

Management and Prescribing STUDENT SHEET

You are the Emergency Registrar working in A&E. Jenny Nichols, DOB 21/01/2007, has come in with her mother, presenting with Shortness of Breath.

The examiner will tell you relevant parts of the history to assist your decision making.

This station will last 10 minutes. During the first 5 minutes you will need to:

- State a differential diagnosis
- Request the appropriate investigations that you think this patient needs
- Interpret the test results
- Re-evaluate your differential diagnosis and formulate a management plan

The second 5 minutes will comprise of you writing an appropriate prescription for this patient.

Management and Prescribing EXAMINER SHEET

DIAGNOSIS: Asthma Exacerbation (Moderate)

Please share the following information with the student. "Jenny Nichols is presenting to A&E with 4 hours of Shortness of Breath and a Wheeze. She is alert and orientated to date, time, and place. Her mother tells you that she was diagnosed with Asthma last year."

Q: Please state the investigations you would like to request for this patient.

Bedside:

- Full set of Observations
- Pulse Oximetry (Oxygen Saturations)
- ECG to rule out any Cardiac cause
- COVID test to rule out COVID
- Peak Flow to classify Exacerbation

Bloods:

- FBC: Rule out Infective cause
- ABG: Assess for Acid-Base disturbance

Q1: Please interpret the investigation results on the last page and tell me their significance.

Q2: In light of this information, please state your top differential diagnosis and preferred management plan.

- Diagnosis: Asthma Exacerbation- Moderate
- 100% Oxygen via Non-rebreathe Mask
- Nebulised Salbutamol 5mg
- Oral Prednisolone 50mg/ IV Hydrocortisone 100mg

Q3: The diagnosis is Moderate Asthma Exacerbation, please prescribe an appropriate drug to reduce this. The patient has no allergies and Oxygen has already been prescribed and administered.

Student must prescribe Nebulised Salbutamol 5mg. See Mark Scheme below for further details.

| | | Marks | | |
|-------------------------------|---|-------|--|--|
| Initial Diagnosis | Student states a sensible and likely diagnosis which they can justify from the initial information provided. (1) | | | |
| Requesting Investigations | Student requests a range of investigations in a structured order such as Bedside and Bloods (1) Requested investigations must be backed up by sound and specific rationale and not generic comments. (1) Investigations must be requested to support the theorised differential and rule out other differentials. (1) | | | |
| Interpretation | Student interprets more than half of the investigation results correctly and in a systematic and structured order (1) Student interprets all investigations correctly in the context of the differential diagnosis, in a systematic and structured order (1) | | | |
| Diagnosis and Management Plan | Correct diagnosis made (1) | | | |

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|--------------|---|--|--|--|
| | Appropriate management plan outlined in a structured format such as conservative, medical, surgical (1) | | | |
| Prescription | Patient details and allergy status correctly recorded (1) Medication prescribed in the correct location (1) Medication name in all capitals and correctly spelt with correct dosage and route (1) Date and prescriber details recorded correctly (1) | | | |

Global Rating: Fail Borderline Good Very Good Excellent

Management and Prescribing INTERPRETATION

- Observations: Respiratory rate 21, Heart rate 100, PaO₂ 93%
- Peak Flow: Flow rate 330L/min today, 600L last month
- ABG: pH 7.39, pO₂ 10kPa, pCO₂ 5kPa, HCO₃ 23
- COVID Test: Negative