



OSCE 22

Candidate Instructions

This is a **7-minute** station.

You are the consultant in charge of your emergency department (ED).

Your junior registrar comes to you after taking a call from a GP regarding a patient that they saw in ED 3 days prior. The GP reviewed the patient today at his clinic and is concerned that the patient has measles.

The registrar's recollection of the case from 3 days prior is as follows:

- 23-year-old male
- Waited in the waiting room for 2 hours before being seen
- Presented with a non-specific rash and low-grade fever – diagnosed as an allergic rash
- Treated with antihistamine tablets and discharged for GP follow up

Your tasks are to:

- Describe your assessment of measles to the registrar
- Outline further management of this situation
- Address the registrar's concerns about the missed diagnosis

This OSCE will assess the following domains:

- Medical Expertise: Assessment – 50%
- Health Advocacy – 30%
- Communication – 20%



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Examiner Instructions

This is a **7-minute** station.

This OSCE examines the candidate's ability to:

- Approach the diagnosis of measles (history and examination).
- Identify patients at risk of severe illness
- Describe subsequent management of the situation – the patient was initially diagnosed as an allergic rash
- Address the role-player's concerns about a missed diagnosis

Case details

The candidate has been provided with the following:

You are the consultant in charge of your emergency department (ED).

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The registrar's recollection of the case from 3 days prior is as follows:

- 23 year old male
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Your tasks are to:

- Describe your assessment of measles to the registrar
- Outline further management of this situation
- Address the registrar's concerns about the missed diagnosis

This OSCE will assess the following domains:

- Medical Expertise: Assessment – 50%
- Health Advocacy – 30 %
- Communication – 20%

Expectations of the candidate in general terms:

- Describe the clinical presentation of measles with the junior registrar
- Further Management
 - Treat the patient and confirm diagnosis
 - Notify public health (or GP to notify)
 - Contact tracing (assisting public health with ED aspects)
 - Isolate
- Address the registrar's concerns about a missed diagnosis



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Role-player Instructions

- **Gender:** Any
- **Age range:** Any
- **Role to be played by:** FACEM

This is a **7-minute** station.

You are a junior registrar in the emergency department (ED). You are a provisional trainee PGY3.

The candidate has been provided with the following:

You are the consultant in charge of your emergency department (ED).

Your junior registrar comes to you after taking a call from a GP regarding a patient that the registrar saw in ED three days prior. The GP reviewed the patient today at his clinic and is concerned that the patient has measles.

The registrar's recollection of the case from 3 days prior is as follows:

- 23 year old male
- Waited in the waiting room for 2 hours before being seen
- Presented with a non-specific rash and low-grade fever – diagnosed as an allergic rash
- Treated with antihistamine tablets and discharged for GP follow up

Your tasks are to:

- Describe your assessment of measles to the registrar
- Outline further management of this situation
- Address the registrar's concerns about the missed diagnosis

Other details of history that may be asked about:

- You were on night shift and reviewed the patient at about 0130
- The patient had been triaged to fast track (they looked miserable but all observations within the normal range – you cannot recall the exact numbers).
- He had presented to ED with a red rash that started 24 hours ago behind his ears and neck, then spread to his trunk and body. He appeared miserable but well.
- The patient, a university student, had travelled from the Philippines a week prior after a month-long holiday in their native country. You did not ask specifically about any prodrome, rather asking about potential allergens he was exposed to.
- He had no other past medical history and he denied any bites.
- You did not enquire about immunizations/exposure.
- He has no significant PHx and no regular medications.
- Your initial assessment was likely an allergic rash.
- You advised the patient to trial a course of antihistamines, discharged him home and asked him to follow up with his GP.
- You are disappointed and a little embarrassed that you missed the diagnosis. You have no external life stresses and previous feedback has indicated that you are a well-performing



registrar. You are comfortable in managing this case further with the GP as directed by your consultant.

The GP has called you and stated he thinks the patient has measles. The GP is seeking guidance as to further management. You have stated to the GP that you will discuss the situation with your consultant and call him back with a management plan.



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Role-player Script

Part 1 (0 - 4 mins)

Opening statement:

"Hi I'm _____,

I've just received a call from a GP regarding a patient I saw three days ago here in ED. The GP thinks the patient has measles and I thought I should discuss what to do with you. I'm going to call the GP back.

Firstly, I have not seen measles before. How should I assess a patient for measles?"

History:

- It is a viral illness (paramyxovirus) with an incubation period of about 10 days (range from 7-18 days) to the onset of a fever and 14 days to the onset of rash.
- Prodrome (2-4 days): fever, conjunctivitis, coryza and cough.
- Hx of exposure to contacts known to have measles
- Hx of travel to nations where measles is prevalent
- Vomiting, diarrhoea, oral intake
- Hx for complications: earache, dysphonia (laryngitis), dyspnea, pleuritic pain (pneumonia), severe HA (encephalitis), blurred vision (optic neuritis)
- General: PMHx, meds, allergies

Exam:

- A characteristic maculopapular rash (non-itchy) appears about 2 -7 days after the onset of the prodrome – starting on the face and upper neck and then spreads to become generalised lasting 4–7 days. This should be associated with a fever.
- Pulse rate, BP, RR, saturations
- Conjunctival injection/oedema
- Nasal injection, rhinorrhoea
- Koplik spots on buccal mucosa may be present transiently
- Ex for complications: otitis media, crackles, jaundice

If the candidate only discusses the history and does not mention examination findings, then ask:

"What should I look for on examination?"

Once this is covered:

"How is it spread?"

Close personal contact, direct contact with respiratory tract secretions, droplets (coughing, sneezing), fomites.

"How long are they infectious?"

Patients are infectious for 24 hours prior to onset of prodromal symptoms until 4 days after the onset of rash:



“Which groups are at higher risk of contracting measles or developing complications?”

- Unvaccinated
- Under-vaccinated people i.e. those who have not had two doses of measles containing vaccine i.e. individuals born after 1966 (Aust) / 1969 (NZ) but before 1990s when two-doses recommenced
- Immunocompromised
- Malnourished children, particularly those with vitamin A deficiency
- Children younger than 5 years and adults 20 years of age and older, in whom complications of measles are more common
- Pregnant women: premature labour, spontaneous abortion and low birth weight infants. Birth defects have not conclusively been associated with measles virus infection.

Part 2 (4 - 6 mins)

“So, what should we do from here?”

- Treat the patient and confirm diagnosis
 - Fluids, antipyretics, vitamin A supplements
 - Establish immunity status and immunize if appropriate
 - Advise on possible complications with return to ED criteria
 - Dehydration 2° D&V
 - Dyspnoea/pleuritic pain – concern re pneumonia
 - Jaundice – concern re hepatitis
 - Headaches, dizziness and confusion – concern re encephalitis
 - Advise on testing: nose and throat swab PCR, 1st pass urine PCR, serum IgM & IgG
- Notify public health (or GP to notify)
 - Contact tracing (assisting public health with ED aspects)
 - Family and friends
 - ED waiting room patients
 - Fast Track patients
 - ED staff (includes this registrar)
 - GP waiting room
 - GP staff
 - Places visited by patient in last 4 days
 - MMR vaccine to unimmunized non-pregnant contacts, isolate unimmunized for 2 weeks
- Isolate
 - Directly home if well enough
 - To the ED if unwell with contact precautions and mask, avoiding waiting room and direct to a single room (neg pressure if available)

If the candidate doesn't mention any tests, you should ask:

“How can we confirm the GP's diagnosis?”



If the candidate does not mention public health or contact tracing, ask:

“What else should we do?”

If the candidate does not mention isolation or reasons to represent to ED, you should ask:

“Should the patient come back to the ED?”

If the candidate asks about the patient’s wellbeing, say:

“The GP said he was otherwise ok, and he had no other concerns”

Part 3 (6 - 7 mins)

(sigh) ***“Well I really should have known more about measles and I’m really disappointed in myself.”***

(silence) – allow candidate to drive discussion from this point

Allow the candidate to do any of the following:

- Console
- Show concern for registrar’s well-being
- Explore other factors contributing to the missed diagnosis – busy shift, exhaustion, inexperience, external stress
- Check registrar’s own immunity status (if infected, he/she would be in incubation period)



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Role-player Script Summary:

Part 1 (0 - 4 mins)

Opening statement:

"Hi I'm _____. I've just received a call from a GP regarding a patient I saw three days ago here in ED. The GP thinks the patient has measles and I thought I should discuss what to do with you. I'm going to call back the GP."

Firstly, I have not seen measles before. How should I assess a patient for measles?"

If the candidate only discusses the history and does not mention examination findings, then ask

"What should I look for on examination?"

"How is it spread?"

"How long are they infectious?"

"Which groups are at higher risk of contracting measles or developing complications?"

Part 2 (4 - 6 mins)

"So, what should we do from here?"

If the candidate doesn't mention any tests, you should ask:

"How can we confirm the GP's diagnosis?"

If the candidate does not mention public health or contact tracing, ask:

"What else should we do?"

If the candidate does not mention isolation or reasons to represent to ED, you should ask:

"Should the patient come back to the ED?"

If the candidate asks about the patient's wellbeing, say

"the GP said he was otherwise ok, and he had no other concerns"



Part 3 (6 - 7 mins)

(sigh)

“Well I really should have known more about measles and I’m really disappointed in myself”

(silence) – allow candidate to drive discussion from this point.



CONFIDENTIAL Examiner Rating: OSCE 22

CANDIDATE
barcode

EXAMINER
barcode

Domain	Criteria	Marking rules to be 'at a minimum level of competence'/other comment	Criteria met / not met
Medical Expertise: Assessment & Diagnosis (50%)	• Hx: ○ Prodrome (2-4 days): fever, conjunctivitis, coryza and cough. ○ Hx of exposure to contacts known to have measles ○ Hx of travel to nations where measles is prevalent ○ Rash inc distribution and evolution. Fever present at rash onset ○ High risk factors in patient ○ Vomiting, diarrhoea, oral intake ○ Hx for complications: earache, dysphonia (laryngitis), dyspnea, pleuritic pain (pneumonia), severe HA (encephalitis), blurred vision (optic neuritis) ○ General: PMHx, meds, allergies • Ex: ○ Maculopapular rash (non-itchy) appears about 2 -7 days after the onset of the prodrome – starting on the face and upper neck and then generalised lasting 4–7 days. Usually with a fever. ○ Pulse rate, BP, RR, saturations ○ Conjunctival injection/oedema ○ Nasal injection, rhinorrhoea ○ Koplik spots ○ Ex for complications: otitis media, crackles, jaundice • Spread: Close personal contact, direct contact with respiratory tract secretions, droplets (coughing, sneezing), fomites • Infectious: 24 hrs prior to prodrome until 4 days after rash onset • Treat the patient and confirm diagnosis: ○ fluids, antipyretics, vitamin A supplements ○ establish immunity status ○ advise on possible complications with return to ED criteria ○ advise on testing: nose and throat swab PCR, 1st pass urine PCR, serum IgM & IgG	• Establish presence of fever, rash with description plus 3 of the following: ○ Hx of exposure ○ Conjunctivitis ○ Cough ○ Rhinorrhoea ○ Vomiting and/or diarrhoea ○ Abnormal vitals (apart from fever) ○ Koplik spots ○ Symptom or sign associated with complication ○ High risk factors in patient • Identify spread: ○ droplets/aerosolized/airborne • Identify one test	

Health Advocacy (30%)	High Risk Groups: • Unvaccinated • Under-vaccinated • Immunocompromised • Malnourished children • Children younger than 5 years and adults 20 years of age and older • Pregnant women: premature labour, spontaneous abortion and low birth weight infants Notify public health (or GP to notify): • Contact tracing (assisting public health with ED aspects): ○ Family and friends ○ ED waiting room patients ○ Fast Track patients ○ ED staff (includes this registrar) ○ GP waiting room ○ GP staff ○ Places visited by patient in last 4 days • MMR vaccine to unimmunized non-pregnant contacts, isolate unimmunized for 2 weeks Isolate: • Directly home if well enough • To the ED if unwell with contact precautions and mask, avoiding waiting room and direct to a single room (neg pressure if available)	• Identify 2 high risk groups • Ensures public health notification • Refers to contact tracing • Appropriate isolation/disposition	
Communication (20%)	• Console • Show concern for registrar's well being • Explore other factors contributing to the missed diagnosis – busy shift, exhaustion, inexperience, external stress • Check registrar's own immunity status (if infected, he/she would be in incubation period)	• Explores possible contributing factors to missed diagnosis • Addresses registrar's wellbeing	