

Osce Express

Session 3

Dr Nevash Maraj (FY1)



Meet the Team



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Course Overview

Osce Express

1. 11 session guide to common OSCE finals stations
2. Delivered by Foundation Year 1 Doctors
3. Peer-Reviewed Cases + Video Guides provided to all participants (published on MedAll, osceace.com)
4. Preparation for OSCEs...
5. ...And also preparation to be a safe FY1

Disclaimer

This course has been designed to help final year students with practical OSCE exams and is an unofficial resource that covers themes present in the University of Leicester Final OSCEs. We have nonetheless made this course as applicable to other final year OSCEs as possible, but there may be discrepancies in your University's expectations.

OSCE Express sessions are peer-reviewed by junior doctors, but we take no responsibility in the accuracy of the content, and additionally our sessions do not represent medical advice. Please use our sessions as a learning aid, and if you note any errors, do not hesitate to message us at osce.express@gmail.com

Kind regards,

Dr Nidhi Agarwal FY1

Sumedh Sridhar Yr5 Medical Student

OSCE Express co-creators

In Today's Session...

01

**Post-Operative
Care**

02

**Complications in
Surgical Patients**

03

Q&A



01

Post-Operative Care

Post-Op Care

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graph LR; A[Post-Op Care] -.-> B((01)); A -.-> C((02)); A -.-> D((03));
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Layout

0-5 mins:

- Review the available documentation.
- Explain to the examiner your approach to the patient and describe your plan for improving analgesia.

5-10 mins:

- Calculate the patient's fluid balance over the last 24 hours and determine requirements for the next 24 hours. You can use a pen, paper, and calculator.
- Describe a suitable fluid regime for the next 24 hours.

Exam criteria

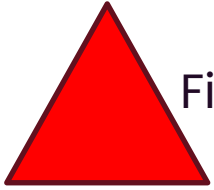
Excellent	<p>Efficiently and confidently gathers information from post-op instructions, drug charts, obs chart, fluid balance chart etc.</p> <p>Asks examiner appropriate questions regarding the clinical assessment of the patient.</p> <p>Interprets investigations and uses clinical reasoning skills to confidently address the patient's problems (analgesia and fluid balance).</p> <p>Recognises that...analgesia is/is not working properly and recommends appropriate alternative whilst awaiting anaesthetic review.</p> <p>Confidently assesses patient's hydration status and fluid & electrolyte balance and suggests an appropriate fluid prescription, showing a deep level of understanding.</p>
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STATION TIME!

SUSAN GILMORE
02/11/1978 S1123245

- Mrs. Gilmore is a 45-year-old lady admitted to the same day surgery department for an Elective Laparoscopic Cholecystectomy.
- Scan the QR Code to review the patient's documents.





First Five Minutes!

Surgical Review

- at 15:00, around 24hrs post-op, the nursing staff have bleeped you concerned that Susan has not been able to keep any food or drink down following the procedure.
- you note according the Surgeon's operation notes she should have re-started eating and drinking as normal once waking from her procedure
- how would you approach this patient and address the nursing staff's concerns?

Approach to Patient

Adequate History and Examination

- ✓ If the patient's nurse raises concerns - as a Foundation Doctor, you must act
- ✓ Gather a history from the patient including relevant red-flag symptoms including blood in the vomitus, or fecal vomitus.
- ✓ In this case it is important to rule out any sinister causes of Nausea and Vomiting in the post-operative period: bowel obstruction, severe metabolic disorders (particularly acidosis), infections
- ✓ Assess the impact of this new concern on the patient's recovery from surgery

Review all Relevant Documentation

- ✓ Pre - Anesthetic Work Up
- ✓ Operative Notes
- ✓ Surgical Plan
- ✓ Drug Chart
- ✓ Fluid Balance
- ✓ Early Warning Score
- ✓ Bloods
- ✓ Fluid Prescription Chart

Your Interventions

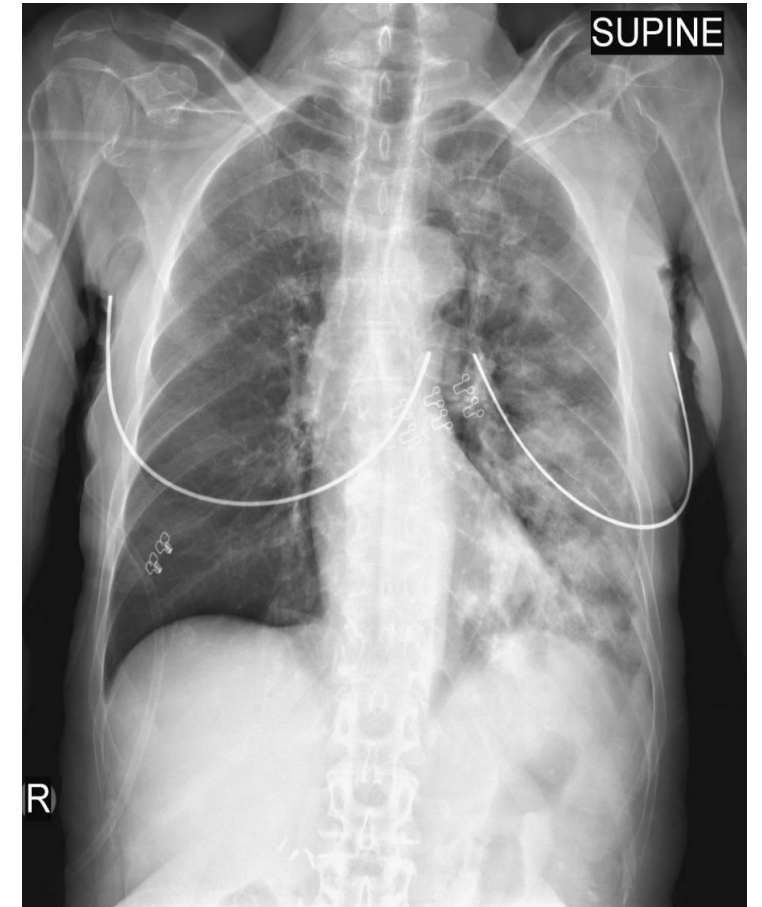
Discussion with Examiner

- After having time to review the documentation available, the examiner will most likely ask you a 'why?' question.
- Remember to clinically correlate the information you have been given.
- Pay attention to Drug Charts and Medication administration!

This is a medical records-based station – there is no simulator present. The examiner will give you information relating to clinical symptoms and signs if requested.

Suitable Interventions for Mrs. Gilmore

- ✓ Change Oral medication to IV medication
- ✓ Consider an NG Tube insertion
- ✓ Recheck bloods!



Case courtesy of Yair Glick, Radiopaedia.org. From the case rID: 53647

Fluid Assessment & Fluid Prescription



Second Five Minutes!

Assessing the patient's fluid status may include the following:

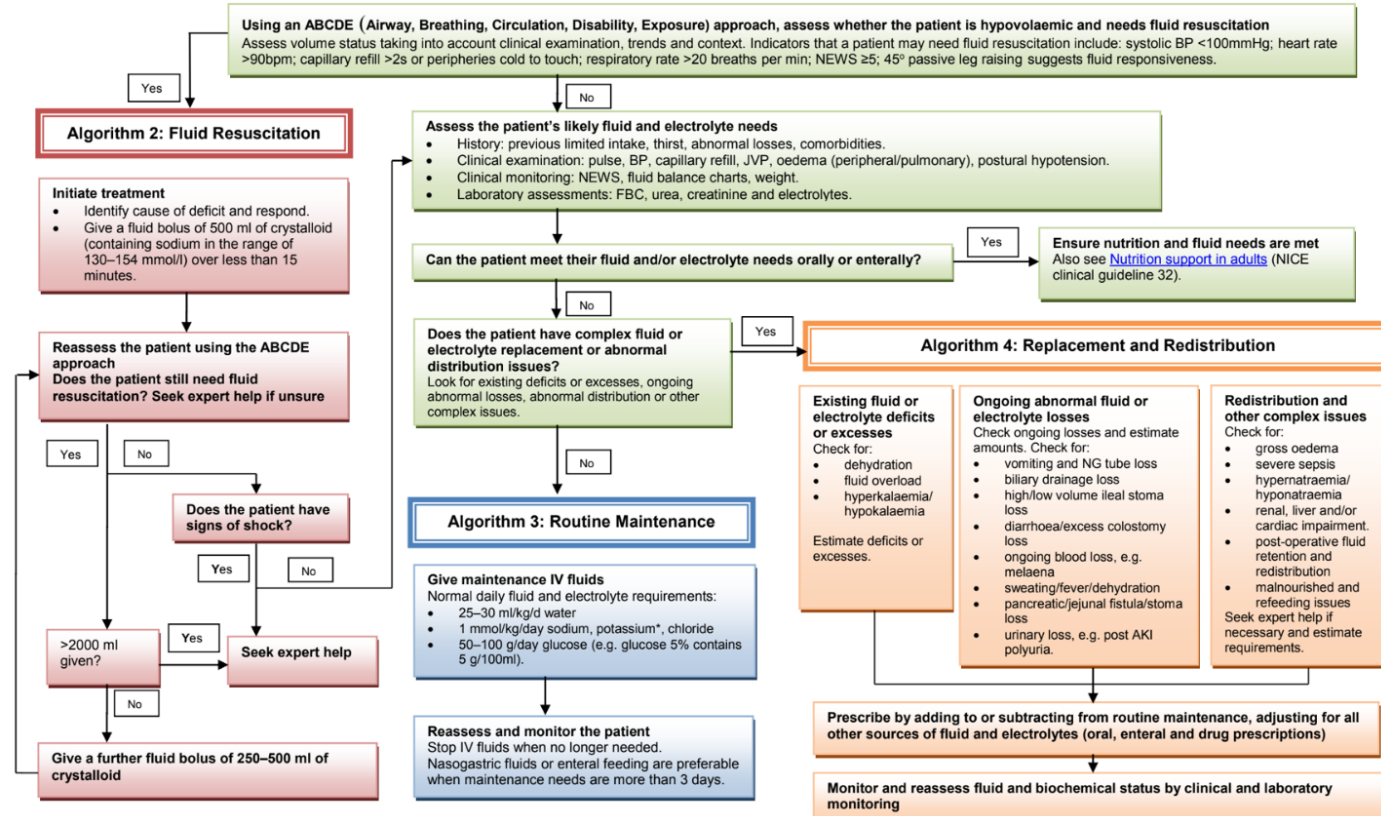
- Bedside - fluids running, catheter, jug of water
- Hands - Skin Turgor, Warm/Cold to Touch, Color, Capillary Refill Time!
- Pulse - Strong/Weak. Tachycardic/Bradycardic
- Face & Neck - Oral mucosa (dry vs moist), presence of JVP
- Legs - Oedema. Not the tracking of oedema "up to the knees"

Fluid Prescriptions

NICE National Institute for Health and Care Excellence

Algorithms for IV fluid therapy in adults

Algorithm 1: Assessment



*Weight-based potassium prescriptions should be rounded to the nearest common fluids available (for example, a 67 kg person should have fluids containing 20 mmol and 40 mmol of potassium in a 24-hour period).

Potassium should not be added to intravenous fluid bags as this is dangerous.

'Intravenous fluid therapy in adults in hospital', NICE clinical guideline 174 (December 2013. Last update December 2016)

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Maintenance

Can the patient meet their fluid and/or electrolyte needs orally or enterally?

No

Does the patient have complex fluid or electrolyte replacement or abnormal distribution issues?

Look for existing deficits or excesses, ongoing abnormal losses, abnormal distribution or other complex issues.

Yes

No

Algorithm 3: Routine Maintenance

Give maintenance IV fluids

Normal daily fluid and electrolyte requirements:

- 25–30 ml/kg/d water
- 1 mmol/kg/day sodium, potassium*, chloride
- 50–100 g/day glucose (e.g. glucose 5% contains 5 g/100ml).

Reassess and monitor the patient

Stop IV fluids when no longer needed.
Nasogastric fluids or enteral feeding are preferable when maintenance needs are more than 3 days.

Replacement

Does the patient have complex fluid or electrolyte replacement or abnormal distribution issues?

Look for existing deficits or excesses, ongoing abnormal losses, abnormal distribution or other complex issues.

Yes

Algorithm 4: Replacement and Redistribution

Existing fluid or electrolyte deficits or excesses

Check for:

- dehydration
- fluid overload
- hyperkalaemia/hypokalaemia

Estimate deficits or excesses.

Ongoing abnormal fluid or electrolyte losses

Check ongoing losses and estimate amounts. Check for:

- vomiting and NG tube loss
- biliary drainage loss
- high/low volume ileal stoma loss
- diarrhoea/excess colostomy loss
- ongoing blood loss, e.g. melaena
- sweating/fever/dehydration
- pancreatic/jejunal fistula/stoma loss
- urinary loss, e.g. post AKI polyuria.

Redistribution and other complex issues

Check for:

- gross oedema
- severe sepsis
- hypernatraemia/hyponatraemia
- renal, liver and/or cardiac impairment.
- post-operative fluid retention and redistribution
- malnourished and refeeding issues

Seek expert help if necessary and estimate requirements.

Prescribe by adding to or subtracting from routine maintenance, adjusting for all other sources of fluid and electrolytes (oral, enteral and drug prescriptions)

Monitor and reassess fluid and biochemical status by clinical and laboratory monitoring

Available Prescriptions and Daily Requirements

The electrolyte composition of these crystalloid solutions is summarised in the table below.

You must know this information – it will not be provided in the Finals OSCE examination.

	[Na ⁺] (mmol/L)	[K ⁺] (mmol/L)	[Cl ⁻] (mmol/L)	Glucose (g/L)
0.9% sodium chloride	154		154	
4% dextrose / 0.18% sodium chloride (dextrose saline)	31		31	40
5% dextrose				50
Hartmann's solution	131	5	111	

Give maintenance IV fluids

Normal daily fluid and electrolyte requirements:

- 25–30 ml/kg/d water
- 1 mmol/kg/day sodium, potassium*, chloride
- 50–100 g/day glucose (e.g. glucose 5% contains 5 g/100ml).

OSCE Task:

Please prescribe appropriate fluids for Mrs. Gilmore, assuming an additional 800ml of insensible losses.

Please assume the 24hr balance below:

Input	Volum e	Output	Volum e
IV Fluids	2200ml	Urine	1200
Oral Intake	600ml	Vomit	700
		Insensible Losses	800
Total	2800m l		2700m l

Fluid Balance - +100ml

Assessing Renal Function & Electrolyte Abnormalities:

Sodium	137	135-148
Potassium	3.2	3.5-5.0
Chloride	90	95-105
Urea	6.7	7-20
Creatinine	97	90-120
eGFR	>90	>90

Prescribing for Mrs. Gilmore

Weight - 85kg.

Daily Requirements:

Water - $85 \times 30 = 2550 \text{ml}/24\text{hr}$

Sodium - $85 \times 1 = 85 \text{mmol}/24\text{hr}$

Potassium - $85 \times 1 = 85 \text{mmol}/24\text{hr}$ however
aim for 100mmol as K^+ currently 3.2

Chloride - $85 \times 1 = 85 \text{mmols}/24\text{hr}$

Glucose - 50-100g/24hr

Common Themes for Post-Op Ward Care

Post Operative Nausea and Vomiting



Image
<https://pharmaceutical-journal.com/article/ld/management-of-post-operative-nausea-and-vomiting-in-adults-2>

Patient Controlled Analgesia

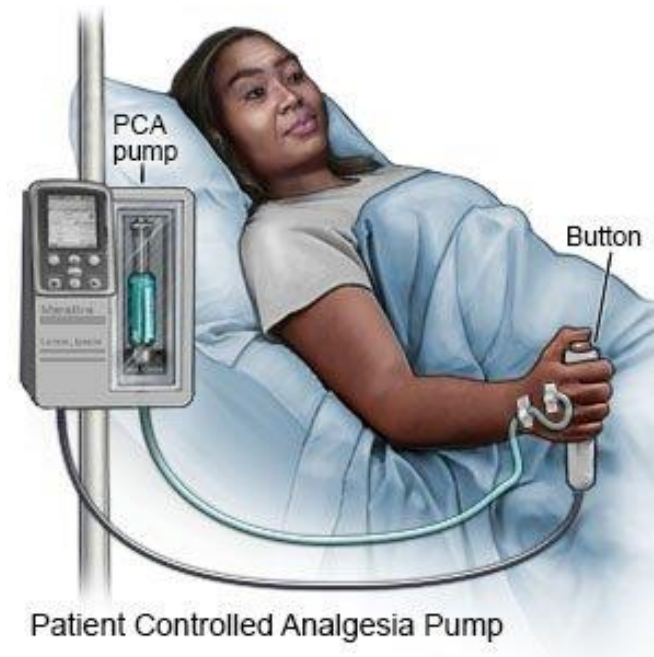
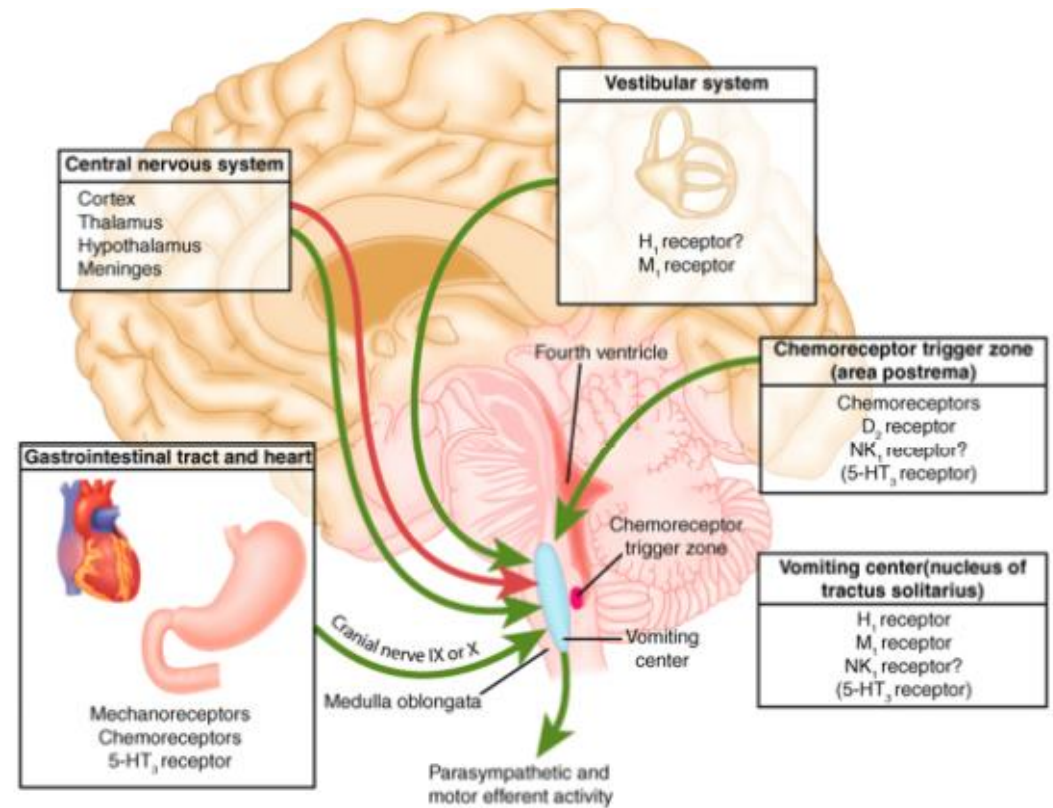


Image:
<https://www.drugs.com/cg/patient-controlled-analgesia.html>

PONV

- Symptoms appear within the first 24-48 hours post op
- Patients are at increased risk of:
 1. **Electrolyte abnormalities**
 2. **Prolonged recovery time**
 3. **Wound dehiscence / poor wound healing**
 4. **Aspiration pneumonia**
- Reducing the risk of PONV can involve:
 1. **Intraoperative steroids**
 2. **Adequate hydration during surgery**
 3. **Shorter surgery times**



Source: Katzung BG, Masters SB, Trevor AJ: Basic & Clinical Pharmacology, Copy 11th Edition; <http://www.accessmedicine.com>
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PONV

- Always approach in an A-E fashion
- Investigations to keep in mind:
 1. **Bloods including Hb (Mallory Weiss Tears)**
 2. **Renal Profile – hypokalaemia, hypochloremia**
 3. **Arterial Blood Gases – Severity of Metabolic Alkalosis**
- Consider whether your patient would benefit from a more invasive intervention – **ie an NG Tube**
- **Alert Registrar / Consultant** immediately if any electrolyte abnormalities noted!

Drug therapy

The table below is a general quick guide on the prescribing of anti-emetics, but see local guidelines.

Anti-emetic / Site of action	Dose and route of administration	Comments
Ondansetron 5HT ₃ receptor antagonist	4mg oral / IV every 8 hours	Risk of prolonged QT interval, constipation. Avoid if congenital long QT syndrome.
Prochlorperazine Medullary chemoreceptor zone Dopamine (D2) receptor antagonist	3–6mg buccal every 12 hours or 12.5mg deep IM as a 'one-off' dose (IM route only, not by other parenteral routes). In elderly patients - 3mg buccal every 12 hours or 6.25mg IM as a 'one-off' dose.	Extrapyramidal side effects - dystonic reaction. Dose reduce in elderly patients due to increased susceptibility to hypotension and neuromuscular reactions.
Cyclizine Acts on vomiting centre. Histamine (H1) receptor antagonist	50mg oral/IM/IV every 8 hours. Avoid oral route if actively vomiting. In elderly patients - 25mg every 8 hours.	Avoid in severe heart failure, porphyria.
Dexamethasone Site of action unknown	4mg IV/IM single dose	Restricted for use by the acute pain team, on-call anaesthetist. Caution - acute rectal pain with IV administration. It is not licensed for PONV.
Droperidol Mainly dopaminergic receptor antagonist in chemoreceptor trigger zone	IV dose varies – see BNF for guidance	Restricted to use by consultant anaesthetists. Third-line agent for PONV if unresponsive to other anti-emetics. Risk of QT interval prolongation.

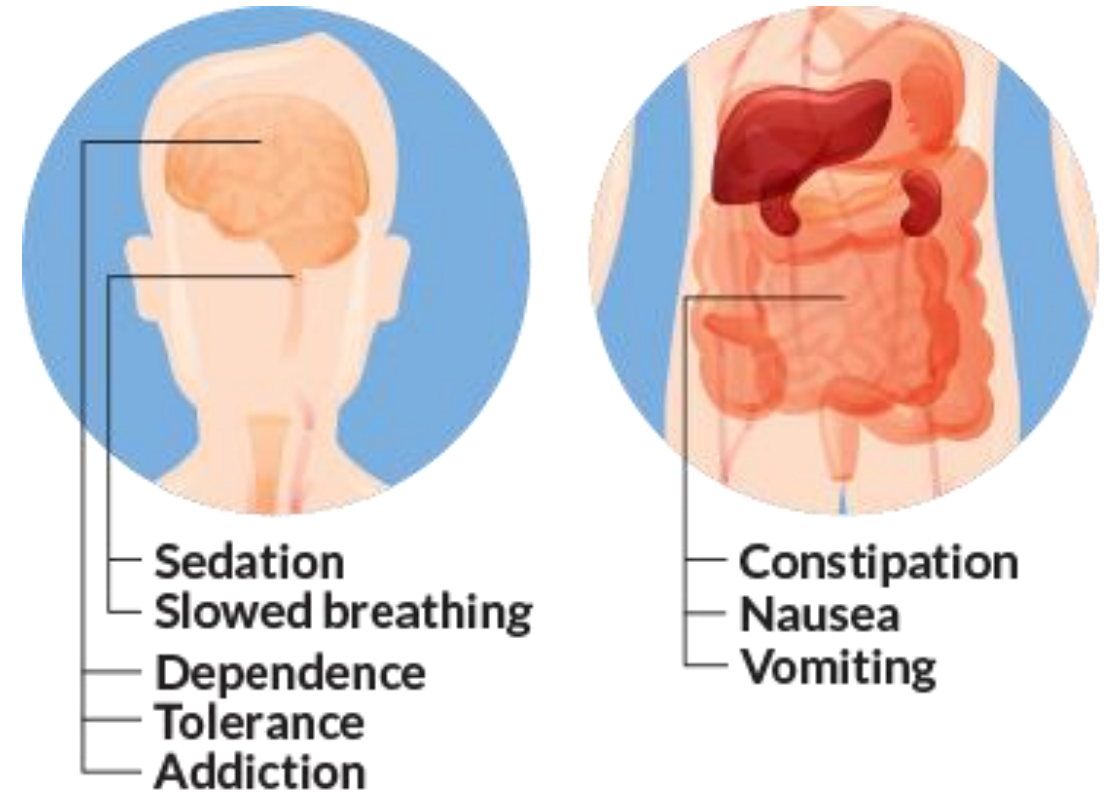
N.B. The side effects, cautions and contraindications mentioned in the comments section are not exhaustive. See BNF or [Summary of Product Characteristics](#) for further information.

PATIENT CONTROLLED ANALGESIA

PCA - a form of pain management involving a baseline continuous dose of analgesia with patient-controlled bolus doses OR patient-controlled bolus doses only

Route - Intravenous, epidural

Medications - opioids usually



FILO/ISTOCKPHOTO, ADAPTED BY L. LO

AS REQUIRED MEDICINES						
INTRAVENOUS PATIENT CONTROLLED ANALGESIA (IV PCA)						
MORPHINE (concentration: 1mg/ml)					DATE	14/11
DATE:	ROUTE: intravenous (IV)		TIME		19:00	
14/11/2023						
FOR POST OPERATIVE PAIN / SEVERE ACUTE PAIN			STANDARD PCA DOSE		DOSE	1mg
BOLUS DOSE:	1mg		LOCKOUT: 5 mins		ROUTE	IV
SIGN	BLEEP	PHARM	SUPPLY	GIVEN	✓	
[Signature]						
MORPHINE (concentration: 1mg/ml)					DATE	
DATE:	ROUTE: intravenous (IV)		TIME			
FOR POST OPERATIVE PAIN			RENAL PCA DOSE		DOSE	
BOLUS DOSE:	0.5mg		LOCKOUT: 10 mins		ROUTE	
SIGN	BLEEP	PHARM	SUPPLY	GIVEN		
THESE IV PCA REGIMES ARE NON-STANDARD AND SHOULD ONLY BE PRESCRIBED BY THE PAIN TEAM/ANAESTHETISTS						
DATE						

The prescription on the right is for BACKGROUND Analgesia. Note that this can only be prescribed by Specialists!

Patient Controlled Analgesia is found in the Anesthetic Drug Chart.

The prescription to the left is for BOLUS ONLY PCA. A ward FI should review the amount of analgesia being used daily and consider escalating to seniors if the patient's pain is still uncontrolled.

THESE IV PCA REGIMES ARE NON-STANDARD AND SHOULD ONLY BE PRESCRIBED BY THE PAIN TEAM/ANAESTHETISTS						
MORPHINE (concentration: 1mg/ml)					DATE	
DATE:	ROUTE: intravenous (IV)		TIME			
FOR POST OPERATIVE PAIN / SEVERE ACUTE PAIN			BACKGROUND INFUSION		DOSE	0-5 mls per hour
BOLUS DOSE:			LOCKOUT: 5 mins		ROUTE	
SIGN	BLEEP	PHARM	SUPPLY	GIVEN		
FENTANYL (concentration: 10 microgram/ml)					DATE	
DATE:	ROUTE: intravenous (IV)		TIME			
FOR POST OPERATIVE PAIN / SEVERE ACUTE PAIN					DOSE	
BOLUS DOSE:	10 microgram		LOCKOUT: 5 mins		ROUTE	
SIGN	BLEEP	PHARM	SUPPLY	GIVEN		
DRUG:					DATE	
DATE:	ROUTE: intravenous (IV)		TIME			

PATIENT CONTROLLED ANALGESIA

What if your patient is still in pain?

- Review anesthetic charts for available post op prescriptions
- Consider whether your patient understand how to properly administer PCA - like asthma patients and inhalers
- Consultant Anaesthetics before up titrating existing PCA!
- Analgesics ladder - can add in paracetamol!



02

Complications in a Surgical Patient

Top Tips

10-minute station which focuses on utilizing knowledge from your Surgical blocks.

Important to gain confidence in:

1. Surgical History taking - how does this differ to medical history, GP or psychiatric histories?
2. Knowledge of basic surgical procedures and common complications associated with these procedures.
3. Differentials and management of acute scenarios as a Ward Doctor.

Complications in Surgical Patients

Layout

01

0-5 mins:

➤ Review available documentation (usually on paragraph) +/- EWS Chart

➤ Discuss with Examiner relevant Examination and key examination findings which point towards differential or diagnosis

➤ Interpretation of an investigation (useful to mention this in the above 'section')

02

5-10 mins:

➤ Review available investigations (blood work, ABG, cultures, imaging) + Drug Chart/Fluid Balance Chart

➤ Clinically correlate Examination findings to investigations to confirm the diagnosis

03

➤ Discuss further Management

A Surgical History

The Conversation (aim for 3 minutes):

Presenting Complaint – single symptom

History of complaint – define the timeline clearly during the history including acute/chronic

Past Medical History – Diabetes, Asthma, Immunocompromised, Anemia, Prostatic Disease, Hypercholesterolemia – ie conditions with increased risk of complications, any allergies

Social – progress following surgery particularly eating and drinking, getting up and about, opening bowels/passing urine

Follows structure of usual histories but timeframe is KEY to post-operative histories!

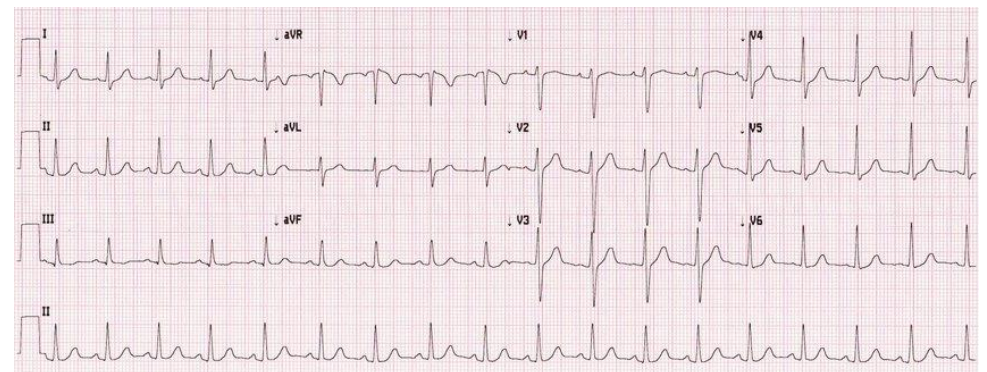
Some Key Examinations & Investigations

You will be asked what examination will be most appropriate for your patient.

Common Examinations:

- Abdominal Examination - rigidity, peritonism, distension, overload, surgical site, surgical drains
- Respiratory Examination - wheezing, crackles, sputum production, (?new) oxygen requirements at bedside, swelling of the clavicles
- Joint Examination - LOOK FEEL MOVE. Always mention assessing the joint above and below!

Investigations



<https://radiopaedia.org/cases/normal-chest-radiograph-female-2?lang=gb>

STATION TIME!



First 5 Minutes

Case 1- Left Hemi-Colectomy

Jeremy Haunt, a 67-year-old gentleman attended hospital 3 days ago for an Elective Left Hemicolectomy.

2 Days Post-Op he complains of severe abdominal pain which prevents him from sitting still or even thinking straight

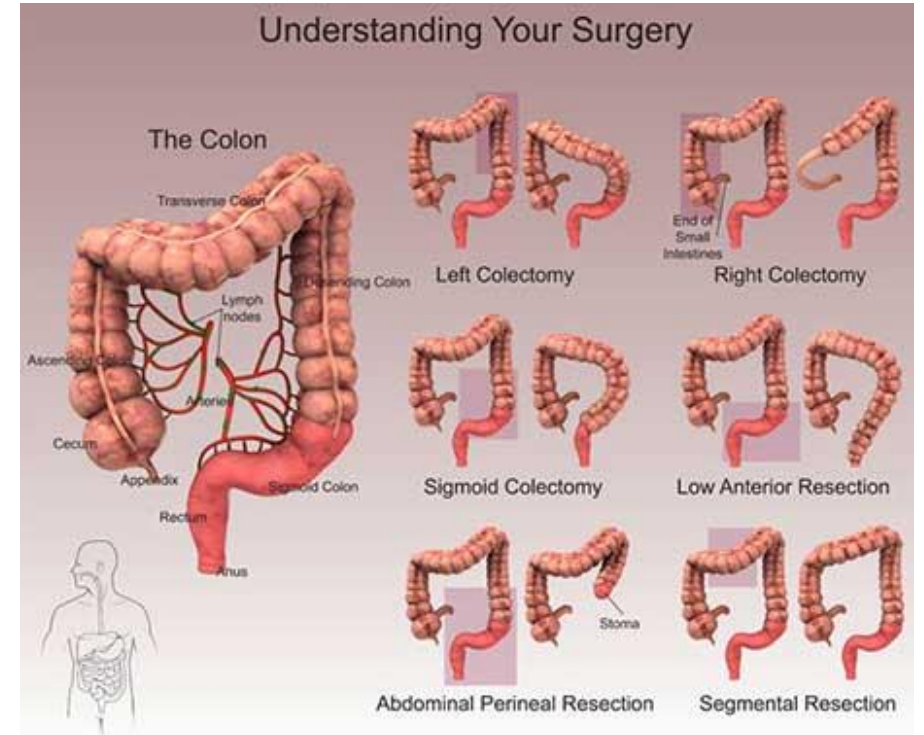


Image from: <https://www.wirralurgeon.co.uk/procedures/bowel-resections.html>

Case 1- Left Hemi-Colectomy

Available
Documentation

Early Warning Score - 0

RR - 19

Sats - 98 on air

Blood Pressure - 136/81

Pulse - 89

Temp - 36.9

Alert

Fluid Balance Chart

Input	Volume (ml)	Output	Volume (ml)
Drinking	1600	Abdominal Drain	400ml
IV Fluids	1400	Urine	0ml
		Insensible Losses	800ml
Total	3000ml		1200ml

Assume fluid balance over 24hrs

Case 1- Left Hemi-Colectomy

In 3 minutes, you should elicit the following information:

- *Acute onset (within minutes) sharp, stabbing pain in the lower abdomen 45 minutes ago.*
- *No radiation of the pain.*
- *Has been eating and drinking as normal following procedure.*
- *Has not opened bowels - but has passed wind*
- *Catheter removed today under surgeon's orders as fluid balance no longer necessary. No urine production in 4 hours.*
- *No surgical history*
- *Medical History - Hypertension, Heart Failure and Prostatic Hypertrophy*

3-Minute-History

- Introductions
- I understand that you've been having some pain in the tummy, can you tell me a bit more about that?
- When did it start?
- Does it ever go away?
- Have been eating and drinking following your procedure?
- When did you last open your bowels / pass urine?
- Is this the first time you're having surgery?

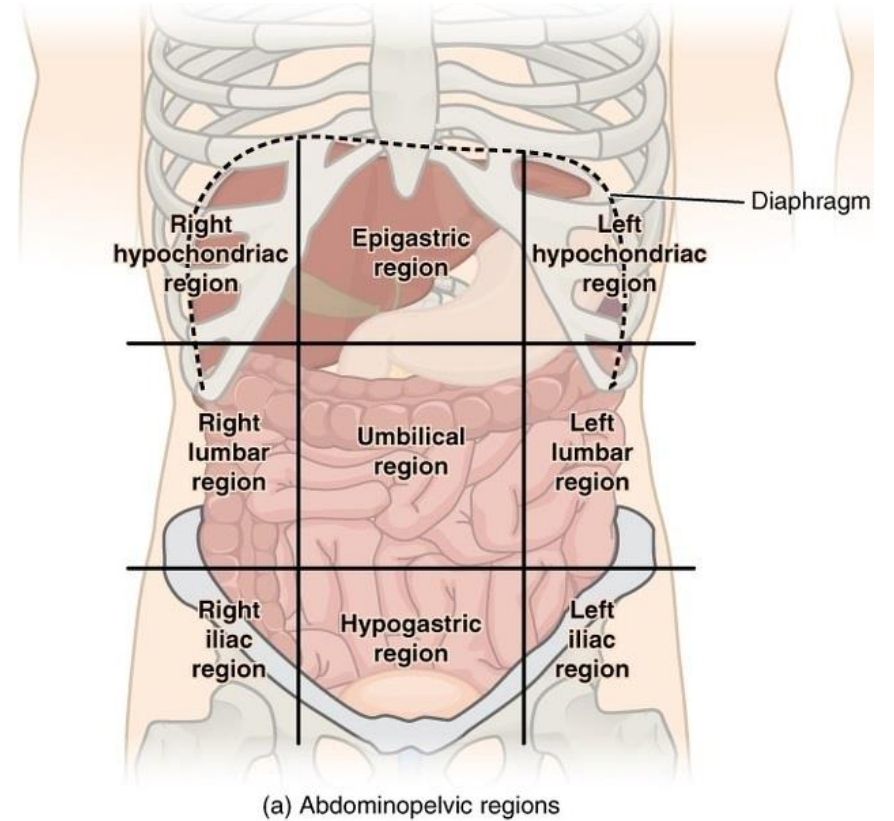
Case 1- Left Hemi-Colectomy

Appropriate Examination

Abdominal Examination

What are **YOU** looking for?

- Distended abdomen - obstruction
- Rigid abdomen - perforation
- Localized tenderness - inflammation
- Surgical Site - Infection
- Abdominal Drains - perforation, bleeding



Case courtesy of Craig Hacking, Radiopaedia.org. From the case rID: 59081

Case 1- Left Hemi-Colectomy

Key Investigation Finding:

“Bedside Bladder Scan Results:
Patient unable to void urine.
Urine in bladder estimated to be
802ml.
Difficult to image as patient is
moving”

How would you interpret these findings in the clinical context of this case?



Second 5 Minutes

Case 1- Left Hemi-Colectomy

Review remaining Investigations and Prescription chart

Regular Medicines:

- Novorapid 4units before meals
- Metformin 1g BD
- Tamsulosin 400mcg OD
- Calcichew BD
- Ramipril 5mg OD
- Bisoprolol 1.25mg OD

NB – prescription charts must be reviewed.

Investigation	Result	Reference Range
Hemoglobin	132	115-160
WBC	13.0	4-11
Platelets	460	150-400
C Reactive Protein	76	<4
Sodium	140	135-148
Potassium	3.9	3.5-5.5
Urea	4.8	2.5-6.5
Creatinine	60	45-120
eGFR	90	>90

Case 1- Left Hemi-Colectomy

The Diagnosis

Acute Urinary Retention

- When giving the main differential, justify your decision by clinically correlating findings from the case
- Acute onset suprapubic pain, no voiding in 4 hours, PMH of BPH

Management of Acute Urinary Retention Post Operatively

Acute Management

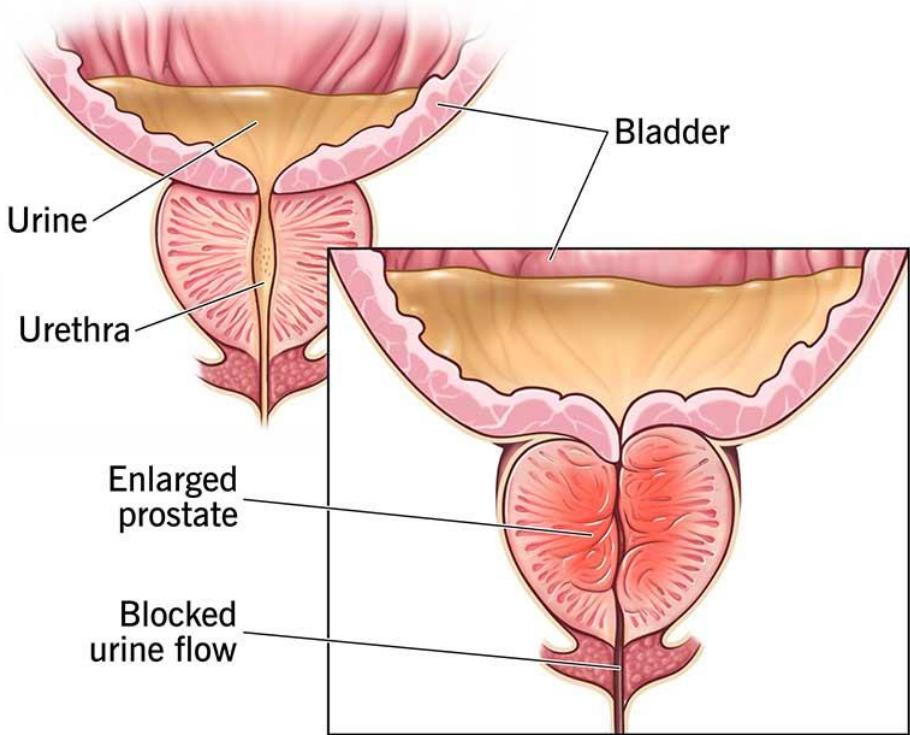
1. Catheterize immediately.
2. Avoid emptying the bladder completely - can cause a blood pressure drop

Long Term Management

1. Monitor Catheter output for blood/clots
2. Repeat bloods - consider PSA
3. Discuss with Urology should this patient enter retention again after TWOC for long Term Catheter

Case 1- Left Hemi-Colectomy

Benign Prostatic Hyperplasia





Case 2 – Total Hip Replacement

First 5 Minutes

Ravi Rajnath, a 80-year-old gentlemen attended hospital 5 days ago for a Right Elective Total Hip Replacement.

5 days Post-Op while receiving rehabilitation care, he informs you that he feels more breathless than usual.



Image:
<https://grosvenororthopaedics.co.uk/hip-replacement-types/>

Case 2 – Total Hip Replacement

Available Documentation

Early Warning Score – 2

RR – 23

Saturations – 94 on air

BP – 108/78

Pulse – 102

Temp – 36.9

Alert

Post – Op Pelvic X Ray:



Case courtesy of Craig Hacking, Radiopaedia.org. From the case 37771

Anesthetic Pre-Op Workup

- Surgery – Right Total Hip Arthroplasty
- Indication – Right Hip Osteoarthritis
- Anesthesia – General Anesthesia
- ASA Grade – 2
- PMH – Asthma, hypertension

Case 2 – Total Hip Replacement

In 3 Minutes, you should elicit the following information:

- **Woke up** this morning feeling I can't catch my breath
- **Sharp** pain over my right lower rib, **worse with inspiration**
- No cough overnight, but did bring up some **blood** during a single coughing fit this morning
- No temperatures overnight
- Previous cholecystectomy 23 year ago
- Has been **mobilizing with the Physiotherapists** twice a day for the last 4 days

3 Minute History

- Introductions
- I understand you're **feeling more breathless** than usual, can you tell me a bit more about that?
- When did this start?
- Have you been coughing recently?
- Have you **brought up any blood**?
- Do you have any pain in your chest?
- How have you been mobilizing after your surgery?

Case 2 – Total Hip Replacement

Appropriate Examination

What are **YOU** trying to find?

Use of Accessory muscles - impending respiratory failure

Percussion - hyper resonant vs dull

Breath sounds - coarse crackles, wheeze

Palpation - pneumothorax, musculoskeletal pain

Calves - unilateral swelling, erythema, painful during deep palpation



Image <https://www.nhs.uk/conditions/blood-clots/>

Case 2 – Total Hip Replacement

Key Investigation



Case courtesy of Craig Hacking, [Radiopaedia.org](https://radiopaedia.org/?lang=gb). From the case <https://radiopaedia.org/cases/36894?lang=gb> rID: 36894



Case 2 – Total Hip Replacement

Second 5 Minutes

Review remaining
Investigations and Medication

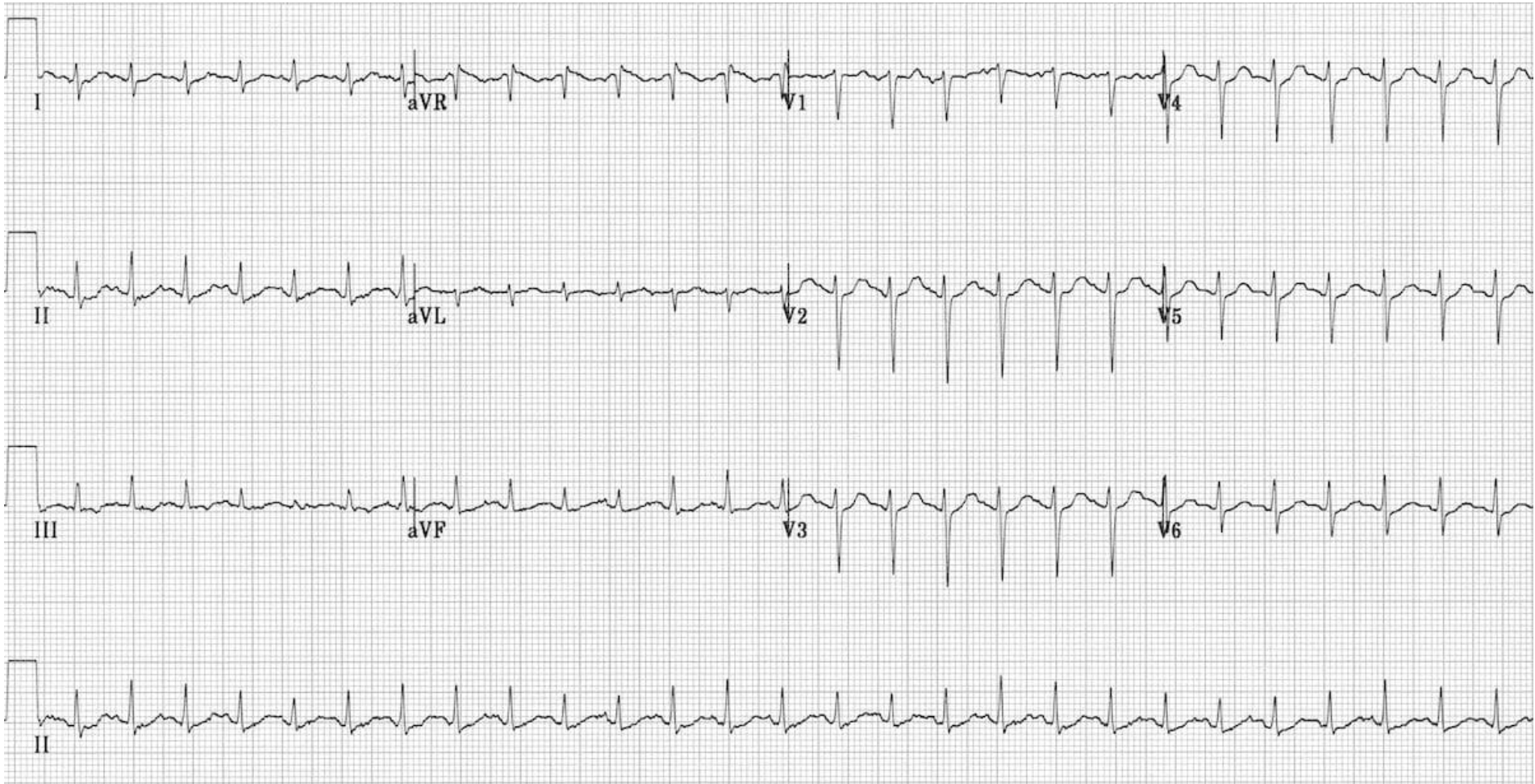
Regular Medicines:

- Amlodipine 10mg ON
- Ramipril 5mg OD
- Salbutamol Inhaler PRN
- Fostair Inhaler BD

NB – prescription charts must be reviewed.

Investigation	Result	Reference Range
Hemoglobin	108	115-160
WBC	10.9	4-11
Platelets	460	150-400
C Reactive Protein	30	<4
Sodium	134	135-148
Potassium	3.9	3.5-5.5
Urea	6.8	2.5-6.5
Creatinine	89	45-120
eGFR	88	>90

Case 2 – Total Hip Replacement



Case 2 – Total Hip Replacement

The Diagnosis

Left DVT + Pulmonary Embolism. Why?

Differentials:

Asthma Exacerbation
Chest Infection
Pleural Effusion

Managing a Post-Op Pulmonary Embolism

Is the Patient Hemodynamically stable?

No -> Thrombolysis

Yes -> DOACs

Further Investigations:

Doppler scan of left calf

Clotting profile

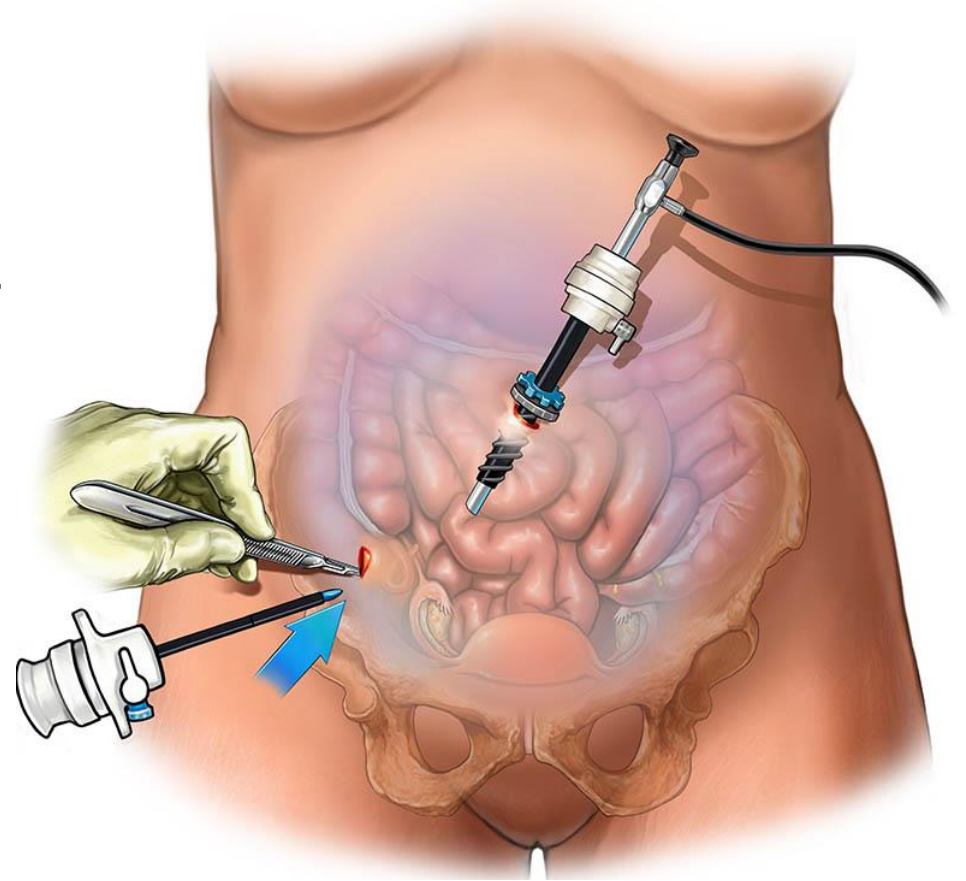
Arterial Blood Gas

Treatment for 3-6 months!

Case 3 – Diagnostic Laparoscopy

Jenn Rasper, a 29-year-old woman attends the Surgical Assessment Unit 7 days after her Elective Diagnostic Laparoscopy.

She complains of pain and tenderness around her umbilical port site.



Case 3 – Diagnostic Laparoscopy



First 5 Minutes

Available Documentation

Early Warning Score – 3

RR – 22

Sats – 96 on air

Blood Pressure – 99/64

Heart Rate – 112

Temperature – 38.4

Alert

Theatre Notes

Surgery – Elective Diagnostic Laparoscopy

Indication – Endometriosis

History – cyclical abdominal pain over a 5-year period which initially eased with hormonal therapies but resurfaced. Pain described as dull, aching and at times cramping which begins days before her menstrual bleeding. Single instance of blood in the stool prompted invasive investigations.

Past Medical History – Hypercholesterolemia

Surgical History – Appendectomy 2014

Findings – Endometrial tissue found in Pouch of Douglas. Removed with sample sent for cystoscopy.

Follow up – Home once awake from GA with DVT prophylaxis and Gynecology Follow Up

Case 3 – Diagnostic Laparoscopy

In 3 Minutes, you should elicit the following information:

- Previously recovering well with no complaints
- Last night during bandage change, she noticed some **redness and pus**.
- The skin surrounding the site is **hard and very tender to touch**
- She developed a **fever** last night and had difficulty falling asleep
- She had been eating and drinking previously but **lost her appetite** over the last 24 hours
- She has only passed a **very small volume of dark urine** since last night

3 Minute History

- Introductions
- I understand you've been having pain around the surgical site; can you tell me a bit more about that?
- When did it start?
- Have you noticed any weeping from the wound?
- Have you had any fevers recently?
- How have you been managing with Eating and Drinking following the procedure?
- Have you opened your bowels and passed urine as normal?

Case 3 – Diagnostic Laparoscopy

Appropriate Examination

Abdominal Examination

What are **YOU** looking for?

- Distended abdomen – obstruction
- Rigid abdomen – perforation
- Localized tenderness – inflammation
- Surgical Site – Infection
- Abdominal Drains – perforation, bleeding



Image:

https://www.researchgate.net/publication/335950182_Prevention_of_surgical_wound_complications_after_peripheral_vascular_surgery

Case 3 – Diagnostic Laparoscopy

KEY INVESTIGATION



Case courtesy of Jeremy Jones, <https://radiopaedia.org/?lang=gb>. From the case <https://radiopaedia.org/cases/34068?lang=gb>: 34068

Case 3 – Diagnostic Laparoscopy



Second 5 Minutes

Review remaining Investigations

Regular Medicines:

- Atorvastatin 40mg ON
- COCP
- CALCICHEW
- Paracetamol QDS

NB – prescription charts must be reviewed.

Investigation	Result	Reference Range
Hemoglobin	108	115-160
WBC	19.8	4-11
Platelets	238	150-400
C Reactive Protein	273	<4
Sodium	139	135-148
Potassium	4.9	3.5-5.5
Urea	9.0	2.5-6.5
Creatinine	190	45-120
eGFR	55	>90
Lactate	3.4	<2

Case 3 – Diagnostic Laparoscopy

THE DIAGNOSIS

Sepsis secondary to a Surgical Site Infection. Why?

Differentials

- Hernia
- Surgical Site Infection
- Poor / incorrect analgesia Prescription

Altered mental status

[GCS <15](#)

No

Yes

Respiratory rate ≥ 22

No

Yes

Systolic BP ≤ 100

No

Yes

2 points

qSOFA Score

High risk

qSOFA Scores 2-3 are associated with a 3- to 14-fold increase in in-hospital mortality. Assess for evidence of organ dysfunction with blood testing including serum lactate and calculation of the full SOFA Score.

Patients meeting these qSOFA criteria should have infection considered even if it was previously not.

Image and evidence: <https://www.mdcalc.com/calc/2654/qsofa-quick-sofa-score-sepsis>

Case 3 – Diagnostic Laparoscopy

Sepsis Six

- High Flow Oxygen
- Blood Cultures
- IV Antibiotics
- IV Fluids
- Serial Lactates
- Catheterize

Be ready to explain the need for each of the following interventions!

Questions about Surgical OSCE Stations?



Next Session...

OSCE EXPRESS

TIMETABLE

- 1** **01/11/23**
Ward Round Notes +
Examinations
- 2** **08/11/23**
Referring Patients +
Prescribing Medications
- 3** **15/11/23**
Post-Op care +
Surgical Complications
- 4** **22/11/23**
Pre-Operative Care
- 5** **29/11/23**
Difficult Conversations +
Ethics and Professionalism
- 6** **06/12/23**
Ethics and Professionalism



OSCE EXPRESS

TIMETABLE

- 7** **13/12/23**
Deteriorating Patients +
A-E stations
- 8** **10/01/24**
Community Care
Planning
- 9** **17/01/24**
Multi-morbidity and
polypharmacy + managing
uncertainty
- 10** **24/01/24**
Handover and
Prioritisation
- 11** **31/01/24**
Recap and Revision



Feedback



<https://app.medall.org/feedback/feedback-flow?keyword=7c43fc35ff2533944a6b06b4&organisation=osceexpress>

Thanks!

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