



NHSN Healthcare Personnel Safety Component

Blood/Body Fluids Exposure
Module

Please Stand By...



NHSN Healthcare Personnel Safety Component

Blood and Body Fluids Exposure Module

Tara MacCannell

Division of Healthcare Quality Promotion

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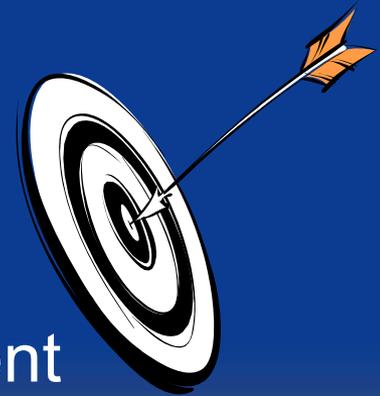


Target Audience



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
- ◆ Postexposure Prophylaxis (PEP)/treatment



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

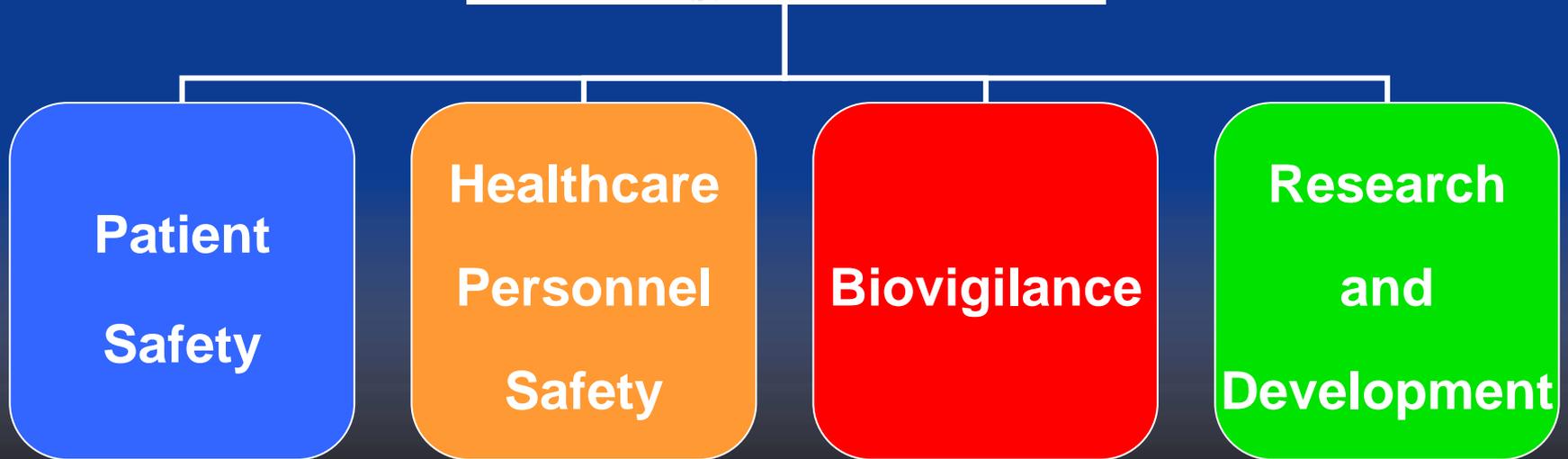
Objectives

- Describe purposes of using blood/body fluids exposure (BBF) module
- Describe how to enter data about BBF exposures into NHSN, consistent with your chosen monthly reporting plan
- Indicate requirements for various types of data fields
- Show examples of data entry
- Describe the process of linking exposures with interventions

HPS Component Purposes

- Continue and expand occupational exposure and infection surveillance, 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 flu vaccination campaigns
- Assess adoption and effect of strategies to prevent adverse events in HCP

NHSN Structure



HPS Component Modules

Healthcare
Personnel
Safety
Component

```
graph TD; A[Healthcare Personnel Safety Component] --- B[Blood/Body Fluid Exposure Module]; A --- C[Influenza Vaccination Module];
```

Blood/
Body Fluid
Exposure
Module

Influenza
Vaccination
Module

HPS 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

HPS 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

HPS 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

HPS 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.

HPS 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 membrane (i.e., eyes, nose, or mouth) with the fluids, tissues, or specimens listed in the definition of "Occupational Exposure."

HPS 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.

HPS BBF Exposure Module

Two options:

- ◆ Blood/body fluids exposure only
- ◆ Blood/body fluids exposure with exposure management (postexposure prophylaxis [PEP] and laboratory follow-up)

Types of Data Entered in HPS

- HCW demographics
- Events (e.g., blood/body fluids exposure) and interventions (e.g., PEP)
- Denominators
 - ◆ Measures of facility size (e.g., # beds, in-patient days)
 - ◆ Denominators for exposure rates, including facility size measures, numbers of HCP and FTEs
- Custom data
- Comments

Requirements for Data Fields

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)

Forms Used in the Blood and Body Fluids Exposure Module

- Healthcare Worker Demographic Data
- Exposure to Blood/Body Fluids
- Healthcare Worker Prophylaxis/Treatment
- Laboratory Testing

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 and mucocutaneous exposures
- ◆ Information about source patient
- ◆ Initial care given to the exposed HCW

BBF Exposure Form



Exposure to Blood/Body Fluids

OMB No. 0920-0666
Exp. Date: 03-31-2011

Facility ID#: _____ Exposure Event# _____

*HCW ID#: _____

HCW Name, Last: _____ First: _____ Middle: _____

*Gender: _____ *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: Y N
 - 1a. If No, specify name of facility in which exposure occurred: _____
2. *Date of exposure: ____/____/____
3. *Time of exposure: _____ AM PM
4. *Number of hours on duty: _____
5. Is exposed person a temp/agency employee? Y N
6. *Location where exposure occurred: _____
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)
 - 7b. Mucous membrane (Complete Q8, Q9, Section III and Section V–XI)
 - 7c. Skin: Was skin intact? Y N Unknown (If No, complete Q8, Q9, Section II and Section V–XI)
 - 7d. Bite (Complete Q9, and Section IV–XI)

HCW Demographic Data

- Use “Find” HCW to populate the demographic data fields of BBF exposure form (See training on HPS set up for importing HCP data.)

Or

- Enter HCW demographic data as required

Linking a HCW to an Exposure

 **NHSN Home**

Reporting Plan

HCW

Vaccination

Lab Test

Exposure

▶ Add

▶ Find

Prophy/Treat

Analysis

Surveys

Users

Facility

Group

Log Out

Department of Health and Human Services
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network (ISD-CLFT-NHSN1) | [NHSN Home](#) | [My Info](#) | [Contact us](#) | [Help](#) | [Log Out](#)

Integrated into DHQP MEMORIAL HOSPITAL (ID 10018) as MAGGIE.
Facility DHQP MEMORIAL HOSPITAL (ID 10018) is following the HPS component.

Add Exposure

Required 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 §

[Print PDF Form](#)

Healthcare Worker Demographics

Facility ID*: Exposure Event #:

HCW ID*:

Social Security #: Secondary ID:

Last Name: First Name:

Middle Name:

Gender*: Date of Birth*: 

Work Location*:

Occupation*:

Ethnicity:

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

Exposure Type Information

Exposure Type*:

General Exposure Information

Did the exposure occur in this facility?*:

HCW Demographic Data

- Use “Find” HCW to populate the demographic data fields of BBF exposure form (See training on HPS set up for importing HCP data.)

Or

- Enter HCW demographic data as required

Adding HCW Demographics

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*:

Exposure Event #: 465

HCW ID*:

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:

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

Adding HCW Demographics

Add Exposure

Mandatory fields marked with *

[Print PDF Form](#)

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 #: 504

HCW ID*:

Social Security #:

Secondary ID:

Last Name:

First Name:

Middle Name:

Gender*: ▼

Date of Birth*: 

Work Location*: ▼

Occupation*: ▼

Ethnicity: ▼

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

HCW Immune Status

Immune Status

Immune Status

Measles:	<input type="text"/>
Rubella:	Immune by Serology
Mumps:	Born before 1957
Varicella:	Immune by Documented Illness
	Immune by Documented Vaccination
Tetanus:	Vaccination In Progress
	Self-reported Vaccination
Pertussis:	Not Vaccinated, Self-reported Illness
HepatitisB:	Not vaccinated due to Exemption (religious beliefs)
	Not vaccinated due to Declination
Immune Status	Not vaccinated due to Contraindication
Immune Status	Not vaccinated due to Other/Unknown Reasons

Optional feature in NHSN to record immune status for selected vaccine-preventable diseases.

BBF Exposure Information

- Location in facility where exposure occurred
- Time and date of exposure
- Exposure type – percutaneous, mucosal or skin exposure
- Type of fluid or tissue involved
- Body site of exposure

Detailed BBF Exposure Information

- For percutaneous exposure, type of device or sharp involved in injury, depth of injury, circumstances of injury (e.g., who was holding device, intended purpose of device, etc.)
- For mucous membrane or skin exposure, quantity of BBF, activity when exposure occurred, and type of personal protective equipment used
- For bites, description of wound and activity when exposure occurred

Clean or Unused Sharps BBF Exposures

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
- Completion of remaining information on BBF Exposure Form optional
- Information about clean needle/sharp exposures not included in CDC exposure analyses

Exposure Management Data

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

Exposure Source Information

- Known source
- HIV status of source
- Test results: HBV, HCV, and HIV serology
- If HIV infected: stage of disease, antiretroviral drugs taken, most recent CD4 count, viral load value

BBF Exposure Form



Exposure to Blood/Body Fluids

OMB No. 0920-0666
Exp. Date: 03-31-2011

Section VII – Initial Care Given to Healthcare Worker

1. HIV postexposure prophylaxis:

Offered? Y N U

Taken: Y N U

2. HBIG given? Y N U

3. Hepatitis B vaccine given: Y N U

4. Is the HCW pregnant? Y N U

4a. If yes, which trimester? 1 2 3 U

CDC 57.205 (Back)

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Section VIII - Baseline Lab Testing

Was baseline test performed? Y N U *(If yes, complete Laboratory Testing Form)*

Section IX – Follow-up

1. Is it recommended that the HCW return for follow-up of this exposure? Y N

1a. If yes, will follow-up be performed at this facility? Y N

Section X – Narrative

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

Exposure Management

- Postexposure prophylaxis (PEP)
 - ◆ Initial PEP (initiated within 48 hours): Regimen and/or drugs, start and stop dates, reason for stopping
 - ◆ PEP change: same
 - ◆ Adverse reactions to PEP
- Laboratory follow-up: HIV, Hepatitis B, Hepatitis C, other tests

Prophylaxis / Treatment Data Entry

For HIV Infected Source

Stage of disease:

Is the source patient taking anti-retroviral drugs?:

Most recent CD4 count: mm³

Viral load: copies/ml Undetectable

Date /
(mo/yr):

Date /
(mo/yr):

Initial Care given to Healthcare Worker

HIV postexposure prophylaxis Offered?[§]: Y - Yes Taken?[§]: Y - Yes

HBIG Given?[§]: N - No

Hepatitis B vaccine given?[§]: Y - Yes

Enter Prophy/Treat

Enter Treatment/PEP

Baseline Lab Results

Was baseline testing performed?[§]: Y - Yes

Follow-up

Is it recommended that the HCW return for follow-up of this exposure?^{†§}: Y - Yes

Will follow-up be performed at this facility?^{†§}: Y - Yes

Narrative

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

Link to Prophylaxis / Treatment

Add Prophylaxis/Treatment

Mandatory fields marked with *

[Print PDF Fo](#)

Conditionally required fields marked with ^

Healthcare Worker Demographics

Facility ID*: DHQP MEMORIAL HOSPITAL (ID 10018) v

Med Admin ID #: 619

HCW ID#*: 1234567

Find HCW

Social Security #:

Last Name:

Middle Name:

Gender*: M - Male v

Date of Birth*: 02/04/1970



Work Location*: ED - EMERGENCY DEPARTMENT v

Occupation*: PHLEB - Phlebotomist v

Ethnicity:

Race: American Indian/Alaska Native

Asian

Black or African American

Native Hawaiian

White

Automatically filled
from HCW profile data

Auto-linked to exposure
once infectious agent
selected

Information about the Antiviral Medication

Infectious agent*: HIV - HIV v

Exposure Event #: 451

Date of Exposure: 04/30/2008

Link/Unlink

Record is Linked

HIV PEP Data



Healthcare Worker Prophylaxis/Treatment

OMB No. 0920-0666
Exp. Date: 03-31-2011

Page 1 of 2

BBF Postexposure Prophylaxis (PEP)

*required for saving

**required for completion

*Facility ID#: _____

*MedAdmin ID# _____

*HCW ID#: _____

*HCW Name, Last: _____ First: _____ Middle: _____

*Gender: _____

*Date of Birth: ___/___/___

*Infectious Agent: _____

*Exposure Event #: _____

Initial PEP

Indication: Prophylaxis

*Time between exposure and first dose: _____ hours

*Regimen: _____

*Drug: _____ *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

**Regimen: _____

**Regimen: _____

**Drug: _____ **Drug: _____ **Drug: _____ **Drug: _____

**Date Started: ___/___/___ **Date Stopped: ___/___/___

**Reason for Stopping: _____

HIV PEP Data



Healthcare Worker Prophylaxis/Treatment

OMB No. 0920-0666
Exp. Date: 03-31-2011

Page 1 of 2

BBF Postexposure Prophylaxis (PEP)

*required for saving

**required for completion

*Facility ID#: _____

*MedAdmin ID# _____

*HCW ID#: _____

*HCW Name, Last: _____ First: _____ Middle: _____

*Gender: _____

*Date of Birth: ____/____/____

*Infectious Agent: _____

*Exposure Event #: _____

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 |

HBV PEP

- If an HCW takes both HIV and HBV PEP, two different PEP records must be created
- It is not possible to record both HIV and HBV PEP on the same record
- Both records can be linked to the same exposure

Laboratory Testing Form



Laboratory Testing

OMB No. 0920-0688
Exp. Date: 03-31-2011

*required for saving

**required for completion

Facility ID: _____

Lab # _____

*HCW ID#: _____

HCW Name, Last: _____ First: _____ Middle: _____

*Gender: _____

*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	ATL	__/__/__	____ IU/L
	Confirmatory	__/__/__	P N I R		Amylase	__/__/__	____ IU/L
Hepatitis C	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
Hepatitis B	HBs Ag	__/__/__	P N R		Platelet	__/__/__	____ x10 ⁹ /L
	IgM anti-HBc	__/__/__	P N R		#Blood cells in urine	__/__/__	____ #/mm
	Total anti-HBc	__/__/__	P N R		WBC	__/__/__	____ x10 ⁹ /L
	Anti-HBs	__/__/__	mIU/mL		Creatinine	__/__/__	____ μmol/L
					Other: _____	__/__/__	____

Analysis (Under Development)

- 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 instruction for completing all forms
 - ★ Key terms
 - ★ CDC locations
 - ★ CDC occupation codes
- ◆ Purposes, data collection requirements and assurance of confidentiality
- ◆ NHSN data collection forms



Thank you!

nhsn@cdc.gov

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