



MANATU HAUORA

Risk Assessment Framework for Managing Ill Travellers with Suspected Symptoms of MERS-CoV and Contacts Arriving in New Zealand: Guidelines for DHB Public Health Units.

23 July 2015

Please notify the Ministry of Health immediately if responding to an ill traveller with suspected MERS-CoV.

0800 GET MOH or 0800 438 664

Purpose

This document is to provide operational guidelines for public health unit border health protection officers (medical officers of health or health protection officers) who may be required to respond to the notification of illness in an aircraft passenger or crew member who has symptoms of Middle Eastern Respiratory Syndrome – Coronavirus (MERS-CoV), including the identification and management of contacts. This information is provided to guide public health officers in undertaking their health risk assessment and response at the border. Suspected cases or contacts within the community are outside the scope of this guideline (please refer to Ministry of Health Communicable Diseases Manual 2012).

Table of Contents

1. World Health Organization Advice	2
2. Clinical Features and Transmission of MERS-CoV	2
3. Notification of Ill Traveller on Aircraft	3
4. Notification After Passengers and Crew Have Disembarked	3
5. Notification by the Ministry of Health/National Focal Point	3
6. MERS CoV Suspected Case - Risk Assessment and Case Management	4
7. Contact Tracing and Contact Management	4
8. Infection Prevention and Control and Cleaning	6
9. Communications	6
Appendix 1 Management of Ill Travellers	8
Appendix 2: Case Definition for MERS-CoV as at 19 June 2015	9
Appendix 3: Health Advice Card	11
Appendix 4: Example of a 'Contact Daily Monitoring Form'	13
Appendix 5: Example of a 'Measuring Your Temperature Form'	15
Appendix 6. Fact Sheets for Close Contacts	16
Appendix 7. Fact Sheets for Casual Contacts	19
Appendix 8: Examples of Standard Messaging	20

References

The information in these guidelines has been sourced from the following:

1. New Zealand Ministry of Health Communicable Diseases Manual, 2012. Available at <http://www.health.govt.nz/publication/communicable-disease-control-manual-2012>
2. World Health Organization. Infection prevention and control during health care for probable or confirmed cases of novel coronavirus (nCoV) infection. Interim guidance, 6 May 2013. Geneva: WHO; 2013. Available from: http://www.who.int/csr/disease/coronavirus_infections/IPCnCoVguidance_06May13.pdf
3. European Centre for Disease Prevention and Control. Factsheet for health professionals 2014. Available from: <http://www.ecdc.europa.eu/en/healthtopics/coronavirus-infections/mers-factsheet/Pages/default.aspx>.
4. European Centre for Disease Prevention and Control. Rapid risk Assessment Severe Respiratory Disease associated with Middle East Respiratory Disease coronavirus (MERS-CoV), 16th Update, 5th June 2015. Available from: <http://ecdc.europa.eu/en/publications/Publications/middle-east-respiratory-syndrome-coronavirus-rapid-risk-assessment-5-June-2015.pdf>

1. World Health Organization Advice

On 16 June 2015, the World Health Organization convened a meeting of its Emergency Advisory Committee to discuss MERS-CoV. The Committee concluded that the conditions for a Public Health Emergency of International Concern under the International Health Regulations (2005) have not been met.

The World Health Organization does not recommend the application of any travel or trade restrictions and considers screening at points of entry to be unnecessary at this time. Raising awareness about MERS-CoV and its symptoms among those travelling to and from affected areas is good public health practice.

In line with this advice, the Ministry of Health is not implementing any additional measures at points of entry. Information for travellers is available on the Ministry of Foreign and Affairs and Trade's Safe Travel website, and on the Ministry of Health's website. Health officials have provided signage to international airports with advice for travellers who may become unwell after entering New Zealand (the same advice as the health advice card shown in Appendix 3). Health officials will also work with DHB public health units and international airports to make the health advice cards available at airports (in a range of languages) for travellers to pick up if they wish.

2. Clinical Features and Transmission of MERS-CoV

MERS is caused by a coronavirus. Typical symptoms include fever coughing and breathing difficulties. Some cases have also presented with gastro-intestinal symptoms (vomiting or diarrhoea). Asymptomatic cases and cases with only mild flu-like symptoms have also been reported. The incubation period is 2 to 14 days (average 5-6 days). The exact period of communicability is unknown and continues to be investigated.

To date routes of transmission have been limited to person-to-person transmission through direct contact, by contaminated materials and by respiratory droplets. Until the recent outbreak in South Korea, cases were either located or had recent travel history to the Middle East. Sustained community transmission has not occurred to date with most outbreaks linked to healthcare facilities.

MERS-CoV is a quarantinable and notifiable infectious disease in New Zealand. The provisions of Section 4, Health Act 1956 are available if required to support case management and contact tracing.

3. Notification of Ill Traveller on Aircraft

The following is business as usual border health practice.

The captain of an international flight is required to notify border health protection officers (medical officer of health or health protection officer) if passengers or crew on board the craft have symptoms of concern. The symptoms of concern are defined by the World Health Organization and the International Civil Aviation Organisation and are:

A fever (temperature of 38°C or greater) associated with one or more of the following:

- appearing obviously unwell
- persistent coughing
- impaired breathing
- persistent diarrhoea
- persistent vomiting
- skin rash
- bruising or bleeding without previous injury
- confusion of recent onset.

If border health protection officers are notified of an ill passenger or crew, the ill traveller protocol should immediately be activated. Inform the Ministry of Health on 0800 GET MOH (0800 438 664). The aircraft will no longer be deemed to have pratique and so must be met/assessed on arrival by border health protection officers.

The subsequent actions will be dependent on the public health risk assessment, and may require border response plans to be activated.

See Appendix 1 for a flow diagram of the process for managing a symptomatic traveller.

See Appendix 8 for examples of standard communications messages including inflight messaging prior to passengers disembarking.

4. Notification After Passengers and Crew Have Disembarked

There is no additional New Zealand border screening for MERS-CoV. However if border health protection officers are contacted by Customs officers (or other border staff) regarding an unwell passenger identified during customs processing then a public health assessment and any required actions follow up should be taken. This could include gathering further information (symptoms, travel history, exposures) and requesting a medical assessment.

See Appendix 1 for a flow diagram of the process for managing a symptomatic traveller.

5. Notification by the Ministry of Health/National Focal Point

The New Zealand National Focal Point may be advised of contacts of a MERS-CoV case. Contacts may be on route to New Zealand or may have arrived up to 14 days previously. Border health protection officers will receive communication from the Ministry of Health of any confirmed cases of MERS-CoV who have travelled internationally and where follow up of contacts in New Zealand is required.

Information on identified contacts from the specific flight/s living or travelling in New Zealand will be collated by Customs and forwarded either directly to the relevant public health unit or to the Ministry of Health who will then forward it on. If an aircraft seating plan is available this will also be provided.

6. MERS CoV Suspected Case - Risk Assessment and Case Management

If initial information gathering indicates the Ill Traveller has exposure history and symptoms consistent with MERS-CoV public health unit border health protection officers must undertake the following steps:

1. Confirm symptoms meet the Ministry of Health's current case definition. (*See Appendix 2 for MERS CoV Case Definition*)
2. Report suspect case to the Ministry of Health on 0800 GET MOH (0800 438 664)
3. Ensure appropriate and necessary medical care is being arranged/provided
4. Interview case
5. Identify contacts and commence contact tracing

7. Contact Tracing and Contact Management

Contact tracing is required for the prevention of onward transmission, awareness-raising and early detection of suspected cases. Contacts should be managed in accordance with Table 1 *Categories and management of contacts of MERS-CoV*.

If a contact is clinically assessed as having an illness compatible with MERS-CoV and has had risk exposures then they are to be treated as a suspected case and be required to self-isolate immediately (refer section 5.0 above)..

For contacts who do not have any symptoms of concern, explain that they will be required to self-monitor. Carefully explain how to measure, record and report temperature twice daily for the full incubation period after the last contact with the case. It is recommended that public health officers, and people who are self-monitoring, use sublingual or tympanic thermometers (and NOT forehead thermometers). Ensure who ever will be undertaking this monitoring has the appropriate equipment and knows how to use it

The local public health unit will contact them daily to monitor for symptoms for up to 14 days after the potential last exposure.

Emphasise the need to report immediately to the local public health unit if symptoms develop, including fever (at least 38°C), or any other concerns and to self-isolate. Further clinical assessment and monitoring may be required at a medical facility.

The public health unit will make an assessment of the person and notify the Ministry of Health on 0800 GET MOH (0800 438 664).

In general there are no limitations to activities of daily living or use of public transport or facilities provided contacts have no symptoms and they adhere to the monitoring requirements. The public health unit may, on a case by case basis place additional restrictions eg, on return to work.

See Appendix 3 for Health Advice Card

See Appendix 4 for Contact Daily Monitoring Form

See Appendix 5 for Measuring your Temperature Form

See Appendix 6 for Fact Sheets for Close Contacts

Table 1: Categories and Management of Contacts of MERS-CoV

Category of contact	Definition	Advice /Action	Monitoring
Casual/no contact	No direct or close contact with a case for example, travelling on the same aeroplane.	Provide advice about absence of risk. Provide fact sheet and health advice card (see appendices).	Nil.
Close contact	<p>Anyone who provided care for or handled clinical samples/respiratory secretions from the case, including a health care worker or family member, or who had other similarly close physical contact without the recommended infection control precautions.</p> <p>Anyone who stayed at the same place as (eg, lived or worked with or visited) a probable or confirmed case while the case was ill without taking recommended infection control precautions.</p> <p>Any passenger seated in the same row as the case, or up to two rows in front of or behind a case, and any crew member who has had prolonged interaction with the ill person.</p>	<p>Public health unit staff should liaise with the Ministry of Health regarding contact tracing and management of identified contacts.</p> <p>Conduct assessment to confirm contact is asymptomatic.</p> <p>All relevant circumstances should be considered as part of the risk assessment informing actions and monitoring.</p> <p>Most people will have no limitations to daily living activities provided they are asymptomatic and adhering to monitoring. People should not work in a New Zealand healthcare setting until the completion of the monitoring period.</p> <p>On a case by case basis, public health staff may require additional controls or restrictions.</p> <p>Provide support and advice about level of risk.</p> <p>Provide fact sheet and health advice (see appendices).</p>	Twice daily monitoring for fever (at least 38 ^o C) and other symptoms until final laboratory results from case available and/or up to 14 days from last potential exposure. Person being monitored should contact public health unit staff immediately if symptoms develop.

1 Please refer to Appendices for examples of assessment forms, monitoring forms, health advice and factsheets.

2 Friends or family travelling with a suspected case should be assessed as contacts as they may have been exposed to the same potential source of infection or had direct contact with the suspected case.

8. Infection Prevention and Control and Cleaning

Standard infection control measures should be applied when dealing with suspected cases of MERS-CoV. This is wearing a surgical mask and gloves, and practising good hand hygiene. Social distancing of up to 1m is also a control. Additional precautions including wearing eye protection, should be taken if aerosol generating procedures are being performed.

MERS-CoV remains viable at 48 hours at 20 °C and 40% relative humidity, comparable to an indoor environment on plastic and metal surfaces. The virus is sensitive to heat, lipid solvents, non-ionic detergents, oxidising agents and ultraviolet light. In aerosol experiments, MERS-CoV retains most of its viability at 20 °C and 40% relative humidity. Viability decreases at higher temperatures or higher levels of relative humidity.

Guidance for Border Officials Workers: the risk of border officials and other workers becoming infected with MERS-CoV from a traveler arriving in New Zealand is not considered to be significant. However, border staff are reminded that their usual precautions for any respiratory disease should be followed, in particular because this is New Zealand's 'flu season'. The usual measures to protect border staff from respiratory infections such as influenza will also provide protection from MERS-CoV. These measures include social distancing (around 1 metre), frequent hand washing/sanitizing, and use of a surgical mask when dealing with a traveler who may be exhibiting symptoms of a cough or cold. It is also an opportunity to check all staff vaccinations (including influenza) are up to date.

Guidance for Airline Cleaning Personnel: Airlines have the responsibility for cleaning their aircraft and dealing with contaminated items soiled with the body fluids, and will have their own procedures. The International Airline Travel Association (IATA) and the World Health Organization have provided advice on aircraft sanitation, as it is imperative that any cleaning products are safe and appropriate to use on aircraft (as well as effective in disinfecting and decontaminating aircraft). See <http://www.iata.org/whatwedo/safety/health/Pages/index.aspx>

Cleaning Residually Treated (Disinfected) Aircraft: Following a residual spray application and where internal areas of aircraft receive additional or substantial cleaning to sections such as wall linings, carpets etc, then these areas must undergo a supplementary 'touch-up'. The touch-up may be from an aerosol spray containing permethrin.

9. Communications

It is likely that there will be significant media interest in any border health response event. Public health staff must refer any media enquiries to the Ministry of Health communications team.

Good risk communication will be crucial in any border health response. Communication will be required to affected passengers and crew, border agencies and ground handlers and other airport staff, health services and the media. For examples of standard communications messages including inflight messaging prior to passengers disembarking see Appendix 8.

Key messages should include:

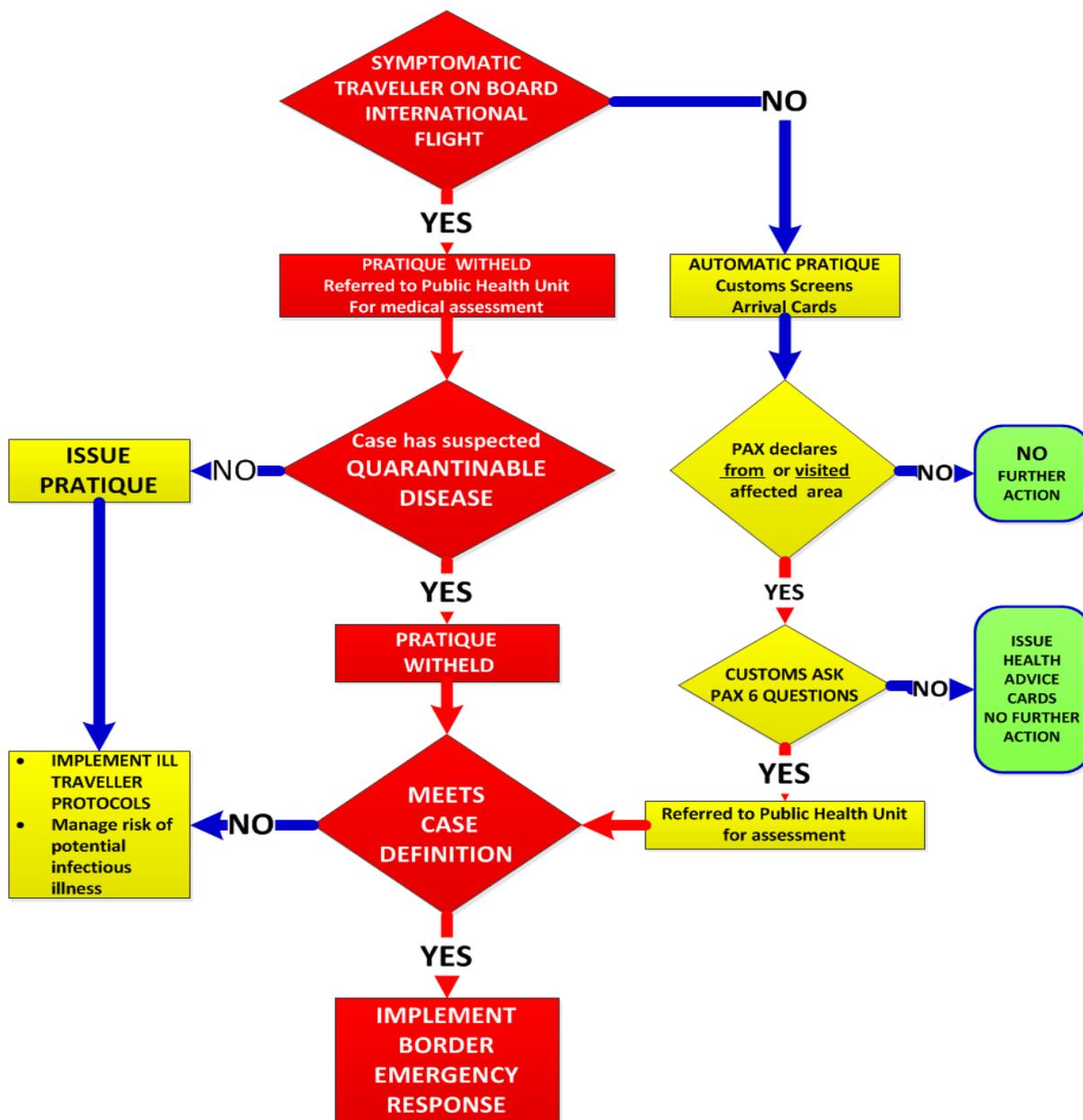
- **All known cases have been linked to the Middle East:** All known cases of MERS worldwide have either lived in or travelled to the Middle East, been linked to people who acquired the infection in the Middle East, or can be linked to an initial imported case

- **No cases of MERS have been detected in New Zealand:** The virus appears to be circulating throughout the Arabian Peninsula, primarily in Saudi Arabia, where the majority of cases (>85%) have been reported since 2012. The ongoing outbreak in South Korea is the largest outbreak outside of the Middle East.
- **The virus does not seem to pass easily from person to person unless there is close contact:** The virus is thought to spread through touching infected surfaces and from an infected person's respiratory secretions, such as through coughing. It is important to note that most people who have had close contact with someone confirmed as having MERS have not been infected or become ill.
- **Most transmission has occurred within hospitals:** Secondary cases have occurred within hospitals, when patients infected with MERS have not been appropriately isolated. There is no evidence of ongoing community transmission in any country, including the South Korea.
- **Those with certain pre-existing conditions are most at risk of serious illness:** Those most at risk of becoming seriously ill are those people with pre-existing health conditions, such as diabetes and chronic lung disease. There is a fatality rate of up to 40%.
- **There is no vaccine or specific treatment for MERS:** Patients suspected of or confirmed as having MERS are treated in isolation in hospital. New Zealand is well prepared in terms of the detection, testing and management of infectious diseases such as MERS.
- **New Zealand does not intend to introduce any travel restrictions:** This is in line with current advice from the World Health Organization, which does not recommend special screening at points of entry with regard to MERS, nor does it currently recommend the application of any travel or trade restrictions.
- **The Ministry of Health is monitoring the international situation:** The Ministry is monitoring international developments and advice, and providing updated clinical and diagnostic guidance to health and border staff. This guidance includes updated case definitions and advice about investigation and management of any suspected cases, and stresses the importance of taking into consideration a person's travel history.
- **Expert advice is being sought:** A technical advisory group on infectious disease is being set up to provide the Ministry of Health with additional expert advice on diseases such as MERS, as required.

For general advice for the public and health professionals see the Ministry's website - <http://www.health.govt.nz/our-work/diseases-and-conditions/middle-east-respiratory-syndrome-coronavirus-mers-cov>. Up-to-date information for travellers is also available on the Safe Travel website - <https://safetravel.govt.nz/>.

The Ministry of Health advises any traveller who feels unwell after returning home to call Healthline on 0800 611 116.

Appendix 1 Management of Ill Travellers



Appendix 2: Case Definition for MERS-CoV as at 21 July 2015

IMPORTANT: check you have the most current case definition:
<http://www.health.govt.nz/our-work/diseases-and-conditions/middle-east-respiratory-syndrome-coronavirus-mers-cov>

Suspected case (under investigation)

- A person with fever (temperature 38OC or above) AND pneumonia or pneumonitis or acute respiratory distress syndrome (ARDS) *†

AND ANY OF THE FOLLOWING:

a history of residence in, or travel to, potentially affected countries in the Middle East§ within 14 days before symptom onset,

OR

close contact** within 14 days before symptom onset with a symptomatic person who developed fever and acute respiratory illness of unknown aetiology within 14 days after travelling from the potentially affected countries in the Middle East§ or from a region with a known MERS-CoV outbreak at that time^

OR

is a member of a cluster of patients with severe acute respiratory illness of unknown aetiology (health workers in particular)

OR

any of the other stronger epidemiological criteria below (contact with health care facility or camel (incl. raw products) in specific countries or with confirmed or probable MERS case).

OR

- A person with fever (temperature 38OC or above) AND symptoms of respiratory illness (e.g. cough, shortness of breath) †

AND ANY OF THE FOLLOWING:

a history of being in a healthcare facility (as a patient, worker, or visitor) in a potentially affected country in the Middle East§ or a country with recent healthcare-associated cases of MERS^ within 14 days before symptom onset,

OR

a history of contact with camels or raw camel products within affected countries in the Middle East§ within 14 days before symptom onset.

OR

- A person with fever (temperature 38OC or above) OR acute symptoms compatible with MERS AND onset within 14 days after close contact ** with a probable or confirmed MERS case while the case was ill.

Probable case

- a. A person with fever (temperature 38OC or above) AND pneumonia or pneumonitis or acute respiratory distress syndrome (ARDS) *†

AND

no possibility of laboratory confirmation for MERS-CoV either because the patient or samples are not available for testing

AND

9

close contact with a laboratory-confirmed case **

Confirmed case

- A person with laboratory confirmation of infection with MERS-CoV ‡
-

* These cases may be captured through SARI surveillance.

† Immunocompromised patients may not present with typical or severe symptoms

§ Potentially affected countries in the Middle East include

1. countries with locally acquired, "sporadic" cases resulting from zoonotic, environmental, or unknown source transmission, whether or not they have been followed by further transmission, i.e. Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Lebanon, Yemen, Iran and the United Arab Emirates (UAE);
2. neighbouring countries with health services affected by civil unrest (e.g. Iraq and Syria).

Whenever available recent epidemiological information on MERS in Middle East countries should be taken into account.

Transiting through an international airport (<24 hours stay, remaining within the airport) in these countries is not considered to be risk factor for infection.

** Close contact includes:

- anyone who provided care for or handled clinical samples/respiratory secretions from the case, including a health care worker or family member, or who had other similarly close physical contact without the recommended infection control precautions;
- anyone who stayed at the same place (e.g. lived or worked with, visited) as a probable or confirmed case while the case was ill without the recommended infection control precautions;
- where a case has travelled on an airplane while ill, close contacts include passengers seated in the same row as the case and two rows in front and behind the case, and crew that have had prolonged interaction with the ill person.

^ Please refer to the World Health Organization (WHO) coronavirus infection website <http://www.who.int/emergencies/mers-cov/en/>

‡ Currently confirmatory testing requires molecular diagnostics including either a positive PCR on at least two specific genomic targets or a single positive target with sequencing on a second. However, WHO interim recommendations for laboratory testing for MERS-CoV should be consulted for the most recent standard for laboratory confirmation. WHO also has additional notes regarding inconclusive testing and asymptomatic cases; see: http://www.who.int/csr/disease/coronavirus_infections/mers-laboratory-testing/en/

Appendix 3: Health Advice Card

Limited supplies of the Ministry of Health's health advice card in English have been distributed to the NZ Customs Service.

**Important message from the
New Zealand Ministry of Health**

Kia Ora, welcome to New Zealand.

If you get **sick** within a **month** of arriving in New Zealand, please seek **medical advice** as soon as you can.

Telephone the **free** Healthline on **0800 611 116** or contact a doctor.

It is **important** to tell them that you have been **outside New Zealand** recently.

 
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August 2014 HP 5973

Tell the health professional if you have a **temperature** of **38°C or higher** and **one or more** of the following **symptoms**:

- ongoing coughing
- difficulty breathing
- ongoing diarrhoea
- ongoing vomiting
- skin rash
- bruising or bleeding without injury
- looking obviously unwell
- confusion.


Free health advice when you need it
Healthline
0800 611 116

The card is also available in the following languages:

Arabic, Czech, Dutch, Farsi, French, German, Greek, Hebrew, Hindi, Indonesian, Italian, Japanese, Korean, Malay, Portuguese, Punjabi, Russian, Samoan, Chinese (traditional and simplified), Spanish, Tongan, Thai, Vietnamese.

PDF versions are available on request from Sally Gilbert (sally_gilbert@moh.govt.nz) or Sally Giles (sally_giles@moh.govt.nz).

This is the Arabic version of the card:

رسالة مهمة من وزارة الصحة النيوزيلندية

"Kia ora" (املاً)، مرحباً بكم في نيوزيلندا.

إذا **مرضت** في غضون **شهر** من وصولك الى نيوزيلندا، فيرجى طلب **المشورة الطبية** في أقرب فرصة ممكنة.

يمكنك الاتصال هاتفياً بخط الصحة المجاني Healthline على الرقم **0800 611 116** أو الاتصال بطبيب.

من المهم أن تعلمهم بانك كنت خارج نيوزيلندا في الآونة الأخيرة.

 
New Zealand Government
أغسطس 2014 HP 5973
Arabic

قم باطلاع مهنيي الصحة إذا وصلت درجة حرارتك الى **38° مئوية** أو أعلى، أو إذا ما ظهرت عليك واحدة أو أكثر من الأعراض التالية الذكر:

- السعال المستمر
- صعوبة في التنفس
- الإسهال المستمر
- التقيؤ المستمر
- طفح جلدي
- كدمات أو نزيف دون وقوع إصابات
- تبدو على غير ما يرام بشكل واضح
- الارتباك.


Free health advice when you need it
Healthline
0800 611 116

This is the Korean version of the card:

뉴질랜드 보건부에서 알려드리는
중요한 공지사항

**Kia ora(안녕하세요), 뉴질랜드에 오신
것을 환영합니다.**

뉴질랜드 도착 후 **1개월** 이내에 몸이
아프면 가급적 빨리 **전문 의료인의
조언**을 받으십시오.

무료 안내전화인 Healthline
0800 611 116으로 문의하거나 의사의
진료를 받으십시오.

이때 최근에 **뉴질랜드 국외**에 체류했다는
사실을 알리는 것이 **중요**합니다.

 
New Zealand Government Healthline
0800 611 116

Korean 2014년 8월 HP 5973

38°C 이상의 고열이 나고 다음 증상
중 어느 하나라도 나타나면 전문
의료인에게 말하십시오.

- 계속되는 기침
- 호흡 곤란
- 계속되는 설사
- 계속되는 구토
- 피부 발진
- 다치지 않았음에도 타박상이나
출혈이 발생
- 몸이 아픈 것이 확실해 보임
- 정신 혼란


Healthline
0800 611 116

Appendix 4: Example of a 'Contact Daily Monitoring Form'¹

DAILY CONTACT MONITORING FORM				PHU CONTACT No:			
Contact's Name:				Phone Number(s):			
DAY 1	Date:	Time:	Caller's Name:				
Questions			Yes	No	Action Plan		Refer to:
1.) Have you been taking your temperature twice a day?					Remind of importance *		Ops Manager
2.) Have you developed any symptoms?					If Yes, medical assessment required		Ops Manager
3.) Any other household members showing symptoms?					Medical assessment required		Ops Manager
4.) Are there any problems?					Welfare assistance required		Welfare to call

DAY 2	Date:	Time:	Caller's Name:				
Questions			Yes	No	Action Plan		Refer to:
1.) Have you been taking your temperature twice a day?					Remind of importance *		Ops Manager
2.) Have you developed any symptoms?					If Yes, medical assessment required		Ops Manager
3.) Any other household members showing symptoms?					Medical assessment required		Ops Manager
4.) Are there any problems?					Welfare assistance required		Welfare to call

DAY 3	Date:	Time:	Caller's Name:				
Questions			Yes	No	Action Plan		Refer to:
1.) Have you been taking your temperature twice a day?					Remind of importance *		Ops Manager
2.) Have you developed any symptoms?					If Yes, medical assessment required		Ops Manager
3.) Any other household members showing symptoms?					Medical assessment required		Ops Manager
4.) Are there any problems?					Welfare assistance required		Welfare to call

DAY 4	Date:	Time:	Caller's Name:				
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¹ With thanks to Community and Public Health for providing this example for use by other public health units, as appropriate.

Questions	Yes	No	Action Plan	Refer to:
1.) Have you been taking your temperature twice a day?			Remind of importance *	Ops Manager
2.) Have you developed any symptoms?			If Yes, medical assessment required	Ops Manager
3.) Any other household members showing symptoms?			Medical assessment required	Ops Manager
4.) Are there any problems?			Welfare assistance required	Welfare to call

DAY 5	Date:	Time:	Caller's Name:			
Questions			Yes	No	Action Plan	Refer to:
1.) Have you been taking your temperature twice a day?					Remind of importance *	Ops Manager
2.) Have you developed any symptoms?					If Yes, medical assessment required	Ops Manager
3.) Any other household members showing symptoms?					Medical assessment required	Ops Manager
4.) Are there any problems?					Welfare assistance required	Welfare to call

* Refer: Reminders to cases (below)

Add more days as required.

Release from Self Monitoring	Date:	Time:	Advised By:

Comments:

Reminders to persons monitoring

- The importance of taking temperature:**
Fever is mostly likely the first symptom you will develop and as such will give the earliest indication that there is an issue. Early diagnosis and treatment can assist with a good outcome for this illness.
- The importance of not taking medication before taking temperature:**
It is important that you do not take medication that may mask a fever (eg paracetamol) for at least 4 hours before taking your temperature.

Appendix 5: Example of a ‘Measuring Your Temperature Form’²

Daily Temperature Log

Name:.....

You have been asked to record your temperature twice a day for the next days. To do this you have been given a thermometer. It is important to use the thermometer properly in order to give a true reading.

To take your temperature, follow the instructions below:

- Remove the thermometer from the plastic container & press the digital button.
- Place the silver bulb under your tongue where the tongue meets the floor of the mouth. Close your lips around the thermometer making sure it stays under the tongue. You can steady the end of the thermometer with your fingers if you wish but do not hold the thermometer with your teeth
- After the thermometer has been under your tongue *until it beeps*, remove the thermometer and read the temperature. *Do not hold the silver bulb while reading.*
- Write the date, time and your temperature in the table below.

For children follow the same method but place the silver bulb end of the thermometer high into the child’s armpit with the other end protruding forwards. Again wait until it beeps and then read. The temperature is best taken when the child is seated on an adult’s knee with the child’s arms are held securely against their side.

Do not measure your oral temperature within five minutes of consuming hot or cold foods or drinks or smoking. Do not take medicine to reduce fever (eg paracetamol, panadol or ibuprofen) for up to six hours before taking your temperature.

Remember:

- Please record the date, time and your temperature in the table below.
- Do not allow other people to use your thermometer.

Date	Morning: Time	Temperature (°C)	Evening: Time	Temperature (°C)	Daily Activities*

*brief note of what you did (in case Health authorities need to follow up any significant contact with others) eg home all day, shopping in mall, movie at x cinema, meal at y café, attended wedding

² With thanks to Community and Public Health for providing this example for use by other public health units, as appropriate.

Information for people who have had close contact with a suspected case of MERS

June 2015

This information is being provided to you because you have been identified as having had direct contact with someone who is suspected of having Middle Eastern Respiratory Syndrome (MERS).

If the person who is unwell is confirmed as having MERS, there is a possibility that the illness could have been passed on to you.

This fact sheet explains what you can expect from the public health unit, and provides some basic information on MERS and precautions you can take to keep yourself and your loved ones safe. The public health unit will keep in touch with you and provide you with regular updates.

It is important to note that most people who have had close contact with someone confirmed as having MERS have not been infected or become ill.

What is MERS?

Middle East Respiratory Syndrome (MERS) is an illness caused by a virus (more specifically, a coronavirus) called Middle East Respiratory Syndrome Coronavirus (MERS-CoV). MERS affects the respiratory system (lungs and breathing tubes).

Health officials first reported the disease in Saudi Arabia in September 2012.

All known MERS cases worldwide, have either:

- lived in or travelled to the Middle East
- been linked to people who acquired the infection in the Middle East
- or can be linked to an initial imported case (often through healthcare facility transmission).

How serious is it?

MERS can cause serious illness and death.

Those most at risk of becoming seriously unwell are those with weakened immune systems, older people, and those with pre-existing health conditions such as diabetes, cancer and chronic lung disease.

There is no vaccine or specific treatment for MERS available.

How is it spread?

This strain of coronavirus that causes MERS was first identified in 2012 in Saudi Arabia. There is a currently (June 2015) a cluster of MERS cases in South Korea, which have been traced back to an infected traveller who had returned from the Middle East.

Understanding of the virus and the disease it causes is continuing to evolve.

MERS is a virus that is transmitted from animals to humans. Camels are suspected to be the primary source of infection for humans, but the exact routes of direct or indirect exposure are not fully understood.

MERS does not seem to pass easily between people. The virus is thought to spread through touching infected surfaces and from an infected person's respiratory secretions, such as through coughing. However, the precise ways the virus spreads are not currently well understood.

Infected people have spread MERS to others in healthcare settings, such as hospitals, when they have not been properly isolated. There is no evidence of ongoing community transmission in any country, and only occasional instances of transmission within households.

Most people who have had close contact with someone confirmed as having MERS have not been infected or become ill.

What is a close contact?

A close contact includes someone who

- cared for or handled clinical samples from a patient with MERS, including a healthcare worker or family member, or who had other similarly close contact;
- lived with or visited someone with MERS while that person was ill;
- sat in the same row on an aircraft as someone with MERS or was seated two rows in front or behind someone with MERS or crew who have had prolonged interaction with the ill person.

What are the symptoms?

Most people confirmed to have MERS display the following symptoms:

- fever (at least 38°C)
- cough
- muscle aches
- shortness of breath

Some people also suffer gastrointestinal symptoms including diarrhea and nausea/vomiting. Some of those infected have experienced mild symptoms (such as cold-like symptoms) or no symptoms at all.

Those most at risk of becoming seriously ill are people with pre-existing health conditions, such as diabetes and chronic lung disease, or those who are immuno-compromised.

What do I need to do?

As you have been identified as having contact with a person suspected of having MERS it is important that you are monitored, so that any early symptoms of MERS can be detected.

You will need to monitor your health until MERS is ruled out, or until 14 days since your last contact with the suspected case. Monitoring your health involves:

- Observing for signs of general illness such as flu like symptoms, upset stomach and a fever.
- Someone from the Public Health Unit will make contact with you each day to check on you and answer any questions you might have.

Could I be infectious?

The virus does not seem to pass easily from person to person unless there is close contact, such as when care is provided to a patient without appropriate infection prevention measures.

It's important to note, however, that most people who had close contact with someone who had MERS did not get infected or become ill.

As long as you are well, you can continue with your daily routine. Public Health Unit staff will tell you whether it is appropriate for you to return to work or school.

There are simple, everyday measures you can take to help protect yourself and others from respiratory illnesses.

- Wash your hands often with soap and water for at least 20 seconds and dry them for 20 seconds – or use an alcohol-based hand sanitizer.
- Cover your mouth and nose with a tissue when you cough or sneeze – then put the tissue in a lined bin
- Avoid touching your eyes, nose and mouth with unwashed hands.
- Avoid personal contact, such as kissing, or sharing cups or eating utensils, with sick people.
- Clean and disinfect frequently touched surfaces and objects, such as doorknobs.

How can I find out more?

If you have any questions or concerns, please contact your local Public Health Unit or call Healthline on free-phone 0800 611 116.

You can find out more about MERS on the World Health Organization website: <http://www.who.int> and on the Ministry of Health website: <http://www.health.govt.nz/our-work/diseases-and-conditions/middle-east-respiratory-syndrome-coronavirus-mers-cov>

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Information for people who have been on an aircraft with an unwell person

June 2015

This information is being provided to you because you have been on an aircraft with someone who has been unwell.

The person who is unwell is receiving medical treatment, and because of their recent travel, is also having a number of tests including being tested for Middle Eastern Respiratory Syndrome (MERS). This does not mean the person has MERS.

You cannot get MERS just from being on the same plane as someone who has the illness. It is passed on by close direct contact with someone who is ill. You are not considered to be at high risk of catching MERS.

There are a lot of diseases you can catch overseas. If you do become unwell within a month of returning to New Zealand, it is important you phone Healthline (0800 611 116) and let them know that you have received this letter. Healthline can also provide general health advice.

For further background information on MERS see <http://www.health.govt.nz/our-work/diseases-and-conditions/middle-east-respiratory-syndrome-coronavirus-mers-cov>

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Appendix 8: Examples of Standard Messaging

Passengers

Before disembarking and clearing any quarantine area it may be necessary for cabin crew to make a general announcement to advise travellers, as follows:

Standard information:

Ladies and gentleman, thank you for your cooperation. As you may know, some passengers on this flight were ill with a condition that may be infectious and subject to the International Health Regulations.

Public Health Authorities may need to contact you should there be a need for any further action. Can you please complete your customs arrival cards as thoroughly and accurately as possible? Please ensure your writing is legible. Depending on where you were seated on the aircraft, you may be directed to a separate Immigration and Customs line, and may receive written information. Please follow the directions of airport staff.

If verbal briefing required:

Public Health Authorities will provide a briefing to those of you who could have had direct contact with the unwell passenger. Please follow directions of airport staff and wait for the briefing if required.

For all passengers:

Should you develop an illness with fever in the next month please keep yourself separate from others and call the free Healthline 0800 611 116.

Public in Arrivals Hall

Attention Please. Attention Please. This announcement concerns the arrival of flight {flight number} from {flight origin} scheduled to arrive at {ETA}. Some passengers on this flight have presented with symptoms of ill health. Health authorities are assessing the situation and there may be delays with processing passengers from this flight.

We will provide you with regular updates on the status of this flight.

Media

{number of ill PAX} passengers on {flight number} from {flight origin} scheduled to arrive at {..... Airport } at {ETA} have presented with symptoms of ill health. Health authorities are assessing the situation and are working quickly to process passengers from this flight. We will provide you with more details as soon as reasonably possible, once the initial public health risk assessment is complete.

Key messages (for media spokesperson)

- *The _____ Public Health Unit is following its standard protocols and procedures in relation to an incident of this nature. This involves working with and communicating with other appropriate agencies as relevant, including {the airport, Air NZ, the Ministry of Health, etc}*
- *Specific details of the case(s) cannot be disclosed due to patient confidentiality.*
- *For further media enquiries please contact our Media Spokesperson on _____*