



West Coast District Health Board

Te Poari Hauora a Rohe o Tai Poutini

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28 August 2018

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RE Official information request WCDHB 9175

We refer to your email dated 26 July 2018 requesting the following information under the Official Information Act from West Coast DHB, regarding recent letters between yourself and Dr Brunton, Medical Officer of Health, West Coast, about the planned 1080 aerial poison operation in the West Coast area.

Dr Brunton has no record of any prior correspondence from you by letter or email.

Your email also says that Dr Brunton “recently stated to the Westland Council that (quote) *“information about the signs and symptoms of 1080 poisoning, the requirements around taking and transporting blood specimens for 1080 testing and also how to notify cases of suspected poisoning to Community and Public Health. This latter process is called the Hazardous Substances Disease and Injury Reporting pathway”*.

Dr Brunton did not make any comments to the Westland Council. The comment attributed to her appeared in a local newsletter and was copied from an email she sent to a local resident in response to his concerns.

With regard to the specific questions posed to Dr Brunton in your email:

- 1. Please specify what exactly WAS the information regarding "signs and symptoms of 1080 poisoning and transporting etc" sent to the healthcare professionals (enclose a copy). And what evidence is there that this information has subsequently been:**

A copy of the written advice provided by Dr Brunton to healthcare professionals in Westland is attached as **Appendix 1**. This includes a Health Alert, a document providing advice on investigating and managing suspected fluoroacetate (1080) poisoning, and a form to use to report the details of any suspected cases to the local public health unit.

a. received and understood (& by whom?)

The written advice was provided by email to the usual contact details for these healthcare professionals. We are unable to provide comment on what was understood by recipients, as this is a matter of opinion, rather than official information. However, you will note that Dr Brunton’s written advice encourages practitioners to contact her if they have questions and some of these practitioners have subsequently contacted her to clarify aspects of her advice.

b. that practical procedures are in place in order to adhere to these guidelines?

The Grey Hospital Laboratory is aware of the requirements for the handling and transport of specimens to the 1080 reference testing laboratory in Canterbury (Landcare Research Ltd) and has liaised with the reference lab to ensure that transport and temporary storage of specimens is carried out according to their protocols. All the West Coast DHB clinics in South Westland, the private general practice in Hokitika, and the Emergency Department at Grey Hospital have supplies of the required specimen containers.

c. what audits are in place to ensure that these guidelines are adhered to, and what consequences if any, there are for those who do NOT adhere to this policy?

No audits are planned. Adherence to clinical guidelines is not mandatory. In addition to considering clinical guidelines and/or advice, healthcare professionals are also expected to exercise their clinical skills and judgement in each case to decide on the best course of action for their patient.

You will no doubt be very aware of the case of the Putaruru Indian family last year, which, even though (as Prof Ian Shaw has confirmed in writing) the initial diagnosis on the patients' case notes highlighted that the primary testing required was for 1080 poisoning, that for an unknown reason the healthcare professionals involved closely with this case appear to be have been overruled and the relevant tests were not carried out.

2. Please therefore confirm - from your perspective as a healthcare professional with considerable authority -what lessons have been learned from this particular case of non-compliance with the existing protocols around 1080 poisoning risks?

Dr Brunton has no detailed knowledge of the particular case referred to, beyond the information available in the media. As such, she is not in a position to comment on whether or not your conclusions about the case are correct, or what lessons may have been learnt.

3. Also how will healthcare professionals be empowered to overcome the 'political mist' that surrounds 1080 poisoning risks, in order to do what is socially and morally right and to undertake a duty as a public servant: i.e. protect our health?

West Coast healthcare professionals are expected to exercise their own clinical judgement in any individual case and to abide by the codes of professional conduct (including ethical and legal obligations) which apply to their particular profession.

I trust that this satisfies your interest in this matter.

Please note that this response, or an edited version of this response, may be published on the West Coast DHB website ten working days after your receipt of this response.

Yours sincerely



Carolyn Gullery
Executive Director
Planning, Funding & Decision Support

**Community &
Public Health
West Coast**

a division of
Canterbury District Health Board

HEALTH ALERT – 1080 (Fluoroacetate)

To all primary care health professionals in Westland

August 2018

As many of you will be aware, aerial 1080 drops are controversial and there has been community concern and protest action regarding proposed drops in South Westland this winter. Two aerial drops are being carried out in the vicinity of townships. One, called Mikonui-Karnback-Poerua, is being conducted by Vector Free Marlborough in areas around Ross and Hari Hari. The other, called Hercules-Mt Price, is being conducted by Vector Control Services in areas around Whataroa. All public drinking water supply catchments are excluded from these operations. The public health permissions for these operations also impose exclusions around the townships and dwellings, as well as requirements for testing of public water supplies, amongst other things.

The reason that I am writing to you is that there is a very high level of concern in these communities about possible exposure to 1080. It is possible that some local people may seek medical attention during or after these drops for symptoms which they believe are attributable to 1080 exposure. While 1080 exposure outside the operational area of the drop is extremely unlikely, I am taking the opportunity to remind you of the Ministry of Health's advice on assessing and managing cases of possible 1080 exposure. Although that was issued in respect of a threat to contaminate baby formula in 2015, the advice on clinical management and reporting still applies in this situation. I have attached an adapted version of the Ministry guidance. Please read this carefully. The symptoms of 1080 poisoning by routes other than ingestion, such as inhalation, are similar to those listed in this advice.

All cases of suspected 1080 poisoning must be reported to the Medical Officer of Health. To do this during office hours, please telephone 03 768 1160, and out of hours telephone the Grey Hospital operator and ask for Health Protection Officer on Call. A copy of the notification form is also attached so you can see what information is required.

Testing of blood or urine for 1080 is not usually funded but in cases of suspected 1080 poisoning related to these aerial 1080 operations, this test will be free to the patient provided that the test is clinically justified and the case is notified to the Medical Officer of Health. If your patient is asymptomatic and your assessment is that it is unlikely they have been exposed to 1080 but they are insistent that they have been, please take a blood sample for fluoroacetate testing and report their case anyway (see below). If, after investigation by public health staff, it is concluded that 1080 exposure was highly unlikely, the patient can still elect to pay for the test themselves.

If you need further advice on clinical management of suspected 1080 poisoning, please contact the National Poisons Centre.

Don't hesitate to contact me if you have other questions.



Dr Cheryl Brunton, Medical Officer of Health, West Coast

Fluoroacetate (1080) Poisoning

Fluoroacetate (1080)

- Fluoroacetate is a pesticide used in New Zealand to control possums, rats and stoats.
- It is highly toxic to humans.
- In aerial pest control operations, it is applied in the form of cereal pellets containing 1.5-2.0 grams sodium fluoroacetate per kilogram of bait. These baits are usually applied at rates of 2-4 kg/hectare.
- Fluoroacetate is readily absorbed and its active metabolite, fluorocitrate, acts rapidly to disturb the citric acid (Krebs) cycle. The poison competitively inhibits enzyme activity and oxidative metabolism, leading to accumulation of citrate and lactate, resulting in a metabolic acidosis and electrolyte abnormalities (hypocalcaemia and hypo- or hyperkalaemia).
- Metabolically active tissues, such as cardiac, renal or neural tissue, are critically affected, leading to multi-organ failure, while biochemical imbalances lead to further morbidity.
- Sub lethal doses of fluorocitrate are substantially eliminated from the body within 24 hours of exposure.

Presentation of symptoms

The poison acts rapidly. Depending on the dose ingested or inhaled, symptoms usually occur within 30 minutes of exposure and progress rapidly. Lower doses may take longer (up to three hours) to produce symptoms.

Infants or children

- Symptoms of ingestion are those of an unwell infant or child, and are initially non-specific. Clinicians evaluating a sick child should follow normal assessment and management approaches.
- If the infant or child is asymptomatic at presentation or four hours after the possible exposure to fluoroacetate, and you are confident the child will be adequately observed, it is reasonable to discharge the child home.
- If a child is mildly unwell, has been symptomatic for several hours but is NOT becoming progressively worse, it is extremely unlikely that their illness is due to fluoroacetate poisoning. Other diagnoses need to be considered, investigated and managed accordingly.

The early and late signs of fluoroacetate poisoning are shown below:

Early signs	Irritable or inconsolable
	Rapid shallow breathing
	Abdominal pain
	Vomiting
Late signs	Collapse or unresponsiveness
	Seizures

The child may also be flushed in the cheeks, sweaty, or appear pale and apprehensive, or have glazed eyes and not focusing on anything.

Adults

- Symptoms of ingestion are those of an unwell adult, and are initially non-specific. Clinicians evaluating an unwell adult should follow standard assessment and management clinical pathways.
- If the patient is asymptomatic at presentation or four hours after the possible exposure to fluoroacetate, and you are confident the patient will be adequately observed, it is reasonable to discharge them for 24-hour home observation. It is important the key home care carer/observer is fully briefed about warning symptoms and signs indicating 1080 poisoning and should have a low threshold for seeking ED review on suspicion.
- If an adult is mildly unwell, has been symptomatic for several hours but is **not** becoming progressively worse, it is extremely unlikely that their illness is due to fluoroacetate poisoning. Other diagnoses need to be considered in the differential diagnosis.
- The decision to pursue 1080 testing is subject to the judgement of the treating clinician, however, any samples should be taken within 6 hours of exposure (see below).

The early and late signs of fluoroacetate poisoning are shown below:

Early signs	Apprehension and agitation
	Rapid shallow breathing
	Abdominal pain
	Vomiting
Late signs	Confusion and decreasing level of consciousness
	Coma
	Seizures

Adult patients may also be flushed in the cheeks, sweaty, appear pale, apprehensive, and may appear glazed or unresponsive.

Initial management of suspected fluoroacetate poisoning

- There is no antidote for fluoroacetate poisoning
- If you are concerned that the patient is seriously unwell, call '111' Emergency Services immediately
- Management of suspected poisoning is supportive and requires hospital level care. Prompt referral and transfer is paramount as other potential causes of presentation need to be investigated
- Do not induce vomiting. As fluoroacetate is rapidly absorbed into the body after ingestion, inducing vomiting will not help to decrease toxicity and in fact may cause more harm due to aspiration or choking
- Benefits from activated charcoal are not proven and it is NOT recommended that this be used outside of a hospital setting due to risk of aspiration

Laboratory testing

- There are no laboratory tests specific for 1080 poisoning, apart from the measurement of fluoroacetate in blood or urine.
- You should request any tests based on your clinical assessment of the patient.
- If you suspect fluoroacetate poisoning, please take a blood sample for preference. Ideally, this should be taken within 2-8 hours of the exposure if at all possible, as fluoroacetate is rapidly eliminated from the body after exposure.
- If, by the time you see the patient, the time since exposure is greater than 8 hours, it is still worth taking a sample if the exposure was less than 24 hours ago.

- Blood samples for 1080 testing must be taken into 10-mL vacutainer tubes (green top – sodium heparin). These will be spun down at Grey Hospital Laboratory to provide samples for transport to the Toxicology Laboratory at Landcare where 1080 testing is done. Samples should be kept chilled (3-10°C) before despatching.
- If you are unable to obtain a blood sample, the alternative is to take a urine sample.
- Urine samples should be taken into a clean, disposable cup and transferred to a 70-mL specimen container (pink-topped, non-sterile is suitable). A minimum sample of 40 mL is required as samples may need to be analysed in duplicate to confirm the result. The samples should be kept chilled (~5°C), awaiting transport, and should be frozen (-10°C) if they are to be stored longer than 1 day.
- The test for fluoroacetate is highly sensitive, so it is important to avoid contamination of the urine specimen. Any clothing which may have come into contact with 1080 should be removed, and the patient's hands and any exposed skin washed with soap and water before taking the urine sample.

Important Note

Fluoroacetate testing is not usually funded but in cases of suspected 1080 poisoning, this testing will be free to the patient provided that the test is clinically justified and the case is notified to the Medical Officer of Health.

If you do not believe, based on your patient's history and your clinical assessment of their condition, that they have been exposed to 1080 but they are insistent that they have, please take a blood sample for fluoroacetate testing and report their case anyway (see below). If, after investigation by public health staff, it is concluded that 1080 exposure was highly unlikely, the patient can still elect to pay for the test themselves.

Reporting requirements

- Section 74 of the Health Act 1956 requires medical practitioners to notify Medical Officers of Health of cases of listed notifiable diseases, in this case poisoning arising from chemical contamination of the environment.
- Notification is also mandated under section 143 of the Hazardous Substances and New Organisms Act 1996 which requires hospitals and medical practitioners to notify hazardous substances injuries to Medical Officers of Health.
- Please notify the Medical Officer of Health of suspected or confirmed cases of fluoroacetate (1080) poisoning without delay.
- During office hours you can make the notification by phoning Community and Public Health (West Coast) on 03 768 1160 and asking to speak to the duty Health Protection Officer. After hours, please phone Grey Hospital switchboard and ask the Operator to contact the Health Protection Officer on call.
- Information about hazardous substances disease and injury reporting can also be found on HealthPathways, including a form with the details that are required (copy attached).

The above advice has been adapted from that provided by the Ministry of Health in March 2015 in response to a threat to contaminate infant formula with 1080. It also includes material from the sampling protocols of the Toxicology Laboratory at Landcare Research Ltd, Lincoln.

Hazardous Substances Disease and Injury Reporting Case Report Form

Fax to: 03 768 1169. Attention: On-call Health Protection Officer

For queries call the Duty Health Protection Officer at Community and Public Health, West Coast on 03 768 1160

After hours call the Grey Hospital switchboard on 03 769 7400 and ask for the on-call Health Protection Officer

Notifier Details

Date .../.../.... Name Assessment Date .../.../....

Practice Phone

Case Demography

Family Name First Name(s)

Date of Birth .../.../.... NHI Sex ☐ Male ☐ Female

Parent/Guardian Name(s).....

Address Home Phone

..... Mobile.....

Ethnicity Occupation

Has the patient/guardian been informed of this notification? ☐ Yes ☐ No

Exposure Event

Exposure Route ☐ Ingestion ☐ Inhalation ☐ Skin contact ☐ Eye Contact ☐ Unknown

Exposure onset date: .../.../.... Time: Place of Exposure:

Exposure Length ☐ < 24h ☐ 1 day – 1 month ☐ >1month ☐ unknown

Occupational exposure? ☐ Yes ☐ No

Is this case linked to other cases?.....

Hazardous Substance

Chemical name (if known)

Product name Common name

..... Date of sample:..../..../.... Time of sample

Assessment

Symptoms and signs.....

Consistent with the substance exposure? ☐ Yes ☐ No ☐ Unsure