



This presentation will provide an overview of the blood and body fluids exposure module of the National Healthcare Safety Network Healthcare Personnel Safety Component. This training assumes you have reviewed the NHSN Healthcare Personnel Safety Component Overview training.



## Target Audience



Personnel who will enter and analyze data in the NHSN Healthcare Personnel Safety component:

- ◆ Healthcare worker (HCW) demographics
- ◆ Blood and body fluid exposure events
- ◆ Laboratory follow-up tests
- ◆ Post-exposure Prophylaxis (PEP)



May include: NHSN facility administrators, occupational health professionals, infection preventionists, epidemiologists, data entry staff

This training is designed for those who will collect and analyze Healthcare Personnel Safety Component (or HPS) Blood and Body Fluid exposure and management data for NHSN.

The target audience includes NHSN facility administrators, the Healthcare Personnel Safety Primary contacts, occupational health professionals, infection preventionists, epidemiologists, and data entry staff.

# Prerequisites

- ◆ You should have already viewed the HPS Overview training slides
- ◆ Annual Healthcare Personnel Safety Facility Survey must be completed

In order to get the most benefit from this training you should have viewed the Healthcare Personnel Safety Overview training slides. The Annual Facility Survey must also have been completed before Blood and Body Fluid exposure records can be entered.

## Objectives

- Describe the purpose of the blood/body fluids exposure (BBF) module
- Describe how to enter BBF exposure data into NHSN, consistent with your monthly reporting plan
- Define various types of data fields in NHSN
- Show examples of data entry
- Describe the process of linking interventions with exposures.

The objectives of this training are to describe how to use NHSN to capture information on blood/body fluids (BBF) exposures in your facility. This training will outline the purposes of using the BBF module; describe how to record data about BBF exposures consistent with your monthly reporting plan; describe the requirements for the various types of data fields in the HPS; show examples of data entry; and describe the process of linking post-exposure prophylaxis (PEP) records and laboratory test results with exposure records.



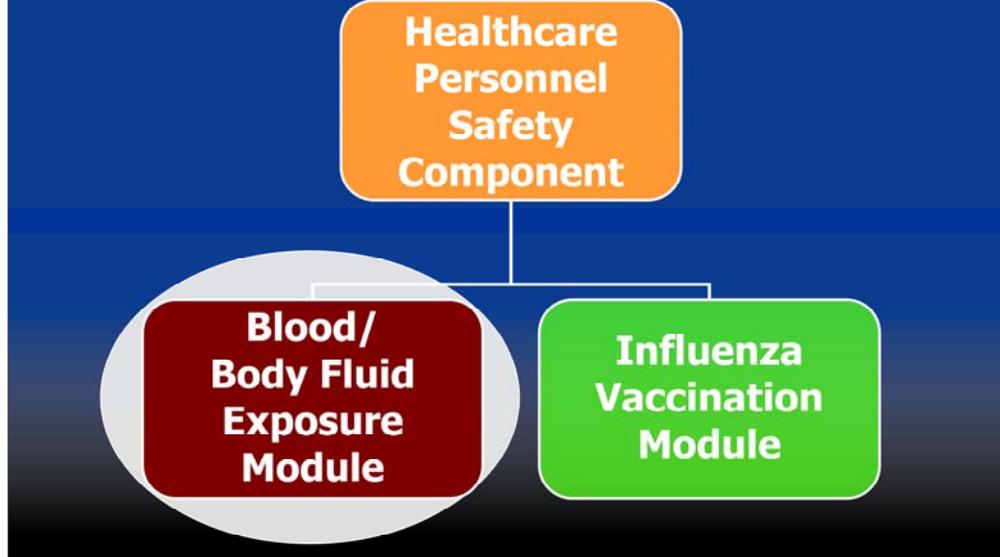
NHSN is organized into the four components shown here: Patient Safety, Healthcare Personnel Safety, Biovigilance, and Research and Development. Patient Safety is for monitoring patient adverse healthcare-associated events and process measures for their prevention. Healthcare Personnel Safety is for monitoring adverse events to healthcare personnel and process measures for their prevention. The Biovigilance component is for tracking adverse events and incidents associated with receipt of blood and blood products. The Research and Development component is for performance of special studies.

## HPS Component Purposes

- Continue and expand occupational exposure and infection surveillance that started with the National Surveillance System for Healthcare Workers (NaSH)
- Collect data from sample of US healthcare facilities to:
  - ◆ Estimate the severity and magnitude of adverse events among healthcare personnel (HCP)
  - ◆ Estimate HCP participation in seasonal and novel flu vaccination campaigns
- Assess adoption and effect of strategies to prevent adverse events in HCP.

HPS is a continuation and expansion of occupational exposure and infection surveillance that was started with the National Surveillance System for Healthcare Workers or NaSH. Its purpose is to collect data from a sample of US healthcare facilities to estimate the severity and magnitude of various occupationally-related adverse events among healthcare personnel and to estimate healthcare personnel participation in seasonal and novel flu vaccination campaigns. The first release of the BBF module will enable collection of data about occupational exposures to blood/body fluids. HPS can also be used to assess adoption and effect of strategies to prevent occupationally-associated adverse events to healthcare personnel.

## HPS Component Modules



The Healthcare Personnel Safety Component currently consists of two modules, one for tracking blood/body fluid exposures (BBF) and exposure management, and another module for tracking healthcare personnel seasonal and novel influenza vaccination. This presentation will focus on the BBF exposure module.

## BBF Exposure Module

### Purposes - Facility level

- ◆ Provide a record of BBF exposures and exposure management for HCP in the facility
  - Document baseline and follow-up laboratory tests
  - Document receipt of and adverse reactions related to PEP
- ◆ Monitor trends in BBF exposures
- ◆ Monitor process measures of exposure management.

The purposes of using the BBF exposure module are to provide a record of BBF exposures and exposure management for healthcare personnel in the facility, including documentation of baseline and follow-up laboratory tests, and documentation of receipt of and adverse reactions related to postexposure prophylaxis (PEP). Use of the BBF exposure module will also permit the monitoring of trends in BBF exposures to permit targeting interventions to areas or occupational groups with more frequent or preventable exposures.

## BBF Exposure Module

### Purposes - National level

- ◆ Provide aggregate BBF exposure risk estimates
- ◆ Assess the diffusion and adoption of sharps devices with safety features
- ◆ Evaluate prevention measures, including engineering controls, work practices, protective equipment, and PEP
- ◆ Monitor adherence to PHS recommendations for exposure management

From the CDC standpoint, collection of data in the BBF exposure module permits us to estimate aggregated BBF exposure risk estimates, to assess the diffusion and adoption of sharps devices with engineered safety features to prevent injuries, and to evaluate prevention measures including engineering controls, work practices, protective equipment, and use of post-exposure prophylaxis. In addition, data in the BBF exposure module will allow us to monitor adherence to PHS recommendations on management of occupational BBF exposures, including proportion of source patients tested, timeliness of initiation of PEP, duration of taking PEP, etc.

## BBF Exposure Module

Documents used in NHSN for HPS:

- Healthcare Personnel Safety Protocol – provides background and methods for performing surveillance
- Tables of Instructions – provide details and rules for entering each data field on the data collection forms
- Data Collection Forms for BBF
  - Monthly Reporting Plan
  - Healthcare Worker Demographic Data
  - Exposure to Blood/Body Fluids
  - Healthcare Worker Prophylaxis/Treatment
    - BBF Post-exposure Prophylaxis (PEP)
  - Follow-up Laboratory Testing

See NHSN website: <http://www.cdc.gov/nhsn/hps.html>

Documents used in NHSN for HPS are available on the NHSN website and include the protocol (which you should read before entering any data into the BBF module), the tables of instructions, and data collection forms.

# BBF Exposure Module: Key Terms

- **Healthcare Worker:** An individual who works in the facility, whether paid or unpaid
- **Healthcare Personnel:** All persons who work in the facility, whether paid or unpaid



## BBF Exposure Module: Key Terms

- **Occupational exposure:** Exposure to blood, visibly bloody fluids, other body fluids to which universal precautions apply (i.e., semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid), tissues, and laboratory specimens that contain concentrated virus. Modes of exposure include percutaneous injuries, mucous membrane exposures, non-intact skin exposures, and bites.

## BBF Exposure Module: Key Terms



- **Percutaneous injury:** Penetration of skin by a needle or other sharp object that was in contact with blood, tissue, or other body fluid prior to the exposure.
- **Mucous membrane exposure:** Contact of mucous membranes (i.e., eyes, nose, or mouth) with fluids, tissues, or specimens listed in the definition of "Occupational Exposure."

## BBF Exposure Module: Key Terms

- **Non-intact skin exposure:** Contact of non-intact skin with the fluids, tissues, or specimens listed in the definition of "Occupational Exposure."
- **Bite:** A human bite sustained by a healthcare worker from a patient, co-worker or visitor.

## Types of Data Entered in the BBF Module

- Monthly reporting plan data – informs CDC of what you intend to report. Must be completed for each month you submit data.
  - HCW demographic data – information on the exposed healthcare worker
  - BBF exposure event data and the management of these adverse events (e.g., PEP, follow-up laboratory)
  - Denominators (required for the Annual Facility Survey)
    - ◆ Measures of facility size (e.g., # beds, in-patient days)
    - ◆ Numbers of HCP and FTEs
  - Custom data
  - Comments
- Facilities must enter data for at least 6 months within a year to participate in HPS.



The entered into NHSN are listed here:

- HCW demographics are information that must be recorded about each HCW record in NHSN, including a facility-specified HCW identification number, age, gender, occupation, and assigned work location.
- Events, in the context of the HPS, include BBF exposures and their management include laboratory tests and PEP for a HCW.
- Denominators to calculate rates of exposures, such as number of beds, admissions, or healthcare personnel by occupation, are recorded once per year via the Annual Facility Survey.
- Custom data are those of your choosing that can be entered into custom fields on NHSN forms. Instructions on customizing HPS forms are found in the online NHSN Help system. Customized data are not included in NHSN aggregate analyses.
- Comments can be entered in an open text field at the end of many HPS forms. These are also not included in NHSN aggregate analyses.
- Remember that facilities must enter data for at least 6 months a year to participate in HPS.

## Data Fields in NHSN

### Required:

- ◆ Must be completed for record to be saved
- ◆ Marked by a red asterisk (\*) next to the field label

Conditionally required: Requirement to complete depends on a response given in another field (e.g., clinical specialty for physician occupation)

Optional: Data not required to save record and will not be used in analyses by CDC (e.g., number of hours on duty)

Each field in NHSN is designated as required, conditionally required, or optional. Required fields are marked on the screen with a red asterisk. You cannot save the record until a value is entered in all required fields.

A conditionally required field is one in which the requirement depends on the response given in another field (e.g., if the occupation is physician, then clinical specialty is a required field).

And finally, optional fields are those that are not required. For example, number of hours on duty is an optional field. Data may be entered into these fields but will not be validated.

These data are available for a facility to analyze but will not be used in national aggregate analyses.

## Steps for Entering BBF Exposures in NHSN

- ◆ Enter Monthly Reporting Plan for each month that you intend to collect and report information on blood and body fluid exposures
- ◆ Enter the Blood and Body Fluid Exposure form after all baseline information and testing are completed

If following Exposure Management:

- ◆ Enter any post-exposure prophylaxis administered to the HCW for the exposure
- ◆ Enter any follow-up laboratory testing

The first step in entering BBF exposures in NHSN is to submit a reporting plan for the months you intend to report. Collect event information on the blood and body fluid exposure form and enter the information into NHSN after you have completed your initial investigation. If you also choose to monitor exposure management, enter any post-exposure prophylaxis and follow-up laboratory testing.

# Monthly Reporting Plan

Two options on the monthly reporting plan:

NHSN - National Healthcare Safety Network (ISO-CLFT-NHSN1) | NHSN Home | My Info | Contact us | Help | Log Out

Logged into Doctors Hospital (ID 10552) as RUBY.  
Facility Doctors Hospital (ID 10552) is following the HPS component.

## Add Monthly Reporting Plan

Mandatory fields marked with \*

Facility ID\*: Doctors Hospital (ID 10552) [Print PDF Form](#)

Month\*: May

Year\*: 2009

No NHSN Healthcare Personnel Safety Modules F

**Healthcare Personnel Exposure Modules**

- Blood/Body Fluid Exposure Only
- Blood/Body Fluid Exposure with Exposure Management
- Influenza Exposure Management

**Healthcare Personnel Vaccination Module**

- Influenza Vaccination with Exposure Management/Treatment

Save Back

**Includes: Post-exposure prophylaxis (PEP) and laboratory follow-up**

When entering the monthly reporting plan, you can choose between exposure only and exposure with management. If you select exposure only, then only general information about an exposure is included in CDC aggregate analyses. If you choose exposure with exposure management, then you will record information about the exposure and about the management of the exposure, including use of post-exposure prophylaxis and results of laboratory tests performed as follow-up for the exposure.

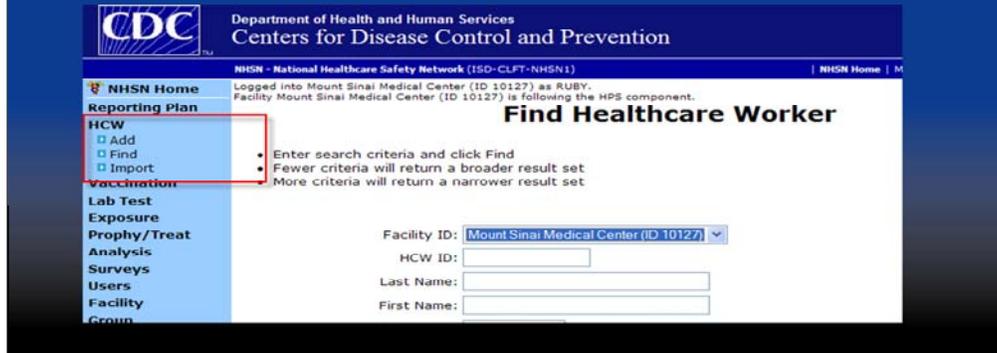
## Adding HCW Demographic Data

- Required fields
  - ◆ HCW ID
  - ◆ Gender
  - ◆ Date of Birth
  - ◆ Work status, location, and occupation
- Conditionally required field
  - ◆ Clinical specialty, for physicians
- Optional fields (not used by CDC)
  - ◆ Social security number
  - ◆ Name
  - ◆ Secondary ID
  - ◆ Address

Information about an exposure cannot be saved without the demographic information about the exposed HCW. There are six required fields. Clinical specialty is a conditionally required field and is required only if the HCW is a physician. Finally, social security number, HCW name, and secondary ID are all optional fields; they are never required.

# HCW Demographic Data

- Can be entered into NHSN using several options:
  - Facility HCW records can be imported into NHSN
  - Records can be entered using the HCW -> add button on the left navigation bar.
  - Some HCW demographic information can be entered at the top of the exposure and intervention screens
- Use “Find” HCW to populate the HCW demographic data fields of BBF exposure form (See training on HPS set up for importing HCP data.)



To start, you need demographic information about the exposed HCW. If you imported HCW data at set up, you can go straight to the Add Exposure screen and enter the HCW ID, as shown in the next slide. Once you find the HCW, the demographic data fields are automatically populated on the BBF exposure form. The HPS set up training slides describe how to import demographic data about the healthcare personnel in your facility if you wish to use this option.

# Adding a HCW Record

## Add Exposure

Mandatory fields marked with \*

Fields required when Blood/Body Fluid Exposure is in Plan marked with †

Fields required when Blood/Body Fluid Exposure with Exposure Management is in Plan marked with §

### Healthcare Worker Demographics

Facility ID\*: DHQP MEMORIAL HOSPITAL (ID 10018) ▼

Exposure Event #: 465

HCW ID\*: 913169

Social Security #:

If a HCW has not been previously added, you may still enter their information here and it will be added and saved under a new HCW profile. A popup will let you know whether this HCW already exists in the dataset.

Windows Internet Explorer

! Could not find HCW.  
You can directly enter a new HCW from this screen  
or  
Click 'Add HCW' to enter a new HCW with additional fields.

Ethnicity: ▼

This screen shot shows the message that you would get if the worker you are looking for is not already in your database. This is your prompt to enter the HCW demographic information.

# Entering a BBF Exposure in NHSN

The screenshot shows the NHSN interface for adding an exposure. The left navigation bar includes: Reporting Plan, HCW, Vaccination, Lab Test, Exposure (highlighted with a red box), Prophyl/Treat, Analysis, Surveys, Users, Facility, Group, and Log Out. Under 'Exposure', there are 'Add' and 'Find' options. The main content area is titled 'Add Exposure' and includes instructions: 'Mandatory fields marked with \*', 'Fields required when Exposure is in Plan marked with †', and 'Fields required when Exposure with Management is in Plan marked with §'. The 'Healthcare Worker Demographics' section contains the following fields: Facility ID\* (dropdown menu showing 'Doctors Hospital (ID 10552)'), HCW ID\* (text input with 'Find HCW' button), Social Security # (text input), Last Name (text input), Exposure Event #: 736 (text input), Secondary ID (text input), and First Name (text input).

An exposure is added to NHSN by selecting Exposure, Add from the left navigation bar. If you previously entered an exposure, you can use the Find button to access the record for editing.

# Adding a HCW Record to an Exposure

The screenshot displays the NHSN 'Add Exposure' interface. On the left is a navigation menu with options: NHSN Home, Reporting Plan, HCW, Vaccination, Lab Test, Exposure, Add (highlighted), Find, Prophy/Treat, Analysis, Facility Group, and Log Out. The main content area is titled 'Add Exposure' and includes a 'Print PDF' link. It contains instructions: 'Mandatory fields marked with \*', 'Fields required when Exposure is in Plan marked with †', and 'Fields required when Exposure with Management is in Plan marked with §'. The 'Healthcare Worker Demographics' section is active, showing a dropdown for 'Facility ID\*' set to 'Doctors Hospital (ID 10552)', an 'Exposure Event #' of 733, and an 'HCW ID\*' of 'RP1234'. Below this are input fields for 'Social Security #:', 'Secondary ID:', 'Last Name:', 'First Name:', 'Middle Name:', 'Gender\*:', and 'Date of Birth\*'. At the bottom are dropdowns for 'Work Location\*:' and 'Occupation\*:'.

This screen shot shows how to find and add a HCW to the Add Exposure screen.

## BBF Exposure Form

Multi-section form –

- ◆ Demographic information about an exposed HCW can be found in database or new HCW information added as required
- ◆ General information about the exposure (e.g., type, location where occurred, body fluid involved, etc.)
- ◆ More detailed information about percutaneous, mucocutaneous, and bite exposures
- ◆ Information about source patient
- ◆ Initial care given to the exposed HCW

The BBF exposure form is a multi-sectional form. As we have previously stated, HCW demographic information can be found in the HPS database if it was imported during set up, or new HCW information can be added at the time exposure information is recorded. Other sections of the form collect the following information:

- General information about the exposure (e.g., type, location where occurred, body fluid involved, etc.)
- More detailed information about percutaneous, mucocutaneous, and bite exposures
- Information about source patient, if known
- Initial care given to the exposed HCW and baseline laboratory results on the HCW

The information you complete on the form is dependent on the type of

# BBF Exposure General Information

**General Exposure Information**

Did the exposure occur in this facility?: Y - Yes

Date of Exposure\*: 01/21/2009

Time of Exposure (hh:mm)\*: 05:00 AM

Number of hours on duty: 7 Is exposed person a temp/agency employee?: N - No

Location where exposure occurred\*: SE - 5 EAST

Type of Exposure (check all that apply)\*:  Percutaneous

Did exposure involve a clean, unused needle or sharp object?: N - No

Mucous membrane

Skin

Bite

Type of fluid/tissue involved in exposure\*: BBP - Blood/blood products

Body site of exposure (check all that apply)\*:  Hand  Arm  Foot  Leg

Eye  Mouth  Nose

Other Specify: \_\_\_\_\_

General BBF exposure information is recorded next. This includes the location in the facility where the exposure occurred, the time and date of exposure, the exposure type, (i.e., percutaneous, mucosal or skin exposure), the type of fluid or tissue involved, and the body site of exposure (such as hand, arm, face, etc.)

# BBF Exposure Form

**NHSN**  
National Healthcare Safety Network

**Exposure to Blood/Body Fluids**

OMB No. 0920-0095  
Rev. Date: 03-31-2011

Facility ID#: \_\_\_\_\_ Exposure Event# \_\_\_\_\_

\*HCW ID#: \_\_\_\_\_

HCW Name, Last: \_\_\_\_\_ First: \_\_\_\_\_ Middle: \_\_\_\_\_

\*Gender:  F  M \*Date of Birth: \_\_\_/\_\_\_/\_\_\_

\*Work Location: \_\_\_\_\_

\*Occupation: \_\_\_\_\_ If occupation is physician, indicate clinical specialty \_\_\_\_\_

**Section I – General Exposure Information**

1. \*Did exposure occur in this facility? L Y L N  
1a. If No, specify name of facility in which exposure occurred: \_\_\_\_\_

2. \*Date of exposure: \_\_\_/\_\_\_/\_\_\_ 3. \*Time of exposure: \_\_\_ L AM L PM

4. Number of hours on duty: \_\_\_\_\_ 5. Is exposed person a temp/agency employee? L Y L N

6. \*Location where exposure occurred: \_\_\_\_\_

7. \*Type of exposure: (Check all that apply)

- i. 7a. Percutaneous: Did exposure involve a clean, unused needle or sharp object?  
Y N (If No, complete Q8, Q9, Section II and Section V–XI)
- ii. 7b. Mucous membrane (Complete Q8, Q9, Section III and Section V–XI)
- iii. 7c. Skin: Was skin intact? Y N Unknown (If No, complete Q8, Q9, Section II & Section V–XI)
- iv. 7d. Bite (Complete Q9, and Section IV–XI)

8. \*Type of fluid/tissue involved in exposure: (Check one)

- Blood/blood products
- Solutions (IV fluid, irrigation, etc.): (Check one)
- Body fluids: (Check one)
- Visibly bloody

Be sure to follow the skip patterns on the form so you don't try to complete unnecessary information.



This is the paper data collection form. Notice the additional instructions and skip patterns depending upon the type of exposure.

# BBF Exposures Clean or Unused Sharps

7. \*Type of exposure: (check all that apply)

7a. Percutaneous: Did exposure involve a clean, unused needle or sharp object?  Y  N  
(If No, complete Q8, Q9, Section II and Section V–XI)

- Exposures to clean needles/sharps pose no risk of transmission of bloodborne virus infection
- Information about clean needle/sharp exposures not included in CDC exposure analyses
- Completion of remaining information on BBF Exposure Form optional

The screenshot shows a web form for reporting a BBF exposure. The 'Type of Exposure' section is checked for 'Percutaneous'. A question asks 'Did exposure involve a clean, unused needle or sharp object?' with a dropdown menu set to 'Y-Yes'. A warning message box from Windows Internet Explorer is overlaid on the form, stating: 'Exposure to a clean, unused needle or sharp object does not pose a risk for transmission of HIV or other bloodborne infections. Completion of the rest of the sections is optional.' The message box has an 'OK' button.

Under the general exposure information section, for percutaneous injuries, you will need to specify if a clean or unused needle or sharp object caused the injury. If the answer is yes, then completing the rest of the BBF exposure form is optional. Exposures to clean needles do not pose a risk of transmission of infection with bloodborne viruses. Although you may document such exposures in your own facility, the information you provide will not be included in CDC exposure analyses.

# BBF Exposures: Percutaneous Injury

**Percutaneous Injury**

Was the needle or sharp object visibly contaminated with blood prior to exposure?\*: Y - Yes

Depth of the injury\*: MOD - Moderate, penetrated skin

What needle or sharp object caused the injury?\*: DEVICE - Device

Device\*: SCALPEL - SCALPEL Add Device

Manufacturer and Model: JOE'S SCALPEL COMPANY

Type of safety feature: SLIDE - Sliding/gliding guard/shield

If the device had a safety feature, when did the injury occur?\*: DA - During activation

When did the injury occur?\*: DURING - During use of the item

For what purpose or activity was the sharp device being used?\*: DXOTHER - Other diagnostic procedure

Activity at the time of injury\*: PROC - Performing procedure

Who was holding the device at the time the injury occurred?\*: EXPOSED - Exposed person

What happened when the injury occurred?\*: JARRED - Patient moved & jarred device

Additional information is collected about the exposure, dependent on the type of exposure. If more than one type of exposure occurred at the same time, such as a percutaneous injury and skin exposure, information will need to be provided for both types of exposures.

For percutaneous exposures, some of the information that needs to be provided includes type of device or sharp involved in the injury, depth of injury, and circumstances of injury (e.g., who was holding device, intended purpose of device, etc.).

## BBF Exposures: Mucous Membrane or Non-Intact Skin Exposure

- For mucous membrane or skin exposure, quantity of fluid, activity when exposure occurred, and type of personal protective equipment used

**Mucous Membrane and/or Skin Exposure**

Estimated amount of blood/body fluid exposure\*§: SMALL - Small (<1 tsp or 5cc) ▼

Activity/event when exposure occurred\*§: CHNG - Change dressing/wound care ▼

Barriers used at the time of exposure\*§:

<input type="checkbox"/> Face shield	<input type="checkbox"/> Gown	<input checked="" type="checkbox"/> No barriers
<input type="checkbox"/> Gloves	<input type="checkbox"/> Mask/respirator	
<input type="checkbox"/> Goggles	<input type="checkbox"/> Other	

For mucous membrane or skin exposure, quantity of BBF, activity when exposure occurred, and type of personal protective equipment used should be recorded.

## BBF Exposures: Bites

- For bites, description of wound and activity when exposure occurred

**Bite**

Wound description\*:

Activity/Event when exposure occurred\*:

For bites, description of wound and activity when exposure occurred are the information to be recorded

## Exposure Management

- Information about exposure source
- Initial care provided to exposed HCW
- Baseline and follow-up lab testing
- Recommendations for follow-up
- HCW narrative about exposure and prevention of exposure

All the information described so far is required whether you choose exposure only or exposure plus management. If you select exposure plus management, then you will need to provide additional information as shown here. This includes the following:

Information about exposure source

Initial care provided to the exposed HCW

Baseline and follow-up lab testing

Recommendations for follow-up

HCW narrative about exposure and prevention of exposure

# Exposure Source Information

Source Information	
Was the source patient known?:	Y-Yes
Was HIV status known at the time of exposure?*	
Select test results for the source patient:	
<b>Hepatitis B</b>	<b>Result</b>
HBsAg†§	
HBeAg§	
Total anti-HBc§	
anti-HBs§	
<b>Hepatitis C</b>	<b>Result</b>
anti-HCV EIA†§	
anti-HCV supplemental§	
PCR-HCV RNA§	
<b>HIV</b>	<b>Result</b>
EIA, ELISA§	
Rapid HIV§	
Confirmatory test§	

For HIV Infected Source	
Stage of disease:	AIDS - AIDS
Is the source patient taking anti-retroviral drugs?:	Y-Yes
Drugs:	3TC - lamivudine
	SQV - saquinavir
Most recent CD4 count:	150 mm <sup>3</sup>
	Date (mo/yr): 05 / 2008
Viral load:	150000 copies/ml
	<input type="checkbox"/> Undetectable
	Date (mo/yr): 05 / 2008

As shown here, information about the exposure source includes whether or not the source is known, the infection status with regards to hepatitis B virus, hepatitis C virus, and human immunodeficiency virus or HIV. If the source is HIV-infected, the stage of infection, antiretroviral drugs taken, most recent CD4 count, and viral load may be recorded.

# Exposure Interventions

- Postexposure prophylaxis (PEP)
  - ◆ Initial PEP (initiated within 48 hours): Regimen and/or drugs, start and stop dates, reason for stopping
  - ◆ PEP change: Regimen and/or drugs, start and stop dates, reason for change in PEP
  - ◆ Adverse reactions to PEP
  - ◆ If any drug in a regimen is discontinued, the entire regimen is considered “stopped.” If one or more drugs is continued in the new regimen (and other drugs are added), enter them as PEP change with new start date
- Laboratory baseline tests: HIV, Hepatitis B, Hepatitis C, and other results

**Initial Care given to Healthcare Worker**

HIV postexposure prophylaxis Offered?:	<input type="text" value="Y - Yes"/>	Taken?§:	<input type="text"/>	<input type="button" value="Enter Prophyl/Treat"/>
HBIG Given?:	<input type="text" value="Y - Yes"/>	Date administered*:	<input type="text"/>	<input type="button" value="P5"/>
Hepatitis B vaccine given?:	<input type="text" value="Y - Yes"/>	Date 1st dose administered*:	<input type="text"/>	<input type="button" value="P5"/>

In addition, if your facility chooses to follow exposures and exposure management, information about the use of PEP, laboratory test results obtained to monitor for seroconversion, and adverse effects associated with PEP should be collected.

# BBF Exposure Form: HCW Narrative

**Follow-up**  
Is it recommended that the HCW return for follow-up of this exposure?:

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**Narrative**  
In the worker's words, how did the injury occur?:

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**Prevention**  
In the worker's words, what could have prevented the injury?:

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**Custom Fields**

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**Comments**

Finally, follow-up recommendations and narratives from the worker can be entered in the exposure record but are not required.

# Data Entry Form for HIV Prophylaxis

**NHSN** **Healthcare Worker Prophylaxis/Treatment** OMB No. 0920-0059  
Exp. Date: 03-31-2011

BBF Postexposure Prophylaxis (PEP)

Page 1 of 2 \*required for saving \*\*required for completion

Facility ID#: \_\_\_\_\_ MedAdmin ID# \_\_\_\_\_  
 \*HCW ID#: \_\_\_\_\_  
 HCW Name, Last: \_\_\_\_\_ First: \_\_\_\_\_ Middle: \_\_\_\_\_  
 \*Gender:  F  M \*Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 \*Infectious Agent: \_\_\_\_\_ \*Exposure Event #: \_\_\_\_\_

**Initial Postexposure Prophylaxis**

Indication: Prophylaxis \*Time between exposure and first dose: \_\_\_\_\_ hours  
 \*Drug: \_\_\_\_\_ \*Drug: \_\_\_\_\_ \*Drug: \_\_\_\_\_  
 \*Date Started: \_\_\_\_/\_\_\_\_/\_\_\_\_ \*Date Stopped: \_\_\_\_/\_\_\_\_/\_\_\_\_

\*Reason for Stopping (select one):  
 Completion of drug therapy  Source patient was HIV negative  Adverse reactions  
 Lab results  HCW choice  Possible anti-retroviral resistance  
 Lost to follow up

**PEP Change 1** *Indicate any change from initial PEP.*

Indication: Prophylaxis  
 \*\*Drug: \_\_\_\_\_  
 \*\*Date Started: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 \*\*Reason for: \_\_\_\_\_

**Adverse Reactions**  
 Select all that apply:

<input type="checkbox"/> Abdominal pain	<input type="checkbox"/> Flank pain	<input type="checkbox"/> Loss of appetite	<input type="checkbox"/> Paresthesia
<input type="checkbox"/> Arthralgia	<input type="checkbox"/> Headache	<input type="checkbox"/> Lymphadenopathy	<input type="checkbox"/> Rash
<input type="checkbox"/> Dark urine	<input type="checkbox"/> Insomnia	<input type="checkbox"/> Malaise/fatigue	<input type="checkbox"/> Somnolence
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Involuntary weight loss	<input type="checkbox"/> Myalgia	<input type="checkbox"/> Spleen enlargement
<input type="checkbox"/> Dizziness	<input type="checkbox"/> Jaundice	<input type="checkbox"/> Nausea	<input type="checkbox"/> Vomiting
<input type="checkbox"/> Emotional distress	<input type="checkbox"/> Light stools	<input type="checkbox"/> Nephrolithiasis	<input type="checkbox"/> Other
<input type="checkbox"/> Fever	<input type="checkbox"/> Liver enlargement	<input type="checkbox"/> Night sweats	(specify): _____
		<input type="checkbox"/> Numbness in extremities	<input type="checkbox"/> Unknown

For HIV PEP, you need to select individual drugs prescribed. The date started is required, although the date stopped is only conditionally required. If the initial HIV PEP regimen is modified, then the date stopped must be entered. You may also indicate the reasons for stopping the HIV PEP regimen, such as completion of the regimen or stopping because the exposure source was found to be HIV negative.

# Data Entry for HIV Prophylaxis

Enter prophy/treat from main menu or the exposure record.

NHSN - National Healthcare Safety Network (ISD-CLFT-NHSN1) | NHSN Home | My Info | Contact us | Help | Log C

Logged into Doctors Hospital (ID 10552) as RUBY.  
Facility Doctors Hospital (ID 10552) is following the HPS component.

## Add Prophylaxis/Treatment

Mandatory fields marked with \*  
Conditionally required fields marked with ^

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**Healthcare Worker Demographics**  
Facility ID\*:  Med Admin ID #: 926

**Initial Care given to Healthcare Worker**  
HIV postexposure prophylaxis Offered?:   
HBIG Given?:   
Hepatitis B vaccine given?:

**Baseline Lab Results**

To enter information about post-exposure prophylaxis for an HIV exposure event, you can enter those data by selecting Prophy/Treat>Add on the navigation bar or by selecting the Enter Prophylaxis/Treatment button when completing the BBF exposure information. These examples illustrate how to enter a PEP record from the Add Exposure screen or from within the BBF exposure record.

# Data Entry for HIV Prophylaxis

**Information about the Antiviral Medication**  
Infectious agent\*: HIV - HIV/AIDS  
Exposure Event #: 727 Date of Exposure: 07/27/2009 Reassign Record is Linked

Clear Initial PEP - First drugs initiated  
Time between exposure and first dose\*: 0 hours  
Drug: 3TC - lamivudine  
Add drug  
Date Started\*: 07/27/2009 Date Stopped\*: 08/07/2009  
Reason for stopping: CHOICE - HCW choice

Clear PEP Change 1  
Drug: D4T - stavudine  
Add drug  
Date Started\*: 08/07/2009 Date Stopped\*:  
Reason for stopping:  
Start a new PEP

Second regimen date started must be on or after first regimen completed.

This is the screen used for entering HIV PEP. Select the individual drugs prescribed for the HCW from the drop down box. The date started is required, although the date stopped is only conditionally required (for example, If the initial HIV PEP treatment is still being administered). Note that the second regimen date started must be on or after the prior regimen was completed.

# Entering Baseline Laboratory on Exposed HCW

Baseline laboratory results are entered through the BBF exposure record

**Baseline Lab Results**  
Was baseline testing performed on the HCW?:

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Facility Doctors Hospital (ID 10552) is following the HPS component.

## Baseline Laboratory Testing

Mandatory fields marked with \*

[Print PDF](#)

**Healthcare Worker Demographics**

Facility ID*:	<input type="button" value="Doctors Hospital (ID 10552)"/>	Lab ID #:	<input type="button" value="498"/>
HCW ID*:	<input type="button" value="HCW001"/>		
Social Security #:	<input type="button" value="111221111"/>	Secondary ID:	<input type="button" value="RL1111"/>
Last Name:	<input type="button" value="NURSE"/>	First Name:	<input type="button" value="LISA"/>
Middle Name:	<input type="button" value="B"/>		

If baseline lab testing was performed, you will enter it on the last section of the BBF Exposure form and by selecting the Enter Baseline Lab Results button. This information permits tracking whether an exposed HCW has seroconverted following exposure to HBV, HCV, or HIV. It also allows for monitoring of adverse events associated with the use of postexposure prophylaxis for HIV.

# Entering Baseline Laboratory on Exposed HCW

White  
Exposure Event #: 743 Date of Exposure: 01/10/2009 **Lab is Linked**

**Lab Results**

Lab Test*	Date*	Result*
 HIV-EIA - HIV antibody	01/10/2009 	N - Negative
 HCV-EIA - Hepatitis C antibody	01/10/2009 	N - Negative

Baseline lab results should be collected within 2 weeks (before or after) of exposure.

Notice that baseline laboratory is automatically linked to the exposure event. You can add as many tests as you need but as baseline they should be collected within two weeks of exposure (labs drawn either before or after the exposure).

## Linking Records

- Postexposure prophylaxis for HIV and laboratory records are linked to an exposure
- Records are linked to assist in analyzing exposures and any related interventions
- Every HIV PEP and laboratory record must be linked
- If you delete a BBF record, any laboratory or prophylaxis/treatment record(s) linked to that exposure will also be deleted
- Linking is automatically done if you enter HIV PEP while in the BBF Exposure record

As has already been mentioned, post-exposure prophylaxis and follow-up laboratory records are linked to an exposure. Records are linked to assist in analysis of exposures and related interventions. HIV PEP and laboratory records cannot be saved in NHSN if they are not linked to an exposure. If you delete or re-assign (to another HCW) a BBF exposure record, any linked PEP or lab record will also be deleted or re-assigned.

# Link to Prophylaxis / Treatment

Facility Doctors Hospital (ID 10552) is following the HPS component.

## Add Prophylaxis/Treatment

Mandatory fields marked with \*  
Conditionally required fields marked with ^

[Print PDF Form](#)

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### Healthcare Worker Demographics

Facility ID*:	Doctors Hospital (ID 10552)	Med Admin ID #:	929
HCW ID#*:	RP32421	Secondary ID:	
Social Security #:		First Name:	Gloria
Last Name:	Monday	Date of Birth*:	05/21/1965
Middle Name:			
Gender*:	F - Female		
Work Location*:	5E - 5 EAST		
Occupation*:	RN - Registered Nurse		
Ethnicity:			
Race:	<input type="checkbox"/> American Indian/Alaska Native	<input type="checkbox"/> Asian	
	<input type="checkbox"/> Black or African American	<input type="checkbox"/> Native Hawaiian/Other Pacific Islander	
	<input type="checkbox"/> White		

---

### Information about the Antiviral Medication

Infectious agent*:	HIV - HIV/AIDS		
Exposure Event #:	742	Date of Exposure:	01/10/2009
			<b>Record is Linked</b>

When completing the Prophylaxis/Treatment form notice that after selecting or entering the HCW ID, the remaining HCW demographic data populate this form. The Prophylaxis/Treatment record will be linked to the BBF Exposure record once the antiviral medication data are entered and saved.

# Follow-up Laboratory Testing Form

**NHSN** **Follow-up Laboratory Testing** OMB No. 0920-0666  
Exp. Date: 03-31-2011

\*required for saving \*\*required for completion

Facility ID: \_\_\_\_\_ Lab # \_\_\_\_\_

\*HCW ID#: \_\_\_\_\_

HCW Name, Last: \_\_\_\_\_ First: \_\_\_\_\_ Middle: \_\_\_\_\_

\*Gender:  F  M \*Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_

\*\* Exposure Event #: \_\_\_\_\_

**Lab Results** Lab test and test date are required.

Serologic Test			Date	Result	Other Test			Date	Value
HIV	HIV EIA		__/__/__	P N I R	O t h e r  L a b s	ALT	__/__/__	____IU/L	
	Confirmatory		__/__/__	P N I R		Amylase	__/__/__	____IU/L	
HCV	anti-HCV-EIA		__/__/__	P N I R		Blood glucose	__/__/__	____mmol/L	
	anti-HCV-supp		__/__/__	P N I R		Hematocrit	__/__/__	____%	
	PCR HCV RNA		__/__/__	P N R		Hemoglobin	__/__/__	____gm/L	
	HBc Ag		__/__/__	P N R		Platelet	__/__/__	____x10 <sup>9</sup> /L	
	IgM anti-HBc		__/__/__	P N R		#Blood cells in urine	__/__/__	____#/mm <sup>3</sup>	

Follow-up laboratory testing for Blood and Body Fluid exposures can be collected on this form. You should include any testing that is not considered baseline (within 2 weeks of the exposure date) but are lab results associated with the exposure.

# Follow-up Laboratory Testing Form

Logged into Doctors Hospital (ID 10552) as RUBY.  
Facility Doctors Hospital (ID 10552) is following the HPS component.

## Add Follow-up Laboratory Testing

Mandatory fields marked with \*

[Print PDF Form](#)

### Healthcare Worker Demographics

Facility ID*: <input type="text" value="Doctors Hospital (ID 10552)"/>	Lab ID #: 497
HCW ID#: <input type="text" value="HCW001"/> <input type="button" value="Find HCW"/>	
Social Security #: <input type="text" value="111221111"/>	Secondary ID: <input type="text" value="RL1111"/>
Last Name: <input type="text" value="NURSE"/>	First Name: <input type="text" value="LISA"/>
Middle Name: <input type="text" value="B"/>	
Gender*: <input type="text" value="F - Female"/>	Date of Birth*: <input type="text" value="01/01/1955"/> <input type="button" value="RL"/>
Work Location*: <input type="text" value="1234 - INPATIENT BEDS"/>	
Occupation*: <input type="text" value="RN - Registered Nurse"/>	
Ethnicity: <input type="text" value="NOHISP - Not Hispanic or Not Latino"/>	
Race: <input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian/Other Pacific Islander <input checked="" type="checkbox"/> White	
Exposure Event #: <input type="text"/>	Date of Exposure: <input type="text"/> <input type="button" value="Link/Unlink"/> <b>Lab is not Linked</b>

The follow-up laboratory testing form permits tracking whether an exposed HCW seroconverts following exposure to HBV, HCV, or HIV.

# Follow-up Laboratory Testing Form

Logged into Doctors Hospital (ID 10552) as RUBY.  
Facility Doctors Hospital (ID 10552) is following the HPS component.

### Add Follow-up Laboratory Testing

No candidate records found for linking.

Mandatory fields marked with \*

If you try to enter a follow-up lab before entering the exposure record you will get this message

**Healthcare Worker Demographics**

Facility ID\*:  Lab ID #: 496

HCW ID#:

---

Facility Doctors Hospital (ID 10552) is following the HPS component.

### Link Exposure List

Check record(s) to link this lab to and click Submit

**Healthcare Worker**  
Facility ID: 10552 HCW ID: HCW001  
Last Name: NURSE First Name: LISA Middle Name: B

**Exposure record(s)**  
Note: Please link Lab to most current exposure event, if it is related to two different exposure events.

First | Previous | Next | Last Displaying 1 - 1 of 1

Submit	Exposure ID	Exposure Date	Exposure Type	Percutaneous	Mucous Membrane	Skin Bite	Linked?
<input checked="" type="checkbox"/>	727	07/27/2009	BBF	Y	N	N	Y

First | Previous | Next | Last Displaying 1 - 1 of 1

Once you have clicked on the Link/Unlink button, you will be shown a list of exposures associated with that HCW ID. In the first example is the message you will get if an exposure record has not been entered. You will need to first enter an exposure record for the HCW before reporting any follow-up lab results.

In the second screen shot, you are shown an exposure ID and date associated with your HCW. Select the relevant exposure event record in the box on the left and click on Submit. That will link the lab follow-up record with this exposure.

# Follow-up Laboratory Testing Form

Facility Doctors Hospital (ID 10552) is following the HPS component.

## Edit Follow-up Laboratory Testing

Mandatory fields marked with \*

[Print PDF Form](#)

### Healthcare Worker Demographics

Facility ID\*: Doctors Hospital (ID 10552) Lab ID #: 486

HCW ID\*: HCW001 [Reassign](#)

Social Security #: 111221111 Secondary ID: RL1111

Last Name: NURSE First Name: LISA

Middle Name: B

Gender\*: F - Female Date of Birth\*: 01/01/1955 [\[X\]](#)

Work Location\*: 1234 - INPATIENT BEDS

Occupation\*: RN - Registered Nurse

Ethnicity: NOHISP - Not Hispanic or Not Latino

Race:  American Indian/Alaska Native  Asian  
 Black or African American  Native Hawaiian/Other Pacific Islander  
 White

Exposure Event #: 727 Date of Exposure: 07/27/2009 [Reassign](#) **Lab is Linked**

### Lab Results

Lab Test*	Date*	Result*
 HEMOGLOB - Hemoglobin	07/27/2009 <a href="#">[X]</a>	223.0 gm/L

To add or edit laboratory tests, select the test from the drop down and enter the date and result. Always be sure to save the record before exiting the screen.

# Review!



- NHSN Structure
- HPS Component Purposes
- Blood and Body Fluid Exposure Module
- Documents used in the BBF Module
- Key terms for BBF exposures
- Types of data entered in NHSN
- NHSN data fields
- Steps for entering BBF exposures in NHSN

Let's review what we have learned during this session. We have described the structure of NHSN, the Healthcare Personnel Safety Component, and the Blood and Body Fluid Exposure Module. Documents used in the BBF module include the protocol, forms, and tables of instructions. We defined key terms used in the BBF module and described the types of data entered in NHSN. We also talked about NHSN data fields. Now let's review our steps for entering BBF exposures.

# Review!



- Steps for entering BBF exposures in NHSN
  - ◆ Add monthly reporting plan
  - ◆ Enter HCW demographic data
  - ◆ Enter blood and body fluid exposure record
    - ★ Add HIV prophylaxis (if any)
    - ★ Add baseline laboratory records
  - ◆ Enter any follow-up laboratory testing



All laboratory and prophylaxis records must be linked to an exposure.

First, we submit our monthly reporting plan. Then, there are several ways we enter the HCW demographic data. We either add HCW from the left navigation bar, add an exposure where we can enter HCW demographic data at the top of the screen, or Find a HCW that has been previously entered.

Then, we enter our blood and body fluid exposure record. If we are also monitoring exposure management, we can enter PEP and baseline laboratory testing while in the exposure record. Follow-up laboratory testing is entered using the left navigation bar. Remember that all lab and PEP records are linked to an exposure.

## Analysis (Under Development)

- Line listings
- Frequency tables and charts
- Rate tables and charts
- Customizable outputs
- Export data for more sophisticated analyses of facility data

Analysis functions are currently under development. Some of the standard analyses that you will be able to perform using BBF exposure data include the following:

Line listings

Frequency tables and charts

Rate tables and charts

Customizable outputs

Export data for more sophisticated analyses of facility data

## References

For more information, visit the NHSN website:

<http://www.cdc.gov/ncidod/dhqp/nhsn.html>

- ◆ *NHSN Manual: Healthcare Personnel Safety Component Protocol*
  - ★ Tables of instructions for completing all forms
  - ★ Key terms
  - ★ CDC locations
  - ★ CDC occupation codes
- ◆ Purposes, data collection requirements and assurance of confidentiality
- ◆ NHSN data collection forms

For more information about these topics, please visit the NHSN Website. Thank you!



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**Questions or Need Help?  
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S.O.S.

60