

STATION 14

MANAGEMENT OF PAEDIATRIC GASTROENTERITIS

1. STATION SUMMARY

Helen, aged 4, with an uncomplicated case of paediatric infectious gastroenteritis with nausea, vomiting and diarrhoea, and decreased oral intake.

The Registrar who has assessed Helen has asked for senior help in speaking with Helen's parent. Her parent is extremely concerned about their daughter and has not been reassured with the Registrar's assessment or plan.

The discussion will be with the candidate and the parent, occurring in the relative's room away from the treatment area. The Registrar will not be present.

Candidates should step through the parent's concerns: particularly what is gastroenteritis, how it is best managed, what are the risks of the disease and management. The parent will have to be reassured of medication safety (if offered), and will try to understand the risks and benefits of the options of rehydration via oral, nasogastric and intravenous routes, before making a shared decision for an appropriate approach, with a view to discharge if successful.

2. CANDIDATE INSTRUCTIONS

David, one of your capable Registrars, has approached you asking for your assistance with an anxious parent, Mrs Wendy Smith. He feels she is not assured with his assessment and management plan for her daughter, Helen.

The patient, Helen, is a previously well 4 year-old girl, who has had nausea, vomiting and diarrhoea for 4 days; just 1 week after her playgroup friend was unwell with a similar illness. Her mother (Wendy) is concerned about the prolonged course and that Helen is tired, listless, sleeping a lot and still not keen to drink much fluid.

Your Registrar's summary of her presentation is:

- 4 year-old girl, fully immunised (following an initial deliberation and concern regarding safety profile), with no other past medical history and no siblings.
- HR 120/minute and regular, BP 110/60, RR 24, T 37.7°C, dry mouth, sunken eyes, capillary refill 3 secs.
- Mild generalised abdominal tenderness (No focal tenderness of note), but no guarding or rebound, bowel sounds active.
- Full Ward Test urine- trace of ketones only

You have reviewed the patient and agree with your registrar's provisional diagnosis of gastroenteritis, and his assessment that it would be appropriate to consider discharge after a successful period of rehydration.

Your tasks are to:

- See Mrs Smith in the relative's room
- Explain your assessment of Helen's illness
- Develop an appropriate management and disposition plan
- Address any concerns Wendy (mother) may have

Neither the patient (Helen), nor your registrar will be present in this OSCE.

This OSCE will assess the following domains:

- Communication
- Medical Expertise

3. ROLE-PLAYER INSTRUCTIONS

Can be played by female actor (Wendy) or male actor (Carl).

Your role is to be very anxious and concerned for your daughter. You have two main concerns. Firstly, that she has a serious illness that may cause her harm as she has never been sick like this before, and secondly that you make the right decision about further treatment out of the different options that are being presented to you.

You are worried both about having active “drug” treatments and invasive procedures, but also about not doing something that is needed, which could be even worse.

You are willing to take your daughter home eventually if she were better, but that seems a long way from her current state!

You have NOT been filled with confidence by the Registrar, David, who seemed indecisive about the treatment plan. He discussed a number of options regarding rehydration, but you were flustered and don't remember the details. You need explanation and reassurance on every point, especially regarding potential risk. The doctor should realise this and slowly step you through an explanation of what is wrong, what can be done about it with medication, and particularly how to help Helen get enough fluids to be well.

You are very concerned for your daughter, and feel anxious about making any decision which could lead to harm to your daughter. You would feel very responsible for this. Your spouse, with whom you would ideally share this decision, is away, interstate, for work.

Helen has not had any major illnesses. You take her to the GP once a year, but otherwise avoid doctors as much as possible. You tend to prefer a natural approach to health and avoid medications as much as possible. However, you try to be sensible. Helen's vaccinations are up to date.

You think it will help you if you understand what is happening to your daughter. You want to be reassured by a confident doctor who knows what they are doing and sound like they do. You need the following information provided/questions answered. Good candidates will provide much of this information without you having to ask – try to allow them the opportunity to do so and only ask the questions if they fail to do so.

You can wind back the anxiety if you feel reassured during their explanations.

‘Thank you for seeing me doctor. I just want to understand what is happening to Helen. Why is she sick? What can be done to make her better?’

About the infection:

- ‘Why has Helen got this?’
- ‘Is there anything I could have done to protect her?’
- ‘Is the daycare to blame?’

About the diarrhoea:

- If asked, the diarrhoea is just watery brown spray, not frothy or floaty. No blood.
- ‘Is there anything to stop the diarrhoea?’
- ‘She just keeps getting diarrhoea whenever she eats’
- ‘Are there treatments to stop the diarrhoea? Are there natural options?’
- ‘I’m generally against them, but should she actually have antibiotics for this?’

About the vomiting:

- If asked, the vomiting is just clear to yellowish fluid, not black, blood stained or dark green.
- ‘She vomits straight away, even though she’s thirsty. How will she keep enough down?’
- ‘Is there something we can give her to stop the vomiting?’
(Options ideally Ondansetron 4 mg – “a wafer/ tablet that dissolves”)

Other drugs have more side effects e.g. Maxolon (Metoclopramide), Stemetil (Prochlorperazine), Phenergan (Promethazine)

If given a drug, regardless of option, ask *'Is that drug safe for her? Could she have any side effects?'*

Rehydration options: (should be stepped through)

1. Oral Rehydration:
 - a. Doctor should be very specific
 - b. Teaspoon or 0.5 mls/kg per 5 minutes oral rehydration solution
 - c. 5 minute rest, keep pushing
 - d. Consider hydralyte iceblock
 - e. Small volumes, frequently gives absorption
 - f. Small vomits not a disaster

Ask clarifying questions if the above is not clear particularly 1) how much; 2) how often; 3) what to do if she vomits (i.e. try to continue if a small vomit)

Then say *'I could try, but she wouldn't take anything at home... Is there a better way?'*

They may suggest antiemetic (antivomiting drug described above). You are not confident.

2. Nasogastric tube and oral hydration fluid:

The doctor should explain what this is, and how it is done. If they don't give an explanation of the following, consider asking:

- *'Is that painful?'*
- *'Won't she just vomit around the tube?'*
- *'How long would it be in for?'*
- *'What do you put in it?'*

You remain unconvinced. *'What else could we try?'*

If necessary, ask *'What about a drip? Does she need a drip?'*

3. Third line should be discussion re intravenous drip and fluids

This should NOT be first line treatment. If it is, the response should be *'Does she really need that? That seems cruel.'*

If this is given third line, then the question should be *'Does she need that? Is it safe? What are the risks?'*

Note: At approximately 5 minutes, there needs to be a discussion re likely time frame for management and disposition decisions. The Examiners can work out a time reminder signal with you.

Ask *'If we are doing one of these options, how long is Helen likely to be here?'*

- Should explain that will be a period of 4-6 hours in ED/ observation area/ Paeds Ward

You also need the following information provided – ask if needed.

- *'When will she be well enough to go home? How will we tell?'*
 - Will have tolerated rehydration and also then been able to tolerate oral fluids
 - Will be improved: returning towards normal level of activity
 - Candidate should indicate that if she is not improved/if you (the parent) not happy, then further observation will occur
 - *'How do I manage her at home?'*
 - Frequent oral fluids
 - Reintroduction of food as tolerated
- Ask *'When do I start feeding her again?'* and *'What should I feed her?'*



Treatment Plan:

A shared decision re treatment plan should be made. If the candidate has made a recommendation for one particular approach that makes sense to you, then feel free to agree to it.

If it doesn't make sense to you, feel free to ask, '*Why do you suggest that?*'

If they ask you for your preference, then you decide that you would like to try oral hydration after ondansetron, with a second line treatment being intravenous fluid rather than nasogastric.

(For the good candidates, if there is time they should be able to guide you through the likely timeframe of improvement and recovery instructions once discharged.)

4. EXAMINER INSTRUCTIONS

The pre-reading presents the candidate having assessed Helen, aged 4, with an uncomplicated case of paediatric infectious gastroenteritis with nausea, vomiting and diarrhoea, and decreased oral intake.

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The discussion will be with the candidate and Wendy (mother), occurring in the relative's room away from the treatment area. The Registrar will not be present.

Candidates should step through Wendy's concerns: particularly what is gastroenteritis, how it is best managed, what are the risks of the disease and management. Wendy will have to be reassured of medication safety (if offered), and will try to understand the risks and benefits of the options of rehydration via oral, nasogastric and intravenous routes, before making a shared decision for an appropriate approach, with a view to discharge if successful.

This OSCE will assess the following domains:

- Communication
- Medical Expertise

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 14



EXAMINER 1
barcode

CANDIDATE barcode

EXAMINER 2
barcode

COMPONENT ASSESSMENT

For each Domain below, select the **ONE** option that best represents the candidate's level of performance. The option **"Minimum level of competency displayed"** represents the level of safe independent practice as a **junior FACEM** in Australasia.

Very poor level of competence displayed	Well below minimum level of competence displayed	Below minimum level of competence displayed	Minimum level of competence displayed	Above minimum level of competence displayed	High level of competence displayed	Very high level of competence displayed
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Please rate **ALL** the following domains:

Communication	☐	☐	☐	☐	☐	☐	☐
Medical Expertise	☐	☐	☐	☐	☐	☐	☐

Detailed assessment criteria

Please use the following criteria to inform your ratings above

- | | |
|-------------------|---|
| Communication | <ul style="list-style-type: none"> • Introduce self, establish rapport with parent • Open question's, genuine inquiry, elucidate the issues • Explanations at the appropriate level. Little medical jargon • 'Shared decision making' approach to rehydration options • Not patronising, no disrespecting a parent in an unfamiliar situation. • Good summation and "next actions" plan to conclude |
| Medical Expertise | <ul style="list-style-type: none"> • Understandable explanation of gastroenteritis pathophysiology • Not talked into further Ix • Benefit of anti-emetics, safety profile: use of oral ondansetron wafer (4mg for 15-30kg) • NO need for antibiotics – with understandable explanations • Discussion of oral and at least one other <ul style="list-style-type: none"> ○ Oral <ul style="list-style-type: none"> ▪ best, safest but labour and time intensive and user dependent ▪ ideally hydragel(TM) or equivalent 10-20ml/kg/hr (200-400mls) ▪ low sugar fluids (fruit juice 1:4, lemonade 1:4, cordial 1:8, sugar 1tsp:1cup) ▪ early solids as tolerated improves resolution – don't stop because of diarrhoea! ○ NasoGastric <ul style="list-style-type: none"> ▪ RCH preferred over I.V. ▪ rapid protocol 25ml/kg up to 300ml/hr for 6 hours ▪ slow protocol 24 hours ○ I.V. rehydration <ul style="list-style-type: none"> ▪ 3rd line from RCH if N/G fails ▪ Saline until "shock" corrected ▪ ideally maintenance plus deficit over 6 hours with plasmalyte+dextrose ○ Flexibility to go with what works for mother and child. • Appropriate observation in E.D. then follow up plan, ED or GP <ul style="list-style-type: none"> ○ Success of rehydration: behavior, obs, tolerating oral fluids ○ Advice re fluids/ reintroduction food |

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 14



INFORMATION

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 - Candidates should step through the parent's concerns: particularly what is gastroenteritis, how is it best managed, what are the risks of the disease and management. The parent will have to be reassured of medication safety (if offered), and will try to understand the risks and benefits of the options of rehydration via oral, nasogastric and intravenous routes, before making a shared decision for an appropriate approach, with a view to discharge if successful.
- The OSCE will assess the following domains: Communication, Medical Expertise

EXAMINER NOTES (For examiner reference only)

OSCE 'incident reporting' notes: Please provide details if an issue occurs which may influence this candidate's exam outcome e.g. protocol breach, candidate illness etc.

GLOBAL RATING FOR STANDARD SETTING:

This scale is used in the standard setting process for the OSCE. Please rate the candidate's OVERALL performance in this OSCE. The rating should take into account the entirety of the OSCE, rather than just a sum or average of the individual domain scores. This element MUST be completed for the standard of the examination to be set.

	Well Below Standard	Below Standard	Just at Standard	Above Standard	Well Above Standard
In terms of a safely practising junior emergency physician, select the ONE option that best reflects the candidate's performance in this station:	☐	☐	☐	☐	☐

EXAMINER SIGNATURE:



OSCE 1