

## Hazardous Substances Disease and Injury Reporting Tool via BPAC - Information for GPs

General Practitioners are asked to notify cases of disease and injury caused by hazardous substances seen in primary care to the Medical Officer of Health. A short electronic form developed by *bestpractice* Decision Support (BPAC) linked to MedTech, MyPractice, Profile and Indici practice management systems (PMSs) is available to make notification as simple as possible.

Notification may result in a Public Health Unit (PHU) investigation of a case, or a number of related cases may initiate the investigation of a particular substance in a region or nationwide.

See the short video *Video walkthrough for GPs* at <https://vimeo.com/359445622> or under the Resources tab of the Hazardous Substances Disease and Injury Reporting Tool (HSDIRT) for a summary of how to use the HSDIRT.

### 1 What to notify

GPs are asked to notify cases on suspicion, except for lead absorption where a confirmed blood lead level is required.

#### Hazardous substances disease or injury

This is a vast group of diagnoses; from children ingesting cleaning products or cosmetics, illness caused by exposure to chemicals such as solvents or chlorine, contact dermatitis from chemicals, a fireworks burn or eye injury, or huffing of butane.

A hazardous substance is officially defined as anything that can explode, catch fire, oxidise, corrode, or be toxic to humans; this is set down in the Hazardous Substances and New Organisms Act 1996. The same act was amended in 2005 requiring medical practitioners to notify cases to the Medical Officer of Health (see Appendix 1 for the legislation - section 143 2(A)).

#### Lead absorption

Notification of cases of lead absorption  $\geq 0.24$   $\mu\text{mol/L}$  from non-occupational lead exposure is required under the Health Act 1956 (also in Appendix 1). The electronic form can also be used for these notifications. Please note that clinician notification is encouraged alongside direct laboratory notification.

#### Chemical contamination of the environment

Cases of disease or injury arising from chemical contamination of the environment (eg. health effects following an agrichemical spray drift event, unintentional carbon monoxide poisoning) are also required under the Health Act 1956 and can be notified using this form.

#### Occupational cases

Both occupational and non-occupational disease and injuries can be notified. However, occupational notifications will not be followed up by the PHU. The Health and Safety at Work Act 2015 (section

199) requires the medical officer of health to notify WorkSafe of notifications that are considered to be work-related.

## 2 Accessing the notification form

After logging on at <https://www.bestpractice.org.nz> or through the PMS, look for 'Hazardous Substances & Lead Notifications' on the dashboard. Please phone your local PHU to notify cases where the electronic form is not available.

The screenshot shows the Best Practice website dashboard. At the top, there is a blue header with the text 'Welcome Test Pilot 2 not you?' and the Best Practice logo. Below the header, there are two main sections: 'Dashboard' and 'Modules'. The 'Dashboard' section on the left contains a date '14 January 2013' and a list of links: 'Parked Modules (2)', 'News', 'Settings', 'Send Feedback', 'Logout', and 'Disclaimer'. The 'Modules' section on the right has two tabs: 'Favourites' and 'Recently Used'. Under the 'Favourites' tab, there is a box containing a document icon and the text 'Hazardous Subs & Lead Notifications'. Below the 'Modules' section is a 'Module List' section. It has two tabs: 'Forms' and 'Clinical Toolkit'. The 'Forms' tab is active, showing a list of forms with checkboxes: 'AUDIT', 'Care Plans', 'Edinburgh Postnatal Depression Scale', 'Exercise Rx', 'First Trimester TOP', 'GAD7', 'Kessler 10', 'PHQ-9', 'Roland Morris Low Back', and 'Well Child Check'. In the 'Module List' section, the 'Hazardous Substances & Lead Notifications' module is highlighted, and a green checkmark is visible in the checkbox next to it. Two black arrows point from a text box below to the 'Hazardous Subs & Lead Notifications' link in the 'Favourites' section and the green checkmark in the 'Module List' section.

Select 'Hazardous Substances and Lead Notifications' from the Module list. Ticking the green box will add it to your favourites.

## 3 Completing the notification

The notification form can be completed at the time of consultation or for lead absorption, when results are confirmed. If necessary, 'Park' while awaiting further information.

The form has three tabs: 'Exposure Event' and 'Assessment', and Notifier/Patient Details (which is prepopulated from the PMS).

## Exposure Event tab

**Exposure Event Tab:** enter the details of the exposure here.

**Assessment tab:** click here to access the next tab.



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Exposure Event | Assessment | Notifier / Patient Details

Send notification to Medical Officer of Health at: Public Health South

**Exposure Event**

Exposure route  Ingestion  Inhalation  Skin contact  Eye contact

Date exposure began  OR Month/Year  OR Unknown

Exposure length  < 1 day  between 1 day & 1 month  ≥1 month  Unknown

Place of exposure  Home  Workplace  School/preschool  
 Public place  Unknown  Other

Specify Other

Intent  Unintentional  Intentional  Unknown

Is this case known to be linked to other cases of the same exposure event  Yes  No

**Substance**

Substance category(s)  Household chemical  Agrichemical  Industrial chemical  
 Fireworks/explosive  Lead  Unknown  
 Other

Household: eg. cosmetic, dishwashing powder, fumigants / Industrial: eg. solvent, chlorine  
 Agrichemical: eg. pesticide, animal remedies, spraydrift / Other: eg. asbestos, mercury, arsenic

Specify Other

**Lead exposure**

Did you obtain a whole blood lead specimen for this lead exposure event?  
 Yes  No

Whole blood lead concentration - µmol/L  
 26/09/2012  9

Main source of lead exposure  Occupational  Close contact with person whose occupation involves lead exposure  Paint  
 Hobby  Traditional medicine  Drinking water  Other

Enrolled in workplace lead monitoring  Yes  No  Unknown

Was exposure event spraydrift  Yes  No

Substance name (complete at least 1 field)

Chemical name	Product name	Common name	Unknown
e.g. sodium hypochlorite	Janola	bleach	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

Exposure Event | Assessment | Notifier / Patient Details

Choose which Public Health Unit to **send the notification to**, based on the patient's address (see Appendix 2). The default will be based on your practice address.

If **workplace** is selected, enter the patient's current occupation. This will not be written back to the PMS.

If the substance is **lead**, include the blood lead result from your inbox

Enter the **substance name** in at least one field. Where multiple substances are involved click on the plus sign to enter further names.

If waiting on further information, **park** the notification form. Parked forms can be accessed later from the BPAC dashboard.

Refresh Park Cancel Submit

## Assessment tab

Hazardous Substances Disease & Injury Reporting Tool

Exposure Event

Assessment

Notifier / Patient Details

**Systems affected** (tick all that apply)

<input type="checkbox"/> Central nervous system	<input type="checkbox"/> Eye	<input type="checkbox"/> Skin
<input type="checkbox"/> Cardiovascular	<input type="checkbox"/> Respiratory	<input type="checkbox"/> Gastrointestinal
<input type="checkbox"/> Musculoskeletal	<input type="checkbox"/> Psychological	<input type="checkbox"/> Nil
<input checked="" type="checkbox"/> Other		

Specify Other

**Symptoms / signs**

<input type="checkbox"/> Symptoms only	<input type="checkbox"/> Symptoms and signs	<input type="checkbox"/> No signs or symptoms
<input type="checkbox"/> Poisoning	<input type="checkbox"/> Corrosive burn	<input type="checkbox"/> Explosive/traumatic damage
<input type="checkbox"/> No injury/disease	<input checked="" type="checkbox"/> Other	

Poisoning: plausible exposure, with consistent symptoms  
Corrosive burn: direct skin contact with hazardous substance

Specify Other

**Treatment required**  Yes  No

**Lab tests requested**  None requested  Pending  Confirmed

**Include Inbox items?**  ←

Date	Title	Who
<input type="checkbox"/> 26/09/2012	Chl Sendaway	Dr Sam Entwistle
<input type="checkbox"/> 28/06/2012	Complete Blood Count	Dr Sam Entwistle
<input type="checkbox"/> 28/06/2012	Hba1C	Dr Sam Entwistle

Selected Results

**Referral**  Yes  No  Emergency department  Specialist  Other

Specify Other

**Additional Information**  ←

Exposure Event

Assessment

Notifier / Patient Details

←

**Diagnosis:** if the clinical findings are **not** consistent with the exposure select no injury/ disease. Alternatively, select other and provide further detail in text box.

If there are **relevant lab results**, include these by selecting from your inbox.

Any **additional information** on case or substance can be entered here.

Click **submit** to send completed form to the Medical Officer of Health.

## Notifier/Patient Details tab

Data will be entered directly from the PMS.

After submitting the form, a version will be saved in your outbox for future reference.

## 4 Resources

See the short video *Video walkthrough for GPs* under the Resources tab for a summary of how to use the HSDIRT.

The screenshot shows the 'Resources' tab of the 'Hazardous Substances Disease & Injury Reporting Tool'. The interface is divided into four main sections: 'Exposure Event', 'Assessment', 'Notifier / Patient Details', and 'Resources'. The 'Resources' section is active and contains two columns of links. The left column, titled 'GP Information', includes links for 'Frequently Asked Questions', 'Users Guide for GPs (short)', 'Users Guide for GPs', 'Useful resources for GPs', 'Legislation', and 'Video walkthrough for GPs'. The right column, titled 'PHU Information', includes links for 'Users Guide for PHUs', 'Useful resources for PHUs', 'Video walkthrough for PHUs', and 'HSDIRT Publications'. The 'Video walkthrough for GPs' and 'Video walkthrough for PHUs' links are highlighted with red boxes. At the bottom of the screen, there are four buttons: 'Refresh', 'Park', 'Cancel', and 'Submit'.

## 5 Other considerations

### Communication with patient

Although formal written consent is not required for a notification required under legislation, it is good practice to inform your patient of the notification. Advise your patient that the PHU may (or may not) be in touch with them to ask for more information.

### Communication with the Medical Officer of Health/PHU

Notifications can be discussed by phone with the PHU or Medical Officer of Health if there are concerns about the patient or event. GPs can also notify cases by calling the PHU and giving details via phone to your local PHU.

A Medical Officer of Health or PHU staff member may call the practice for more information on a notification, particularly if a direct laboratory notification of lead absorption has been received and clinical information is required.

The PHU may provide feedback to the practice on a case where public health advice has been given or an investigation carried out, to ensure continuity of care with those involved in the ongoing management of the case and/or members of their household.

## 6 What happens to the notification

Notification allows for appropriate public health control measures to be taken to reduce the risk of further cases occurring and for surveillance which monitors the effectiveness of current control measures and informs future policy and preventive actions.

The Medical Officer of Health will decide whether or not public health intervention is required. PHU staff add further information and the completed form without identifying data is forwarded to the Hazardous Substances Surveillance System (HSSS). The HSSS is administered by the Environmental Health Intelligence Programme, Massey University Wellington for the Ministry of Health.

## 7 Privacy and security of patient information sent via BPAC

All BPAC products need a user name and password to be able to access the programmes, BPAC run server side SSL certificates and use uuencoded documents and bit level encryption to secure the data in transmission.

BPAC meets all relevant aspects of the Health Information Privacy Code 1994 relating to the collection, management and disclosure of health information.

The security for the *bestpractice* servers and application meets or exceeds current New Zealand health standards and includes:

- Health provider access to *bestpractice* is confirmed with username, password server side digital certificate
- Servers are additionally protected from the outside world with industry grade firewalls, intrusion detection, server hardening and security vulnerability patching
- BPAC servers are housed in a secure data hosting facility that provides both electronic and physical security along with natural disaster and fire protection
- Storage of data and personal information complies with the Health Information Privacy Code 1994 and the Privacy Act
- The data base is security controlled and access is restricted. All authorised access to the data base is logged and activity recorded.
- All staff with access to any hardware or data files have signed confidentiality agreements as part of their employment contract.

## 8 Feedback or queries

If you have questions regarding the patient or notification, please contact your local PHU.

If you have feedback or questions regarding the BPAC software or access to the form these can be entered using the 'Send Feedback' link in the BPAC dashboard, or call 0800 633236.

## Appendix 1 Legislation

### Hazardous Substances and New Organisms Act 1996

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#### Definition of a hazardous substance

**hazardous substance** means, unless expressly provided otherwise by regulations, any substance—

- (a) with 1 or more of the following intrinsic properties:
  - (i) explosiveness:
  - (ii) flammability:
  - (iii) a capacity to oxidise:
  - (iv) corrosiveness:
  - (v) toxicity (including chronic toxicity):
  - (vi) ecotoxicity, with or without bioaccumulation; or
- (b) which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any 1 or more of the properties specified in paragraph (a)

#### Requirement to notify

##### 143 Notification of hazardous substances injuries

- (1) In this section,—

**hospital** means a hospital care institution within the meaning of [section 58\(4\)](#) of the Health and Disability Services (Safety) Act 2001

**medical practitioner** means a health practitioner who is, or is deemed to be, registered with the Medical Council of New Zealand continued by [section 114\(1\)\(a\)](#) of the Health Practitioners Competence Assurance Act 2003 as a practitioner of the profession of medicine.

- (2) If any person, upon admission to a hospital, is found to be suffering from any injury caused by a hazardous substance, the person for the time being in charge of the hospital shall give notice of the injury to the Medical Officer of Health.
- (2A) If a medical practitioner finds that a person who is not admitted to a hospital is suffering from an injury caused by a hazardous substance, the medical practitioner must give notice of the injury to the Medical Officer of Health.
- (3) The Medical Officer of Health shall ensure that information about any injury notified in accordance with subsection (2) or subsection (2A) (not being information which identifies any individual person) is supplied to the Minister of Health.

Section 143(1): substituted, on 22 December 2005, by [section 36\(1\)](#) of the Hazardous Substances and New Organisms (Approvals and Enforcement) Amendment Act 2005 (2005 No 123).

Section 143(2A): inserted, on 22 December 2005, by [section 36\(2\)](#) of the Hazardous Substances and New Organisms (Approvals and Enforcement) Amendment Act 2005 (2005 No 123).

Section 143(3): amended, on 22 December 2005, by [section 36\(3\)](#) of the Hazardous Substances and New Organisms (Approvals and Enforcement) Amendment Act 2005 (2005 No 123).

Source: New Zealand Legislation website,

<http://www.legislation.govt.nz/act/public/1996/0030/latest/DLM385138.html>.

## Health Act 1956

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Requirement to notify lead absorption and poisoning arising from chemical contamination of the environment.

### Order

**1 Title**

This order is the Infectious and Notifiable Diseases Order 2021.

**2 Commencement**

This order comes into force on 9 April 2021.

**3 Schedule 2 of Health Act 1956 amended**

In the Health Act 1956, Schedule 2, [Section B](#), item relating to lead absorption equal to or in excess of 0.48  $\mu\text{mol}/\ell$ , replace “0.48  $\mu\text{mol}/\ell$ ” with “0.24  $\mu\text{mol}/\ell$ ”.

Source: New Zealand Legislation website,

<https://www.legislation.govt.nz/regulation/public/2021/0035/latest/whole.html#LMS454200>



## Appendix 2 Maps of PHU boundaries

