

Hazardous Substances Injury and Disease and Lead Absorption Notifications via BPAC - Information for GPs

General Practitioners are now asked to notify cases of hazardous substance disease and injury seen in primary care to the Medical Officer of Health. A short electronic form linked to MedTech32 and developed by Bestpractice decision support (BPAC) is available to make notification as simple as possible.

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

1 What to notify

Hazardous substance injury or disease

This is a vast group of diagnoses; from children swallowing cleaning products or cosmetics, intentional overdoses with agrichemicals, carbon monoxide poisoning, 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 ≥ 0.48 $\mu\text{mol/L}$ 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 the clinician notification is encouraged alongside direct laboratory notification.

Chemical contamination of the environment

Cases of disease or injury due to chemical contamination of the environment eg. health effects following an agrichemical spray drift event, or skin effect following an oil spill event such as the MV Rena, 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. In some instances, the PHU may refer the notification to the Labour Group, Ministry of Business Innovation and Employment (MBIE) for investigation but this will only occur with the consent of the patient.

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

2 Accessing the notification form

After logging on at <https://www.bestpractice.org.nz> or through MedTech32, look for 'Hazardous Substances & Lead Notifications' on the dashboard. Access to the form for users of other PMSs will be available later in 2013. 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 'Welcome Test Pilot 2 not you?' message and the Best Practice logo. Below this, there are two main sections: 'Dashboard' and 'Modules'. The 'Dashboard' section shows the date '14 January 2013' and a list of links: 'Modules', 'Parked Modules (2)', 'News', 'Settings', 'Send Feedback', 'Logout', and 'Disclaimer'. The 'Modules' section has two tabs: 'Favourites' and 'Recently Used'. Under 'Favourites', there is a link for 'Hazardous Subs & Lead Notifications'. Below the 'Modules' section is a 'Module List' section. It contains a list of modules with checkboxes and a 'green box' next to 'Hazardous Substances & Lead Notifications'. The 'green box' is a small green square with a white checkmark. To the right of the 'Module List' is a 'Forms' section with a list of forms and checkboxes. The 'Hazardous Substances & Lead Notifications' module is highlighted in the 'Module List' section. Two arrows point from the 'Hazardous Substances & Lead Notifications' link in the 'Favourites' section to the 'Hazardous Substances & Lead Notifications' link in the 'Module List' section, and another arrow points from the 'green box' in the 'Module List' section to the 'Hazardous Substances & Lead Notifications' link in the 'Favourites' 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 MedTech).

Exposure Event tab

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

Assessment tab: click here to access the next tab.

Choose which Public Health Unit to send the notification to, based on the patient's address. 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.

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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 [calendar icon] OR Month/Year [text] 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 [text]

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 [text]

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 [calendar icon] 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"/>
[text]	[text]	[text]	<input type="checkbox"/>

Refresh Park Cancel Submit

Assessment tab

Hazardous Substances Disease & Injury Reporting Tool

Exposure Event	Assessment	Notifier / Patient Details												
<p>Systems affected (tick all that apply)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> Central nervous system <input type="checkbox"/> Cardiovascular <input type="checkbox"/> Musculoskeletal <input checked="" type="checkbox"/> Other </div> <div style="width: 30%;"> <input type="checkbox"/> Eye <input type="checkbox"/> Respiratory <input type="checkbox"/> Psychological </div> <div style="width: 30%;"> <input type="checkbox"/> Skin <input type="checkbox"/> Gastrointestinal <input type="checkbox"/> Nil </div> </div> <p>Specify Other: <input style="width: 100%;" type="text"/></p>														
<p>Symptoms / signs</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> Symptoms only <input type="checkbox"/> Poisoning <input type="checkbox"/> No injury/disease </div> <div style="width: 30%;"> <input type="checkbox"/> Symptoms and signs <input type="checkbox"/> Corrosive burn <input checked="" type="checkbox"/> Other </div> <div style="width: 30%;"> <input type="checkbox"/> No signs or symptoms <input type="checkbox"/> Explosive/traumatic damage </div> </div> <p><small>Poisoning: plausible exposure, with consistent symptoms Corrosive burn: direct skin contact with hazardous substance</small></p> <p>Specify Other: <input style="width: 100%;" type="text"/></p>														
<p>Treatment required <input type="radio"/> Yes <input type="radio"/> No</p> <p>Lab tests requested <input type="radio"/> None requested <input type="radio"/> Pending <input checked="" type="radio"/> Confirmed</p> <p>Include Inbox items? <input checked="" type="checkbox"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Title</th> <th>Who</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> 26/09/2012</td> <td>Chl Sendaway</td> <td>Dr Sam Entwistle</td> </tr> <tr> <td><input type="checkbox"/> 28/06/2012</td> <td>Complete Blood Count</td> <td>Dr Sam Entwistle</td> </tr> <tr> <td><input type="checkbox"/> 28/06/2012</td> <td>Hba1C</td> <td>Dr Sam Entwistle</td> </tr> </tbody> </table> <p>Selected Results: <input style="width: 100%;" type="text"/></p>			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
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<p>Referral <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="checkbox"/> Emergency department <input type="checkbox"/> Specialist <input checked="" type="checkbox"/> Other</p> <p>Specify Other: <input style="width: 100%;" type="text"/></p>														
<p>Additional Information <input style="width: 100%;" type="text"/></p>														

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 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. Patient resources are also available under the 'Resources' section and may be useful for your patient.

Communication with the Medical Officer of Health/PHU

Notifications can be discussed by phone with the public health unit or Medical Officer of Health if there are particular 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 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.

5 What happens to the notification

Notification allows for appropriate public health control measures to be taken to reduce the risk of further cases occurring, for disease surveillance and for monitoring of the effectiveness of control measures.

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 Centre for Public Health Research, Massey University Wellington for the Ministry of Health.

6 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 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

7 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

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/DLM381222.html?search=ta act H ac%40acur%40anif an%40bn%40rn 25 a&p=2](http://www.legislation.govt.nz/act/public/1996/0030/latest/DLM381222.html?search=ta+act+H+ac%40acur%40anif+an%40bn%40rn+25+a&p=2) . Cited on 9 January 2013.

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

Schedule 2
Diseases notifiable to medical officer of health (other than
notifiable infectious diseases)

Schedule 2: replaced, on 26 November 1982, by section 6 of the Health Amendment Act 1982 (1982 No 34).

Section A Conditions arising from occupation

Schedule 2 Section A: amended, on 13 December 2012, by [clause 4](#) of the Infectious and Notifiable Diseases Order 2012 (SR 2012/339).

Section B Other conditions

Cysticercosis
Decompression sickness
Lead absorption equal to or in excess of 0.48 $\mu\text{mol}/\ell$
Poisoning arising from chemical contamination of environment
Taeniasis
Trichinosis

Source: New Zealand Legislation website, <http://www.legislation.govt.nz/act/public/1956/0065/latest/DLM308746.html> Cited on 9 January 2013.

Appendix 2 Maps of PHU boundaries

