Case Code:

# DWZHB\_01\_UrinaryTractInfection

Homepage Vignette:

## A 23-year-old female called Amrita presents with dysuria.

Individual Page Vignette:

You are a GP at a General Practice Clinic. Amrita, a 23-year-old teacher, comes to your consultation room complaining of painful urination.

Patient Name:

Amrita Sen (Pronunciation: Ah-m-ri-ta Se-n; Prefers to be called Amrita)

Age:

14/05/2001

Location:

General Practice

Personality:

Amrita is articulate and direct in communication. She has an analytical mind, often presenting her symptoms with specific details, reflecting her organized nature. She expresses concerns straightforwardly and appreciates clear and concise explanations.

Presenting Complaint:

Amrita reports experiencing a burning sensation when urinating and notes that she has been urinating more frequently for the past three days.

Quote: "Every time I go to the toilet, it burns, and it feels like I have to go again not long after."

Symptoms:

- Site: Urethra; "It burns right when I'm peeing."

- Onset: 3 days ago; "This started happening about three days ago."

- Character: Burning sensation; "It's like a stinging burn."

- Radiation: Does not radiate; "No, the pain stays right there, doesn't go anywhere else."

- Associated Symptoms: Increased urinary frequency; "I'm going to the loo a lot more than usual."

- Timing: Throughout the day; "It's all day, more when I drink water, but I've been trying to stay hydrated."

- Exacerbating and Relieving Factors: Pain when urinating; "It mainly just hurts when I pee."

- Severity: Moderate, affecting daily activities; "It's bad enough that I'm constantly looking for a toilet wherever I go."

PV Bleeding: None

PV Discharge: Normal, no change in volume, colour, consistency, or smell.

Abdominal or Pelvic Pain: None

Chance of Pregnancy: None

Dyspareunia: None

Post-coital PV Bleeding: None

Intermenstrual PV Bleeding: None

Post-menopausal Bleeding: N/A

Vulval skin changes or itching: None

Abdominal distention: None; No findings related to the other listed positive results.

Quote:

- "No other pains or weird symptoms, just the burning and needing the loo all the time."

- "I haven't noticed any strange discharge or bleeding. Just the pee thing."

History of Presenting Complaint:

- Symptoms started 3 days ago, with no previous similar episodes.

- No treatments attempted yet.

- Symptoms consistent and persistent for the past 3 days.

- Impact on daily life significant, leading to constant lookout for toilets.

- Work affected due to frequent bathroom breaks.

- Physical and mental well-being impacted due to discomfort and inconvenience.

Quote: "I've never had this issue before, it just came out of nowhere really. It's quite annoying, especially at work."

Systemic Symptoms:

- Fatigue: None

- Fever: None

- Night Sweats: None

- Unintended Weight Loss: None

- Chest or Shoulder Tip Pain: None

- Shortness of Breath or Cough: None

- Change in Bowel Habits: None

- Change in Urinary Habits: Increased frequency

- Dysuria:

- Frequency: Increased

- Urgency: Increased

- Oedema: None

- Rashes or Skin Changes: None

- Headache: None

- Mood Changes: None

- Sleep Disturbances: None

Quote: "Other than running to the bathroom all the time, I feel pretty normal."

Obstetric History:

Previous Obstetric History: N/A

Gravidity and Parity: N/A

Reproductive Plans: "I'm not thinking about having children at the moment."

Gynaecology History:

Menstrual History:

Duration: 5 days

Frequency: Every 28 days

Volume: Moderate

Dysmenorrhoea: Mild

Last Menstrual Period: Two weeks ago.

Menarche: Age 12

Menopause: N/A

Previous Screens: Last cervical screening 2 years ago, results normal.

Previous Gynaecology Conditions: None

Previous STIs: None

Contraception: Currently using oral contraceptive pills.

Quote: "I've been on the pill for a couple of years now, no issues there."

Past Medical History:

- No previous medical conditions

- No surgeries or hospitalizations

- No psychiatric or psychological history

- No history of alcohol or substance abuse or addiction

- Fully vaccinated, including HPV vaccine

- No previous STIs

Quote: "I've been pretty lucky health-wise, nothing major ever really."

Drug History:

- Oral contraceptive pills: Ethinylestradiol/Levonorgestrel, 20/100mcg, once daily.

- No history of medication non-compliance

- No use of herbal supplements or alternative therapies

- Folic Acid: Not taking

- Iron Supplements: Not taking

Quote: "Just the pill, and I'm pretty good about taking it every day."

Allergies:

- No known allergies

Quote: "No allergies that I know of."

Family History:

- Mother has hypertension

- Father is healthy

- No significant health issues in immediate or extended family

Quote: "My mum has high blood pressure, but that's about it for my family."

Social History:

Lifestyle: Lives alone in a flat.

Occupation: Primary school teacher.

Activities of Daily Living & Hobbies: Enjoys reading and cycling.

Smoking: Non-smoker

Alcohol: Drinks socially, approximately 4 units per week

Recreational Drug Use: None

Diet: Vegetarian

Exercise: Cycles to work, 5 times a week

Sexual History:

Last sexual intercourse: 2 weeks ago

Current and previous partners: In a monogamous relationship for 2 years

Contraception used: Oral contraceptive pills

Travel History: No recent travel

Cultural or Religious Practises: Non-specific

Recent Life Events: None relevant

Exposure to Hazards or New Environment: None

Quote:

- "I've been with my partner for two years, and it's been great."

- "I try to keep healthy, cycling to work and sticking to a vegetarian diet."

- "No, I haven't travelled anywhere recently or been exposed to anything unusual."

Ideas, Concerns, and Expectations:

- Ideas: Amrita thinks she might have a urinary tract infection.

- Concerns: Worried about the discomfort and the frequency impacting her work.

- Expectations: Hopes for a quick resolution with treatment, seeking relief from symptoms.

Quote:

- "I read a bit online and think it might be a UTI?"

- "I just want this sorted; it's really starting to affect my day-to-day life."

Observations:

Respirations (Breaths/min): 16 (0 points)

Oxygen Saturation (%): 98% on room air (0 points)

Blood Pressure (mmHg): 120/80 (0 points)

Pulse (Beats/min): 72 (0 points)

Consciousness (AVPU): Alert (0 points)

Temperature (Celsius): 36.8°C (0 points)

NEWS Total Score: 0

Physical Examination:

General Inspection

- Appears well, no signs of distress or confusion, comfortable at rest

Objects and Equipment

- No mobility aids or equipment present

Hands

- Inspection: Normal colour, no palmar erythema or peripheral oedema

- Palpitation: Warm to touch, CRT < 2 seconds, radial pulse normal rate, rhythm, and volume, no peripheral oedema

Neck

- No masses, goitres, or lymphadenopathy, JVP not raised

Face

- No abnormalities noted

Abdominal Examination

- Inspection: Abdomen flat, no scars

- Palpitation: Soft, non-tender, no masses

Vaginal Examination:

- Not indicated in this scenario

Diagnostic Tests:

Urine Dipstick: Positive for leukocytes and nitrites, suggestive of a urinary tract infection.

STI Screen: Negative

Blood Tests (Reference Ranges):

- Full Blood Count (FBC): Within normal limits

- Urea and Electrolytes: Within normal limits

Treatment:

Based on CKS guidelines, for uncomplicated UTI in women:

- First-line: Nitrofurantoin 100mg modified-release capsules twice daily for 3 days (if eGFR >45 mL/min).

- Alternative (if allergic): Trimethoprim 200mg twice daily for 3 days, if local resistance rates and patient’s allergy history permit.

- Advise increased fluid intake and regular urination.

- Discuss symptoms which would warrant re-evaluation: worsening symptoms, fever, or flank pain.

Monitoring:

- Advise to return if symptoms do not improve within 48 hours or if they worsen.

- Follow-up not routinely required if symptoms resolve.

- Consider a referral to urology if recurrent UTIs.

Prognosis:

- Uncomplicated UTIs have a good prognosis with appropriate treatment.

- Symptoms typically improve within 24-48 hours of initiating antibiotics.

- Important to complete the course of antibiotics to prevent recurrence or resistance.

- Reinforce the importance of proper hydration and urinary hygiene practices.

Differential diagnoses:

1. Interstitial cystitis/painful bladder syndrome - less likely due to acute onset and positive urine dipstick for UTI.

2. Sexually Transmitted Infection (STI) - less likely in the context of monogamous relationship and absence of vaginal discharge or sores.

3. Kidney stones - possible, but less likely given the absence of flank pain, hematuria, or history of stones.

Keyword Filters:

Speciality Filter:

Renal And Urology; General Practice; Infection;

Presenting Complaint Filter:

Dysuria; Urinary Symptoms

Condition Filter:

Urinary Tract Infection

Location Filter:

General Practice

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