# MSSBU OSCE PRACTICE CASE 3_03_05

## ***Station Vignette***

You are a third-year student at GCUH ED department.

The GP has asked you to take a brief history from Jack/Jacklin Edith, a 26-year-old regarding their child. James/Jamie Edith, a 6-week-old has presented with abdominal pain and vomiting.

**TASK**

You have a total of **7 minutes** to take a history.

This includes:

- History of presenting complaint
- Constitutional history
- Past medical history
- Medications history
- Social history
- Family history
- Focussed systems review

At the end of the allocated time, you will have **1 minute** to answer the examiner's questions.

You do **NOT** need to complete a physical examination.

# ***PATIENT INSTRUCTIONS***

**History of presenting complaint (/3)**
**Onset**: 2 days ago progressing to become worse
**Character:** mainly milk, no bile, some blood, projectile
**Associated symptoms:** (see below)
**Time course/duration:** few minutes
**Exacerbating/relieving factors:** Occurs every feed but they seem to be coping okay following the vomiting
**Beliefs:** Do they have an allergy? Allergies to tree nuts and seafood as well as lactose intolerance seems to run in the family.
**Impact on patient:** Very stressed and concerned parent, resulting in severe sleep deprivation
**Concerns:** Is their development and growth going to be affected because of the vomiting due to inadequate nutrition?
**Expectations:** Find out what the problem is and stop the vomiting.
**Previous episodes:** Nil

**Constitutional and General History (/3)**
- Distressed/irritable/drowsy looking: no distress; only after vomiting episode which quickly resolves
- Pain: hard to discern as child cannot express themselves
- Weight changes: **does not seem to be tracking along the percentile recently**. Thinks this may be due to insufficient feeds or vomiting episodes.
- Hydration status: **less than half wet nappies** suggesting low urine output
- **Appetite increased despite vomiting**
- Bowel motions have remained the same
- No rash, fever, chills, night sweats or change to sleep

**Systems review/associated symptoms (at least 2 per differential = 1 mark)**
*The symptoms **BOLDED** are indicative of positive answers, other answers are suggestions of what is required in terms of questioning to ensure a comprehensive history.*

**GASTROENTEROLOGY SYSTEMS REVIEW**

Pyloric stenosis
- **Poor weight gain**
- **Vomiting is getting worse in regard to severity and frequency over time**
- **Projectile vomiting**
- **Non-bilious**
- **Previously well**
- **Remains hungry and wants to feed afterwards**

- **Risk factors: First born, male**, family history of pyloric stenosis

### Gastro-oesophageal reflux disease (GORD)
- **Regurgitation after feeds**
- Dysphagia, odynophagia
- Chronic non-productive cough and night-time cough
- Not worse lying down after meals

### Intussusception
- **Lethargy**
- **Non-bilious vomit** (can also be bilious)
- Knees drawn to chest, Bloody currant jelly stool, Recent infection, Meckel diverticulum

### Malrotation with midgut volvulus
- Bilious vomit
- **Failure to gain weight**
- **Recurrent episodes of vomiting**
- Congenital diaphragmatic hernia, congenital heart defects and omphalocele

### Incarcerated inguinal hernia
- **Vomiting**
- Obvious bulge, Fever, Warm skin, Abdominal pain

### Cow milk protein allergy
- **Vomiting**
- Pruritis, Erythema, Swelling (angioedema) of lips, face, around the eyes, Diarrhoea

### Duodenal atresia
- Usually appears in first few days, Bilious vomit, Abdominal distension

### Gastroenteritis
- **Non-bilious vomiting**
- Diarrhoea, Infectious symptoms, Fever, Abdominal distension, Sick contacts, Poor food quality

## MISCELLANEOUS:
### Meningitis/Sepsis
- Rash, Irritability, Unrousable, Increased work of breathing, Distress

### UTI
- **Reduced number of wet nappies**
- Smelly or discoloured urine, Incontinence, Fever

## Paediatric history (5 marks)

**BINDS**

**B**irth history: born at term, spontaneous vaginal delivery, 39 weeks. No problems noted following birth or in the antenatal period.
**I**mmunisations: Up to date.
**N**utrition: Always breastfeed, no formula. No problems noted with feeding except for current presentation with vomiting and feeling hungry afterwards. Typically feeds every 3-4 hours and eats sufficiently.
**D**evelopmental milestones: normal, social smile, holds head up, coos.
**S**ocial history: first born, lives with father and mother

## Past medical history (2 marks)

No previous surgeries
No current or previous medical conditions

## Medications (2 marks if general but 1 if asks individual categories)

Prescription: none
Recreational: none
Over the counter: none
Vitamins/supplements: none

## Allergies (1 mark)

No known allergies

## Family history (1 mark)

Mother: nil
Father: lactose intolerance, tree nut allergy
Siblings: nil

## ***EXAMINER QUESTIONS***

1. What is the **most likely** diagnosis? Provide **two (2)** further differentials.

2. What are **two (2)** physical examination findings of hypertrophic pyloric stenosis?

3. How would you **manage** this patient?

***Extra question***

4. What **ABG reading** would be expected?

## **MARKING CRITERIA** – Case 3_03_05

| Item | Criteria | Mark |
|---|---|---|
| Introduction | ☐ Hand hygiene<br>☐ Appropriate introduction<br>☐ Confirms patient name and age<br>☐ Explains personal role and gains consent | /2 |
| Presenting complaint | ☐ Leads with open question | /1 |
| History of presenting complaint | ☐ Site<br>☐ Onset<br>☐ Character<br>☐ Associated symptoms<br>☐ Time course/duration<br>☐ Exacerbating/relieving factors<br>☐ Beliefs<br>☐ Impact on patient/concerns | /4 (0.5 for each) |
| Systems review | ☐ At least 2 symptoms per differential = 1 mark, up to 4 differentials (including developmental dyscrasia of the hip, transient synovitis, osteomyelitis etc.). See patient information for more differentials. | /4 |
| Paediatric history | ☐ Birth – type and how many weeks, any complications, special care nursery<br>☐ Immunisations<br>☐ Nutrition – e.g. breastfeeding or formula, latching on, solids | /4 |
| Constitutional history | ☐ Weight changes<br>☐ Appetite<br>☐ Diet<br>☐ Exercise<br>☐ Energy levels<br>☐ Sleep<br>☐ Night sweats<br>☐ Chills<br>☐ Fever<br>☐ Rashes | /5 (0.5 points for each one) |
| Past medical history | ☐ Past medical/surgical history<br>☐ Asks over the counter, prescription, and herbal remedies<br>☐ Allergies<br>☐ Immunisations | /4 |
| Family history | ☐ Asks relevant family history | /1 |
| Social history | ☐ Occupation<br>☐ Living situation<br>☐ Asks all of smoking, alcohol and recreational drug use | /3 |
| Questions | ☐ **Q1** – Hypertrophic pyloric stenosis, and 2 of: Gastroenteritis, GORD, over-feeding, sepsis, UTI, food allergy<br>☐ **Q2** – 2 of: Visible peristalsis, Palpable olive-shaped pyloric mass in epigastrium, Any indicating dehydration [e.g. sunken fontanelles, sunken eyes, lethargy, irritable, reduced urine output, prolonged capillary refill etc.], Succussion splash which involves sloshing sounds heard in stomach several hours post feed after moving the baby | /7 |

| | | |
|---|---|---|
| | ☐ **Q3** – 0.5 points for each of: Fluid resuscitation, Surg preparation (nil by mouth, NGT) + Ramstedt pyloromyotomy<br>☐ **Q4 –** Hypokalaemic hypochloraemic metabolic alkalosis (due to vomiting acid HCl) | |
| Communication skills | ☐ Appropriate questioning style<br>☐ Actively listens to patient<br>☐ Systematic approach to history taking<br>☐ Appropriate conclusion and summary | /4 |
| Global score | Overall impression of candidate based on warmth, clarity and competence:<br>1 = fail<br>2 = borderline<br>3 = pass/expected<br>4 = good<br>5 = excellent | /5 |
| | Total | /44 |