Tip Sheet: Investigating an Acute Hepatitis B Event using MAVEN

Purpose of Surveillance and Case Investigation:

- To identify clusters of cases or outbreaks, especially those that appear to involve healthcare-associated transmission.
- To provide information to hepatitis B virus (HBV)-infected individuals on how to prevent exposing others to HBV.
- To identify household and sexual contacts of HBV-infected individuals and recommend vaccination.

The MDPH Epidemiology Program:

- Determines which cases reported to MDPH are suspected or confirmed acute hepatitis B (MDPH receives approximately 125 of these per year).
- Assigns only suspected and confirmed cases of acute hepatitis B to the LBOH. Cases of chronic HBV infection that are not assigned to the LBOH do not need to be investigated.

The LBOH:

- Completes missing information on the case (particularly information about risks/exposures). This can be completed in MAVEN or through the acute hepatitis B case report form, if the town is not on MAVEN.
- Conducts contact investigation for family/household/close contacts and sexual contacts to the case of acute hepatitis B, similar to the follow-up conducted for hepatitis B antigen positive pregnant woman.

Notification via phone call and a MAVEN task

When a case of acute hepatitis B is identified by the epidemiology program, an epidemiologist will notify the LBOH where the case currently resides via a task in MAVEN and a phone call. The task will indicate that an investigation needs to be conducted.

**Task Description: Acute Hep B investigation needed**

**Notes:** Acute Hep B investigation needed in order to collect more information on the case’s risk factors and exposures and on household/family/sexual contacts

Assign to User – select an Individual user

Assign to Group – do not assign to LBOH Groups
The MAVEN system will generate an email to the contact at the LBOH similar to the sample email shown below:

-----Original Message-----
From: ISISHelp@state.ma.us [mailto:name@boardofhealth.gov]
Sent: Date and Time
To: Name at BOH

Subject: Event ID 100214761 - Task Acute Hep B investigation needed was updated on Wed Jan 23 09:47:49 EDT 2013

The case can then be accessed in MAVEN by entering the event ID sent in this email or by viewing tasks using the task icon:

Case Report Data Collection in MAVEN

The LBOH nurse or health agent should attempt to complete all data requested in MAVEN for the case. It is recommended to first contact the ordering provider for the most recent laboratory test to confirm that the healthcare provider has spoken with the case about their diagnosis. The labs can be found in the “Lab Results” tab on the dashboard of the case. If the healthcare provider has spoken with the case about their diagnosis, the case can then be called directly. If the physician has not yet spoken with the case about their diagnosis, they should do so as soon as possible. It is best for the LBOH to call the case after they have received their diagnosis from their physician, although this is not always possible.

The most important question package to complete for acute HBV cases is #5 (highlighted below), which asks questions about risk factors and exposures during the 6 months prior to diagnosis. It is especially crucial to rule-out healthcare-associated transmission of HBV, so the LBOH should ask about recent history of surgery or other invasive procedures.

If the LBOH is not on MAVEN, MDPH will fax the acute HBV case report form (Supplement #3: Acute Hepatitis B Reporting Form) to the nurse or health agent and review the questions of most importance with the person who will complete the follow-up. NOTE: The paper CRF does not need to be completed, if the information has been entered into MAVEN.
Creating Contacts and Linking Events

Once the risk/exposure investigation has been conducted, contacts who may have been exposed to the case (especially household contacts and sexual contacts) should be identified by interviewing the case.

Please see the following references for information regarding transmission of the disease and testing/vaccination recommendations for identified sexual and household contacts:

MMWR 2008: Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Virus Infection http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm

MMWR 2005: Appendix C: Postexposure Prophylaxis of Persons with Discrete Identifiable Exposures to Hepatitis B Virus (HBV) http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a4.htm

These individuals should be referred to their primary care physician or other healthcare provider to be screened for HBV infection and to receive vaccination against HBV (and HAV), if they are not immune. The LBOH can also administer vaccine, if they have doses available.

Household and sexual contacts should also be entered into MAVEN to keep track of the work done. Begin by clicking on the "Linked Events/Contacts" icon on the dashboard of the case:

Linked Events window is shown below:

In the "Operation" drop-down menu at the top, first choose how you are going to link the events. There are three choices for creating contacts.

1. If you choose "Link to Existing Event", you will be creating a link between the current event and an existing event already in the MAVEN system.
2. "Link to Multiple Events" allows you to choose multiple events from the search screen allowing faster creation of linked events than by doing them one by one.
3. Choose "Create Linked Event" if you will be entering a brand new event to link to the index case.
Also note that there are several possible link types in the "Link Type" menu in the 4th field; if you are not certain of the link type then leave the contact type defaulted to "contact."

**Scenario #1 - Linking to an Existing Event**

>> If a sexual or household contact is already known to have hepatitis B and is in MAVEN, choose "Link to Existing Event" – this means you want to link the event to an existing event that is already in the MAVEN system.

Much of the menu will disappear. To find the linked event, you will have to click on the grey button to the right that says "Select Person" and search for the existing event. Once you see the event you have searched for click on it, and then at the bottom of the page click on the grey button that says "Use Selected Event".

>> Click on "Use Selected Event".

MAVEN will automatically fill in the disease, event date, link type, and information from the existing event.

>> Click on "Save" button at the bottom of the screen

**Scenario #2 - Linking to Multiple Events Already in MAVEN**

This enables you to choose multiple contact/link events from the search screen, allowing faster creation of linked events than by doing them one by one. If multiple household or sexual contacts are known to have hepatitis B and are already in the system, you can use this option to link them.

**Scenario #3 - Creating a New Contact Event (contact is not yet in MAVEN)**

>> Select "Create Linked Event" from the Operation drop down choices – this means your contact is not in the MAVEN system and you need to enter a new event from scratch.

When you create a linked event, the "Disease" field should default to hepatitis B, so you do not need to change this. The "Event Date" for entry of a contact is the current date, i.e. the date that the contact is entered.
Link Types:

- If the contact lives in the same household as the initial case, select "household contact:" as the link type.
- If the contact is a sexual contact of the case, select "sexual contact" as the link type.
- If the contact is both a sexual and household contact, use "sexual contact" as the link type.

For each contact that is created, the LBOH nurse should try to complete as much information as possible in MAVEN. It is important to ascertain the contact's vaccination history, including the type and date of vaccination, and this information should be entered into question package number 4:

<table>
<thead>
<tr>
<th>Event Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Date</td>
</tr>
</tbody>
</table>

Question Packages:

1. Administrative
2. Demographic
3. Clinical
4. Vaccine and IC Information
5. Perinatal hepatitis B case management

>> Enter the name, birth date, and address information for the new linked case, just as you did earlier when creating an event.

>> Click "Save" at the bottom of the screen.

The new event will appear under the listing for linked events at the top of the screen with the link type listed as Contact (look to the right upper screen)

>> Click on the Event ID link next to the person name for your contact event.

You will be brought to the main screen, with the new linked case open. Under the "Event Summary", you will see a line for "Linked Events/Contacts."
>> Click on the "View" hyperlink to the right of the "Linked Events/Contacts" line.

You will be returned to the linked events page for this event; the original event will be listed under the "Linked Events" heading. Because it was the first event entered and the other event was created as a link to it, under "Link Type" this event is listed as the source.

**If you have any questions about acute hepatitis B follow-up, please contact the epidemiology program at 617-983-6800.**