Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Initial Interview Questionnaire of Cases

Guide for the interviewer

Purpose of form: This interview form is developed as a supplemental tool to accompany the WHO guidelines for investigation of cases of human infection with MERS-CoV, which can be found on the WHO website. It is designed to gather initial information about the potential exposures of a suspected or confirmed case of MERS-CoV infection in the 14 days before symptom onset. The interview should be conducted as soon as possible once the patient is suspected of having MERS-CoV infection. If the patient is unable to personally answer questions because of death or severity of illness, a close relative or friend can answer the questions for him or her. This form should be modified according to local needs and experience. It is not intended as a formal study instrument but rather contains many open-ended questions that will allow investigators to develop hypotheses to test during subsequent formal studies. However, the questions about specific exposures are also contained in the WHO Case-control study to assess potential risk factors related to human illness caused by MERS-CoV, which may be used for follow-up investigation. The information gathered in this interview could be used in that study as well.

1. PATIENT INFORMATION

<table>
<thead>
<tr>
<th>Patient name (First/Given):</th>
<th>______________________</th>
<th>(Last/Family): ______________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Case identification number:</td>
<td>______________________</td>
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<tr>
<td>1.2 Residence (city, province):</td>
<td>______________________</td>
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<tr>
<td>1.3 Subject is a (tick one):</td>
<td>Case under investigation</td>
<td>Probable case</td>
</tr>
<tr>
<td>1.4 Person answering questions is:</td>
<td>Subject</td>
<td>Relative (specify relationship):</td>
</tr>
<tr>
<td>1.5 Sex:</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1.6 Age (years):</td>
<td>____________</td>
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<tr>
<td>1.7 Date of interview: (dd/mm/yyyy)</td>
<td><strong><strong>/</strong></strong>/____</td>
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<tr>
<td>1.8 Date of onset of symptoms (dd/mm/yyyy):</td>
<td><strong><strong>/</strong></strong>/____</td>
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<tr>
<td>1.9 Is the patient a close contact of a confirmed case/s (if known)?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

If yes, provide identification number and initials of contact: ______________________

1 WHO Case control study protocol for non-human exposures that result in MERS-CoV infection: http://www.who.int/csr/disease/coronavirus_infections/en/index.html

2 An identification number assigned by investigators. The number enables personal identifiers to be removed from the data set but still allows data to be linked to laboratory results and other cases.
## 2. HOUSEHOLD INFORMATION

(*Note: Please include details of any close contacts in the contact tracing line in Appendix 1)

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>2.1 What type of dwelling do you live in?</td>
<td>☐ Apartment ☐ Detached house ☐ Other (please specify)</td>
<td>________________________________________________________________</td>
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<tr>
<td>2.2 How many people live in your household with you?</td>
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<td>Total number in household: __________________________________________</td>
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<tr>
<td>(household defined as sharing a single kitchen/cooking pot)</td>
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<td>Number of children under age 18 in household: _________________________</td>
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<td></td>
<td></td>
<td>Number of adults 18 years and over in household: ______________________</td>
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<tr>
<td>2.3 In the 14 days before onset of symptoms, did you stay overnight in a</td>
<td>☐ Yes ☐ No ☐ Unknown</td>
<td>If yes, describe where and dates: _____________________________________</td>
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<td>place other than your usual household?</td>
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<td>_______________________________________________________________________</td>
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<tr>
<td>2.4 Are there any animal/poultry farms, stores, markets, zoos, race</td>
<td>☐ Yes ☐ No ☐ Unknown</td>
<td>If yes, describe setting and location: ________________________________</td>
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<td>courses or facilities with animals near your household?</td>
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3. **DAILY ACTIVITIES**

(*Note: Please include details of any close contacts in the contact tracing line in Appendix 1*)

This section relates to daily activities during the last 14 days before onset of symptoms. If the patient is an adult, ask about work activities; if a child, ask about school-related activities. These questions can be adapted to activities common to the local setting.

3.1 What is your occupation? _____________________ ______________________________

3.2 Where do you work/go to school? __________________________________________

3.3 Describe your daily activities at work/school (in the morning, afternoon, and evening) during the last 14 days before onset of symptoms:

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

3.4 Have you attended any social gatherings (e.g. worship, sporting and other events) during the last 14 days before onset of symptoms?

☐ Yes ☐ No ☐ Unknown

If yes, describe what, when and where: ___________________________________________

____________________________________________________________________________

3.5 Describe all other activities outside work/school with location and dates (including leisure/outdoor/sports activities/other hobbies) that you have participated in during the last 14 days before onset of symptoms.

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

3.6 Have you been involved in any activity that is not part of your usual routine at work/school/home during the last 14 days before onset of symptoms?

☐ Yes ☐ No ☐ Unknown

If yes, describe what, when and where: ___________________________________________

____________________________________________________________________________
### 4. EXPOSURE HISTORY

*Note: Please include details of any close contacts in the contact tracing line in Appendix 1

Exposure history should be focused on the **last 14 days before onset of symptoms** for the MERS-CoV case-patient. This section focuses on activities that might have been associated with or contributed to illness. These questions can be adapted specific exposures common to the local setting.

#### 4.1 Travel History

1. **List all the places where you have travelled during the last 14 days before onset of symptoms (if any):**

<table>
<thead>
<tr>
<th>Location (e.g. countries/state/province/town)</th>
<th>Date of departure</th>
<th>Date of return</th>
<th>Purpose and mode of travel</th>
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</table>

2. **Have you attended any recent festivals or pilgrimages during the last 14 days before onset of symptoms?**

   - [ ] Yes  
   - [ ] No  
   - [ ] Unknown

   If yes, describe what, when and where:
   
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<tr>
<th>Description</th>
<th>When</th>
<th>Where</th>
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</table>

3. **Did you visit any healthcare facilities during the last 14 days before onset of symptoms?**

   - [ ] Yes  
   - [ ] No  
   - [ ] Unknown

   If yes, describe what, when and where:
   
<table>
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<tr>
<th>Description</th>
<th>When</th>
<th>Where</th>
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</table>
### 4.2 Animal exposure

*The following questions address animal exposures *during the last 14 days before onset of symptoms.*

**4.2.1** Describe any contact with live or dead animals you have had including visiting places where animals are kept, even if you didn’t have direct contact with them:

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

**4.2.2** Did you have close contact with domestic (including household pets) or wild animals?

- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, give details of animal/s, type of contact, location:

______________________________________________________________________________

______________________________________________________________________________

**4.2.3** Were any of these animals sick or dead?

- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, give details of animal/s and condition:

______________________________________________________________________________

______________________________________________________________________________

**4.2.4** Were you aware of any other animals/excreta that are not usually present inside or outside your household (e.g. bats, rodents, stray cats/dogs, foxes, reptiles, etc.)?

- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, describe:

______________________________________________________________________________

______________________________________________________________________________

**4.2.5** Did you visit a market selling live animals?

- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, specify location and date:

______________________________________________________________________________

**4.2.6** Did you visit any other venue at which live animals were present (e.g. farm, race course, zoo or falconry events)?

- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, describe, including location, date, and any contact you may have had with these animals:

______________________________________________________________________________

______________________________________________________________________________
### 4.3 Food exposure

The following questions are focused on food exposures during the last 14 days before onset of symptoms.

4.3.1 Where do you normally get your food (e.g. Grocery store, market, live animal market, or farm)?

Please specify kind(s) and location(s): ____________________________________________
____________________________________________________________________________

4.3.2 Have you gotten food from sources other than the ones specified above or eaten any new types of food?

If yes, specify type of food, location of source and date(s): _________________________
____________________________________________________________________________

4.3.3 Have you eaten any foods or drunk any beverages that you think could have been unsafe or caused you to become ill? If yes, please describe:

If yes, please describe: __________________________________________________________
____________________________________________________________________________

4.3.4 Have you eaten any of the following food items:

- [ ] Raw vegetables or fruits?
- [ ] Uncooked meat or eggs?
- [ ] Raw/unpasteurized milk or milk products?

If yes, specify details (including which animal(s)) and source: _______________________
____________________________________________________________________________

4.3.5 Have you slaughtered an animal or handled raw meat in preparation for a meal?

If yes, specify details and source: ______________________________________________
____________________________________________________________________________

4.3.6 Have you eaten dried fruits, or nuts?

If yes, specify details and source: ______________________________________________
____________________________________________________________________________

4.3.7 Have you taken any traditional medicines or used any home remedies?

If yes, specify details (including whether animal or plant) and source: ______________
<table>
<thead>
<tr>
<th>Section</th>
<th>Question</th>
</tr>
</thead>
</table>
| 4.4.1   | Have you had contact with anyone who might have had a contagious illness while they were still sick? Yes ☐  No ☐  Unknown ☐  
If yes, please describe, including who the person is, type of contact, duration of contact, and when contact occurred: _________________________________________________________  
_____________________________________________________________________________  
_____________________________________________________________________________
| 4.4.2   | Have you had contact with person(s) who are in close contact with animals because of their work? Yes ☐  No ☐  Unknown ☐  
If yes, describe his/her state of health, type of contact, location, and date: ______________  
_____________________________________________________________________________  
_____________________________________________________________________________
| 4.4.3   | Have you had contact with a person who had a respiratory illness/ diarrhoea/ vomiting? Yes ☐  No ☐  Unknown ☐  
If yes, describe his/her state of health and type of contact, location and date: ______________  
_____________________________________________________________________________  
_____________________________________________________________________________
| 4.4.4   | Did you visit or care for any sick person? Yes ☐  No ☐  Unknown ☐  
If yes, describe type of contact, location and date: _____________________________________  
_____________________________________________________________________________
| 4.4.5   | Did you have contact with this person’s bodily fluids, such as urine, blood, sputum, or faeces? Yes ☐  No ☐  Unknown ☐  
If yes, describe type of contact, location and date: _____________________________________  
_____________________________________________________________________________
| 4.4.6   | Have you been treated as an outpatient or admitted to a hospital? Yes ☐  No ☐  Unknown ☐  
If yes, describe location, disease treated and date of treatment or hospitalization: ___________  
_____________________________________________________________________________
| 4.4.7   | Please list all persons who have been in contact with you since onset of illness (including those with whom you worked, shared a household, cared for you or visited you in hospital) in the contact line list in Appendix 1.
5. **MEDICAL HISTORY**

The following questions are about the case-patient’s medical history and health behaviours

5.1 If the patient is female, is she pregnant?  
- [ ] Yes  
- [ ] No  
- [ ] Unknown

5.2 Do you have any of the following underlying medical illnesses?

- Chronic kidney disease
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

If yes, are you on dialysis?  
- [ ] Yes  
- [ ] No

- Weakened immune system (from cancer, chemotherapy, radiation therapy, immunosuppressive medications, HIV, organ transplant).
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

If yes, please specify: ______________________________

- Diabetes
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

- Chronic lung disease (chronic obstructive pulmonary disease/emphysema)
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

- Asthma
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

- Heart disease
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

  If yes, please specify: ______________________________

- Liver disease
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

  If yes, please specify: ______________________________

- Other
  - [ ] Yes  
  - [ ] No  
  - [ ] Unknown

  If yes, please specify: ______________________________

5.3 Are you currently a smoker?  
- [ ] Yes  
- [ ] No

If yes, what do you smoke (e.g. cigarette, cigars, tobacco, shisha): ______________________________

Specify quantity per day and duration (years) ______________________________

If no, are you a former smoker?  
- [ ] Yes  
- [ ] No

If yes, specify quantity per day and duration (years) and years since stopping: ______________
5.4 Do you drink alcohol?  
☐ Yes  ☐ No

If yes, specify quantity per day and duration (years) ____________________________________________

5.5 List all medications that you take on a regular basis: ______________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

6. IDENTIFICATION OF INTERVIEWER AND INTERVIEWEE

<table>
<thead>
<tr>
<th>Name of interviewer</th>
<th>Organization &amp; Title:</th>
<th>Date of interview (dd/mm/yyyy):</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
<td>______________________</td>
<td>________________________________</td>
</tr>
</tbody>
</table>

| Name of interviewee:            | Data verified by interviewee: |
|---------------------------------|______________________________|
| ________________________________|______________________________|

(Signature)