------	--

Report Options Screen

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

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Next IV Due Report Options:

Please enter values for all the report options below and then click the submit button.

Select an infuser type:
 Plum A+/Plum 360™

Lead time in hours:

Patient Name:

Remaining VTBI less than:
 ml

Exclude containers less than:
 ml

CCA Names:

Medication:

Sort by:

Then by:

Then by:

Then by:


Include Deleted Infusers
 Hide Patient Name

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

¹You may sort report results by this field.

Hospira MedNet™ Reports		Next IV Due						
Advancing Wellness		ALLNOMSG						
Infuser: Plum A+™ Infusion System								
CCA: All								
Patient Name	Patient ID	Room/Bed	Medication	Concentration	Current Rate	Remaining Volume	Time IV Due	
*****	MR613	301 / A	Blood Products	12 mL	222 mL/hr	33 mL	02/19/14 18:27	

Report Date: 02/19/14 18:19 Printed: 02/19/14 18:19 Page 1 of 7

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 programme 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 Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Medication</p> <p><i>Group by:</i> CCA, Medication</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>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.</p> <p>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.</p> <p>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.</p> <p>The date and time of each alert are also displayed in the report.</p>
See Also	<p>Edit Variance Summary</p> <p>Edit Variance Detail</p> <p>Override Variance Summary</p>


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


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Logout

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Hospira MedNet™ Reports

Override Variance Detail



Advancing Wellness
Homer 5.8 ALL

Infuser: Plum A+™ Infusion System
Active Drug Libraries

Medication/Concentration	Alert Date/Time	Limit	Limit Violated	Initial Dose	Final Dose	Variance
Ampicillin 2 grams/100 mL	03/03/2007 16:44:14	200 mL/hr	↑ UPPER SOFT	400	400	100.00%
CefAZolin 1 grams/50 mL	02/01/2007 08:26:13	200 mL/hr	↓ lower soft	100	100	-50.00%
CefAZolin 1 grams/50 mL	02/01/2007 17:52:33	200 mL/hr	↓ lower soft	100	100	-50.00%
Eptifibatid (bolus) 75 mg/100 mL	03/17/2007 19:09:59	90 mcg/kg/min	↓ lower soft	90.6	90.6	0.67%
Eptifibatid (bolus) 75 mg/100 mL	03/17/2007 19:12:17	90 mcg/kg/min	↓ lower soft	90.6	90.6	0.67%
Heparin PMB 25000 units/250 mL	02/14/2007 14:38:53	2000 units/hr	↑ UPPER SOFT	4000	4000	100.00%
Heparin PMB 25000 units/250 mL	03/12/2007 21:28:40	300 units/hr	↓ lower soft	18	18	-94.00%
Magnesium Sulfate 1 grams/50 mL	03/07/2007 22:37:11	50 mL/hr	↓ lower soft	200	200	300.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/22/2007 19:10:51	100 mL/hr	↓ lower soft	50	50	-50.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/23/2007 01:17:32	100 mL/hr	↓ lower soft	50	50	-50.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/23/2007 02:34:21	100 mL/hr	↓ lower soft	50	50	-50.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/23/2007 07:37:54	100 mL/hr	↓ lower soft	50	50	-50.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/23/2007 12:33:07	100 mL/hr	↓ lower soft	50	50	-50.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/23/2007 18:39:52	100 mL/hr	↓ lower soft	50	50	-50.00%
Piperacilin/Tazobactam 3.3 grams/50 mL	01/23/2007 18:37:02	100 mL/hr	↓ lower soft	50	50	-50.00%

From: 11/02/09 08:46
To: 11/09/09 08:46
Printed: 11/09/09 08:48
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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	<p>Provides a summary of infuser programmes where the user received an alert and chose to continue with the entered value.</p> <p>Frequent overrides to a limit may indicate that it may not be set properly to account for actual clinical practice in the hospital.</p> <p>Contains the same data as Override Variance Detail except that it sums the number of occurrences of Overrides for each Alert Type.</p>
Report Format	Table
Infusers	Licensed infusers
Report Differences by Infuser	Includes user overrides to Soft Limit alerts as applicable, per infuser type
Report Options	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p>Medication</p> <p><i>Group by:</i> CCA, Medication</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>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.</p> <p>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.</p> <p>Initial Dose is the programmed value that triggered the alert. Final Dose is the value accepted at final confirmation when the infuser was started.</p>
See Also	<p>Edit Variance Summary</p> <p>Edit Variance Detail</p> <p>Override Variance Detail</p>


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 programmes that exceed the limit
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, Medication 500 mg/250 mL), Medication/Concentration may appear as "Medication 500 mg/250 mL 500 mg/250 mL."	


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Hospira MedNet™ Reports

Override Variance Summary
 Homer 5.8 ALL



Infuser: Plum A+™ Infusion System Active Drug Libraries

CCA: CardCath

Medication/Concentration	Limit	Limit Violated	Mean Initial Dose	Mean Final Dose	Variance	Sample Size (Count)
DOPamine 800 mg/250 mL	20 mcg/kg/min	↑ UPPER SOFT	50.00	50.00	150.00%	1
Subtotal for DOPamine 800 mg/250 mL:						1
IVF 1000mL	200 mL/hr	↑ UPPER SOFT	710.818	680.136	300.82%	22
Subtotal for IVF 1000mL :						22
Phenylephrine (mcg/min) 20 mg/250 mL	40 mcg/min	↓ lower soft	19.063	19.063	-52.34%	16
Subtotal for Phenylephrine (mcg/min) 20 mg/250 m						16
Total for CardCath:						39

From: 11/02/09 08:57
To: 11/09/09 08:57
Printed: 11/09/09 08:59
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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	<p><i>Infuser Type:</i> Licensed infuser type(s)</p> <p><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).</p> <p><i>Transfer Status:</i> All, Retry, Pending, Completed, Failed, Retry Failed, Refused</p> <p><i>Sort by:</i> Device, Serial Number</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>Software download will be managed by Hospira Field Service Representatives. This is not a customer activity.</p> <p>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).</p>
See Also	<p>Asset Tracker</p> <p>Asset Utilisation</p> <p>Event/Alarm Log</p>

Report Options Screen

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

User: mednet_admin [Logout](#) [Help](#)

Home Reports About

Software Download Report Options:

Please enter values for all the report options below and then click the submit button.

Select an infuser type: Plum A+/Plum 360™

Transfer Status:
 - All -
 Retry
 Pending
 Completed
 Failed
 Retry Failed
 Refused

Sort by:
 Device
 Serial No.

Include Deleted Infusers

Last 7 days

From: 01/26/2015 16:06

To: 02/02/2015 16:06

Report Details

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

Plum A+/Plum 360	
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.	

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Hospira MedNet™ Reports
 Advancing Wellness

Software Download
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Infuser: Plum A+Plum 360™ Infusion System

Device	Serial No.	Transfer Start Time	Transfer End Time	Software Release Name	Status	Transferred Components /Total Components
plu29038599	SN_plu29038599	29/05/15 18:21	29/05/15 18:21	plum	Completed	11 / 11
plu29038618	SN_plu29038618	29/05/15 18:21	29/05/15 18:21	plum	Completed	11 / 11
plu29038637	SN_plu29038637	29/05/15 18:21	29/05/15 18:21	plum	Completed	11 / 11
plu29038658	SN_plu29038658	29/05/15 18:21	29/05/15 18:21	plum	Completed	11 / 11
plu29038678	SN_plu29038678	29/05/15 18:21	29/05/15 18:21	plum	Completed	11 / 11
plu29038698	SN_plu29038698	29/05/15 18:21	29/05/15 18:21	plum	Completed	11 / 11
plu29038717	SN_plu29038717	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038737	SN_plu29038737	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038757	SN_plu29038757	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038777	SN_plu29038777	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038797	SN_plu29038797	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038817	SN_plu29038817	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038837	SN_plu29038837	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038857	SN_plu29038857	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038877	SN_plu29038877	29/05/15 18:21	29/05/15 18:22	plum	Completed	11 / 11
plu29038898	SN_plu29038898	29/05/15 18:21	---	plum	Pending	0 / 11

From: 22/05/15 00:36
To: 30/05/15 00:36
Printed: 30/05/15 00:36
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Total Programme Activity

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

Total Programme 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	A medication is always selected because the infuser requires the user to scan a vial with a recognized barcode.
Report Options	<p>Infuser Type: Licensed infuser type(s)</p> <p><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).</p> <p>CCA Name</p> <p><i>Select a Graph:</i> Day of Week, Hour of Day, Hour Range/Day</p> <p>Include Deleted Infusers</p>
Usage Notes	<p>Total programme activity includes the line graphs of the total number of programmes, as well as total programmes with a medication selected, total number of edits, and total number of overrides for each time period.</p> <p>A single programme may include multiple edits and/or overrides.</p> <p>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.</p> <p>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.</p>
See Also	<p>Infusion Summary</p> <p>Line Usage Analysis</p>

Report Options Screen

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

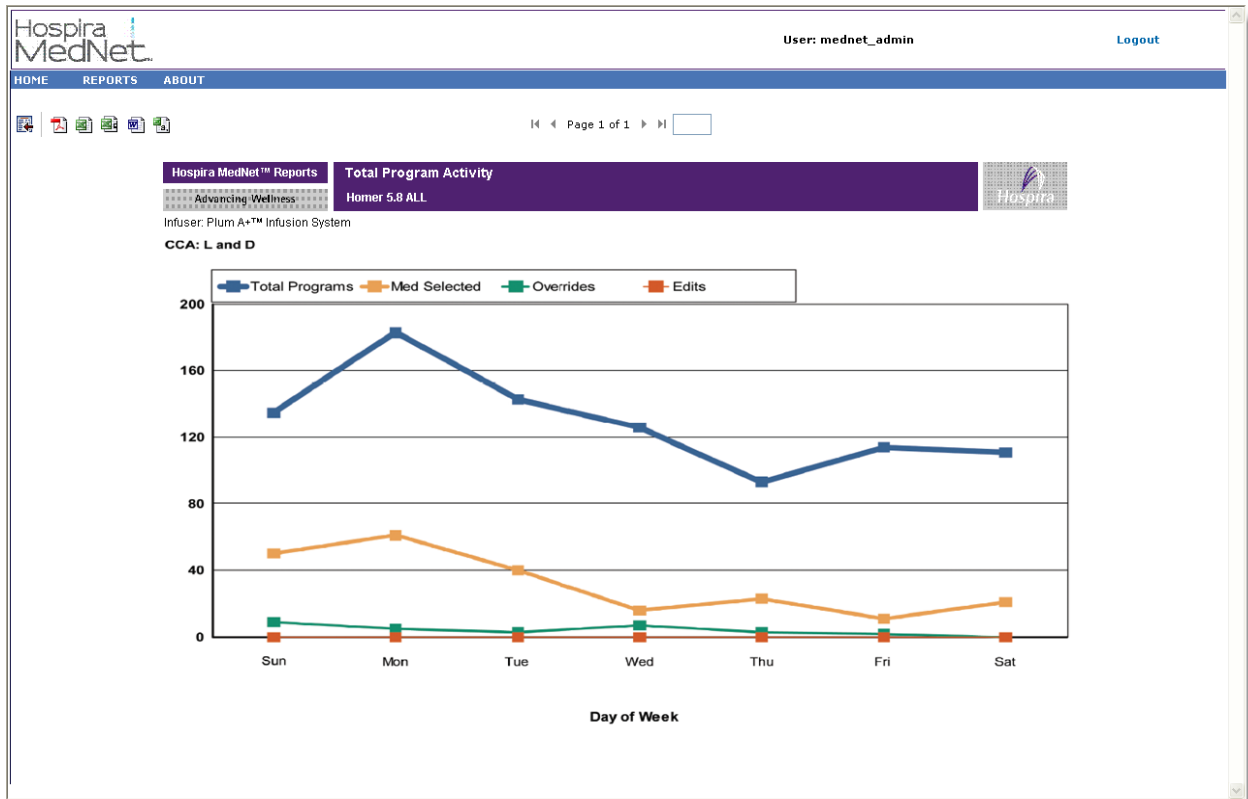
The screenshot shows a web application interface for generating reports. At the top, the user is identified as 'mednet_admin' with 'Logout' and 'Help' links. A navigation bar includes 'Home', 'Reports', and 'About'. The main heading is 'Total Program Activity Report Options:'. Below this, a message states: 'Please enter values for all the report options below and then click the submit button.' The form contains several fields: 'Select an infuser type:' with a radio button for 'Plum A +/-Plum 360™'; a date range selector set to 'Last 7 days' with 'From: 01/26/2015 16:08' and 'To: 02/02/2015 16:08'; 'CCA Name:' with a dropdown menu showing '- All -'; 'Select a graph:' with radio buttons for 'Day of Week', 'Hour of Day', and 'Hour Range/Day'; and a checkbox for 'Include Deleted Infusers'. A 'Submit' button is located at the bottom of the form.

Report Details

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

Plum A+/Plum 360	
Field/Label	Description
Total Programmes	Number of total programmes
Med Selected	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 labelled 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.



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 programme 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
- Programme the infuser based on the physician's order
- Confirm the programming and start the infusion

Once the infusion has started, Hospira MedNet sends the programme 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 medication library are synchronised 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 licence.

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 programme 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 medication 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 programme and start the infusion

Once the infusion has started, Hospira MedNet sends the programme 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 programme 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-programme received from the BCMA system matches the auto-programme received on the infuser before starting the therapy. In addition, please verify that the auto-programme response from the infuser matches the auto-programme 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 medication 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 programme 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 medication 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 programme parameters will be sent to the pump and the medication will be displayed as “No Medication Selected” for the Plum A+ and Plum 360.

Note: Medication orders that consist of more than one additive will generally display as “No Medication 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.

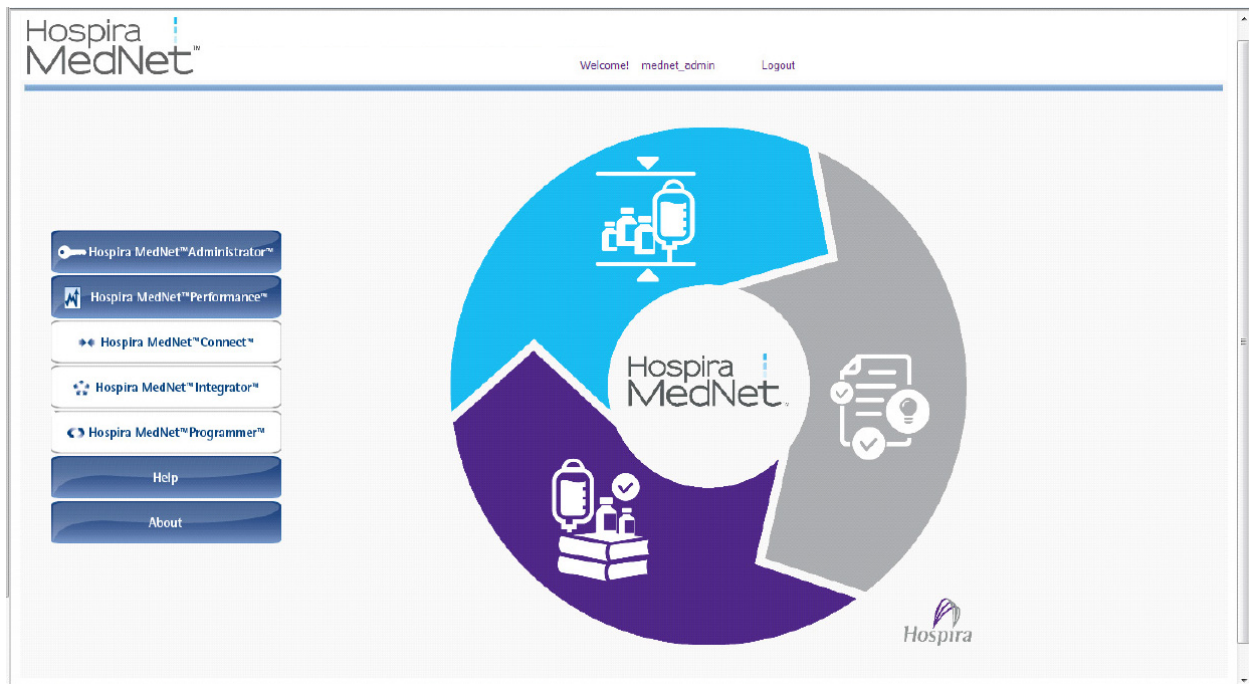
RFID tags have an estimated battery life of up to five years.

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.

The screenshot displays the Hospira MedNet web application interface for Infuser Management. At the top, there is a navigation bar with tabs for Home, My Account, Users & Roles, Infusion Status, Infuser Management (selected), Infuser Logs, Downloads, Software Import, Administrative Setup, Authentication Services, Patient Assignment, and Message Queues. Below the navigation bar, there is a search and filter section with dropdown menus for 'Infusers per Page' (set to 10), 'Device' (set to PLM), 'Serial Number', 'Inventory Status' (set to All), 'Infuser Type' (set to All), and 'Network Status' (set to All). A checkbox option 'Select all infusers meeting the criteria' is also present. The main content area shows a table of infusers with the following columns: Select, Infuser Type, Device, Serial Number, Location, Software Release, Inventory Status, and Asset ID. The table contains 7 rows of infuser data. A red circle highlights a globe icon in the Location column for the first row (SN_PLMCE00001). A red arrow points from this icon to a pop-up window that displays location details: 'Location: All Sites / FH Centre Care / Azalea / Floor 1 / CC Azalea', 'Last Location Update: Wed Feb 19 16:59:47 PST 2014', and 'Previous Location: All Sites / FH Altamonte Outlier / 201 Park Place Kindman Building / Floor 3 / 3rd Floor ALT RB'. The table also shows other infusers with locations like '3rd floor ALO', '1st Floor ALT ES', 'Floor ALT MOB', and 'Floor 1'. At the bottom of the table, there are buttons for 'Sync Infuser Time', 'Delete', 'Save Changes', 'Clear Changes', 'Export', and 'Stop Auto Refresh'.

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 RTLS 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	X	X	X	X	X	X	X	X	X	X
2	Users & Roles	X	X	X							
3	Administrative Setup	X	X	X						X	
4	Reports Limited				X						
5	Reports Full	X	X	X		X	X	X	X	X	X
6	Library Download	X	X	X					X	X	X
7	Infuser Management	X	X	X					X	X	X
8	Access Point Mapping	X	X						X	X	X
9	Manage Finalized Libraries	X		X				X			
10	Manage Worksheets	X		X			X	X			
11	View Drug Libraries	X	X	X			X	X			
12	Software Management	X	X						X	X	X
13	View Medications	X	X	X			X	X			
14	Manage Medications	X		X				X			
15	Configure Formulary Interface	X		X							
16	Authentication Services	X								X	
17	Infusion Status	X	X	X	X	X	X	X	X	X	X
18	Manage Patient/Pump Assignments	X									
19	View Protected Health Information	Must be setup									
20	Manage Message Queues	X								X	
21	Infuser Logs	X	X						X	X	X
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
Name	0	20	Any printable character	Yes
Middle Name	0	10	Any printable character	Yes
Surname	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 Name	0	30	Any printable character	Yes
Patient Surname	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: <ul style="list-style-type: none"> The library download page did not refresh The library is invalid The infuser is not connected to the network The infuser rejected the library 	<ol style="list-style-type: none"> Click Refresh. If the problem is not resolved: <ol style="list-style-type: none"> Turn off and unplug the infuser from AC power for two minutes 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. <p>If the problem continues, contact Hospira.</p>
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	<p>If the infuser is in low battery state, connect to AC power and wait at least ten minutes.</p> <p>If the problem is not resolved:</p> <ol style="list-style-type: none"> 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 Replace the battery <p>If the problem continues, contact Hospira.</p>

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:

- 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 finalised 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)	<p>Patient group in which the infusion therapy parameters are the same</p> <p>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.</p>
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	<p>Programming option that allows the infusion to be started at a later time</p> <p>Similar to standby</p>
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
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	Medication library that can be edited but cannot be sent to infusers until it is finalised
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
Finalised Drug Library	Drug library that has been approved for use on infusers and can no longer be changed
Finalisation	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+/Plum 360) 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+/Plum 360, 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 programmes
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+/Plum 360)	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
Limited Rule Set (Plum A+/Plum 360)	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
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 twisted 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	Clear out or purge air from the tubing. Same as Purge
Programme	<p>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:</p> <ul style="list-style-type: none"> For the Plum A+, changing a bag, bottle, or syringe is not considered a new programme if no other setting was changed <p>One or more programmes may be associated with an infusion</p> <p>Differences between infusers:</p> <ul style="list-style-type: none"> Plum A+ - Loading Dose and Multistep are each considered to be a single programme
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	<p>Constraints that are assigned to medication entries. The type of rule for the medication in the drug library</p> <p>Rule sets can include both soft and hard limits. The Plum A+ has a single rule set</p>
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
Variance	<p>Variance is a calculated value intended to represent how far away the user's initial programmed value was compared to the defined limit.</p> <p>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.</p>

VTBI Acronym for Volume To Be Infused

Worksheet Draft drug library that has not yet been finalised

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

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