



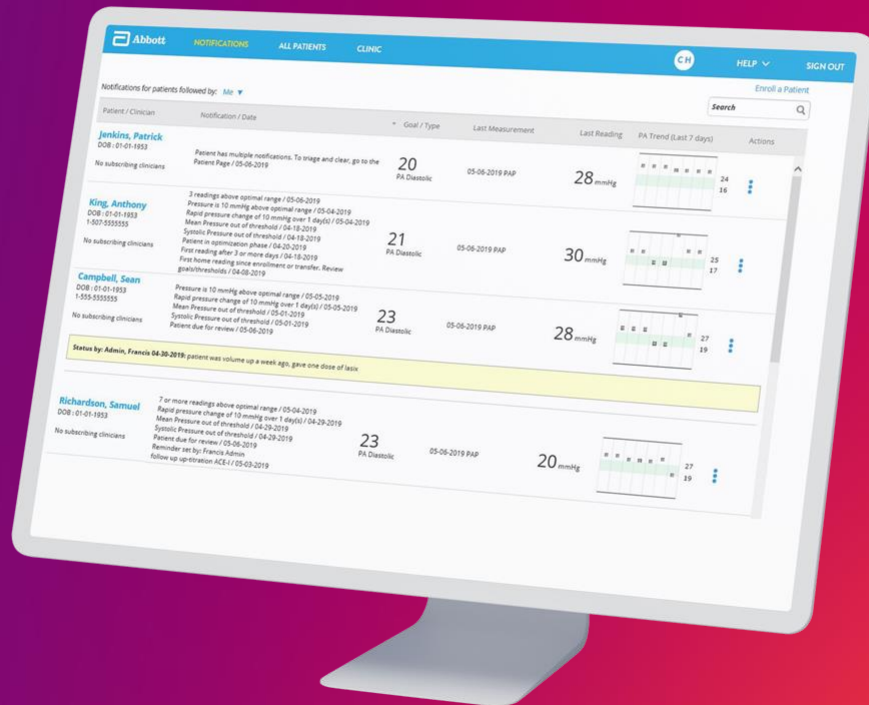
AN INTRODUCTION TO

Merlin.net™

Patient Care Network (PCN)

Heart Failure Management Portal

Effective, Efficient Remote Monitoring of CardioMEMS™ HF System Patients



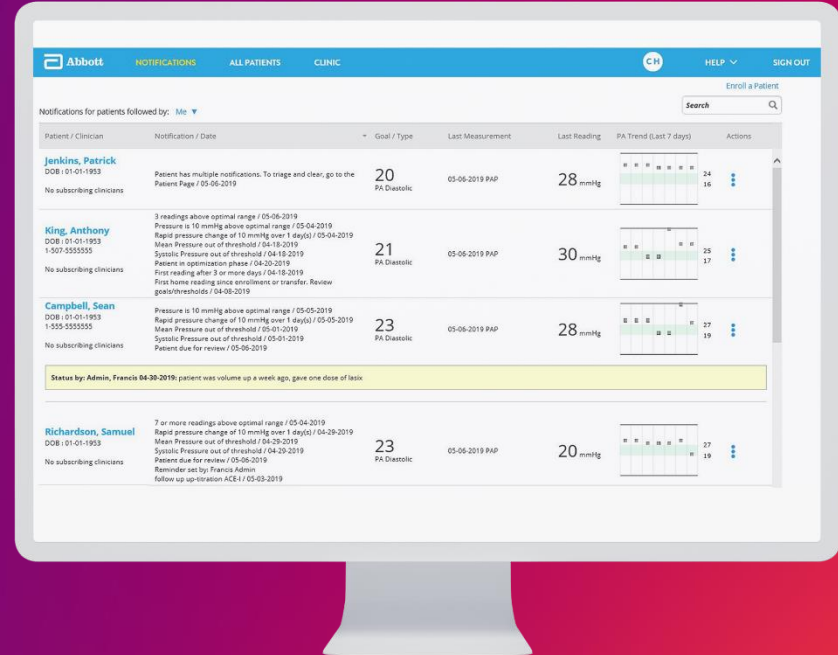
Tools to Drive Efficiency

THE MERLIN.NET™ PATIENT CARE NETWORK AND MYCARDIOMEMS™ PATIENT APPLICATION ALLOW YOU TO:

- Triage patients effectively with web-based notifications
- Easily assess patients in a single view
- Document interventions
- Reduce patient phone calls with custom messaging

Topics

- Getting Started with Merlin.net™ PCN
- Setting up a Patient for Monitoring
- Managing by Exception
- Reviewing Patients
- Taking Actions
- Other Patient Settings
- Clinic-Wide Settings
- User Settings
- Administrative Tasks

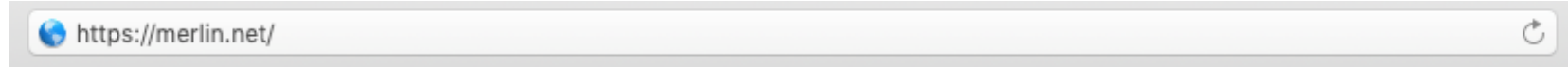


1. Getting Started with Merlin.netTM PCN

1. GETTING STARTED WITH MERLIN.NET™ PCN

Merlin.net™ PCN Overview

Heart Failure Portal Access



FOR HF-ONLY CLINICS:

The heart failure portal will be your clinic's landing page.



FOR CLINICS WITH BOTH CRM AND HF PORTAL ACCESS:

Use the “Switch to” link to navigate between portals.

Notifications

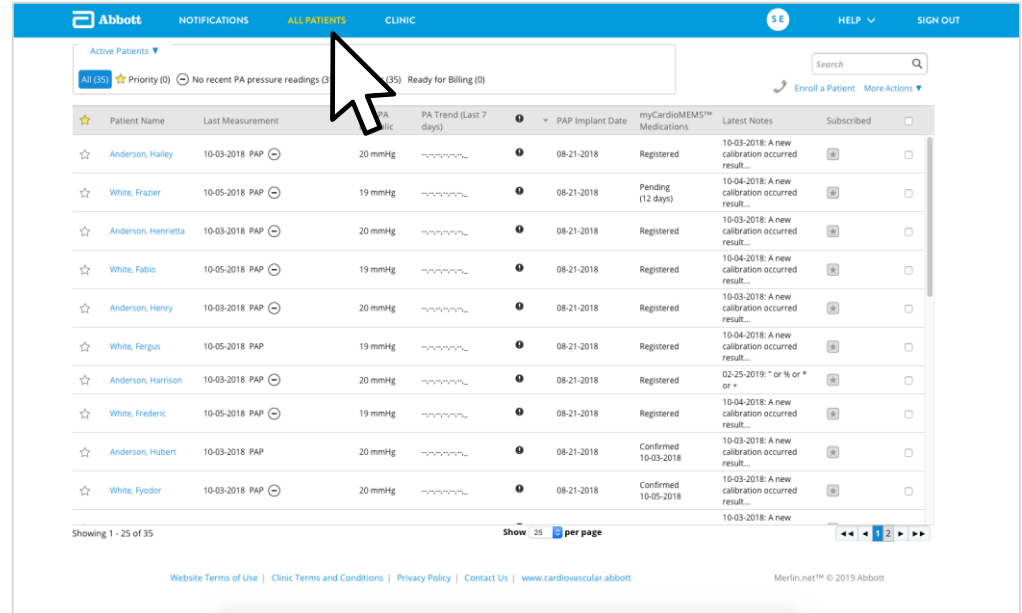
- Is the default landing page for an HF-enabled clinic
- Shows only the CardioMEMS™ HF System patients with active notifications
- Serves as your “inbox” for managing CardioMEMS HF System patients
- Provides enough detail to quickly intervene and take action

Patient / Clinician	Notification	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Jenkins, Patrick DOB: 01-01-1953 No subscribing clinicians	Patient has multiple notifications. To triage and clear, go to the Patient Page / 05-06-2019	20 PA Diastolic	05-06-2019 PAP	28 mmHg		
King, Anthony DOB: 01-01-1953 1-507-5555555 No subscribing clinicians	3 readings above optimal range / 05-06-2019 Pressure is 10 mmHg above optimal range / 05-04-2019 Rapid pressure change of 10 mmHg over 1 day(s) / 05-04-2019 Mean Pressure out of threshold / 04-18-2019 Systolic Pressure out of threshold / 04-18-2019 Patient in optimization phase / 04-20-2019 First home reading since enrollment or transfer. Review goals/thresholds / 04-08-2019	21 PA Diastolic	05-06-2019 PAP	30 mmHg		
Campbell, Sean DOB: 01-01-1953 1-555-5555555 No subscribing clinicians	Pressure is 10 mmHg above optimal range / 05-05-2019 Rapid pressure change of 10 mmHg over 1 day(s) / 05-05-2019 Mean Pressure out of threshold / 05-01-2019 Systolic Pressure out of threshold / 05-01-2019 Patient due for review / 05-01-2019	23 PA Diastolic	05-06-2019 PAP	28 mmHg		
Status by: Admin, Francis 04-30-2019: patient was volume up a week ago, gave one dose of lasix						
Richardson, Samuel DOB: 01-01-1953 No subscribing clinicians	7 or more readings above optimal range / 05-04-2019 Rapid pressure change of 10 mmHg over 1 day(s) / 04-29-2019 Mean Pressure out of threshold / 04-29-2019 Systolic Pressure out of threshold / 04-29-2019 Patient due for review / 05-06-2019 Reminder set by: Francis Admin Follow up up-iteration ACE-I / 05-03-2019	23 PA Diastolic	05-06-2019 PAP	20 mmHg		

All Patients

Shows all of the patients in your clinic:

- Active
- Inactive
- Scheduled
- Implanted



☆	Patient Name	Last Measurement	PA Status	PA Trend (Last 7 days)	ⓘ	+	PAP Implant Date	myCardioMEMS™ Medications	Latest Notes	Subscribed	ⓧ
☆	Anderson, Hailey	10-03-2018 PAP	20 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	10-03-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	White, Frazier	10-05-2018 PAP	19 mmHg	~~~~~	ⓘ	+	08-21-2018	Pending (12 days)	10-04-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	Anderson, Henrietta	10-03-2018 PAP	20 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	10-03-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	White, Fabio	10-05-2018 PAP	19 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	10-04-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	Anderson, Henry	10-03-2018 PAP	20 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	10-03-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	White, Fergus	10-05-2018 PAP	19 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	10-04-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	Anderson, Harrison	10-03-2018 PAP	20 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	02-25-2019: * or % or +	ⓧ	ⓧ
☆	White, Frederic	10-05-2018 PAP	19 mmHg	~~~~~	ⓘ	+	08-21-2018	Registered	10-04-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	Anderson, Hubert	10-03-2018 PAP	20 mmHg	~~~~~	ⓘ	+	08-21-2018	Confirmed 10-03-2018	10-03-2018: A new calibration occurred result...	ⓧ	ⓧ
☆	White, Fyodor	10-03-2018 PAP	20 mmHg	~~~~~	ⓘ	+	08-21-2018	Confirmed 10-05-2018	10-03-2018: A new calibration occurred result...	ⓧ	ⓧ

Showing 1 - 25 of 35

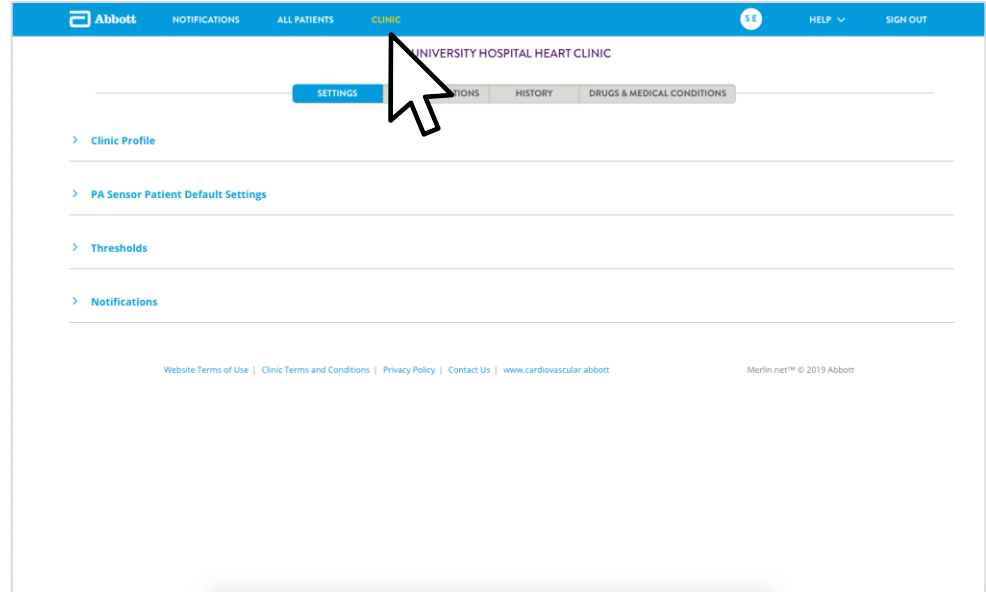
Show 25 per page

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Clinic

- Is available only to users with administrative access
- Allows you to establish clinic-level settings for all patients
- Allows you to manage your clinic's users
- Includes detailed history for all patients
- Includes drug and condition lists



Utility Navigation

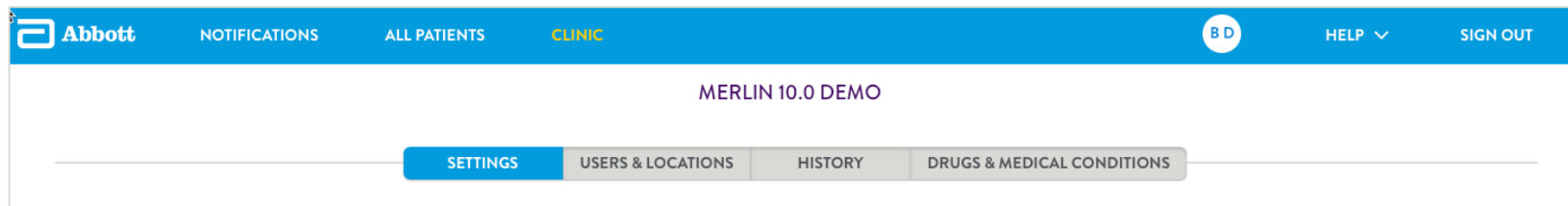


- Provides access to your individual user settings
- Links to Help resources
- Allows you to switch between Merlin.net™ PCN portals

1. GETTING STARTED WITH MERLIN.NET™ PCN

Setting Up Your Clinic

Settings

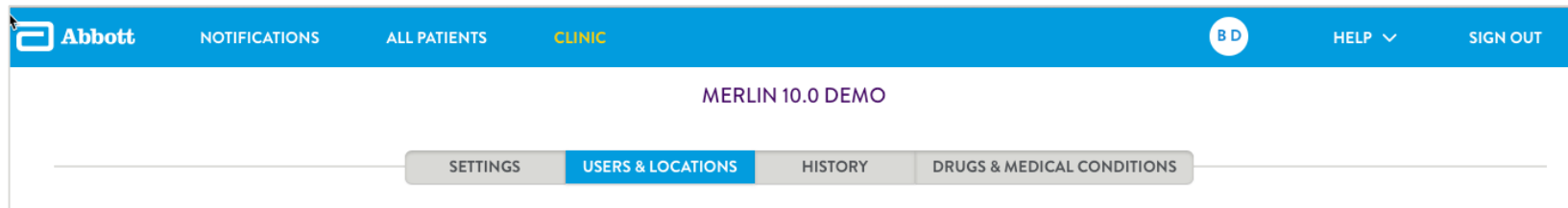


In **SETTINGS > CLINIC PROFILE**, complete:

- Clinic Details
- Clinic Regional Settings
- Notifications List Report
- Patients of Interest Report

TIP: Enable delivery of reports for your clinic as a whole on specific days.
Users can then choose whether or not to receive the reports from their user profile.

Settings



In **USERS & LOCATIONS > USERS**, add users and assign roles as appropriate.

- **User Roles** control the user's patient viewing access and read/write abilities
- **Physician User Roles** (only shown if User Type is Physician) do *not* control read/write abilities

* **User Type:**

Physician
Allied Professional
Assistant
Physician

* **User Roles:** ☐ Administrator ☐ Implanting ☐ Treating ☐ Consulting

Physician User Roles: ☐ Implanting Physician ☐ Treating Physician

Settings

Tips for **USER TYPES:**

* **User Type:**

Physician
Allied Professional
Assistant
Physician

- For **clinical** roles, select **PHYSICIAN** or **ALLIED PROFESSIONAL**.
- For **non-clinical** roles, select **ASSISTANT**.

Tips for **USER ROLES:**

* **User Roles:** ☐Administrator ☐Implanting ☐Treating ☐Consulting

Physician User Roles: ☐Implanting Physician

☐Treating Physician

- To allow a user to make **changes to global clinic settings** or add/remove users, select **ADMINISTRATOR**.
- To allow a user **read-only** access to patient data, select **CONSULTING**.

2. Setting up a Patient for Monitoring

2. SETTING UP A PATIENT FOR MONITORING

Enrolling a Patient



Enrolling a Patient

1. **At implant**, patients should be enrolled using the **HOSPITAL ELECTRONICS SYSTEM (HES)** or **HOSPITAL SYSTEM (HS)**.

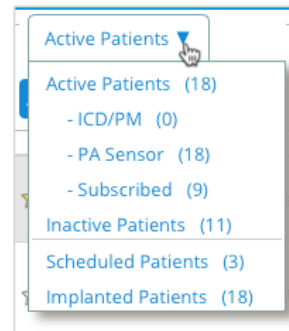
Enter minimal information on the HES or HS to create a basic profile:

- Last name
- First name
- Date of birth

2. **Post-implant**, complete the patient's profile on Merlin.net™ PCN.

For Centers *With* Connectivity

After implant, find the patient on the **ALL PATIENTS** list under **SCHEDULED**.

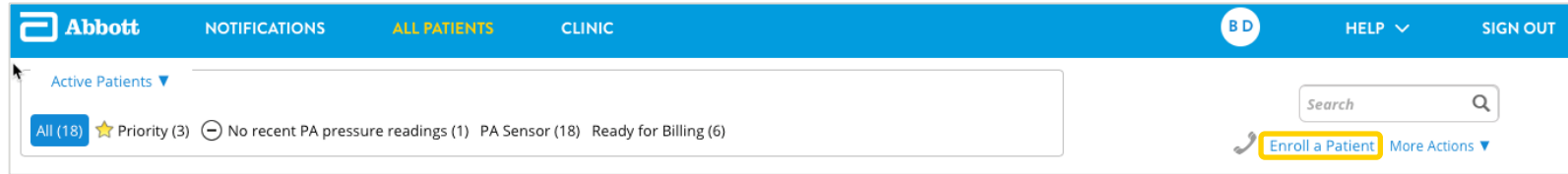


- In **SETTINGS > PA SENSOR**:
- Associate the patient with a clinic
- Assign a treating physician
- Select consulting users, if desired

A screenshot of the 'PA Sensor' configuration form. The form is divided into two main sections. The left section contains fields for 'Treating Clinic' (Merlin 10.0 Demo), 'Clinic Phone' (1 555 555 5555), '* Treating physician' (Adams, Francis), 'Implanter:', 'Implant Date' (04-06-2019), and 'Consulting Users' (RConsult, Dennis). The right section contains fields for 'Sensor Serial #' (A22EJM), '* Baseline Code' (2A84B-E568V), 'Sensor Location' (Left PA), 'Calibration Code' (CN3JU-J3GWN), 'Activation Code' (6319), and 'Electronics Serial #'. A mouse cursor is pointing at the 'Sensor Serial #' field.

For Centers *Without* Connectivity

After implant, navigate to the **ALL PATIENTS** list and click on **ENROLL A PATIENT**.



- Select **PA SENSOR** and enter patient's details.
- Scroll to **PA SENSOR** and enter sensor serial number.
- Insert USB drive from implant, and click **IMPORT FROM FLASH DRIVE**.



Dealing With Duplicate Patients

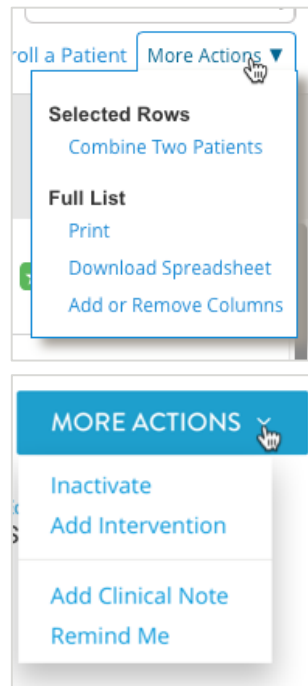
You may experience duplicate patients in two cases:

1. If the patient is already enrolled as a Cardiac Rhythm Management patient.

Continue to enroll the patient as a CardioMEMS™ HF System patient. Then, from **ALL PATIENTS**, select and combine the two patients.

2. If the patient was enrolled in Merlin.net™ PCN rather than the HES or HS.

Click on the duplicate profile. From the **MORE ACTIONS** menu, select **INACTIVATE**.



2. SETTING UP A PATIENT FOR MONITORING

Setting Up a Patient's Profile

Finishing the Patient's Profile

A patient will move automatically from the **SCHEDULED** list to the **ACTIVE** list after their first transmission from the Patient Electronics System *and* if the patient has been associated with a clinic.

In **SETTINGS > PATIENT PROFILE > PATIENT**, complete:

- Name
- Contact information
- Ejection fraction (EF) %
- Patient messaging preferences

The screenshot shows the 'Patient Profile' form in the Abbott system. The form is titled 'Patient Profile' with a dropdown arrow. Below the title is a section labeled 'Patient'. The form contains several fields: 'First Name' (John), 'Middle Name' (empty), 'Last Name' (Smith), 'Language' (English (US) with a dropdown arrow), 'Patient ID' (empty), 'Date of Birth' (empty), 'Merlin.net™ Number' (380051987), 'Clinic Location' (Specialty Group with a dropdown arrow), 'Gender' (Female and Male radio buttons, with Male selected), 'Cardiomyopathy' (empty with a dropdown arrow), and 'EF %' (empty). Below the 'Patient' section is a section labeled 'Patient Messaging'. It contains a 'DirectCall™ method' dropdown menu set to 'Text Message Primary/Mobile p...' and a note 'Message and data rates may apply'.

Abbott NOTIFICATIONS ALL PATIENTS CLINIC

✓ Patient Profile

Patient

* First Name: John

Middle Name:

* Last Name: Smith

Language: English (US)

Patient ID:

* Date of Birth :

Merlin.net™ Number: 380051987

Clinic Location: Specialty Group

Gender: ☐ Female ☒ Male

Cardiomyopathy:

EF %:

Patient Messaging

DirectCall™ method: Text Message Primary/Mobile p...

Message and data rates may apply

Entering Right Heart Cath Values

In **SETTINGS > PATIENT PROFILE > PA SENSOR**, enter values from implant.

The screenshot shows the 'PA Sensor' settings page with a mouse cursor pointing to the 'Baseline Code' field. The page includes fields for 'Treating Clinic', 'Clinic Phone', 'Treating physician', 'Implanter', 'Implant Date', 'Consulting Users', 'Sensor Serial #', 'Baseline Code', 'Sensor Location', 'Calibration Code', 'Activation Code', and 'Electronics Serial #'. A modal window titled 'Right Heart Cath Implant Values' is open, displaying fields for 'RA Mean', 'PA Mean', 'RV Systolic', 'PA Systolic', 'RV Diastolic', 'PA Diastolic', 'PCWP', and 'Cardiac Output'.

PA Sensor [Right Heart Cath Implant Values](#) [Implant Report](#)

Treating Clinic: Merlin 10.0 Demo

Clinic Phone: 1 555 555 5555

* Treating physician: Adams, Francis

Implanter:

Implant Date: 04-06-2019

Consulting Users: ☐ RConsult, Dennis

Sensor Serial #: A22EKN

* Baseline Code: 2A85B-E568L

Sensor Location:

Calibration Code: CN3JU-J3GWN

Activation Code: 2652

Electronics Serial #:

[Right Heart Cath Implant Values](#)

Please enter values obtained during PA Sensor implant procedure.

RA Mean:	<input type="text"/>	mmHg	PA Mean:	<input type="text"/>	mmHg
RV Systolic:	<input type="text"/>	mmHg	PA Systolic:	<input type="text"/>	mmHg
RV Diastolic:	<input type="text"/>	mmHg	PA Diastolic:	<input type="text"/>	mmHg
PCWP:	<input type="text"/>	mmHg	Cardiac Output:	<input type="text"/>	L/min

CANCEL SAVE

CANCEL SAVE

*Required field

TIP: Entering this information can provide guidance for setting PA pressure goal and threshold.

Setting Goals and Thresholds

In **SETTINGS** > **GOALS AND THRESHOLDS**:


- Select a primary metric (default = PA Diastolic)
- Select the phase that the patient is in (default = Optimization)

▼ **Goals and Thresholds**

1. Select the Primary Metric that will be used for monitoring this patient.

☒ PA Diastolic Pressure

☐ PA Mean Pressure

 Changing the patient's Primary Metric will reset the detection of Clinical Notifications.

2. Select the phase that the patient is in.

☐ Optimization - usually the first 30-90 days after implant

☒ Maintenance - patient's pressures and medications have stabilized

RIGHT HEART CATH IMPLANT VALUES

RA Mean:	<input type="text" value="5"/>	mmHg	PA Mean:	<input type="text" value="26"/>	mmHg
RV Systolic:	<input type="text" value="30"/>	mmHg	PA Systolic:	<input type="text"/>	mmHg
RV Diastolic:	<input type="text" value="29"/>	mmHg	PA Diastolic:	<input type="text"/>	mmHg
PCWP:	<input type="text" value="13"/>	mmHg	Cardiac Output:	<input type="text"/>	L/min













Establishing a Goal and Optimal Range

In **SETTINGS** > **GOALS AND THRESHOLDS**:

- Enter a PA pressure goal – the target PA pressure for patient management (optional).
- Enter a patient's optimal range (which, when exceeded, will trigger a notification).

DEFAULTS PRIOR TO GOAL BEING SET
Clinic-level values

DEFAULTS UPON SETTING THE GOAL:
± 4 from PAD goal (optimization)
± 2 from PAD goal (maintenance)
± 5 from PAM goal (optimization)
± 3 from PAM goal (maintenance)

Primary Metric	Active	Goal	Lower Bound	Upper Bound		
PA Diastolic Pressure		<input type="text"/>	15  	25  	Clinic Threshold	
Other Metrics			Lower Bound	Upper Bound		
PA Mean Pressure	<input type="checkbox"/>		10  	20  	Patient Threshold	Remove Override
PA Diastolic Trend	<input type="checkbox"/>		10  	20  	Clinic Threshold	

TIP: Within three to seven days of implant, review the patient's at-home readings to determine an initial optimal range and (if desired) a PA goal. Assess the goal and range every two weeks; adjust and reprogram accordingly.

3. Managing by Exception

Notifications List

The Notifications List helps you focus on patients who need your attention.

- Shows only patients who have active notifications, based on an out-of-range PA pressure reading or other clinical or administrative setting.

Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Jenkins, Patrick DOB : 01-01-1953 No subscribing clinicians	Patient has multiple notifications. To triage and clear, go to the Patient Page / 05-06-2019	20 PA Diastolic	05-06-2019 PAP	28 mmHg		
King, Anthony DOB : 01-01-1953 1-507-5555555 No subscribing clinicians	3 readings above optimal range / 05-06-2019 Pressure is 10 mmHg above optimal range / 05-04-2019 Rapid pressure change of 10 mmHg over 1 day(s) / 05-04-2019 Mean Pressure out of threshold / 04-18-2019 Systolic Pressure out of threshold / 04-18-2019 Patient in optimization phase / 04-20-2019 First reading after 3 or more days / 04-18-2019 First home reading since enrollment or transfer. Review goals/thresholds / 04-08-2019	21 PA Diastolic	05-06-2019 PAP	30 mmHg		
Campbell, Sean DOB : 01-01-1953 1-555-5555555 No subscribing clinicians	Pressure is 10 mmHg above optimal range / 05-05-2019 Rapid pressure change of 10 mmHg over 1 day(s) / 05-05-2019 Mean Pressure out of threshold / 05-01-2019 Systolic Pressure out of threshold / 05-01-2019 Patient due for review / 05-06-2019	23 PA Diastolic	05-06-2019 PAP	28 mmHg		
Status by: Admin, Francis 04-30-2019: patient was volume up a week ago, gave one dose of lasix						
Richardson, Samuel DOB : 01-01-1953 No subscribing clinicians	7 or more readings above optimal range / 05-04-2019 Rapid pressure change of 10 mmHg over 1 day(s) / 04-29-2019 Mean Pressure out of threshold / 04-29-2019 Systolic Pressure out of threshold / 04-29-2019 Patient due for review / 05-06-2019 Reminder set by Francis Admin Follow up up-titration ACE-I / 05-03-2019	23 PA Diastolic	05-06-2019 PAP	20 mmHg		

3. MANAGING BY EXCEPTION

Notification types

Notification Types

TYPE	SUB-TYPE	EXAMPLES
Clinical Notifications based on PA pressure or other clinical metric (e.g., heart rate)	Primary Notifications Related to the patient's primary metric (PA Diastolic or PA Mean)	<ul style="list-style-type: none">• 3 readings above optimal range• Rapid pressure change of <n> over 1 day
	Other Notifications Related to the non-primary metric thresholds	<ul style="list-style-type: none">• Heart rate out of threshold• Systolic pressure out of threshold
Administrative Notifications associated with administrative-level considerations		<ul style="list-style-type: none">• No pressure readings for <n> days• Pressure reading is suspect

Clinical > Primary Notifications

NOTIFICATIONS RELATED TO THE THE PRIMARY METRIC (PA DIASTOLIC OR PA MEAN)

NOTIFICATION	DEFAULT
High pressure reading greater than <n> from optimal range	OFF
Low pressure reading less than <n> from optimal range	OFF
Rapid pressure change of <n> over 1 day	ON, N = 10
Pressure reading transition from High to Low range (without patient returning to optimal state)	OFF
Pressure reading transitions from Low to High range (without patient returning to optimal state)	OFF
1 reading above optimal range	OFF
1 reading below optimal range	OFF
3 readings above optimal range	ON
3 readings below optimal range	ON
7 or more readings above optimal range	ON
7 or more readings below optimal range	ON
Patient returns to optimal state after medication change	OFF

Clinical > Other Notifications

NOTIFICATIONS RELATED TO NON-PRIMARY METRIC THRESHOLDS

Note: These notifications will only trigger if corresponding thresholds are defined and active.

NOTIFICATION	DEFAULT
Diastolic pressure out of threshold *	OFF
Diastolic pressure trend out of threshold	OFF
Mean pressure out of threshold *	OFF
Mean pressure trend out of threshold	OFF
Heart rate out of threshold	ON
Pulse pressure out of threshold	OFF
Systolic pressure out of threshold	OFF
Systolic pressure trend out of threshold	OFF

**Only applicable as an “other” notification if it is NOT the primary metric. (For example: If a patient’s primary metric = PA Diastolic, then the “Diastolic pressure out of threshold” notification would not be triggered as an “other” notification.)*

Administrative Notifications

NOTIFICATION	DEFAULT
No pressure readings for <n> days	ON, N = 3
First pressure reading after <n> days	OFF, N = 3
Pressure reading is suspect	ON
Patient has not been reviewed for 30 days	OFF
Patient does not have a pressure goal established	OFF
Patient is in Optimization phase	OFF
First home reading from a patient after enrollment or transfer	OFF
Systolic pressure trend out of threshold	OFF


3. MANAGING BY EXCEPTION

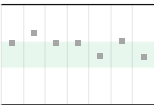

Using the Notifications List

Using the Notifications List

PATIENT/CLINICIAN COLUMN

Displays patient name, date of birth, phone and subscribing clinician(s)

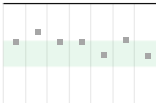
Notifications for patients followed by: Shepherd, Samantha ▾ Search 

Patient / Clinician	Notification	Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	1 rea Heart rate out of threshold 02-01-2019	18 PA Diastolic	02-01-2019 PAP	19 mmHg		

Using the Notifications List

NOTIFICATION/DATE COLUMN

Provides the reason(s) the patient is on the Notifications List and the date the notification was triggered

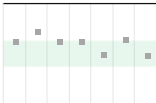

Notifications for patients followed by: Shepherd, Samantha ▼						
Search <input type="text"/>						
Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	1 reading above optimal range / 02-01-2019 Heart Rate out of threshold / 02-01-2019	18 PA Diastolic	02-01-2019 PAP	19 mmHg		⋮

REMINDER: A patient may have more than one notification, with “clinical” notifications at the top. Review all notifications, but treat the notifications (and the patient) as a whole.

Using the Notifications List

GOAL/TYPE COLUMN

Displays the patient's PA pressure goal and the Primary Metric (type of goal) by which they are being monitored (PA Diastolic or PA Mean)

Notifications for patients followed by: Shepherd, Samantha ▼						
<input type="text" value="Search"/>						
Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	1 reading above optimal range / 02-01-2019 Heart Rate out of threshold / 02-01-2019	18 PA Diastolic	02-01-2019 PAP	19 mmHg		

REMINDER: It is not a requirement that patients have a PA pressure goal. In these cases, “No Goal Set” displays.

Using the Notifications List

LAST MEASUREMENT AND LAST READING COLUMNS

- Displays the date that the patient last took a reading
- Displays the last reading value sent by the patient

Notifications for patients followed by: [Shepherd, Samantha](#) ▼

Search

Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	1 reading above optimal range / 02-01-2019 Heart Rate out of threshold / 02-01-2019	18 PA Diastolic	02-01-2019 PAP	19 mmHg	 25 15	⋮

3. MANAGING BY EXCEPTION

Getting Notified

Notifications List Settings

Notifications

Clinical Notifications

Primary Notifications

These notifications are based on the patient's primary metric (PA Diastolic pressure or PA Mean pressure).

☒ High pressure reading greater than

10

mmHg from optimal range

☒ Low pressure reading less than

10

mmHg from optimal range

☒ Rapid pressure change of

10

mmHg over 1 day(s)

☒ Pressure readings transitioned from High to Low range (without patient returning to optimal state)

☒ Pressure readings transitioned from Low to High range (without patient returning to optimal state)

☐ 1 reading above optimal range

☐ 1 reading below optimal range

☒ 3 readings above optimal range

☒ 3 readings below optimal range

☒ 7 or more readings above optimal range

☒ 7 or more readings below optimal range

☒ Patient returns to optimal state after medication change

Administrative Notifications

☒ No pressure readings for

3

day(s)

☒ First pressure reading after

3

day(s)

☒ Pressure reading is suspect

☒ Patient review reminder

☒ Patient does not have pressure goal established

☒ Patient in optimization phase

Other Notifications

These notifications are detected only if the associated thresholds have been set up.

☐ Diastolic pressure out of threshold

☐ Diastolic pressure trend out of threshold

☐ Mean pressure out of threshold

☐ Mean pressure trend out of threshold

☐ Heart rate out of threshold

☐ Pulse pressure out of threshold

☐ Systolic pressure out of threshold

☐ Systolic pressure trend out of threshold

The availability of the "Diastolic Pressure out of threshold" and "Mean Pressure out of threshold" notifications depends on the patient's primary metric type. For instance, if the patient is monitored by Diastolic Pressure, then the "Diastolic Pressure out of threshold" notification does not apply.

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Notifications List Report

- Contains list of all patients currently on clinic's Notification List
- Runs at 12 p.m. local time – a snapshot in time
- Can be subscribed to by individual users
 - Distribution days set at clinic-level
 - Subscription on/off set at a user-level

From: noreply@sim.com
Sent: Date Time
Subject: [s]mencrypt Merlin.net HF :: Notification List Report E - #EMAIL_PA_NOTIFICATION_SECURE_00000

Abbott Merlin.net™ Patient Care Network
Notification List Report for <Clinic Name>.

This report contains a list of all* patients in your clinic that are listed on the Notification List in Merlin.net as of <Date>, <Time>.
*The Notification List on the Merlin.net website may show a subset of the patients listed in this report because your view on the Merlin.net website will show only patients to which you have subscribed and patients which have no subscribing clinicians.

Patient	Notification / date	Goal / Type	Last Measurement	Last Reading	7 day trend**	Latest Note
<first name> <last name> <ID: patient ID>	<notification 1> / <date 1> <notification 2> / <date 2> ... <notification n> / <date n>	Goal associated with Primary Metric <n> "Not Set"	<date of last reading> <device type>	<mm mmHg (value of the primary metric in the last reading)>	v1, v6, v5, v4, v3, v2, v1 oldest.....newest	<latest clinical note>
James Shortz	Return to optimal after med change / 10-20-2018	20 PA Diastolic	20-Oct-2018 PAP	16 mmHg	23, 23, --, 24, 22, 7, 16	
James Buffett, ID: LS051976	Spike of 5 mmHg in 1 day / 10-20-2018 3 readings out of optimal range / 10-18-2018;	18 PA Diastolic	20-Oct-2018 PAP	25 mmHg	22, 23, 25, 19, 22, --, 25	
S.Ray Vonn	Spike of 5 mmHg in 1 day / 10-17-2018	23 PA Mean	20-Oct-2018 PAP 16-Oct-2018 CRT-P	30 mmHg	20, 19, 25, 26, 28, 25, 30	

**For the trend column, the value on the right represents the reading value from the previous day. If multiple readings are received on a day, only the latest, value is shown. Values shown include:

- <number> = PA Pressure value of the patient's primary metric (PA Diastolic or PA Mean)
- "--" = missed reading
- "?" = Suspect reading

Log into Merlin.net for more information.
* Notification List Report subscription preferences can be changed in the user profile.
* This email address is NOT monitored. Please do not reply.

In accordance with the notice below, if you are not the intended recipient of this email, please contact your Abbott representative or Abbott by telephone at: +1 877 696 3754 (US) and delete this email from your computer. Thank you.

Patients of Interest Report

- Focuses on PA Diastolic, regardless of primary metric selected
- Includes patients who have ...
 - A running average of seven days of PAD pressure outside threshold
 - Weekly PAD pressure average change ± 5 mmHg from previous week's
 - Not transmitted a reading for more than seven days in a row

From: deynorsply@sim.com [mailto:deynorsply@sim.com]
 Sent: Wednesday, June 14, 2017 3:30 PM
 Subject: [sjmncryp] Merlin.net HF :: Patients of Interest Report E - #EMAIL_PA_COMPLIANCE_SECURE_58222

St. Jude Medical, Inc. Merlin.net™ Patient Care Network
 PA Sensor Patients of Interest Report for <Clinic Name> (weekly values based on data collected as of June 13, 2017, 11:59:59 PM)

Weekly Average PA Diastolic (Weekly PAD) Pressure outside threshold range

Patient	Weekly PAD Avg (Weekly Change)	Days with PAD Out of Range	Last PAD	Last Review	Latest Notes
0614_Missed_FVR ID: 9651452	34 mmHg (+24)	3 of 3 days	34 mmHg (August 11, 2017)	June 14, 2017	This is reviewed today
fvr0614_Missed_Pa2	34 mmHg (+24)	1 of 1 days	34 mmHg (August 11, 2017)	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94

Weekly change ≥ 5 mmHg with Weekly PAD within threshold range

Patient	Weekly PAD Avg (Weekly Change)	Days with PAD Out of Range	Last PAD	Last Review	Latest Notes
0607_Threshold_Pat	23 mmHg (-6)	2 of 3 days	29 mmHg (June 13, 2017)	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
Clinic_Secondary	25 mmHg (+13)	0 of 1 days	25 mmHg (June 9, 2017)	June 14, 2017	This is reviewed by the physician today
0607_Missed_Pat	29 mmHg (-6)	0 of 3 days	34 mmHg (August 10, 2017)	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
Patient_POI ID: 9655211	17 mmHg (-6)	1 of 4 days	10 mmHg (June 12, 2017)	June 14, 2017	This is reviewed on 6/14/2017

Non-Compliant: No readings in last 1 days

Patient	Days Since Last Reading	Last Review	Latest Notes
PrisandSec	192 days	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
Disabled_Patient_App	143 days	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
SecondaryInOH_Enrolled_inPi	14 days	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
OHinPrimary_Comanaged_Primary	12 days	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
Norsad_fvr061_Missed_Pat3	12 days	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
AndrVr0208_PrimeOffSecoron	12 days	Not Set	A new calibration occurred resulting in a Baseline Code of: 2A6C8-U8C94
Clinic_Secondary	5 days	June 14, 2017	This is reviewed by the physician today
OBR_Default	5 days	June 8, 2017	This is a note
Patient_POI ID: 9655211	2 days	June 14, 2017	This is reviewed on 6/14/2017

Log into Merlin.net for more information.

* PA Sensor Patients of Interest Report subscription preferences can be changed in the user profile.
 * This email address is NOT monitored. Please do not reply.

In accordance with the notice below, if you are not the intended recipient of this email, please contact your St. Jude Medical representative or the St. Jude Medical, Inc. by telephone at: +1 877 696 3754 (US) and delete this email from your computer. Thank you.

4. Reviewing Patients

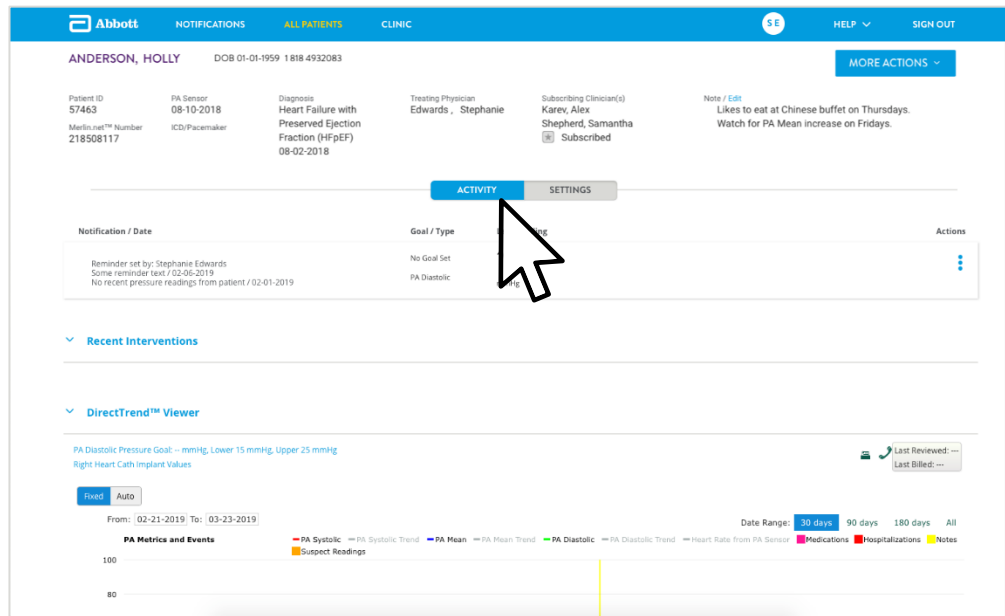
4. REVIEWING PATIENTS

Patient Data Review

Patient Activity

The **ACTIVITY** tab displays recent activity for a patient.

- Patient header
- Current notifications
- Recent interventions
- DirectTrend™ Viewer
- Readings



Patient Data Review

PATIENT HEADER


- Includes key information about patient
- Includes editable “post-it” note for extraneous details and/or clinic communication

ANDERSON, HOLLY		DOB 01-01-1959 1 818 4932083		MORE ACTIONS ▾	
Patient ID 57463	PA Sensor 08-10-2018	Diagnosis Heart Failure with Preserved Ejection Fraction (HFpEF) 08-02-2018	Treating Physician Edwards, Stephanie	Subscribing Clinician(s) Karev, Alex Shepherd, Samantha ★ Subscribed	Note / Edit Likes to eat at Chinese buffet on Thursdays. Watch for PA Mean increase on Fridays.
Merlin.net™ Number 218508117	ICD/Pacemaker				

Patient Data Review

NOTIFICATIONS

Mirrors current notifications for patient shown on Notifications List



Notification / Date	Goal / Type	Last Reading	Actions
Reminder set by: Stephanie Edwards Some reminder text / 02-06-2019 No recent pressure readings from patient / 02-01-2019	No Goal Set PA Diastolic	19 mmHg	

Patient Data Review

RECENT INTERVENTIONS

- Includes medication adjustments and/or messages sent to the patient in the last 30 days
- Displays a green checkmark for interventions acknowledged by the patient on the myCardioMEMS™ app

Recent Interventions



Medication Intervention



Stephanie Edwards

Effective: 03-10-2019

Decrease

Furosemide Lasix®

SENT ON: 03-10-2019, 01:27 PM



Medication Intervention



Stephanie Edwards

Effective: 03-10-2019

Increase

Furosemide Lasix®

SENT ON: 03-10-2019, 01:30 PM



Medication Intervention


Stephanie Edwards

Effective: 03-10-2019

Change

Furosemide Lasix®

SENT ON: 03-10-2019, 01:32 PM



Medication Intervention

Stephanie Edwards

Effective: 03-10-2019

Start

Fosinopril Monopril®

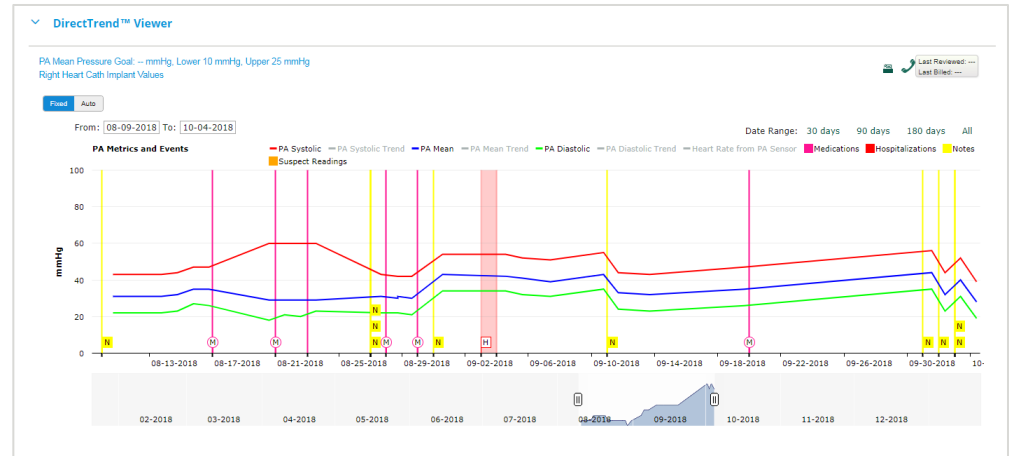
SENT ON: 03-10-2019, 01:47 PM

← Last 30 days

Patient Data Review

DIRECTTREND™ VIEWER

- Displays Mean, Systolic and Diastolic pressures over time
- Can be customized to display various trends over time
- Displays hospitalizations or notes entered in patient's record

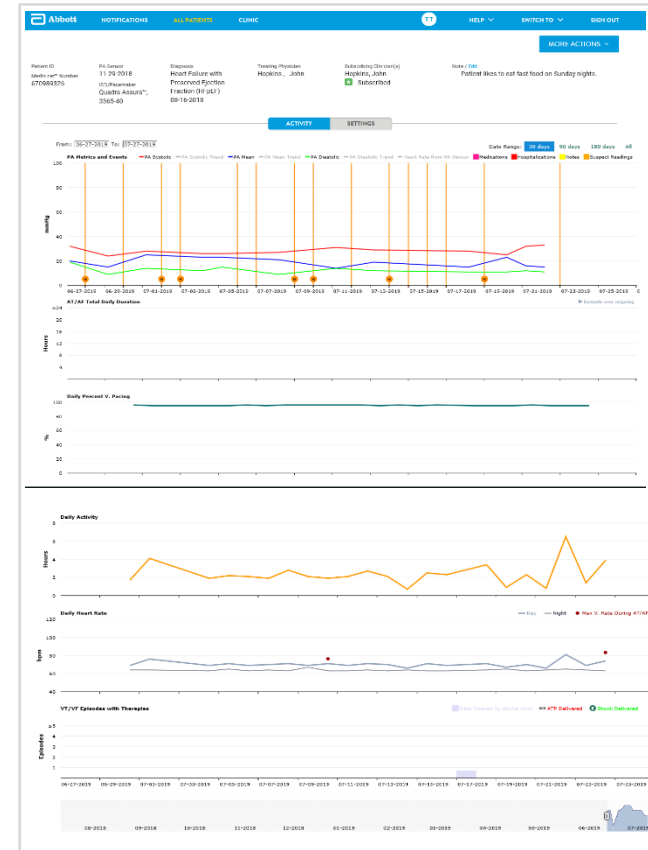


Patient Data Review

CARDIAC RHYTHM MANAGEMENT DATA

Displays data from CRM devices, for patients with both a CardioMEMS™ PA Sensor and an Abbott pacemaker, ICD or CRT

- AT/AF Burden
- Percent Ventricular Pacing
- Patient Activity
- Day and Night Heart Rate
- VT/VF Events with ATP and Shock Therapies

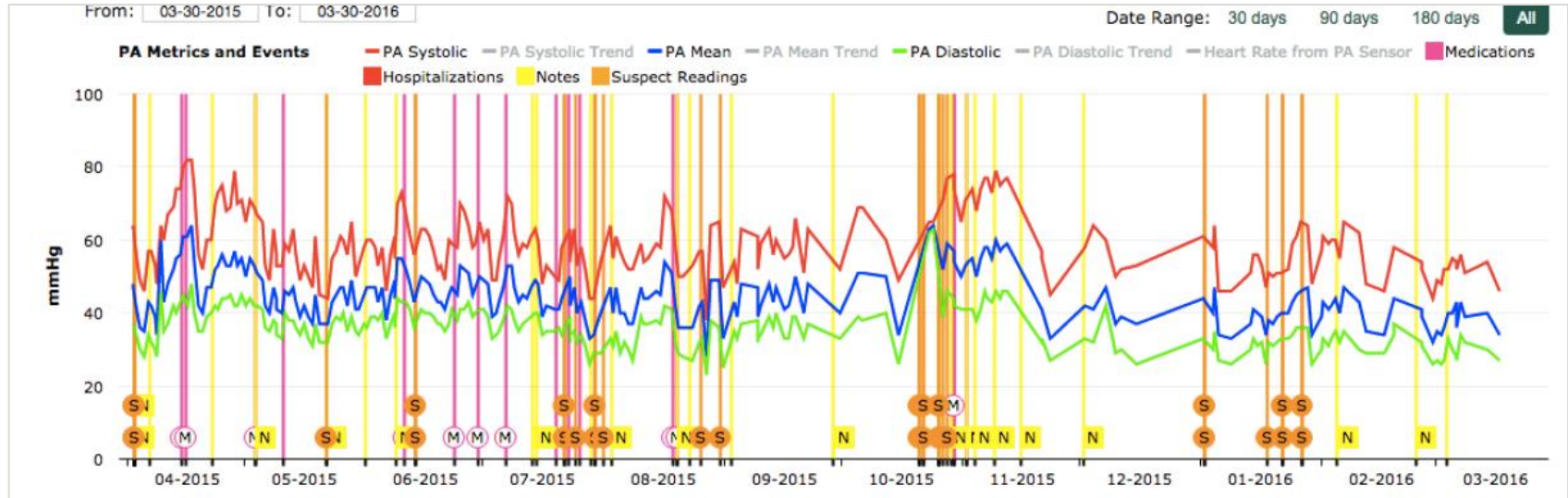


4. REVIEWING PATIENTS

Suspect Readings

Managing Suspect Readings

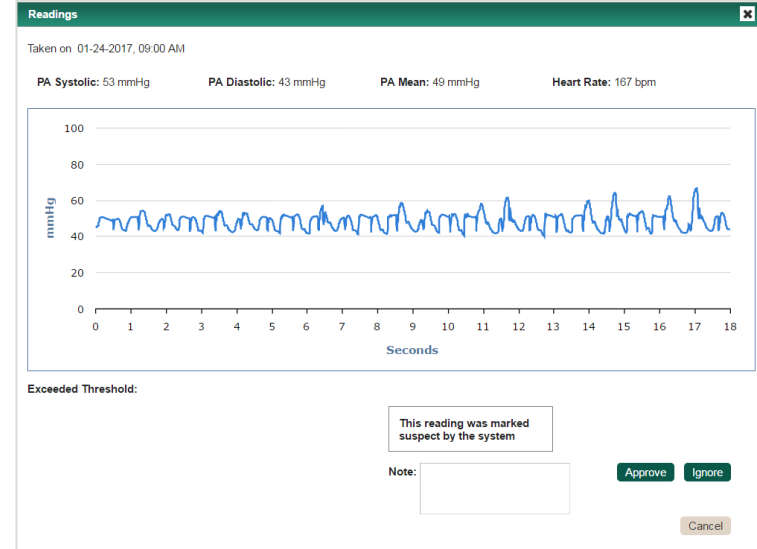
- Marked by the Patient Electronics System
- Indicated with an orange “Suspect” tag on the Readings List



Reviewing Suspect Readings

When reviewing suspect readings, it is important to determine if the waveform is **physiologic**.

- If the waveform is not physiologic, select **IGNORE**.
- If the waveform is, select **APPROVE**.



TIP: Review suspect readings regularly. If suspect readings aren't adjudicated, the Patient Electronics System will re-calibrate itself and become less conservative over time. Non-physiologic readings may “slip through” as acceptable, resulting in skewed trend data.

4. REVIEWING PATIENTS

Finishing Your Review

Finishing Your Review

From the **LAST REVIEWED/LAST BILLED BUTTON** above the DirectTrend™ Viewer:

- Check the Mark as Reviewed box and enter a note (optional)
- Enter a Mark as Billed on date (if applicable)

The screenshot shows the DirectTrend™ Viewer interface for a patient named Anderson, Holly. A modal window is open, allowing the user to mark the review as complete. The modal contains the following fields and options:

- Mark as Reviewed Today:** A checkbox that is currently unchecked.
- Note:** A text area for entering a note.
- Last Reviewed:** A dropdown menu currently set to "---".
- By:** A text field for entering the reviewer's name.
- Mark as Billed on:** A date picker currently set to the current date.
- Last Billed:** A dropdown menu currently set to "---".
- Next Billing Reminder:** A text field for entering a reminder date.
- Data Collected:** A text field showing "0 days".
- Always show this reminder:** A checkbox that is currently unchecked.

At the bottom of the modal are "CANCEL" and "SAVE" buttons. In the background, the DirectTrend™ Viewer shows a graph of PA Diastolic Pressure Goal (mmHg) over time, with a date range of 02-21-2019 to 03-23-2019. A mouse cursor is pointing at the "Last Reviewed: ---" dropdown in the background interface.

5. Taking Actions

Taking Actions

ACTIONS BUTTON

Notifications for patients followed by: [Shepherd, Samantha](#) ▼ Search 🔍

Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	Reminder set by: Stephanie Edwards Some reminder text / 02-06-2019 No recent pressure readings from patient / 02-01-2019	No Goal Set PA Diastolic	10-04-2018 PAP			<div><div>25 15</div><div>⋮</div><div>ACTIONS Add Intervention Add Clinical Note Update Status Clear Notification(s) Remind Me Subscribed</div></div>

- Is available from the patient's notification or on the patient's detail page
- Allows you to add an intervention (send a message), add a note, update a patient's status, clear the notification, set a reminder or subscribe to a patient

Taking Actions

ADD INTERVENTION

- Shows current notifications
- Provides method to send a message to a patient
- Allows for clinical note
- Links to Medication List for a Medication Intervention

Add Intervention

ADD INTERVENTION [myCardioMEMS™ App Enabled]

Current Notifications :

No recent pressure readings from patient / 12-05-2018
Patient in optimization phase / 10-27-2018
Patient due for review / 10-19-2018

SEND PATIENT MESSAGE(S)

Patient receives their messages on their myCardioMEMS™ mobile application in English (US).
(Message preferences can be modified in the patient profile.)

Record messages in the patient's medical record as appropriate.

Select a message to send

☐ Call Clinic

☐ Reading Reviewed

☐ Reading Reminder

☐ Labs Request

☐ Treatment Plan Reminder due to pressure changes

☐ Custom Message (250 character limit)

Not for medication instructions. To ensure medication accuracy on the patient's app, make changes through the Medications List.

The last message sent to this patient was the Reading reviewed message; initiated on 01-30-2019 03:00 PM.
- myCardioMEMS™ mobile application delivery status: Message Delivered

SEND

ADD CLINICAL NOTE

This note will not be sent to the patient.

Patient Contact:

(818) 493 2083
PRIMARY PHONE

SAVE

MAKE MEDICATION LIST CHANGE

If you document medication changes in the Merlin.net Medication list, select the link below to make a change.

[Medication List](#)

Proprietary and confidential — do not distribute

MAT-1901214 v4.0 | Item approved for U.S. use only. | 7-Nov-23 | 61

Intervention Types

TYPE	SUB-TYPE	EXAMPLES
Message Intervention A pre-written or custom message delivered to the patient.	Standard Message Short, pre-written or pre-recorded messages set at the clinic-level	<ul style="list-style-type: none">• Text (SMS)• Voice• myCardioMEMS™ app
	Custom Messages Short, pre-written or pre-recorded messages set at the clinic-level	<ul style="list-style-type: none">• myCardioMEMS app
Medication Intervention A change to a medication in a patient's medication list in Merlin.net™ PCN.		<ul style="list-style-type: none">• myCardioMEMS app (if medication management is enabled)

Sending a Message Intervention

SEND PATIENT MESSAGE(S)

Patient receives their messages on their myCardioMEMS™ mobile application in English (US).
(Message preferences can be modified in the patient profile.)

 Record messages in the patient's medical record as appropriate.

Select a message to send

- ☐ Call Clinic
- ☐ Reading Reviewed
- ☐ Reading Reminder
- ☐ Labs Request
- ☐ Treatment Plan Reminder due to pressure changes

☐ Custom Message (250 character limit)

Not for medication instructions. To ensure medication accuracy on the patient's app, make changes through the Medications List.

The last message sent to this patient was the Reading reviewed message; initiated on 01-30-2019 03:00 PM.
- myCardioMEMS™ mobile application delivery status: Message Delivered

SEND

REMINDER: Custom messages should not be used with patients for whom medication list management is enabled in the patient app (a warning message will appear).

Taking Actions

ADD CLINICAL NOTE

Allows you to document
notes about patient

Add Clinical Note

ADD CLINICAL NOTE

This note will not be sent to the patient.

Patient Contact:

(818) 493 2083

PRIMARY PHONE

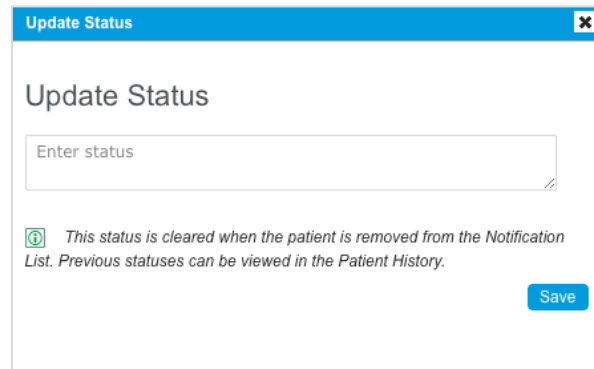
SAVE

REMINDER: Notes are shown on patient detail page (Setting > Notes) and “Latest Notes” column on All Patients list.

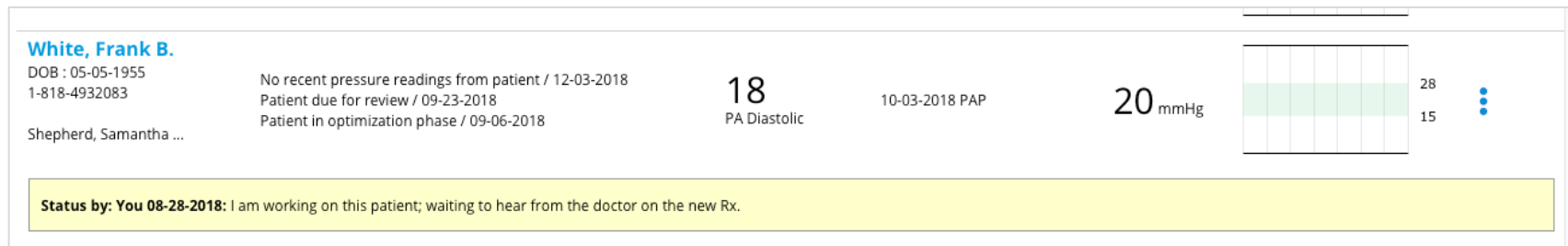
Taking Actions

UPDATE STATUS

- Allows you to document “work in progress” on patient
- Useful as a reminder of where a you “left off,” or communicating with other clinicians about the status of a patient’s notification



The screenshot shows a modal window titled "Update Status" with a close button (X) in the top right corner. Inside the window, there is a text input field labeled "Enter status". Below the input field, there is a green information icon followed by the text: "This status is cleared when the patient is removed from the Notification List. Previous statuses can be viewed in the Patient History." At the bottom right of the window is a blue "Save" button.



The screenshot shows a patient record for Frank B. White. The record includes the following information:

- Patient Name:** White, Frank B.
- DOB:** 05-05-1955
- Phone:** 1-818-4932083
- Primary Care Physician:** Shepherd, Samantha ...
- Recent Pressure Readings:** No recent pressure readings from patient / 12-03-2018
- Patient due for review:** 09-23-2018
- Patient in optimization phase:** 09-06-2018
- Current Blood Pressure:** 18 PA Diastolic
- Next Appointment:** 10-03-2018 PAP
- Current Blood Pressure:** 20 mmHg
- Recent Blood Pressure Readings:** A grid showing 10 readings. The first 5 readings are green, and the last 5 are white. The values are 28, 15, 15, 15, 15.
- Status:** Status by: You 08-28-2018: I am working on this patient; waiting to hear from the doctor on the new Rx.

Taking Actions

CLEAR NOTIFICATION(S)

Notifications for patients followed by: [Shepherd, Samantha](#) ▼ Search 🔍

Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	Reminder set by: Stephanie Edwards Some reminder text / 02-06-2019 No recent pressure readings from patient / 02-01-2019	No Goal Set PA Diastolic	10-04-2018 PAP		25 15	<div>ACTIONS<ul style="list-style-type: none">Add InterventionAdd Clinical NoteUpdate StatusClear Notification(s)Remind MeSubscribed</div>

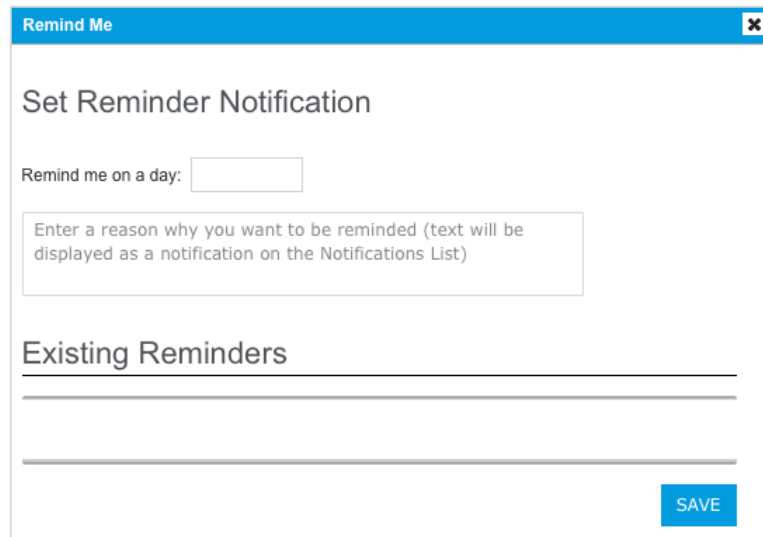
- Allows you to remove a notification from the Notifications List and patient activity page
- Clears all notifications associated with patient, as well as any status notes associated with that patient

REMINDER: Some notifications may clear automatically. For example, an “out of range” notification will clear automatically if the patient returns to the optimal state.

Taking Actions

REMIND ME

- Allows you to write a reminder about the notification itself, which will be displayed when the reminder comes due
- Useful for checking in on a patient after a medication change




The screenshot shows a 'Remind Me' dialog box with a blue header bar containing the title and a close button. The main content area is titled 'Set Reminder Notification'. It includes a label 'Remind me on a day:' followed by a text input field. Below this is a larger text area with a placeholder message: 'Enter a reason why you want to be reminded (text will be displayed as a notification on the Notifications List)'. Underneath the text area is a section titled 'Existing Reminders' with three horizontal lines representing a list. A blue 'SAVE' button is located in the bottom right corner of the dialog.


TIP: Make sure your reminder is clear enough to understand next steps, as the reminder will not display previous notifications associated with the patient.

Taking Actions

SUBSCRIBE

Notifications for patients followed by: [Shepherd, Samantha](#) ▼

Search 

Patient / Clinician	Notification / Date	Goal / Type	Last Measurement	Last Reading	PA Trend (Last 7 days)	Actions
Anderson, Holly DOB : 01-01-1959 1-818-4932083 Shepherd, Samantha ...	Reminder set by: Stephanie Edwards Some reminder text / 02-06-2019 No recent pressure readings from patient / 02-01-2019	No Goal Set PA Diastolic	10-04-2018 PAP			<div>ACTIONS Add Intervention Add Clinical Note Update Status Clear Notification(s) Remind Me Subscribed</div> <div>25 15 </div>

- Allows you to subscribe to (or “follow”) specific patients
- Ensures patients you are interested in are made known to you on the Notifications List

6. Other Patient Settings

Ejection Fraction (EF)

EF CAN BE ENTERED FOR EACH PATIENT DURING OR AFTER ENROLLMENT IN MERLIN.NET™ PCN

- During enrollment > **PATIENT DETAILS**

The screenshot shows the 'Patient Details' form in the Merlin.net PCN interface. The form is titled 'Patient Details' with a breadcrumb trail: 'Patient List > Patient Enrollment > Patient Details'. Below the title is a section labeled 'PATIENT'. The form contains several input fields: 'First Name' (TEST), 'Middle Name' (empty), 'Last Name' (Test), 'Language' (English (US)), 'Date of Birth' (01-01-1950), 'Patient ID' (empty), 'Merlin.net™ Number' (empty), 'Clinic Location' (Waycross), 'Gender' (Female and Male radio buttons), 'Patient SSN' (empty), 'Cardiomyopathy' (empty), and 'EF %' (empty). The 'EF %' field is highlighted with a yellow border.

- After enrollment > **PATIENT PROFILE**





The screenshot shows the 'Patient Profile' form in the Merlin.net PCN interface. The form is titled 'Patient Profile' with a dropdown arrow. Below the title is a section labeled 'Patient'. The form contains several input fields: 'First Name' (Eric), 'Middle Name' (empty), 'Last Name' (Harris), 'Language' (English (US)), 'Patient ID' (Harris61266), 'Date of Birth' (06-12-1966), 'Merlin.net™ Number' (945332534), 'Clinic Location' (Waycross), 'Gender' (Female and Male radio buttons, with Male selected), 'Cardiomyopathy' (empty), and 'EF %' (empty). The 'EF %' field is highlighted with a yellow border.

Other Patient Settings

DIAGNOSES

- Allows you to enter one or more diagnoses for a patient
- Is displayed in patient header
- NYHA classification and natriuretic peptide (BNP or NT-proBNP) indications for sensor implant are documented here

Diagnoses

<div>Search </div>			Add Diagnosis
Diagnosis Date	Medical Condition	Comments	
10-24-2022	Elevated BNP	450 (BMI 29)	
10-18-2022	NYHA Class II		
Showing 1 - 2 of 2		Show <div>10</div> per page	<div><div>1</div></div>

NYHA Class and BNP/NT-proBNP Data Entry

DIAGNOSES

- Select a patient from the **NOTIFICATIONS** or **ALL PATIENTS** tab by clicking on the patient's name



- Below the patient header, choose **SETTINGS**

Patient ID	PA Sensor	Diagnosis	Treating Physician	Subscribing Clinician(s)	Note / Edit
US11001	12-31-2021		Cunningham, Emerson	Subscribed	
Merlin.net™ Number 852334366	ICD/Pacemaker				

Notification / Date	Goal / Type	Last Reading	Actions
No recent pressure readings from patient / 06-23-2021 Patient in optimization phase / 06-23-2021	No Goal Set PA Diastolic	16 mmHg	

NYHA Class and BNP/NT-proBNP Data Entry

Once in **SETTINGS**, navigate to the **DIAGNOSES** subsection then choose **ADD DIAGNOSIS** to add NYHA and BNP/NT-proBNP data

The screenshot displays the Abbott patient management interface. At the top is a blue navigation bar with the Abbott logo, 'NOTIFICATIONS', 'ALL PATIENTS' (highlighted in yellow), 'CLINIC', a 'TM' icon, 'HELP' with a dropdown arrow, 'SWITCH TO' with a dropdown arrow, and 'SIGN OUT'. Below the navigation bar, there are three expandable menu items: 'Patient Profile', 'myCardioMEMS™ Mobile Application', and 'Diagnoses' (which is expanded and highlighted with a yellow box and a yellow arrow). Under the 'Diagnoses' section, there is a search bar with the placeholder text 'Search' and a magnifying glass icon. Below the search bar is a table with columns for 'Diagnosis Date', 'Medical Condition' (with a dropdown arrow), and 'Comments'. The table is currently empty, showing 'Showing 0 - 0 of 0'. At the bottom of the table, there is a pagination control showing 'Show 10 per page' and a set of navigation arrows with the number '1' in the center. A yellow arrow points to the 'Add Diagnosis' button in the top right corner of the table area. Below the table, there is another expandable menu item: 'Medications'.

NYHA Class Data Entry

- After choosing **ADD DIAGNOSIS** option, a window will open with additional fields
 - The information is organized into table columns
 - Diagnosis Date
 - Medical Condition
 - Comments

Diagnosis

Add Diagnosis

Diagnosis Date:

Medical Condition: NYHA Class

Comments:

NYHA Class II Heart Failure

NYHA Class IV Heart Failure

NYHA Class III Heart Failure

CANCEL SAVE

DIAGNOSIS DATE

- Date of NYHA classification assessment (prior to or the day of CardioMEMS™ PA Sensor implant)

MEDICAL CONDITION

- Start typing “NYHA Class” and a list of options will appear
- Select the NYHA class used for CardioMEMS implant qualification then click **SAVE**

BNP/NT-proBNP Data Entry

- If a patient qualifies for CardioMEMS™ HF System based on elevated natriuretic peptides, follow the same steps as NYHA Class documentation

– SETTINGS > DIAGNOSES > ADD DIAGNOSIS

The image shows two screenshots of the 'Add Diagnosis' dialog box. The top screenshot shows the initial state with 'Diagnosis Date' set to 11-01-2022, 'Medical Condition' set to 'Elevated', and 'Comments' set to 'Elevated BNP'. The bottom screenshot shows the same dialog box after the 'Medical Condition' has been changed to 'Elevated BNP' and the 'Comments' field has been updated to '300 (BMI 30)'. A yellow arrow points from the 'Comments' field in the top screenshot to the 'Comments' field in the bottom screenshot.

DIAGNOSIS DATE

- Date of BNP/NT-proBNP lab draw (prior to or the day of CardioMEMS™ PA Sensor implant)

MEDICAL CONDITION

- Start typing “Elevated” and a list of options will appear
- Select the appropriate natriuretic peptide lab used for CardioMEMS implant qualification

COMMENTS

- Enter the lab value for BNP/NT-proBNP in pg/ml followed by the BMI in kg/m2 in parentheses
- Round all numbers to the nearest integer and do not include decimal points
- Once completed click **SAVE**

Other Patient Settings

MEDICATIONS

Not required, but of benefit if patient is enrolled to use the myCardioMEMS™ app and medication management is “on”

Medications

Search

Q

Add Temporary Medication

Add Medication

Drug	Class	Adjustment	Date	Dose	Frequency	Patient Instructions	Clinic Comments
Furosemide (Lasix®)	Loop Diuretic	Start	05-13-2019	20 mg 1.0 Tablet	BID (Twice a day)	Sent by Sam, Treat	<div>Delete</div> <div>Adjust</div>

Showing 1 - 1 of 1

Show 10 per page

1

PRN Medications

Search

Q

Drug	Class	Adjustment	Date	Dose	Frequency	Patient Instructions	Clinic Comments
------	-------	------------	------	------	-----------	----------------------	-----------------

Showing 0 - 0 of 0

Show 10 per page

1

Other Patient Settings

GOALS AND THRESHOLDS (OTHER METRICS)

Other Metrics		Lower Bound	Upper Bound		
PA Mean Pressure	<input type="checkbox"/>	10	25	Patient Threshold	Remove Override
PA Diastolic Trend	<input type="checkbox"/>	8	30	Clinic Threshold	
PA Mean Trend	<input type="checkbox"/>				
PA Systolic Pressure	<input type="checkbox"/>	15	35	Patient Threshold	Remove Override
PA Systolic Trend	<input type="checkbox"/>				
Heart Rate	<input type="checkbox"/>	50	90	Patient Threshold	Remove Override
Pulse Pressure	<input type="checkbox"/>				

Other Patient Settings

RETURN TO OPTIMAL STATE THRESHOLD

A patient is considered in the “optimal state” when they have had at least two consecutive readings in the optimal range (or other number set by the clinic)

Return to Optimal State Threshold

Define how many consecutive readings in the optimal range are needed to consider the patient to be in an optimal state.

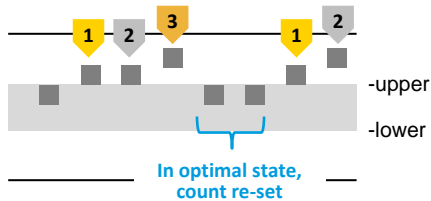
Optimal State Threshold: consecutive readings.

TIP: For patients who tend to “see-saw” in and out of their optimal range, increase the “return to optimal state” threshold to avoid triggering unnecessary notifications.

How Do We Count Out-of-Range Readings?

n = out of range reading count (colored flag indicates notification triggered)

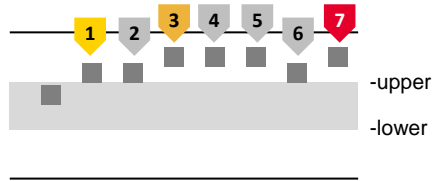
PATIENT RETURNS TO OPTIMAL STATE (TWO CONSECUTIVE READINGS IN OPTIMAL RANGE).
READING COUNT IS RE-SET.



Notifications received:

- 1** 1 reading above optimal range
- 3** 3 readings above optimal range
- 1** 1 reading above optimal range

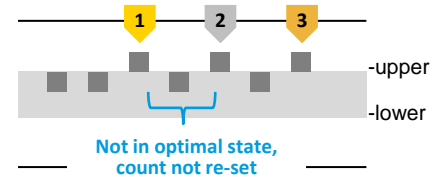
PATIENT DOES NOT RETURN TO OPTIMAL STATE.



Notifications received:

- 1** 1 reading above optimal range
- 3** 3 readings above optimal range
- 7** 7 readings above optimal range

PATIENT SEE-SAWS IN AND OUT OF OPTIMAL RANGE, BUT DOES NOT RETURN TO OPTIMAL STATE.
COUNT NOT RE-SET.



Notifications received:

- 1** 1 reading above optimal range
- 3** 3 readings above optimal range

Other Patient Settings

HOSPITALIZATIONS

Hospitalizations will appear in a pink shaded band on the DirectTrend™ Viewer

▼ Hospitalizations

Search

Q

Add Hospitalization

Admission	Discharge	Duration	Notes
04-01-2019	04-05-2019	4 days	Fatigue and light headedness

Showing 1 - 1 of 1

Show 10 per page

◀◀ 1 ▶▶

Other Patient Settings

NOTES

Displays a running list of all notes entered here and through other Add Clinical Note actions throughout the site

Notes

Search

Q

Add Note

Date	Contents
05-16-2019	Reviewed Today
05-13-2019	Add Lasix 20mg
05-13-2019	lasix
05-13-2019	add medication
04-25-2019	Test Note

Showing 1 - 6 of 6

Show 10 per page

1

7. Clinic-Wide Settings

Clinic-Wide Settings

PATIENT MESSAGING

Allows you to customize (at a clinic-level) phone and text messages sent to patients

PATIENT MESSAGING

[Customize Phone Messages](#)
[Customize Text Messages](#)

Default patient notification window. (Defines when patient will receive messages delivered by voice call or SMS.)
This notification window can be modified on a per patient basis in each patient's profile.

Send messages between: 09:00 AM and 07:00 PM

TIP: Record messages in the voice of the clinician or physician who most commonly contacts patients.

Clinic-Wide Settings

PA SENSOR PATIENT DEFAULT SETTINGS

Allows you to set (at a clinic-level) defaults for the primary metric, optimal range, and return to optimal state threshold

PA Sensor Patient Default Settings

These settings will be applied as the default settings for newly enrolled PA Sensor patients. They can be modified per patient in the patient's settings.

PRIMARY METRIC

Select the Primary Metric that your clinic will use to monitor most of your patients.
(This can be modified on a per-patient basis as necessary)

☒ PA Diastolic Pressure

☐ PA Mean Pressure

RETURN TO OPTIMAL STATE THRESHOLD

Define how many consecutive readings in the optimal range are needed to consider the patient to be in an optimal state.

Optimal State Threshold:

2

 consecutive readings.

OPTIMAL RANGE DEFAULT SETTINGS FOR PRIMARY METRIC

Define the default optimal range values that will be used when a goal for a patient's Primary Metric is set.

Primary Metric	Phase	Default Optimal Range
PA Diastolic Pressure	Optimization	Goal +/- <div>7</div> mmHg
PA Diastolic Pressure	Maintenance	Goal +/- <div>5</div> mmHg
PA Mean Pressure	Optimization	Goal +/- <div>6</div> mmHg
PA Mean Pressure	Maintenance	Goal +/- <div>5</div> mmHg

Clinic-Wide Settings

THRESHOLDS

Allows you to set (at a clinic-level) defaults for other clinical thresholds, such as heart rate

▼

Thresholds

Metric	Active	Lower Bound	Upper Bound	
PA Diastolic Pressure		<div>8</div>	<div>30</div>	This metric is always active at the clinic level but can be disabled for individual patients.
PA Mean Pressure		<div>10</div>	<div>30</div>	This metric is always active at the clinic level but can be disabled for individual patients.
PA Diastolic Trend	<input type="checkbox"/>	<div>8</div>	<div>30</div>	
PA Mean Trend	<input type="checkbox"/>	<div></div>	<div></div>	
PA Systolic Pressure	<input type="checkbox"/>	<div>15</div>	<div>35</div>	
PA Systolic Trend	<input type="checkbox"/>	<div></div>	<div></div>	
Heart Rate	<input checked="" type="checkbox"/>	<div>50</div>	<div>100</div>	
Pulse Pressure	<input type="checkbox"/>	<div></div>	<div></div>	

CANCEL

SAVE

Clinic-Wide Settings

NOTIFICATIONS

Allows you to set default notifications for patients

Notifications

Clinical Notifications

Primary Notifications

These notifications are based on the patient's primary metric (PA Diastolic pressure or PA Mean pressure).

☐ High pressure reading greater than

10

 mmHg from optimal range

☐ Low pressure reading less than

10

 mmHg from optimal range

☒ Rapid pressure change of

10

 mmHg over 1 day(s)

☐ Pressure readings transitioned from High to Low range (without patient returning to optimal state)

☐ Pressure readings transitioned from Low to High range (without patient returning to optimal state)

☐ 1 reading above optimal range

☐ 1 reading below optimal range

☒ 3 readings above optimal range

☐ 3 readings below optimal range

☐ 7 or more readings above optimal range

☒ 7 or more readings below optimal range

☐ Patient returns to optimal state after medication change

Administrative Notifications

☒ No pressure readings for

7

 day(s)

☐ First pressure reading after

3

 day(s)

☒ Pressure reading is suspect

☐ Patient review reminder

☒ Patient does not have pressure goal established

☐ Patient in optimization phase

☐ First home reading from a patient after enrollment or transfer

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8. User Settings

User Settings



- Is accessed by clicking on user's initials in navigation bar
- Allows user to:
 - Change password
 - Update contact information
 - Set preferences for displays throughout the site
 - Subscribe to reports
 - Retrieve a temporary HES/HS password

9. Administrative Tasks

Billing Reminders

From the **LAST REVIEWED/LAST BILLED BUTTON** above the DirectTrend™ Viewer:

- Enter a Mark as Billed on date (if applicable)
- Enter Billing Reminder date

The screenshot shows the DirectTrend™ Viewer interface for patient Anderson, Holly. A modal window is open for setting billing reminders. The modal includes the following fields and options:

- Mark as Reviewed Today:** A checkbox.
- Note:** A text area for additional notes.
- Last Reviewed:** A date field.
- By:** A dropdown menu for selecting the reviewer.
- Mark as Billed on:** A date field with a calendar icon.
- Last Billed:** A date field.
- Next Billing Reminder:** A date field.
- Data Collected:** A field showing '0 days'.
- Always show this reminder:** A checkbox.
- Buttons:** 'CANCEL' and 'SAVE' buttons at the bottom right.

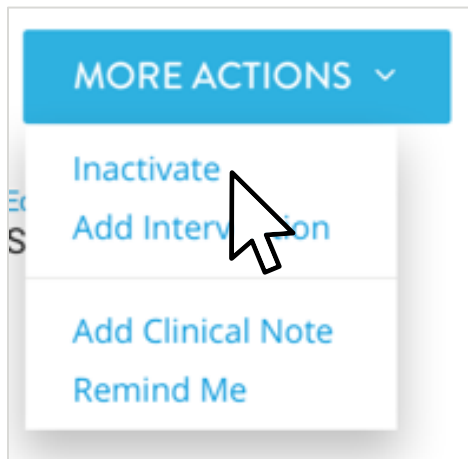
The background interface shows the 'DirectTrend™ Viewer' section with a graph of 'PA Metrics and Events' (mmHg) and a 'Date Range' selector set to '30 days'.

TIP: Use the Ready for Billing feature on the All Patients list to see a list of patients ready to be billed.

Inactivating a Patient

From the **PATIENT PROFILE > MORE ACTIONS** button:

- Click on Inactivate



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Cardiovascular.Abbott/CardioMEMS

Rx Only

Brief Summary: Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use.

CardioMEMS™ HF System Indications and Usage: The CardioMEMS™ HF System is indicated for wirelessly measuring and monitoring pulmonary artery pressure and heart rate in NYHA Class II or III heart failure patients who either have been hospitalized for heart failure in the previous year and/or have elevated natriuretic peptides. The hemodynamic data are used by physicians for heart failure management with the goal of controlling pulmonary artery pressures and reducing heart failure hospitalizations.

CardioMEMS™ HF System Contraindications: The CardioMEMS HF System is contraindicated for patients with an inability to take dual antiplatelet or anticoagulants for one month post implant.

CardioMEMS™ HF System Potential Adverse Events: Potential adverse events associated with the implantation procedure include, but are not limited to, the following: air embolism, allergic reaction, infection, delayed wound healing, arrhythmias, bleeding, hemoptysis, hematoma, nausea, cerebrovascular accident, thrombus, cardiovascular injury, myocardial infarction, death, embolization, thermal burn, cardiac perforation, pneumothorax, thoracic duct injury and hemothorax.

myCardioMEMS™ Mobile App Limitations: Patients must use their own Apple‡ or Android‡ mobile device to receive and transmit information to the myCardioMEMS™ Mobile App. To do so the device must be powered on, app must be installed and data coverage (cellular or Wi-Fi‡) available. The myCardioMEMS™ App can provide notification of medication adjustments and reminders, requests for lab work and acknowledgement that the PA pressure readings have been received. However there are many internal and external factors that can hinder, delay, or prevent acquisition and delivery of the notifications and patient information as intended by the clinician. These factors include: patient environment, data services, mobile device operating system and settings, clinic environment, schedule/configuration changes, or data processing.

™ Indicates a trademark of the Abbott group of companies.

‡ Indicates a third party trademark, which is property of its respective owner.

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