



SOP: inbound case of suspected communicable disease

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Reminder – the regulatory objective

- Article 2 of International Health Regulations (2005), purpose and scope:
 - “to prevent, protect against, control and **provide a public health response** to the international spread of disease **in ways that are commensurate with and restricted to public health risks,**
 - and which **avoid unnecessary interference with international traffic and trade.**”

Reminder – what is a suspect case?

- In most instances case will be identified by cabin crew
- Case definition based on IATA guidelines:
 - Fever (temperature 38°C/100°F or greater) associated with one or more of the following signs or symptoms: appearing obviously unwell; persistent coughing; impaired breathing; persistent diarrhoea; persistent vomiting; skin rash; bruising or bleeding without previous injury; confusion of recent onset.
- In some cases there may be input from an onboard health professional or ground to air medical advisory service
- In vast majority of cases, the condition will be due to illness of no public health significance e.g. non-communicable disease such as malaria or minor illness such as ‘man flu’

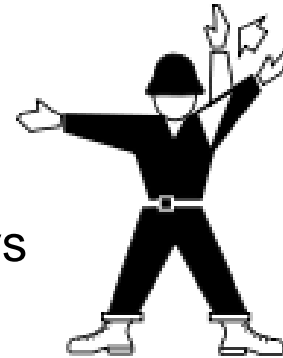


Basis for proposed SOP

- Based on report of UK working group convened at request of Dr Evans, Chief, Aviation Medicine Section, ICAO
- Task was to assess public health procedures for management of an aircraft arriving with a suspect case of communicable disease, with the aim of identifying best practice which would minimise avoidable delays and disruption.
- Full report available at <http://www.capsca.org/Documentation/States/UnitedKingdomManagementOfOnboardSuspectCase.pdf>
- Key recommendation:
 - The benchmark for the maximum delay to passengers and/or aircraft attributable to the public health authority management of a case of suspected communicable disease should be one hour.

Key issues / areas for discussion

- Public health response:
 - Pro-active risk assessment
 - Arrival airport and 'designated ports of entry'
 - Aircraft parking
 - Order of disembarkation
- All of the above may affect the risk of delays and disruption
- Risk of delay/disruption is likely to decrease reporting of suspect cases by cabin/flight crew
- Public health authorities say that they want to encourage crew to report cases

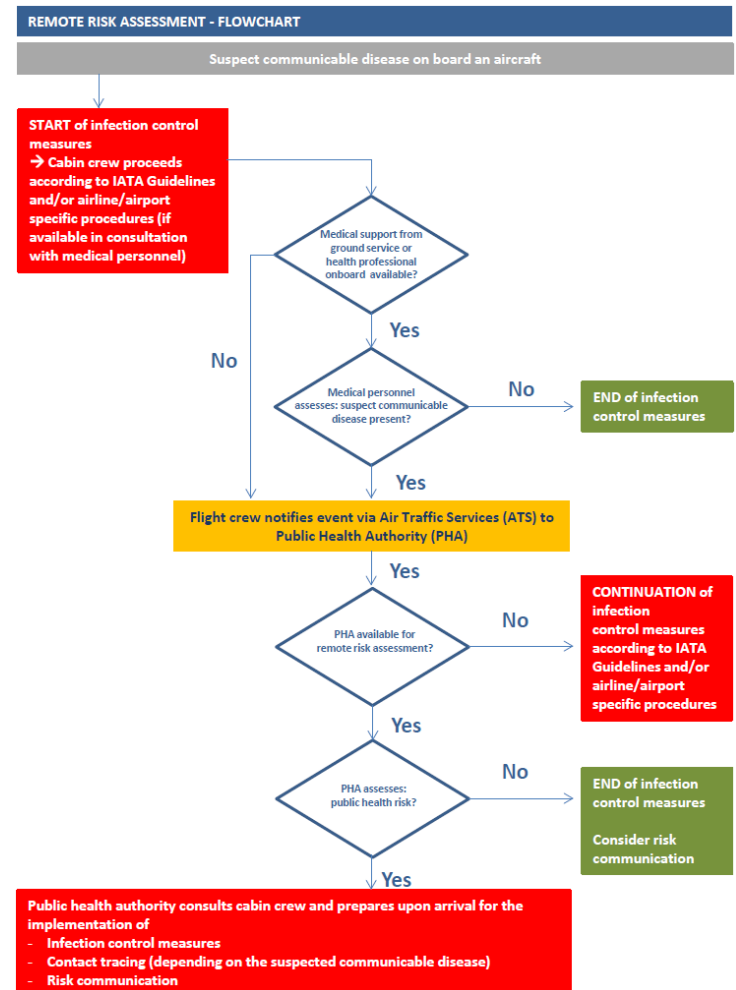


Pro-active risk assessment

- ICAO procedure – if onboard suspect case of communicable disease identified by cabin crew, flight crew should notify en-route ATC, who will in turn notify ATC at destination airport
- Information transmitted will be:
 - Flight details – flight number, origin, destination, ETA, number of persons on board
 - Number of suspect cases
- Public health authority should be notified of case by destination ATC, in accordance with local arrangements
- Time before arrival of aircraft may allow public health authority to carry out 'remote risk assessment'
 - usually indirect, via airline operations control centre or ground to air medical adviser
- Pro-active risk assessment may determine:
 - whether any public health response is required
 - allow measures in local response plan to be initiated prior to aircraft arrival and therefore minimise delay

AIRSAN project – remote risk assessment tool

- Tool developed as part of EU-funded AIRSAN project
- Available on website at www.airsan.eu – accessible to all who sign up for AIRSAN network
- Purpose is to standardise procedures and facilitate management of case both onboard and by public health
- Utilises existing IATA guidance for cabin crew



AIRSAN forms – crew and public health



AIRSAN Remote Risk Assessment Questionnaire - For Cabin Crew
Please insert all dates in the format DD.MM.YYYY

REMOTE RISK ASSESSMENT (information ideally collected during the flight)		
Name of crew member providing information:		
Number of suspected cases on board:		
Information about suspect ill traveller		
1. Nationality:	2. Age:	3. Sex:
4. Symptoms present (1)		
4a. <input type="checkbox"/> Temperature 38°C / 100°F or greater; when did it start:		
4b. <input type="checkbox"/> Appearing obviously unwell; when did it start:		
4c. <input type="checkbox"/> Coughing; when did it start:		
4d. <input type="checkbox"/> Difficulties of breathing; when did it start:		
4e. <input type="checkbox"/> Diarrhea; when did it start: how often:		
4f. <input type="checkbox"/> Vomiting; when did it start: how often:		
4g. <input type="checkbox"/> Skin rash; when did it start:		
4h. <input type="checkbox"/> Bruising or bleeding without previous injury; when did it start:		
4i. <input type="checkbox"/> Confusion of recent onset		
5. What does he/she or someone else think is the cause of the symptoms:		
5a. If yes, why does he/she think that? <input type="checkbox"/> Medical diagnosis <input type="checkbox"/> Self-diagnosis <input type="checkbox"/> Unknown <input type="checkbox"/> Other:		
6. Has medical treatment already been taken by ill traveller for the symptoms present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
6a. If yes, which medical treatment (consider asking for documentation):		
6b. If yes, when did the medical treatment start:		
7. Places, where the ill traveller has stayed within the last 3 weeks (consider asking for countries, regions, cities; urban areas or rural areas):		
8. Why were the above named places visited (consider asking for business trip, backpacker trip, visiting family, working as a healthcare-worker ...):		
9. Any contact with persons with similar symptoms within the last 3 weeks (consider asking whether ill traveller cared for patients or had contact to a person who died)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
10. ADDITIONAL COMMENTS:		

(1): If the meanings of the symptoms are unclear, use CDC Definitions of Symptoms for Reportable Illnesses:
<http://www.cdc.gov/quarantine/pdf/reporting-symptom-definitions.pdf>



AIRSAN Remote Risk Assessment Questionnaire - For Public Health Official
Please insert all dates in the format DD.MM.YYYY

Information about the person who is filling this questionnaire in				
Name	E-Mail	Phone		
Position:				
A. INITIAL NOTIFICATION (information available from the air traffic service)				
Date of notification:		E-Mail:		Time:
Notified by (name):		E-Mail:		Phone:
Following information should be included in the initial notification				
Airline	Flight#	Departure aerodrome	Destination aerodrome	Time of arrival
Number of persons on board:				
B. REMOTE RISK ASSESSMENT (information ideally collected during the flight)				
Name of crew member providing information:				
Number of suspected cases on board:				
Information about suspect ill traveller				
1. Nationality:		2. Age:		3. Sex:
4. Symptoms present (1)				
4a. <input type="checkbox"/> Temperature 38°C / 100°F or greater; when did it start:				
4b. <input type="checkbox"/> Appearing obviously unwell; when did it start:				
4c. <input type="checkbox"/> Coughing; when did it start:				
4d. <input type="checkbox"/> Difficulties of breathing; when did it start:				
4e. <input type="checkbox"/> Diarrhea; when did it start: how often:				
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5. What does he/she or someone else think is the cause of the symptoms:				
5a. If yes, why does he/she think that? <input type="checkbox"/> Medical diagnosis <input type="checkbox"/> Self-diagnosis <input type="checkbox"/> Unknown <input type="checkbox"/> Other:				
6. Has medical treatment already been taken by ill traveller for the symptoms present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				
6a. If yes, which medical treatment (consider asking for documentation):				
6b. If yes, when did the medical treatment start:				
7. Places, where the ill traveller has stayed within the last 3 weeks (consider asking for countries, regions, cities; urban areas or rural areas):				
8. Why were the above named places visited (consider asking for business trip, backpacker trip, visiting family, working as a healthcare-worker ...):				
9. Any contact with persons with similar symptoms within the last 3 weeks (consider asking whether ill traveller cared for patients or had contact to a person who died)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				
10. ADDITIONAL COMMENTS:				

Public health form – assessment part

C. OUTCOME OF THE REMOTE RISK ASSESSMENT		
Check if applicable	Is the event a public health risk?	Actions to be considered
<input type="checkbox"/>	Event is not a public health risk (e.g. suspected seasonal influenza without increased virulence)	<ul style="list-style-type: none"> Risk communication about the event may be needed to address the public perception of risk (For instance: ask airport operator, airline operator and cabin crew to inform that the outcome of the risk assessment revealed: there is no public health risk)
<input type="checkbox"/>	Event is a public health risk	<ul style="list-style-type: none"> Implement infection control measures Collect information needed for possible contact tracing (depending on diagnosis) Provide guidance to airline operators, airport operators and others about necessary measures
Check if applicable	Which communicable disease is suspected?	Incubation period
<input type="checkbox"/>	Suspected novel influenza with pandemic potential OR seasonal influenza with increased virulence	2 days (1-4 days)
<input type="checkbox"/>	Influenza virus with zoonotic potential (e.g. avian and swine influenza)	2 days (up to 10 days)
<input type="checkbox"/>	Severe acute respiratory syndrome (SARS)	3-10 days
<input type="checkbox"/>	Middle East respiratory syndrome coronavirus (MERS-CoV)	2-14 days
<input type="checkbox"/>	Meningococcal disease	3-4 days (2-10 days)
<input type="checkbox"/>	Tuberculosis	
<input type="checkbox"/>	Measles	8-10 days (up to 19 days)
<input type="checkbox"/>	Viral haemorrhagic fevers	2-21 days
<input type="checkbox"/>	Other disease relevant for contact tracing:	
D. If the event is a public health risk, the following information needs to be collected upon arrival		
12. Name of ill traveller:		13. Phone:
14. Place of residence:		15. E-Mail:
16. Does the ill traveller suffer from an underlying condition? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
16a. If yes, which?		
16b. If yes, which medication has been taken?		
17. Measures taken by crew <input type="checkbox"/> Isolation of ill passenger <input type="checkbox"/> Mask for ill traveller		
<input type="checkbox"/> Mask for crew member in charge <input type="checkbox"/> Gloves for crew member in charge <input type="checkbox"/> Oxygen		
<input type="checkbox"/> Medication, specify:		
18. Where did the ill traveler stay during the flight (which seat/s, which area/s)?		
19. Is any family member or someone else travelling with the ill traveller (same transports, visits, hotels)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
19a. If yes, seat numbers of other persons:		
20. Number of crew members or passengers caring for the ill traveller (direct contact: touching the ill traveler, talking more than 15 minutes with the ill traveler):		
20a. If one or more, names of crew members or seat numbers of passengers:		
21. Did the ill traveler lose any body fluids (e.g. blood, vomit, urine)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
21a. If yes, did any contamination occur? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
21b. If yes, state location and body fluid causing contamination (e.g. seat no. 2A contaminated with blood, rear left toilet contaminated with vomit)?		
22. ADDITIONAL COMMENTS:		

Is there a public health risk? Actions to consider

Which public health risk? Main diseases of concern.

Additional information required if possible public health risk confirmed

Designated port of entry (POE)

- Benefits:
 - Allows concentration of public health expertise at fewer locations
 - May be linked to secondary/tertiary care infectious disease facilities
 - May have quarantine facilities (but are these useful in today's world?)
 - Usually at major hubs, able to handle all aircraft types and facilitating onward transport
- Disadvantages:
 - Most suspect cases will not have illness of public health significance
 - Arriving passengers not where they want to be
 - Meeters and greeters not where they need to be
 - Onward connections missed
 - Aircraft and aircrew not where they are needed for the next flight
 - Passengers due to travel on that aircraft's next flight (from planned destination) delayed
- Should all international airports be designated ports of entry?
- Under what circumstances would a public health authority divert an aircraft to a designated POE?



Aircraft parking – remote stand/position

- Advantages:
 - Easier to control aircraft and occupants
 - May be easier access for emergency vehicles
 - At smaller airports, often little disruption to normal procedures
 - Similar process to security alert procedure – reduced training need, including for emergency services
- Disadvantages:
 - Usually no facilities to maintain cabin ventilation (unless APU can be used) – increased transmission risk (exposure time plus airborne)
 - Delays to other passengers – potential for disorder
 - Airline / airport ground staff less able to assist
 - Delays to aircraft and flying crew turnaround
 - Communication to and from aircraft
 - Ground staff may be concerned and reluctant to deal with aircraft e.g. bus drivers, baggage and cargo handlers



Aircraft parking – designated stand

- Advantages:
 - Minimise delays to other passengers
 - Ground staff and equipment in place
 - At least some ground turnaround procedures can be initiated – minimise delays
 - Aircraft in place for next service
 - Departing passengers at correct stand for next service
 - Usually adequate vehicular access including for emergency vehicles
- Disadvantages:
 - May be more difficult to persuade other passengers to wait for medical staff to board and assess case (more on that in next slide!)
 - May be more difficult to obtain contact tracing details
 - Often more difficult to separate passengers and crew from mixing with other people in terminal (does this matter?)
- **Recommendation: Aircraft should normally be parked at designated stand**

Disembarkation process

If wait until index case(s) assessed before allowing anyone to disembark:

- Allows decision on contact tracing to be made once case assessed

BUT

- In most cases diagnosis cannot be made until results of investigations known – requires transfer to medical facility
- Many airports do not have public health or other medical professionals on site – aircraft, other passengers delayed until arrival
- Difficulty in managing passengers who are anxious to disembark – get home, make flight connections etc
- Most passengers would not be contacts
- Easier access to ill person(s) if other passengers disembark
- Fewer privacy concerns for ill person if other passengers disembark
- Remote risk assessment will allow preliminary decision on possible contact tracing need – PLF, national form or mobile phone number / email address

Disembarkation process

- Recommendations:
 - Normal procedure is for remaining passengers (all except index case(s) and travel companions) to disembark first and follow normal path through airport or to flight connections
 - If ill person appears to be seriously unwell AND medical staff plus transport available at aircraft on arrival, medical assessment may be carried out prior to disembarkation of other passengers
 - Where prior risk assessment suggests possible need for contact tracing, requirement to be determined on basis of suspected diagnosis and ECDC 'RAGIDA' guidelines or 'standard' index case row plus 2 rows behind and in front

Summary of proposed guidance

Report received of inbound aircraft with suspect case of communicable disease:

- Remote risk assessment (using AIRSAN documentation*) if possible

Unless alternative approach clearly justified on basis of remote risk assessment (UK working group could not identify any circumstances in which this would be the case):

- Aircraft to proceed to planned destination
- Aircraft to be parked at allocated stand / position
- Unaffected passengers to disembark first and follow normal exit pathway
- If ill person appears in need of emergency medical treatment and medical staff available at aircraft on arrival, medical team may board and assess / remove ill person before other passengers disembark

* Highly desirable for AIRSAN remote risk assessment guidance document to be reviewed and endorsed by WHO, ICAO and IATA (with revision if necessary)

Any questions?