

TELEPHONE APPOINTMENT – MENINGOCOCCAL DISEASE

MODULE: ADVICE ABOUT CHICKEN POX

TARGET: ST1/2 GP TRAINEES STARTING GP PLACEMENTS

BACKGROUND

Meningococcal disease is the leading infectious cause of death in early childhood and has a mortality rate of about 10%¹. Progression of disease, leading to increasing morbidity and risk of death, is extremely rapid. It is essential that GPs are able to recognise meninigococcal disease and quickly initiate emergency management.

MRCGP	MRCGP COMPETENCIES		
1	Communication and consultation skills - communication with patients, and the use of recognised consultation techniques		
4	Making a diagnosis and making decisions – a conscious, structured approach to decision making		
5	Clinical management - recognition and management of common medical conditions in primary care		
8	Working with colleagues and in teams - working effectively with other professionals to ensure good patient care, including sharing information with colleagues		

MRCGP CURRICULUM	
1.	Being a General Practitioner
2.01	The GP Consultation in Practice
2.03	The GP in the wider professional environment
3.03	Care of acutely ill people
3.04	Care of children and young people

LEARNING OBJECTIVES

To be able to recognise meningococcal disease and institute the correct emergency management.

Specifically:

- o To know the signs and symptoms of meningitis and septicaemia including early warning redflags
- o To confidently assess ABCD over the telephone
- To be able to describe the immediate pre-hospital management of suspected meningococcal disease and bacterial meningitis
- o To effectively communicate essential clinical information to the emergency services

SCENE SETTING

Location: GP surgery – telephone appointments.

Personal in scenario GP trainee, patient, Emergency call handler, paramedic (faculty)

Expected duration of scenario: 15 mins Expected duration of debriefing: 15 mins





DOCTOR BRIEFING

You are a GP trainee in a GP practice placement. You are working through your morning telephone call list.

You receive a call from reception:

'Doctor I've got Mrs Taylor on the telephone she's sounds really worried, it's about her son Alistair, she says he's got a rash and it's not going away when she presses it with a glass. Can I put her through?'

Name	Alistair Taylor
Address	15 Perry Lane, Hightown, Hightownshire, HT105XP
Telephone number	03798 401732
Reason for call	Mum very worried, rash that's not going away when she presses it with a glass
Age	3
Past medical history	Nil
Social history / occupation	Lives with mum and dad
Repeat medications	Nil
Allergies	Nil
Last consultation	2 years ago:
	Gastroenteritis – diarrhoea 5 days, well, examination normal. Symptomatic
	advice and review if not settling.





PATIENT BRIEFING

Your details	You are Fiona Taylor. You are ringing about your son Alistair.	
Patients details		
Name	Alistair Taylor	
Address	15 Perry Lane, Hightown, Hightownshire, HT10 5XP	
Telephone number	03798 401732	
Age	3	
Reason for telephone call	You're really worried about Alistair, he's suddenly become very unwell, you've phoned to urgently speak to the GP	
Opening statement	It's Alistair I don't know what to do, he's really ill, and he's got a marks and they're not going away with the glass, has he got meningitis? What should I do?	
Information to give	 Alistair was a bit more clingy last night and he had a temperature of 38 He'd had a cold for a couple of days and he was still eating and drinking so you thought it was just a viral infection. You gave him some calpol and he settled, you checked him regularly throughout the night and he seemed to sleep ok. This morning he didn't want anything to eat but had some juice. He still felt hot so you gave him some more calpol. He just wanted to sleep all morning but seemed uncomfortable and restless and then was sick a few times. Despite the calpol he's been really shivery and shaky, about an hour ago you phoned and booked a GP appointment for this afternoon Just now when you checked on him: he's still shivery, he feels really cold, he's not really with it and you noticed some small pin prick marks on his legs and tummy and checked with a glass and they don't go away 	
Information to give if asked	 Alistair is breathing – his breathing seems quite fast compared to normal but is not noisy and his chest is rising and falling He looks very pale, his hands and feet are really cold, he looks really ill He just seems to want to sleep, if you talk to him he opens his eyes and looks at you He isn't really saying anything except sometimes moaning If you ask him to do anything he's not doing it except opening his eyes and looking at you The rash definitely will not go away with the glass, you noticed it just before you made the call, it wasn't there when you checked him 20 minutes before Alistair has been shivery like he's really cold, you don't think he has had a fit You are at home (address above) There is no one else at home with you, your husband is at work about half an hour away You live about a 15 minute drive from the surgery, about half that to the nearest hospital, you don't drive If the doctor asks you questions and you don't know say you don't know 	
Attitude	Very anxious about your son, talking quickly, finding it difficult to take it all in, you think your son has meningitis and don't know what to do.	
Possible questions to ask the doctor	What should I do? Is it meningitis? Is he going to be ok?	
Past medical history/Medications/Allergie	Nil/Nil/Nil	
Social history / occupation	Lives with you and dad	





EMERGENCY SERVICES CALL HANDLER BRIEFING – FACILITATOR KEEPS THIS AND PLAYS THIS ROLE

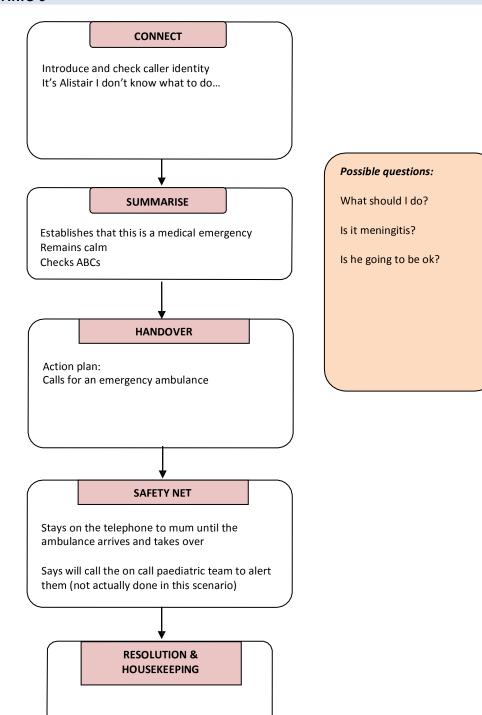
Emergency call handler	Expected answer from doctor
Emergency, which service?	Ambulance
Putting you through now caller	
Ambulance Emergency what is the address of the	15 Perry Lane, Hightown, Hightownshire, HT10 5XP
emergency?	
Please confirm the telephone number your calling	Gives a telephone number
from	· ·
Okay tell me exactly what has happened?	This is Doctor X from Hightown Surgery, I am on the telephone to the mother of a 3 year old boy who has a non-blanching rash and reduced conscious level, I suspect he has meningococcal septicaemia and shock. He needs an immediate emergency ambulance to take him to hospital and antibiotics.
Is this an immediate threat to life or a 1 to 4 hour urgent?	An immediate threat to life
I'm organising an emergency ambulance for Alistair now. Please stay on the line. The next questions will not delay any help for Alistair	
Are you with the patient now?	No I am at the GP surgery, I am on the phone to his mother and they are at their home
What is the age of the patient?	3 years old
Is the patient awake?	It sounds like his conscious level is fluctuating. His mother says he is very drowsy, he opens his eyes to voice but then goes back to sleep
Is the patient breathing?	Yes, his mother says his breathing is fast
Is there a defibrillator available?	No
What is the patient's name?	Alistair Taylor
What is the patients contact number?	03798 401732
What is your name?	Dr X
What is your contact number?	Telephone number
Is anyone travelling with the patient?	Yes his mother
Will the patient need a chair or stretcher?	A stretcher
A blue light response has been arranged as requested is there anything else I can do for you?	No, Thank you
If the doctor asks how long the ambulance will be:	
The ambulance is on its way now and will be there as soon as possible.	
If the doctor asks if the crew will be able to give antibiotics:	
Yes it is a paramedic crew who will be able to give antibiotics	

After the doctor – call handler telephone call has ended and the doctor has explained to mum what is happening, the facilitator can arrive at the house as the paramedic and so end the scenario.





CONDUCT OF SCENARIO 6







DEBRIEFING - POINTS FOR FURTHER DISCUSSION

SUMMARISE

Do the symptoms and/or signs suggest an immediately life threatening illness? If yes – Refer immediately to emergency medical care by the most appropriate means of transport (usually 999 ambulance). NICE guidance Feverish illness in children – management by remote assessment¹.

What information did you need to recognise that this was a medical emergency?

- ABCDs
- Symptoms/signs of shock Alistair is breathing his breathing seems quite fast compared to normal but is not noisy and his chest is rising and falling. He looks very pale, he's shivery, his hands and feet are really cold, he looks really ill
- Fluctuating conscious level He just seems to want to sleep, if mum talks to him he opens his eyes and looks at her but if she asks him to do anything else he isn't. He isn't really saying anything except sometimes moaning
- New onset non-blanching rash there are small pin prick marks on his legs and tummy, mumchecked with a glass and they don't go away

How can you assess ABCDs over the telephone?

Examples of questions you might consider asking depending on the circumstances:

- Airway and Breathing
 - o Is he talking? Is he breathing? What's his breathing like? Is his chest moving up and down when he breathes? Is he working hard to breathe? Is his breathing noisy? Does he look blue around the lips? Indirect examination listening to the breathing is it fast/noisy/is the person talking in full sentences
- Circulation
 - o Is he walking around? Is he pale/blue/mottled? Is he clamy? Are his hands and feet warmor cold? Is there any bleeding? When did he last pass urine?Ra
- Disability
 - O AVPU is he awake and alert like normal? Does he respond when you talk to him? Does he respond if you shake / pinch him? Does he respond at all?
 - How would you explain how to do the tumbler test for a non-blanching rash²?
 - Press a glass tumbler firmly against the rash. The marks will not fade.

How can you recognise meningococcal disease?

Meningococcal disease is caused by Neisseria meningitides, it is the leading infectious cause of death in early childhood and has a mortality rate of about $10\%^2$. It presents as meningitis, septicaemia or more commonly a combination of both. Progression of disease, leading to increasing morbidity (neurological, hearing loss, skin scaring/necrosis, renal) is extremely rapid and death can occur within hours. It is essential that GPs are able to recognise meninigococcal disease and quickly initiate emergency management.

Signs and symptoms³:

SEPTICAEMIA	MENINGITIS
Limb/joint pain	Severe headache
Cold hands and feet – prolonged cap refill	Neck stiffness
Pale/mottled/blue skin	Photophobia





Tachycardia	Drowsiness/confusion/impaired consciousness
Tachypnoea, laboured breathing, hypoxia	Seizures
Rigors	Focal neurological deficits
Oliguria / thirst	Babies:
Rash (this may be absent or may initially be blanching before progressing to non-blanching)	Irritable particularly when handled, with a high pitched or moaning cry
Abdominal pain/diarrhoea	Abnormal tone, either increased or decreased, or abnormal posturing
Drowsiness/confusion/impaired consciousness	Vacant staring, poorly responsive or lethargic
Hypotension	Bulging fontanelle
Rapid deterioration	

Bold symptoms/signs = red flags for early septicaemia

Patients may initially present with non-specific symptoms and signs such as fever, poor feeding and vomiting, the early symptoms are often consistent with a minor viral illness. Things can change rapidly – this is why safety netting is always so important. Up to 50% of children with meningococcal disease are sent home when they first see a GP, using the red flag symptoms of early septicaemia (highlighted in bold above) could improve early referral and prognosis³.

HANDOVER

Action plan:

'Primary care healthcare professionals should transfer children and young people with suspected bacterial meningitis or suspected meningococcal septicaemia to secondary care as an emergency by telephoning 999.' NICE guidance².

Who should make the telephone call? What are the advantages / disadvantages of each?

	Advantages	Disadvantages
The Doctor	You have made a clinical assessment that led to the decision that this is an emergency. You can handover the relevant information in a succinct way and answer medical questions.	You may not know all the access details for the patients location so ensure to ask this before ringing
	This will ensure your patient receives the emergency response you have assessed that they need	
	You can keep the patient/relative on another line and continue to assess / give advice until the ambulance arrives	
The Doctor's Secretary	If you were also attending the patient's house this may mean you get there quicker	Delegation to your secretary could lead to the call not being categorised as potentially immediately life threatening as they do not have the same information / medical knowledge





The Patient / Patient's relative

They are the patient / are with the patient so can give timely answers to the questions and update if the situation is changing

Depending on the situation the call handler may be able to give first aid instructions to the patient / relative over the telephone.

Will you know that the call has been made?

Will you know the important information has been conveyed to get the emergency response you have assessed they need?

When ringing 999, what information should you have ready for the emergency call handler?

- The patient's name, age, address, telephone number
- Your name, location and telephone number
- ABCs
- The worrying symptoms e.g. new onset non-blanching rash, shock, fluctuating conscious level
- The diagnosis
- The patient's past medical history / medications / allergies
- That this is a medical emergency, the patient needs an immediate emergency ambulance, immediate transfer to hospital and parenteral antibiotics

What questions would you ask yourself to help you decide whether you should go to the patient's home?

- Is this a medical emergency?
- What management is needed?
- How quickly can I get to the patient?
- How quickly can the ambulance get to the patient? (The call handler won't be able to give you an ETA but they aim to be with any patient with a life threatening condition within 8 minutes.)
- Can the ambulance crew give parenteral abx?
- Can I add anything by going?
- Can I add anything by staying on the telephone?

For suspected meningococcal disease (meningococcal meningitis or septicaemia with a non-blanching rash) the priority is emergency transfer to hospital. IV/IM Benzypenicillin should be given unless there is a history of anaphylaxis but this should not delay emergency transfer to hospital². A paramedic in England, Scotland and Wales can give parenteral benzylpenicillin whilst in transit to hospital³. But remember not all ambulance crews have a paramedic. When making the emergency call request a paramedic who can give benzylpenicillin if possible (availability will depend on demand and resources at the time of the call).

Once the patient is handed over to the paramedics and on the way to the hospital, the GP should telephone and alert the on call paediatric team if this has not already been done.

What do the NICE guidelines² recommend for pre-hospital management of suspected bacterial meningitis without a non-blanching rash? Why are they different from suspected meningococcal disease?

- Emergency transfer to secondary care
- If urgent transfer is not possible, give antibiotics
- Rate of progression of disease is slower and the differential wider
- Diagnostic testing can then be done in the hospital pre-antibiotics
- Dexamethasone can be given within 4 hours of antibiotics





HOUSEKEEPING

What did it feel like to be the doctor? To call the ambulance? Afterwards?

Has anyone had any similar experiences? How did it affect you afterwards? How do you deal with this sort of consultation?

What would it feel like to be the mum or a patient in that situation? The meningitis research foundation website has a book of experience which has stories written by patients and their relatives3

Any other reflections?

RESOURCES

- 1. NICE guidance: Fever illness in children CG47 http://www.nice.org.uk/CG47
- 2. NICE guidance: Bacterial meningitis and meningococcal septicaemia CG102 http://guidance.nice.org.uk/CG102
- 3. The Meningitis research foundation http://www.meningitis.org/

A very useful website for health professionals and the public. Really good resources include: Meningococcal Meningitis and Septicaemia - Guidance Notes - Diagnosis and Treatment in General Practice.

Lessons from research for doctors in training - Recognition and early management of meningococcal disease in children and young people

The book of experience – patient and relative stories

4. SIGN Guidance Management of invasive meningococcal disease in children and young people 102. http://www.sign.ac.uk/guidelines/fulltext/102/index.html

Many thanks to Mark Cook and Shannon Daly from East of England Ambulance Service NHS Trust for their help with queries about discussions between doctors and emergency call handlers.





GENERAL PRACTICE – SCENARIO 6 - HANDOUT

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KEY POINTS COVERED

SUMMARISE

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GENERAL PRACTICE – SCENARIO 6 – PRE-TEACHING QUESTIONNAIRE

Please ring the score that reflects your views:

	1 Agree strong ly	2	3	4 Neithe r agree nor	5	6	7 Disagr ee strongl
1. I can safely assess a cough over the telephone	1	2	3	4	5	6	7
2. I know what questions to ask a patient with a cough in order to decide whether they need further review	1	2	3	4	5	6	7
3. I can confidently discuss with patients why antibiotics don't help viral URTIs	1	2	3	4	5	6	7
4. I can give clear safety netting advice over the telephone to a patient with a cough							





GENERAL PRACTICE – SCENARIO 6 – POST-TEACHING QUESTIONNAIRE

Please ring the score that reflects your views:

	1 Agree strong ly	2	3	4 Neithe r agree nor	5	6	7 Disagr ee strongl
1. I can safely assess a cough over the telephone	1	2	3	4	5	6	7
2. I know what questions to ask a patient with a cough in order to decide whether they need further review	1	2	3	4	5	6	7
3. I can confidently discuss with patients why antibiotics don't help viral URTIs	1	2	3	4	5	6	7
4. I can give clear safety netting advice over the telephone to a patient with a cough	1	2	3	4	5	6	7





GENERAL PRACTICE – SCENARIO 6 – TRAINEE FEEDBACK

	Overall score out of 5:
	The scenario covered material that was useful and relevant
	to me (1 = strongly disagree, 5 = strongly agree)
Wil	I you use the information / ideas from this scenario? If yes how will you usethem?
Hov	v could this scenario be improved for future participants?
Oth	er comments?





GENERAL PRACTICE – SCENARIO 6 – FACILITATOR FEEDBACK

What went particularly well during this scenario?
What did not go well, or as well as planned?
Why didn't it go well?
How could the scenario be improved for future participants?

