HC Standard® Patient Tracking for Windows Mobile

Version 4.2

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HC Standard® Patient Tracking for Windows Mobile

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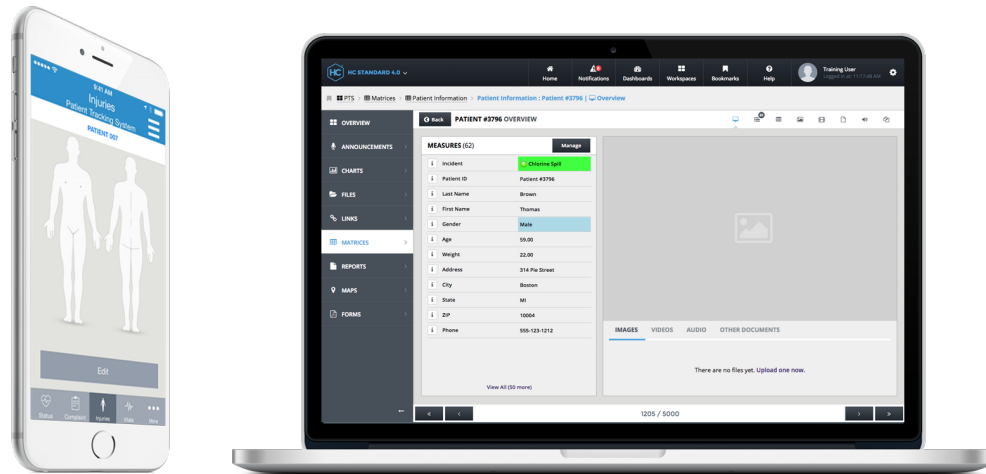Tel: 866.242.4035
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Table of Contents

Chapter 1 - PTS Overview

Global Emergency Resources' Patient Tracking System™ (PTS) is a module of HC Mobile. It is an integrated mobile solution to electronic Patient Triage and Patient Tracking. It allows near real-time data transmission from emergency locations and seamlessly integrates with HC Standard® allowing timely and informed health care decisions. Further, the sharing of critical emergency data greatly improves response times and quality of care.

Key benefits of PTS include:

- Near real-time transmission of emergency site data to a command center or hospital ER.
- Barcode identification and scanning of patient at the emergency site.
- Tracking of patient vital health and injury information.
- Emergency site and patient injury photographic capability.
- GPS and Date/Time stamping of data entry events.
- Audio and video recording capability.
- HIPAA and HITECH compliant.
- Data is encrypted on the device while at rest and in transit.

Chapter 2 - Windows Mobile Hardware Overview

This section of the guide will show a user how to use the HC Standard® Patient Tracking™ System (PTS) Windows Mobile application that runs on Motorola Mobile Computers (MCs). All images show the Motorola MC-65, which is a popular model of several MCs/Handhelds certified for use with PTS. Functionality on other certified devices will be very much the same.

2 - 1: Device Controls Overview

FIGURE 2-1: MC-65 Keyboard Controls

There are two ways to enter letters, numbers and special characters into fields in the device. The first and most common is the keypad at the bottom of the device. Letters are displayed in white and are the default selection on the keypad. Numbers and special characters are displayed in orange.

The orange key on the bottom right is the Special Characters key. To enter a number or special character, shown in orange on the keypad, the orange key must be lit.

- *Press* the orange key once to enter one special character.

The user will notice that a **hollow orange box** appears in the middle bottom of the screen. After entering one special character, the device will automatically revert to the original text input, and the hollow orange box will disappear.

- *Press* the orange key twice to lock the unit in special character entry mode.

A **solid** orange box will appear at the bottom of the screen. The device will remain in this mode until the orange key is pressed again. As an example, *press* the orange key twice to enter a phone number.

The second way to enter letters, numbers and characters is to use the digital key pad on the screen, as shown in FIGURE 2-2.

1. *Tap* the **keyboard** icon to maximize the keyboard. *Tap* the **keyboard** icon again to minimize.
2. *Use* the stylus to enter the desired characters.
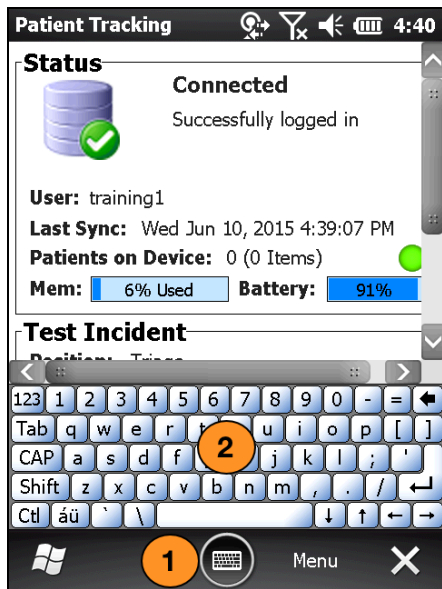

FIGURE 2-2: Onscreen Keyboard

2 - 2: Powering on the PTS Handheld Unit

FIGURE 2-3: Power Button

To power on the device, as shown in FIGURE 2-3:

1. *Press* the **red button**.

2 - 3: Connectivity Overview

There are several ways to submit data collected on the PTS Handheld. The method chosen will depend on the user's existing infrastructure and the capabilities of the particular user's device.

- **Docking Station** – The PTS handheld unit can store a significant amount of information in its internal memory, including photos, audio recordings, and patient information. If no wireless connection is available, data stored on the device can be submitted to the system when the device is placed in a docking/charging cradle connected via USB to a computer with a connection to the HC Standard server. The computer will communicate with the handheld via Microsoft Active Sync (for computers running Microsoft Windows XP) or Windows Mobile Device Center (for computers running Microsoft Windows Vista).
- **Wi-Fi** – All PTS‑certified handhelds have the ability to transmit data over an 802.11 Wi-Fi network. This is likely to be very convenient, as Wi-Fi is more and more commonly available in hospitals and even in emergency vehicles.
- **Bluetooth** – Exchange of information can also occur via Bluetooth. The receiving device must also be Bluetooth compatible. This option is extremely convenient when the user may want to use an existing connection such as a PC which is already wirelessly connected in an ambulance. The PTS Handheld unit then can communicate with the PC in the ambulance via Bluetooth and avoid the complexity and cost of an additional wireless connection.
- **Phone** – With properly equipped handhelds, the user can also connect via the wireless cell phone network. This is the most versatile option, as it allows the device to operate independently of Wi-Fi networks or other devices. However, the user will need to subscribe to a data or voice/data plan with the local cell phone service provider, who can assign a number and activate the device's voice (if desired) and data transmission features. (The handheld can also be used as a fully functional mobile phone with an appropriate plan.) If the device is intended only for transmitting data such as PTS patient records, then a data-only plan may be selected.

Chapter 3 - Using PTS WM
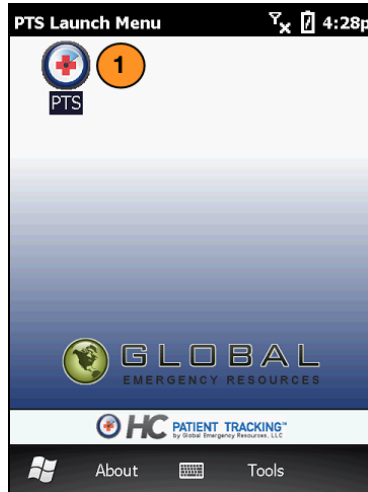
3 - 1: Launch HC Patient Tracking™

Once the device is powered on, it will direct the user to the PTS Launch Menu, as shown in FIGURE 3-1. From this screen the device will redirect the user to the HC Patient Tracking login screen. This normally occurs within 5 - 20 seconds

If the user is not redirected to Patient Tracking:

1. *Tap* the **PTS** icon with either the user's finger or the stylus attached to the back of the unit to proceed.

FIGURE 3-1: PTS Launch Menu

3 - 2: Login to HC Patient Tracking™
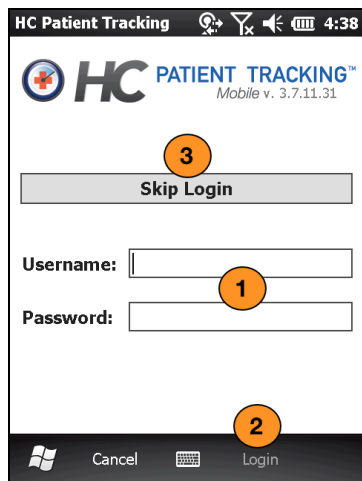

Log in to begin adding patient records, as shown in Chapter 3.

1. *Enter* **Username** and **Password** as provided by an HC Standard® Administrator.
2. *Tap* the **Login** button.
   OR
3. If Username and Password are inaccessible, the user can *tap* the **Skip Login** button to enter the HC Mobile™ application. Patients can be entered into HC Mobile™ under the Patient Tracking System application (PTS). However, no data will synchronize to the server until proper user credentials are entered.

FIGURE 3-2: Login Screen

If it is the first time launching the Patient Tracking System (PTS) application and there is a data connection after logging in, the Synchronization screen will appear. Once the synchronization process is complete it will display the main screen. If a user wishes to return to the main screen sooner:

- *Tap* the **Done** button on the bottom right.

If there is no data connection or the PTS application is still open from a previous log in, the user will be directed to the Patient Tracking Main Screen.
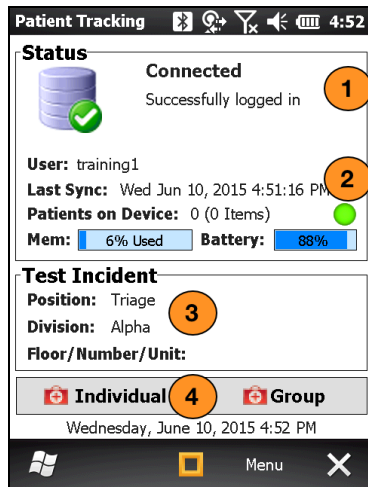
3 - 3: Patient Tracking Main Screen

FIGURE 3-3: Main Screen

The Patient Tracking Main Screen, as shown in FIGURE 3-3

1. **Connection Status** - Shows current connection status to the server.
2. **Sync Status** - Shows last date and time the device. synchronized. Patients on device shows how many records are currently on the user's device. A green icon means there are no records and a yellow icon indicates there are still records to be synchronized.
3. **Current ICS Information** - Shows current ICS settings
4. **Triage Buttons** - Starts patient entry mode.

If an INCIDENT has not been set, then upon the triage of the first patient, the user will be prompted to enter the appropriate ICS information. Entering ICS information will only be necessary the first time using the device for a specific Incident. Once this information has been entered, the user will be able to triage multiple patients and will not need to go through this step. For more information, see "Incident Command System (ICS)" on page 7.

Note: The device may occasionally lose its connection with the server. If this occurs, patient records will remain on the device's internal memory but will not be uploaded to the database. The device should Auto Synchronize with the database once the connection is re-established.

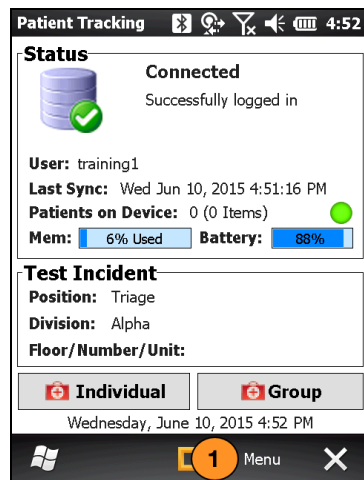## 3 - 4: Patient Tracking Menu

FIGURE 3-4: Menu

While viewing the Patient Tracking Home Screen:

1. *Tap* the **Menu** to access the menu, as shown in FIGURE 3-4.
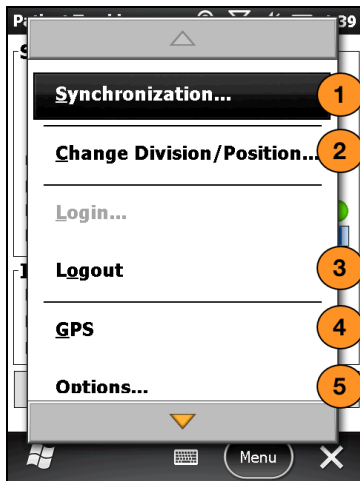
Menu Items include, as shown in FIGURE 3-5:

FIGURE 3-5: Menu Items

1. **Synchronize** – Upload patient records and attachments to the database. *Tap* **Done** once synchronization is complete
2. **Change Division/Position** – Update position, incident, division, and floor/number/unit information. *Tap* this to go to the Incident Command System (ICS) Panel
3. **Logout** - Log out of the HC Standard® account
4. **GPS** - Shows present latitude and longitude, speed, direction, and altitude of the device.
5. **Options** - Displays application settings

Other menu items include:

- **About Patient Tracking** - Displays PTS copyright and build information

- **Exit** - Closes the PTS application

3 - 5: Incident Command System (ICS)

The ICS Page, as shown in FIGURE 3-6, is where the user selects key elements describing the event and position. This only needs to be done once during an incident since the information applies to all patients. Setting the correct ICS information is a critical step of the HC Patient Tracking™ log in process. Each selection made here impacts every patient record scanned and saved. Selecting the wrong incident or not selecting an incident may cause records to be missing from the incident commander's incident specific HC Standard® screens.

Items are all selected from drop-down lists which the HC Standard® System Administratoristrator has created in HC Standard®. This is done so that at a later date all of the responses to an incident will have the same name/title and can be sorted and cataloged. The number of incidents synchronized and displayed in this list can be altered from the application settings.

FIGURE 3-6: ICS Screen

1. **Incident** - Every patient scanned will have this incident associated with the record.
2. **Position** - Each position affects the panel order in HC Patient Tracking™. For example, selecting Transport will move the transport panel closer to the beginning of every patient record on the device.
3. **Division** - Division is used to help identify where the patient was scanned. Typically this field is used for different locations during a planned event.
4. **Floor/Number/Unit** - This field is used in conjunction with the Division field.
5. Tap **OK** once the user has made the appropriate selection(s).

Chapter 4 - Working with Patients

4 - 1: Entering Patient Information

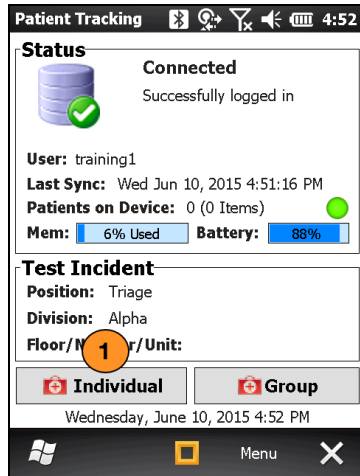Once the profile has been set, submitting patient records is simple.

FIGURE 4-1: Triage Patients

Scanning a barcode or triage tag will start an individual patient record or retrieve existing patient information that has already been entered into the system for that patient with that specific tag or barcode. A barcode on a triage tag is a unique ID.

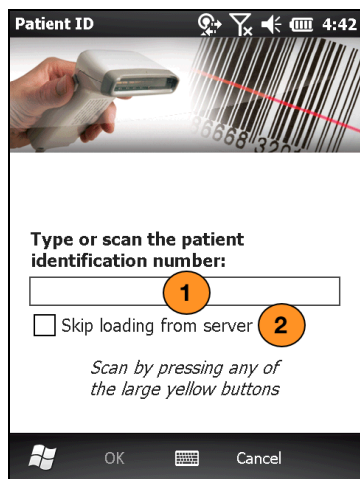1. *Tap* the **Individual** button on the Main Screen, as shown in FIGURE 4-1.

FIGURE 4-2: Patient ID

The next step requires the user to enter a Patient ID, as shown in FIGURE 4-2:

1. *Enter* a **Patient ID**. The Patient ID is a unique string assigned to a patient. All information on the patient is stored under this ID and is available for recall and updating at later dates.

2. *Toggling* **Skip loading from Server** to *on (red)* is useful when data connectivity is unavailable. This will cause PTS to automatically assume the patient ID is new and display a clean record every time the ID is scanned. This saves time because PTS will not search the server for an existing record. Continue to update the record as needed and once data connectivity is restored, the HC Standard® server will merge all the entries into one record with all information and timestamps.

There are two ways to enter the Patient ID Number:

FIGURE 4-3: Scan Button

1. **Scan a triage tag for the patient** - Attach a Triage Tag to the patient. From the Patient ID screen, point the top of the handheld toward the Triage Tag's bar code and *tap* the Scan/Action button, as shown in FIGURE 4-3. The laser sensor (located on the top of the device). The device will emit a beep indicating the barcode was scanned successfully and will then display the patient record.

2. **Manual input** – If a triage tag is not available, it is possible to input an ID Number manually using the onscreen keyboard. Make sure the Patient ID is unique so that the data from one patient is not mixed with another.

Note: The Patient ID is the only required field when starting a patient record. Make sure that each new patient is given a unique Patient ID.

4 - 2: Patient Tracking Panels

Once a Patient ID is entered, begin entering patient information by *tapping* on the screen and *manually entering* data with the onscreen keyboard. None of the panels have any required fields.

Tap the **Next>** right arrow button at the bottom of the screen to move to the next panel in sequence. *Tap* the **<Back** left arrow button to move back a panel.

To move directly to a specific panel *tap* the **GO TO** option, and select the desired page.

Tap the **Menu** button in the bottom right corner to **Save**, **Print** and **Other** actions.

FIGURE 4-4: Triage Panel

Select Patient Status, as shown in FIGURE 4-4:

1. *Tap* **Immediate**, **Delayed**, **Minor** or **Deceased** to indicate patient status.
2. *Tap* **Next>** to continue.

FIGURE 4-5: Complaints Panel

Select Complaint, as shown in FIGURE 4-5:

1. *Tap* the **Complaints** that apply. A checked square indicates which complaints have been selected.
2. *Type* information into the **Medical** and **Comments** boxes.
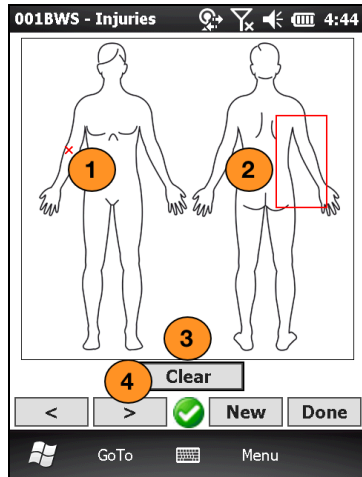3. *Tap* **Next>** to continue.

FIGURE 4-6: Select Injuries Panel

Select Injury Location, as shown in FIGURE 4-6:

Tap the **Edit** button and then:

1. *Tap* on a spot to place an X.
2. *Tap and Drag* diagonally to draw a box around larger area injuries.
3. To correct a mistake, *tap* **Clear** to clear the screen and start over.
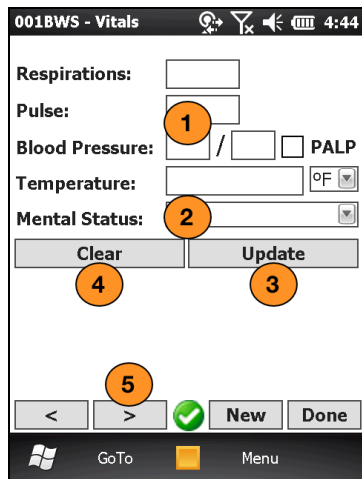4. *Tap* **Next>** to continue.

FIGURE 4-7: Vitals Panel

Record Vital Signs, as shown in FIGURE 4-7:

1. *Enter* the patient's **respirations**, **pulse**, **blood pressure** and **temperature** using the numbers on the keypad.
2. *Select* the patient's mental status.
3. *Tap* **Update** to quickly save current patient information.
4. *Tap* **Clear** to quickly enter new Vitals for the patient.
5. *Tap* **Next>** to continue.

FIGURE 4-8: Treatment Panel

Select Patient Treatment, as shown in FIGURE 4-8:

1. *Tap* the applicable treatment options. A checked square indicates which complaints have been selected.
2. *Type* information into the **Comment** box.
3. *Tap* **Next>** to continue.

FIGURE 4-9: Patient Information Panel

Enter Patient Information, as shown in FIGURE 4-9:

1. Manually *enter* patient information.
2. *Tap* **Next>** to continue.

FIGURE 4-10: Medications Panel

Enter Medical History, as shown in FIGURE 4-10:

1. *Enter* the patient's medical history.
2. *Tap* **None** above a text box to quickly indicate that the patient was asked and has no medical concerns of that type. Leaving a field blank indicates that the information is unknown.
3. *Tap* **Next>** to continue.

This feature is only available in the *Individual* triage mode and not in *Group* Triage. To capture photo and video, as shown in FIGURE 4-11:

1. *Tap* the **Photo** button and *press* the Yellow Scan/Action Button to take a photo.

2. *Tap* the **Video** button and *press* the Yellow Scan/Action Button to start recording. *Press* again to stop recording. *Press* the Yellow **Scan/Action** button to to start and stop recording.

Videos can be up to 60 seconds in length and can be saved for review. Video does take a large amount of space on the device and requires more time to sync. Multiple video clips per patient are allowed.

To review and delete a picture or video:

3. *Tap* the **Menu** button and scroll down to **Photo** or **Video**. *Select* the file to review or delete.

4. *Tap* **Next>** to continue.

FIGURE 4-11: Camera Panel

FIGURE 4-12: Transport Panel

Select Transport Options, as shown in FIGURE 4-12:

Transportation destinations, jurisdictions, and unit numbers are pre-designated fields set up by the HC Standard® Administrator.

1. *Select* a **Destination** by *tapping* the arrow to select from the list.
2. *Select* a **Jurisdiction** / **Unit** by *tapping* the arrow to select from the list.
3. Current Departure and Arrival Times can be entered by *tapping* the **Now** button. A specific date and time can be selected by *tapping* the box.
4. *Tap* the **x** to the right of the Departure/Arrival Time boxes to clear and enter a different time.
5. *Tap* **Next>** to continue.

FIGURE 4-13: Other Panel

Using the Other Panel, as shown in FIGURE 4-10

The HC Standard® Administrator has the ability to customize the **Other** panel. Here the user can update all pertinent information. This is the final screen in the patient record.

1. *Tap* **Next>** to automatically save the patient record.

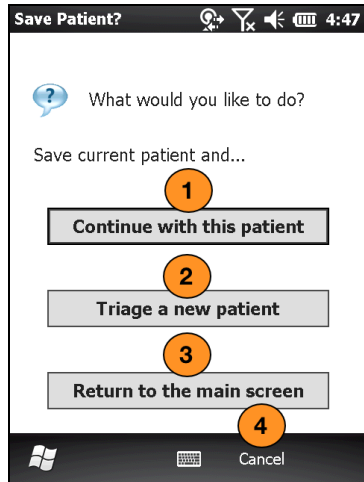**Note:** The input fields on this panel may vary as the HC Standard® Administrator adds or removes information.

Using the Save Patient? Prompt, as shown in FIGURE 4-14:

The user will be asked to save the patient record after *tapping* **Next>** from the **Transport** or **Other** screen.

The patient record will *automatically* be saved and the user decides what action to take next:

1. **Continue with this patient** - Saves and keeps current record open.
2. **Triage a new patient** - Saves the current patient and navigates to the Patient ID panel.
3. **Return to the main screen** - Saves the current patient and returns to the Main Screen.
4. **Cancel** - Does not save the record at this time and keeps the record open.

FIGURE 4-14: Next Steps Panel

Note: It is not necessary to complete *every* panel for a patient record in order to save a patient's information.

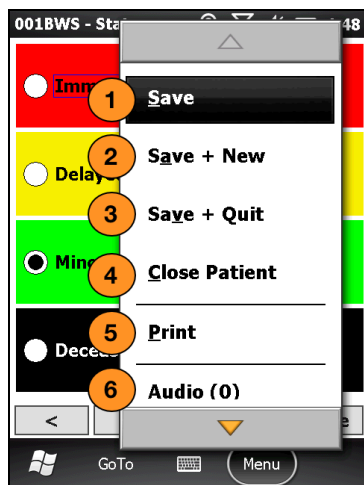## 4 - 3: Additional Actions (While in a patient record)

The **Menu** button allows users to perform the following additional functions within a patient record , as shown in FIGURE 4-15:

1. **Save** - Captures a snapshot of the patient and continue working with the patient record.
2. **Save + New** - Save the current record and start a new one.
3. **Save + Quit** – Save and exit the current record, and return to the Patient Tracking main screen.
4. **Close Patient** – Discard the current record and return to the Patient Tracking main screen.
5. **Audio** – Displays any audio files associated with the record.
6. **Photos** – Displays any photos associated with the record.

- **Videos** – Displays any videos associated with the record.
- **Print** – Print the current patient record to a connected Bluetooth Printer.
- **Summary** – View the current patient's main details.

FIGURE 4-15: Patient Record Menu

4 - 4: Capturing Audio Notes

On any panel in the PTS Application, audio can be added to supplement the text information. If the user is on a specific section of the application and does not have time to type into the device, the user may capture audio notes that will be associated with that specific page or panel in PTS.
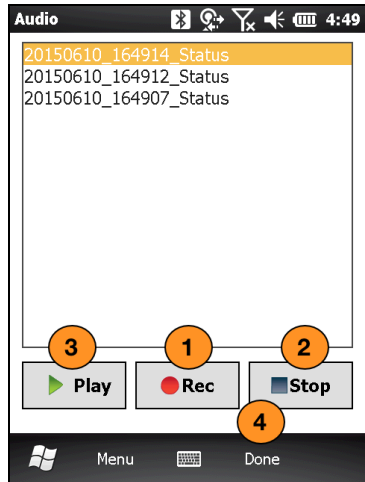
FIGURE 4-16: Audio Notes Panel

To create a recording, as shown in FIGURE 4-16:

1. *Tap* on the **Rec** button and begin speaking into the unit.
2. *Tap* on the **Stop** button a second time to stop recording.

If the user wishes to play back the notes recorded:

3. *Select* a recording and then *tap* the **Play** button.

When complete with audio recordings:

4. *Tap* the **Done** button.

Delete a recording by *tapping* and *holding* on the item to delete, then *tapping* **Delete** and confirming the action.

4 - 5: Recalling a Previously Entered Patient Record

Go to the Main Patient Tracking screen:

- *Tap* **Individual** and manually *type* the patient or barcode number; or simply *scan* the barcode of a previously entered patient record.

If the Patient ID was found on the HC Standard® server, the patient record will appear and updated information can be entered.

Chapter 5 - Working with Groups

Triaging a group of patients is simple with HC Standard® Patient Tracking.

Group triage is used when all patients being entered into the device have common information. Below are a few examples of scenarios where group triage would be most effective:

- All patients are being transported to the same hospital.
- All patients sustained the same injury.
- All patients have the same symptoms.

FIGURE 5-1: Triage Patients
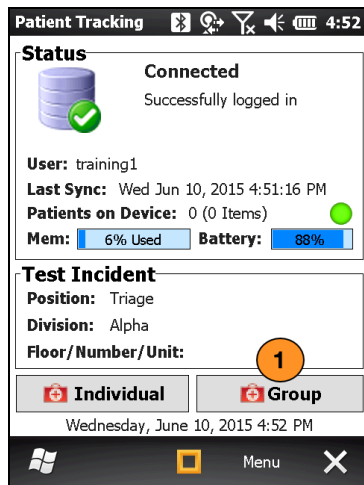
1. *Tap* on the **Group** button on the Main Screen, as shown in FIGURE 5-1.

FIGURE 5-2: Group Triage ID List
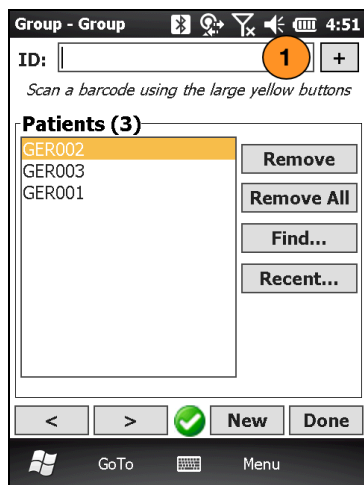
Build the Patient list, as shown in FIGURE 5-2:

1. *Manually type* the Patient ID and *tap* the **+** button to add the ID to the Patients List.
   OR

- *Scan* each Patient ID in succession to add each patient to the Patients List.

Once all the patients are entered into the list, *swipe* or *tap* the tab to enter information for the group. This is performed in the same manner as an **Individual** patient.

When the user is done entering information for the group of patients, *tap* the **Menu** button and **Save**.

5 - 1: Group Triage Options

FIGURE 5-3: Group Triage Options
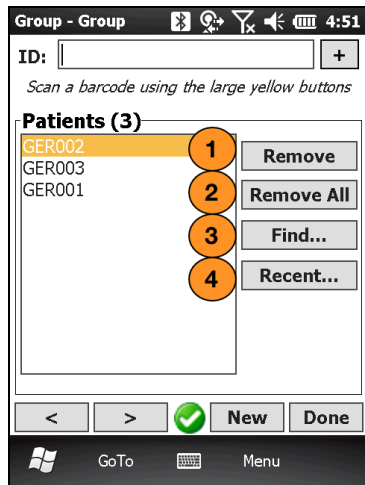
Group Triage options include, as shown in FIGURE 5-3:

1. **Remove** – *Tap* a Patient ID and then *tap* **Remove** to remove the ID from the list/group.
2. **Remove All** – Removes all Patient IDs only from the list/group.
3. **Find** – Allows the user to search for an ID that was entered into the list.
4. **Recent** – Allows the user to retrieve a recent group list entered on the device.
5. **Print** - Allows the user to print a group manifest to a bluetooth printer.

Chapter 6 - Bluetooth Print

From within an **Individual** patient record or from a **Group** triage list, a user can choose to print a basic patient profile or a patient group manifest.
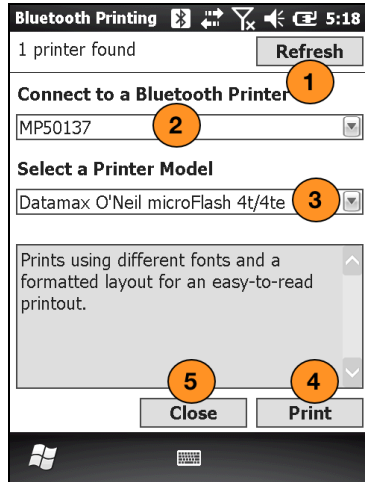

FIGURE 6-1: Bluetooth Printing Window

When the Bluetooth Printing window first appears, as shown in FIGURE 6-1, it will automatically search for any Bluetooth printer within range of the handheld.

1. If a printer was not immediately found, *tap* **Refresh** to search again.
2. Once one is found, it will be displayed in the **Connect to a Bluetooth Printer** list. *Select* a printer.
3. *Choose* the **Printer Model**.
4. *Tap* **Print** to print.
5. *Tap* **Close** to exit Bluetooth Printing.

Chapter 7 - Settings

FIGURE 7-1: Settings

Adjust application settings to make the application work according to the user's preferences. Access HC Patient Tracking settings from the PTS Main Screen, as shown in Chapter 7:

1. *Tap* **Menu**
2. *Tap* **Options**.

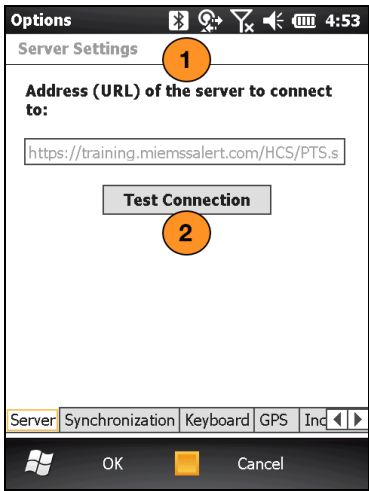Each setting is explained in the following sections:

FIGURE 7-2: Server Settings

As shown in FIGURE 7-2:

1. **Server Settings** shows the HC Standard $^{®}$ URL, which is for information only.
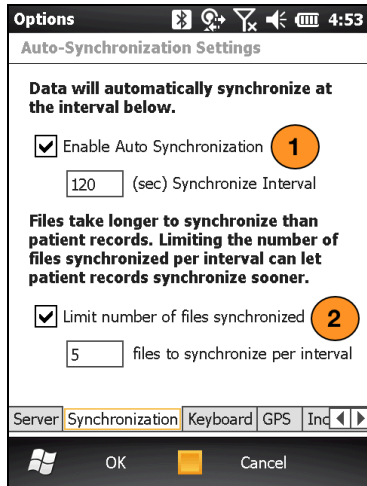2. **Test Connection** allows the user to test the connection to the server.

FIGURE 7-3: Auto-Synchronization Settings

As shown in FIGURE 7-3:

1. **Synchronization Settings** allow a user control the way their device communicates with the server. A higher synchronization interval will increase the delay that HC Patient Tracking™ automatically synchronizes in the background. A shorter interval will shorten the automatic synchronization but will have a higher impact on device battery.

2. **File Sync Settings** allow user to limit the number of files that synchronize during each synchronization.
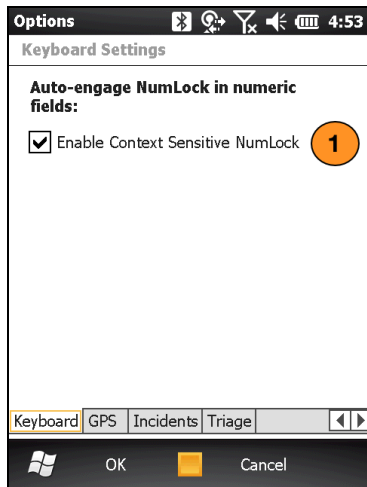

FIGURE 7-4: Keyboard Settings

As shown in FIGURE 7-4:

1. **Enable Context Sensitive Numlock** setting enables or disables the context sensitive keyboard. When active and the user is entering data in a numeric field, the keyboard activates the numlock for the user.
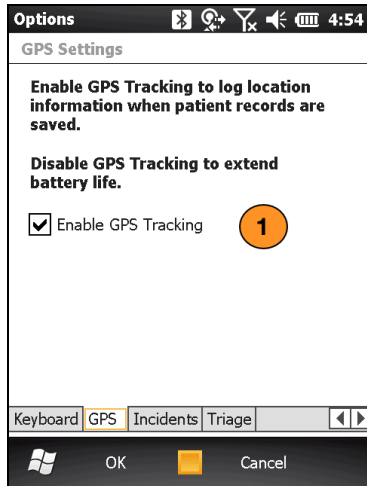
FIGURE 7-5: GPS Settings

As shown in FIGURE 7-5:

1. **Enable GPS Tracking** control allows a user to turn GPS on and off. It is highly recommended to leave this option enabled. Leaving this setting enabled allows HC Standard ® users to view patients scanned on a map.
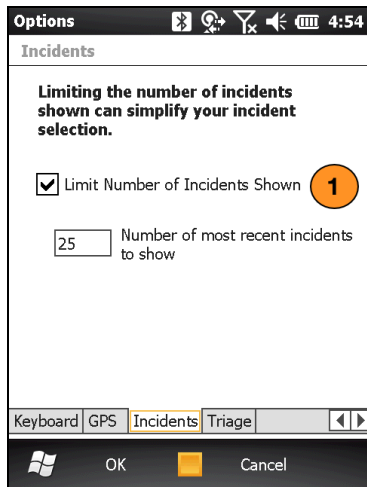

FIGURE 7-6: Incidents

As shown in FIGURE 7-6:

1. **Incidents** allows a user to limit the number of incidents that appear on the ICS panel.
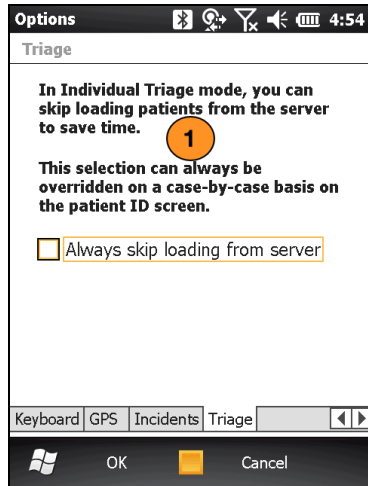
FIGURE 7-7: Triage

As shown in FIGURE 7-7:

1. **Triage** settings can prevent the application from loading data associated with existing patients. This saves time and reduces data usage on a device. However, if a patient has already been entered into HC Standard®, the user will not see previously entered data.

Note: If a user is in HC Patient Tracking™ and does not see an incident, increase the number of incidents shown.

Chapter 8 - Troubleshooting

Symptom	Possible Solution
• Screen is dark/off	• *Press* the Red Power Button; if the screen does not respond, • *Press* and *hold* the Red Power Button for 5 seconds; if the screen does not respond, • Reboot the device by *pressing* the Red Power Button & the W and C keys at the same time
• Handheld is unresponsive	• If wait spinner is on screen, wait a few minutes; if device is not responsive, • Reboot the device by *pressing* the Red Power Button & the W and C keys at the same time
• PTS is disconnected	• Wait 2-3 minutes for handheld to automatically reconnect; if handheld does not reconnect, • Verify device is connected to a WIFI (or cellular) network; then, • *Tap* **Menu**, then login, re-login; if the handheld does not reconnect, • *Tap* **Menu**, then **Exit**, *tap* **PTS** icon, log back in; if the handheld does not reconnect, • Reboot the device by *pressing* the Red Power Button & the W and C keys at the same time
• Locked out Account	• *Tap* **Skip Login** at the login screen or wait 15 minutes for account to unlock, then re-login