Using the Barcode Scanner in the Mass Immunizations Module of the Wyoming Immunization Registry (WyIR)

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Getting Ready for the Clinic

Users: Adding Mass Immunization permissions

Prior to an event, the WyIR Primary Contact should notify the WyIR Project Coordinator of the need for users to access the Mass Immunization Application. In order to do so, forward the WyIR Access Level form, located at http://www.health.wyo.gov/Media.aspx?mediaId=10177 via fax to 307.777.7996. Users, as well as the WyIR Primary Contact, will receive notification when the changes have been made through email notification.

Vaccines: Ensuring vaccine supply

When planning a special clinic, providers should ensure that an adequate supply of vaccine will be available to meet the anticipated need. A Special Clinic Order Form should be submitted at least six weeks in advance of the special clinic, per Vaccine Program policies. The Vaccine Program should be contacted to coordinate the vaccine order. The Special Clinic Order Form can be found at http://www.health.wyo.gov/Media.aspx?mediaId=9099.

Within the WyIR, tools are available that can help users estimate the vaccine supply need based upon missing immunizations (e.g. Pocket of Need Reports). The WyIR administration can assist with generating Pocket of Need Reports within the WyIR to estimate vaccine needs for your clinic.

Vaccines: Ensuring proper vaccine configuration within the WyIR

In order to use the inventory management and specific lot reporting features of the WyIR, the WyIR Project Coordinator should be notified in order to activate the specified vaccines within the Mass Immunization Module. Once the administrator has enabled these specific vaccines, the vaccines can be configured by the user to link to a lot number offered at the event in the Settings/Personal screen. This configuration will allow proper inventory decrementing for an office.
Vaccines: Entering Inventory through Mass Immunizations

To enter vaccines/medicines, click on **Toolbox/Lot Numbers**. A screen similar to the following screen shot will appear.

Locate the vaccine on the **Vaccine/Med** drop down list. A quick way to locate a vaccine is to type the first letter of the vaccine once the field is highlighted; this will forward the highlighted selection to the first vaccine listed alphabetically for the letter typed. If the user wishes to move to a vaccine located below the highlighted vaccine, simply type that same letter again, until the highlight is over the desired vaccine.
Click on [Search] after selecting the Vaccine. The Search results will show the vaccine on hand and indicate if the Vaccine by manufacturer and lot number are already entered into the WyIR.

If the Vaccine appears in the Search results, click on the arrow next to the vaccine to be selected. If more than one lot number appears for the same vaccine, it is recommended to use the lot number with the earliest expiration date in order to prevent vaccine wastage. A screen similar to the following screen shot will appear. Click on the [Edit] button to update information about the lot number.
NOTE: Please make edits quickly as other users are blocked from saving vaccinations related to this Lot Number.

If the vaccine does not appear in the Search Results, select the Manufacturer from the drop down list by clicking on the appropriate selection in the drop-down menu.

Enter the Lot Number.

Click on the [Add] button.
Vaccines: Adding lots as defaults

After adding the vaccine to inventory, click on Settings/Personal to enable the vaccine to be used for a Mass Immunization event. A screen similar to the following screen shot will appear:

Select the [Click to Add] option in the Lot Defaults section. A drop down list of vaccine choices will appear.
After selecting the vaccine to be given at the Mass Immunization event, use the **Click to select** link for a drop-down list of the inventory for that specific vaccine for the facility, as shown in the following screen shot.

Click on the arrow in the Select column of the Search Results. If multiple Lot Numbers are listed for one vaccine, confirm that the Lot Number and Expiration Date match the vaccine that will be given at the Mass Immunization event before making a selection.

**NOTE:** The user should always use the lot number with the most recent expiration date to ensure proper rotation of inventory.

The **Lot Defaults Add/Update** screen will appear. After confirming the accuracy of the information shown, select the **[Add/Update Now]** button.
The vaccine will now appear on the **Personal Settings** screen, as shown in the following screen shot.

NOTE: If more than one lot number is needed for the special clinic, users can always add more lot numbers to their personal settings by following the same steps as previously detailed.

**Equipment**

**Installing the Tethered Barcode Scanner**

While the computer is powered off, plug in the scanner to an available USB port, either on the keyboard, screen, or tower.

Turn on the computer. A few beeps should be emitted from the scanner.
Wait for the computer to finish booting up.

Log on to Windows.

Take the scanner’s Quick Start Guide from the box.

Open the scanner’s Quick Start Guide to page 4. It should appear similar to the following image.

Hover the scanner over the top barcode (labeled USB Keyboard (PC)) on page 4, similar to the following image, and press the scan button until a beep is emitted.

The scanner may need to be moved closer or farther from the barcode in order to capture the barcode correctly.
Once the “beep” is emitted, the scanner is configured for use.

Installing the Barcode Font

NOTE: In order to display the font within the WyIR, the user must install the font before opening the WyIR program. In order to do so:

1. Locate the font on the CD Rom provided for using the barcode scanner.
   a. Insert the CD Rom into the computer’s appropriate drive.
   b. Open the CD Rom; locate the Free3of9 Font on the disc.
   c. Highlight the font by clicking once upon the font icon.

2. Open the Fonts folder on the computer.
   a. Go to Start menu, and then click on My Computer.
   b. Click on the Local Disk C drive.
   c. Click on the Windows folder.
   d. Look for the Fonts folder, click to open it.
   e. Go to the end or open area within the Fonts folder.

3. Move the font from the CD Rom to the computer.
   a. Select the Free3of9 Font (barcode) from the CD Rom.
   b. Drag the Free3of9 Font (barcode) from the disc to the Fonts folder.
   c. A pop-up window indicating the Font is installing should appear.
   d. After the Font is installed, close out of the Fonts folder.

The Font should now print on the Reminder/Recall notices.
Notifying Patients: Creating Reminder Recall Notices


A template can be created that will mirror the Pocket of Need Report that was created to identify the vaccine needed for a specific clinic. Contact the WyIR Project Coordinator for further assistance as necessary.

Notifying Patients: Running a Reminder Recall Template

Within the Navigation menu, click on the [Reminder Recall/Run Templates] link. A window similar to the following will then appear:

Click [Search] to look for Reminder Recall Templates created for a specific office.
Select the desired **Template**. Clicking on the link will launch a screen similar to the following:

Click on **[Run Report]** to view the output screen.
Follow the select options for: **Patient Listing**, **Mailing Labels**, **Postcards**, or **Letters**. The WyIR allows various ways to communicate the need to return for needed vaccinations, depending on the resources available for an office to undertake notifying patients. The WyIR Administration can assist in selecting the optimal process for an office, if requested.
Click [Preview] to see the format of each Output Type.
### Patient Listing

![Patient Listing Image]

### Mailing Labels

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>To the Parents of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tina Sample</td>
<td>123 Anystreet, Cheyenne, WY 82001</td>
<td>Tommy Test 6101 Yellowstone, Cheyenne, WY 82002</td>
</tr>
<tr>
<td>Kristi Wosstrom</td>
<td>405 Yellowstone Avenue, Cheyenne, WY 82001</td>
<td>Joshua Wyoming 6101 Yellowstone Rd, Cheyenne, WY 82003</td>
</tr>
</tbody>
</table>
Letters

Printing Reminder Recall Notices

The following image displays an example of a postcard generated using reminder recall. The barcode displayed on the card includes only the SIIS Patient ID – which is useful for locating a patient in the WyIR if they present the card on their next office visit.

The message can be changed within the Recall output to include instructions for the patient to present the card at their next office visit, which will make it easier for the front office personnel to properly locate the patient within the WyIR.
Follow the **Page Setup** instructions shown in the following image in order for the data to print out with the correct spacing for barcode readability and page layout. The instructions are for **Avery 8387** postcards or **Avery 5160** mailing labels.

<table>
<thead>
<tr>
<th><strong>Reminder/Recall</strong></th>
<th><strong>Print Settings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Be sure to remove the Header and Footer before printing. To do this, configure your browser by selecting File → Page Setup... from the menu and delete all text in the Header and Footer text fields.</td>
</tr>
<tr>
<td><strong>Postcards (Avery 8387):</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In order for your data to print out with the correct spacing (to fit Avery 8387 postcards), configure your browser by selecting File → Page Setup... from the menu and setting the margins as follows:</td>
</tr>
</tbody>
</table>
|                     | - Selected Landscape Orientation  
|                     | - top: 0.75"  
|                     | - bottom: 0.25"  
|                     | - left: 0.25"  
|                     | - right: 0.25" |
| **Mailing Labels (PRINT SETTINGS):** | |
|                     | In order for your data to print out with the correct spacing (to fit Avery 5160 Mailing Labels), select in the "Print box" the following: |
|                     | - Page Scaling: NONE  
|                     | - Auto-Rotate: UNCHECKED  
|                     | - Center: UNCHECKED |
During the Clinic

The Wyoming Immunization Registry, WyIR Barcoding tool can be used for collecting patient data using Driver’s Licenses/State IDs and Reminder Recall postcards.

NOTE: The barcode scanner functionality is present within both the Mass Immunizations and Standard application. In order to capture additional information not available within the Mass Immunization Module (e.g., Site, Route, etc...), use of the Standard application may be optimal. See Appendix A for instruction on using the scanner in the Standard application.

Using the functionality in Mass Immunizations

After logging in, select the appropriate Facility from the drop down list. Click on the [Continue] button. Then select the Application. Click on [Mass Immunizations] from the drop down list, then click on the [Submit] button.

After configuring the Settings/Personal, as well as updating the Vaccines within the Toolbox menu using the Lot Numbers option, the user can quickly begin searching for patients using the Mass Immunization Module.

After clicking on [Patient-Search/Add], a screen similar to the following appears:
If the patient presents a Wyoming Driver’s License or a state-issued identification card, the barcode on the back of the license can be scanned and the relevant demographic data on the front of the license or card will be imported into the WyIR. In some instances, the scanner may also read 2D barcodes from other states driver’s licenses and state-issued identification cards as well.

To use the barcode scanner, click within the **Capture Barcode** field as circled above.

After placing the Driver’s License facedown on a flat surface, grab the handheld scanner.

Press the trigger on the scanner, while aiming at the middle of the barcode on the license.

Continue pressing the trigger until a beep can be heard. Data will populate the **Capture Barcode** field.

The populated field will look similar to the image shown in the following screen shot:
Once the cursor within the **Capture Barcode** field has stopped, click on the [Search] button. A screen similar to the following will appear:

![Patient Search](image)

The search will display potential matches in the Search Results area. Click on the [Select] arrow to the left of the First Name to verify the patient match.

If it is *not* a match, click on the [Add New Patient] button.

When adding a new patient a screen similar to the following will display all of the associated information:

![Add New Patient](image)
Information may be edited if it differs from what is presented by the patient. After making any edits, scroll down and click on the [Save and Queue] button to place the patient in the **Waiting Room**.

A message similar to the following may appear:

Click [OK] to advance to the next patient, which returns to the **Patient-Search/Add** screen. **Vaccine/Medication** will be selected when the patient is called from the **Waiting Room**.

Once patients have been added to the **Waiting Room**, the patients within the **Waiting Room** can be retrieved.

**Scanning Reminder Recall Notices**

If a patient/parent presents a Recall/Reminder notice with a barcode displayed, the patient record can easily be located within the WyIR.

Click on [**Patient Search/Add**].

Click on [**Select Application**] found in the Main menu. Change from **Mass Immunizations** to **Standard**. Click on the [Submit] button.
Place cursor in the SIIS Patient ID / Bar Code field, as highlighted in the following screen shot.

To scan the barcode on the Reminder/Recall notice grab the barcode scanner, press the trigger and move the laser light over the barcode until a beep is heard.
The SIIS Patient ID number will populate the field, as shown in the following screen shot.

As always, run a Search for the patient first. After clicking on the [Search] button, the patient’s SIIS ID will match with the patient demographics in the WyIR.

A screen similar to the one shown in the following screen shot will appear:
Click on the [Add to Queue] button and the patient will be added to the Waiting Room.

Return to Mass Immunizations by selecting the application in the Main menu.
Adding New Patient

After running a search, if the patient does not appear in the Search Results, click on [Add New Patient]. Fill in the fields to complete the patient’s demographic information. Click [Save].

Click [OK] to advance to the next patient, which returns to the Patient-Search/Add screen. Vaccines will be selected when the patient is called from the Waiting Room.

Once all of the patients have been added, and immunization areas are open, the patients within the Waiting Room can be retrieved.

Waiting Room

When the provider is ready to start administering vaccinations, the Waiting Room functionality can be used to retrieve patients in an orderly manner, using the “fifo” system (e.g. first in, first out).

Click on [Patients/Waiting Room]. A screen similar to the following will appear:

![Patients/Waiting Room Screen]

NOTE: Patients will appear within the Waiting Room until they are either Selected or Removed. If a patient called is not available, the patient may be deferred until later by clicking on the [Defer] button.

In the example provided, the first patient listed had been previously deferred but not removed. In the image, the Time Added/Deferred is shown. At the end of a clinic it is important to
remove patients from the **Waitlist** within the Waiting Room to eliminate possible confusion regarding patients waiting in future clinics that may be held.

In order to select a patient from the **Waiting Room** to update vaccination information, click on the arrow next to the patient’s name under the **Waitlist** area, as displayed in the previous screen shot. The patient’s record should then appear within the Mass Immunization module in a manner similar to the following:

Before saving and adding to the queue in the **Waiting Room**, the patient’s address should be verified. If the address that appears in the green **Patient Address Information** box is incorrect, type the new information in the appropriate fields. If the information that appears is correct, check the box and the address will appear in the **Patient Edit** area, as shown in the following screen shot.
NOTE: Despite not being a required field, it may be beneficial to add the **Phone Number**. This will make it easier to contact the patient regarding vaccine safety, or potentially recall the patient for an appointment at a later time.

**Updating Patient Record with Vaccine/Medicine**

Select the **Vaccine/Medicine** being administered and the **Dose Size**, if necessary. If the information is accurate, click on the [Save] button and move on to the next patient.
NOTE: Because the vaccine was added in the Personal Settings, the vaccine inventory for the Lot Number shown will be reduced after each dose administered, and the specific lot number will be tied to the patient should follow-up contact be needed about the vaccine or other information.
Post Clinic

Reports

The **Reports** function can quickly compile and display results of daily immunizations, information about patients seen and an overview of vaccine lot number inventories and usage. *(The Vaccination Route Barcodes and Vaccination Site Barcodes functions may be enabled at a future date.)*

To access Reports, click on [Reports] on the left tool bar. The list of available Reports will appear on the screen.

The **Daily Patient Immunization List** is very useful as a recap of Mass Immunization events.
An example of the **Daily Patient Immunization List Report** is shown in the following screenshot.

![Daily Patient Immunization List Report](image)

The **Patient Detail Report** offers the ability to review patients seen over a range of dates, as well as an option to segment the data by numerous factors. Data fields not selected will not appear on the Report.
An example of the **Patient Detail Report** is shown in the following screen shot.
The Lot Number Summary Report offers a quick overview of Vaccine Lot Number details, including Expiration Date, Publicly Supplied, Doses Used, Wasted, Returned, and Expired.

An example of the Lot Number Summary Report appears in the following screen shot.

Reconciling Inventory

The Vaccinations – WYIR Quick Reference Guide, located at http://www.health.wyo.gov/Media.aspx?mediald=11753, may assist the user in ensuring that their inventory is properly accounted for and reconciled correctly prior to undergoing another clinic.
Appendix A: Using Scanner in the Standard Application

In order to capture additional information not available within the Mass Immunization Module (e.g., Site, Route, etc...), use of the Standard application may be optimal.

The barcode scanner functionality is present within both the Mass Immunizations and Standard applications.

Once the user is logged into the Standard application, a screen will present similar to the following:

Click on the [Scan Driver’s License] button (highlighted above), and a screen will appear similar to the following:
Click within the Capture Barcode field, and then scan the back of the Driver’s License; once complete, a screen similar to the following should appear:

Once the cursor stops moving within the field, click on the [Search] button. If a potential match is present within the system, the name will appear similar to the following:
Click on the select arrow beside the potential match; query the patient for the information. If the patient is the same, proceed to the Vaccinations – View/Add screen, and add the vaccination information as usual.

If a match is not present within the system, click upon the **Check here if adding a new patient** box; a screen similar to the following will then appear:

![Patient Search Form](image)

Next, click on the **[Search]** button; a popup similar to the following will appear:

![Message from webpage](image)

Click on the **[OK]** button; a screen similar to the following should appear:
Click on the [Add Patient] button; the user will then be taken to the Patient Demographics screen.
Add the required fields (in red), and then click on the [Save] or [Save and Queue] buttons in order to place the patient into the **Waiting Room**.

Once the vaccination is ready to be added to the Patient’s record, click upon the Vaccination – View/Add link, and add the vaccination as detailed within the Vaccinations-WyIR Quick Reference Guide (http://www.health.wyo.gov/Media.aspx?mediaId=11753).