

Candidate

You are a member of the paediatrics team. Lisa is a 7 year old girl who has presented to ED with wheeze on a background of known asthma. The emergency department has provided the following information:

HOPC: Brought in by her parent Andy/Anna this morning by car. Wheeze started since last night. Parent tried giving 2 puffs of Ventolin to Lisa every few hours (no spacer) with no noticeable improvement. Has had symptoms of viral URTI for the past 5 days, nil fever.

Past History

- Asthma – no previous admissions to ED, has missed school days due to asthma. Managed by GP.
- Eczema – known family history
- Immunisations up-to-date
- Normal growth and development

Social History

- Lives with mom, dad and 3 year old brother in Gippsland, 1 hour away from your hospital
- Parent known smoker, tries to smoke outside
- Andy/Anna is concerned about Lisa's asthma affecting her activity at school – both exercise and missing school days. Also worried about her not having good sleep.

Within the 8 minutes you are required to do the following:

1. When prompted, explain to the **examiner** what you would be looking for on clinical examination, which would determine the severity of her asthma attack.
2. The examiner will then provide you with additional information. Based on this state to the **examiner** what would be your next steps in acute management.
3. After prompting by the examiner, explain to **Lisa's parent** an appropriate asthma action plan which addresses the pertinent issues with Lisa's asthma control.

Patient/Examiner

The candidate has been provided the following information:

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There are 3 parts to this OSCE. Part 2 has an information sheet to be provided to the candidate once part 1 has been completed.

Part 1

As examiner: **“Can you outline to the examiner what you would be looking for on clinical examination to determine the severity of Lisa's asthma attack?”**

Marks allocated	Criteria
/4	<ul style="list-style-type: none">• Mental state – alert/agitated/drowsy• Tachycardia• Work of breathing<ul style="list-style-type: none">- Tachypnoea- Tracheal Tug- Intercostal recession- Subcostal recession- In younger cases than this – nasal flaring, grunting, head bobbing• Ability to talk – sentences, phrases, single words, none <p>Note</p> <ul style="list-style-type: none">• O2 saturation while requiring management does not necessarily indicate severity• Wheeze is a poor indicator of severity – a silent chest in a severe case can represent very poor air entry

Part 2

Provide clinical examination information sheet to candidate

State **“Based on Lisa’s history and the examination as provided, state to the examiner what would be your next steps in managing Lisa’s acute asthma attack”**

Patient has received 12 puffs of Ventolin 10 minutes ago

HR 130 (Normal 80-130)

BP Normal

O2 95% RA

RR 38 (normal 16-34)

- Patient is alert and orientated
- Marked difficulty in speaking words
- Demonstrates mild tracheal tug and moderate intercostal recession
- Lung Examination shows widespread polyphonic wheeze bilaterally

Marks Allocated	Criteria
/6	<p>Candidate should identify this is at least a moderate and likely severe attack.</p> <ul style="list-style-type: none">• Patient will require admission to paediatrics• Oxygen therapy is only required below 92%• Give salbutamol+atrovent burst<ul style="list-style-type: none">- Within 1 hour give 12 puffs salbutamol and 8 puffs atrovent every 20 minutes (as patient is >6 years old)- Give via MDI/spacer• Continue after with salbutamol as needed – every 1 hour and stretched to 3-4 hours before discharge• Give oral prednisolone<ul style="list-style-type: none">- 2mg/kg for first dose, then 1mg/kg for next 2 days• If patient is still unresponsive and/or condition deteriorates, consider IV MgSO4 and calling senior staff and ICU involvement <p>Note</p> <ul style="list-style-type: none">• Candidate should not recommend CXR or bloods unless there is pertinent indication to consider alternative diagnosis• When properly used, spacer is just as effective as nebulised form (use nebulised if they need O2 hudson mask at same time)

Part 3

State to candidate “Now that Lisa’s asthma attack has settled, explain to Lisa’s parent your asthma action plan that addresses Lisa’s specific issues with asthma control”

Marks allocated	Criteria
/8	<p>Recognition of symptoms</p> <ul style="list-style-type: none"> • Wheezing/chest tightness/shortness of breath • Should address that sleep disturbance and night cough also constitutes an asthma attack <p>Correct dose of ventolin</p> <ul style="list-style-type: none"> • As required by asthma symptoms, not a daily dose • Mild 2 puffs Ventolin or more severe 12 puffs Ventolin (for >6 years old), trial every 15-30 minutes <p>Recommend spacer</p> <ul style="list-style-type: none"> • State will be taught with asthma education <p>When to present to doctor and emergency</p> <ul style="list-style-type: none"> • If concerned or worried • Poor response • Requiring Ventolin <3 hourly • Wheeze >24 hours • Recommend ambulance <p>Consider giving prednisolone instructions for home (as family lives 1 hour away from hospital)</p> <ul style="list-style-type: none"> • 1mg/kg 3 days <p>Exercise</p> <ul style="list-style-type: none"> • If Lisa is having known exercise difficulty due to asthma, consider giving 2 prophylactic puffs of ventolin <p>Smoking</p> <ul style="list-style-type: none"> • Mom should stop smoking <p>Follow-up</p> <ul style="list-style-type: none"> • Arrange to see GP • Consider referral to paediatrics outpatient for long-term asthma control <p>Preventer</p> <ul style="list-style-type: none"> • Consider daily preventer if asthma symptoms continues to not be controlled
/2	<p>Communication – should explain management in simple terminology to patient</p>

Total Score /20

Pass

Borderline

Fail

Part 2 – Clinical Examination to be provided to candidate

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