Post-Op Complications

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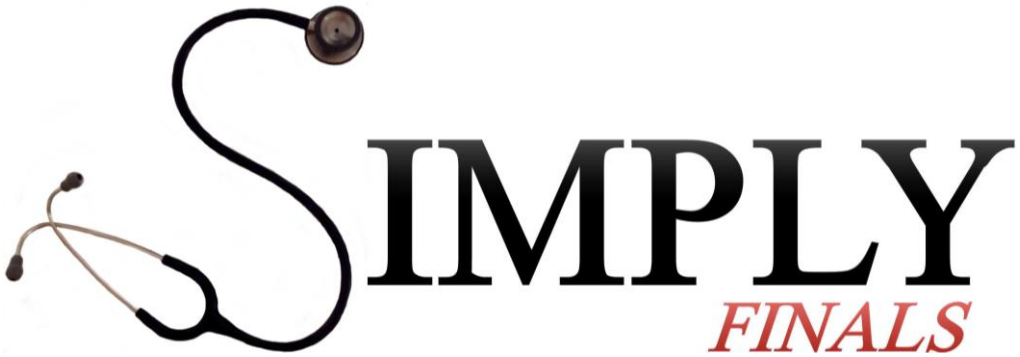


What we will cover…

- Overview of common post-op complications and when they occur
- 4 cases of common post-op complications
- How to approach post-op complications in the acute setting
- Initial investigations and management plan

SIMPLY FINALS

Common Post-Op Complications

Immediate

Anaphylaxis

Haemorrhage

Nausea and vomiting

Hypotension

Acute

Pyrexia

Confusion

Dyspnoea/ Hypoxia

Oliguria/ AKI

Nausea and vomiting

Bleeding

Infection

Site-specific (anastomotic leak, compartment syndrome etc)

Electrolyte imbalance

Thrombosis/ Embolus

Ileus

Pain

Chronic

Adhesions

GI Obstruction

Neuropraxia

Hernia formation

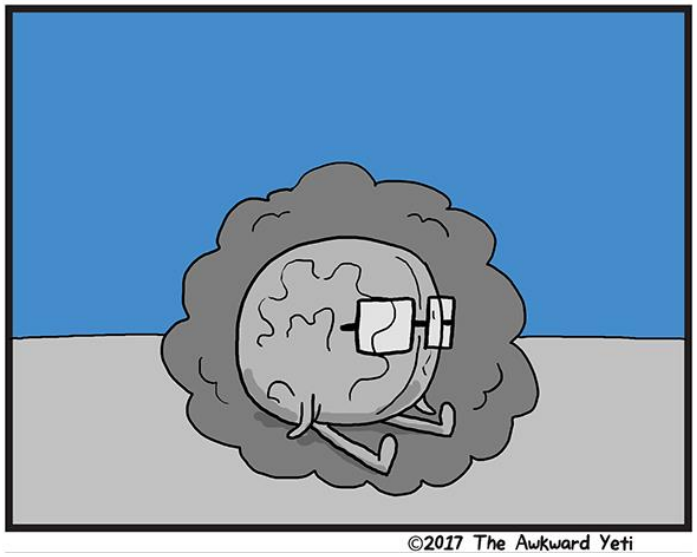
SIMPLY FINALS

Approach

- SBAR- what procedure they had and when, observations, recovery so far
- Background
  - Operation- site, procedure, any complications, day post-op, recovery so far
  - Significant past history
  - Medications
- History
  - Brief HPC
- Examination
- Investigations
  - Bedside
  - Bloods
  - Imaging
- Impression and Plan
  - Initial action plan based on likely diagnoses

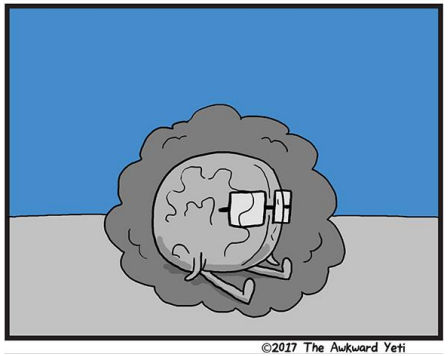
SIMPLY FINALS

Case 1



SIMPLY FINALS

"Doctor, I am calling about Geraldine in Bed 8 on Ward 4E. Her family are asking me to call you because she isn't recognising them. We have noticed she has been confused since this morning."



78 yo ♀
Day 2 post- Open appendicectomy , no complications, recovering well
Current observations: HR 105, BP 92/60, Temp 35.0, RR 24, Sat 98RA

PMH: T2DM, hypertension, hypercholesterolaemia, AF on Warfarin

DH: Atorvastatin, amlodipine, metformin, insulin, regular analgesia, PRN oromorph (20mg in last 12 hours)

Examination:
Confused, uncomfortable, RR32
Abdomen- Generalised tenderness, particularly over the wound. Soft. Wound erythematous with moderate sero-sanguinous discharge and 1/5 wound is partially open
Catheter bag- 200ml dark urine

SIMPLY FINALS

Case 1- Investigations

Bedside

Urine dip & MC&S

ECG

VBG

Wound swab for MC&S

Bloods

FBC

U&E

Mg

Bone Profile

G&S

Clotting

CULTURES

Imaging/ Special Tests

CXR

US Abdomen

VBG: pH 7.31, pCO2 5.86, Lac 3.6, BE -3.5, HCO3 19, Glu 9.1, Hb 110 (115), K+ 4.2, Na 139

Urinalysis: Pro –ive, Bld –ive, Nit –ive, Leu +

ECG: AF, rate 104

SIMPLY FINALS

Case 1- Impression and Plan

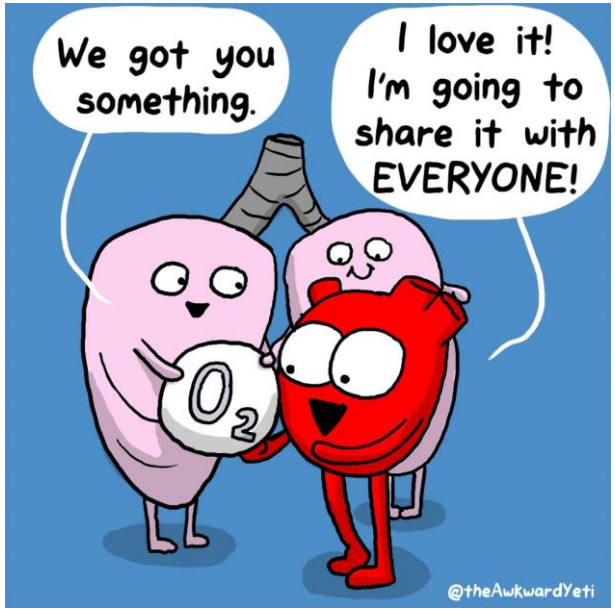
Impression: <u>Sepsis</u> due to wound infection
(collection/ post-op delirium/ UTI)

qSOFA:
Hypotension (SBP <100)
Altered mental state
Tachypnoea (RR>22)

Plan:
1. IV fluids
2. IV antibiotics
3. Bloods incl. cultures (sent)
4. Fluid monitoring chart (input/output)
5. US Abdomen/ CXR
6. Call for help- Inform a senior ?theatre for I&D

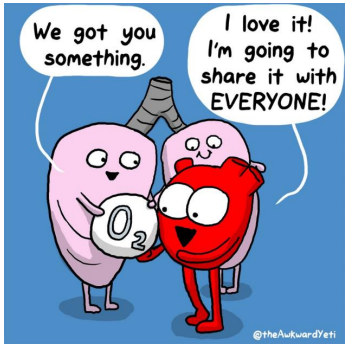
SIMPLY FINALS

Case 2



SIMPLY FINALS

A&E have referred a patient as a failed discharge. She is 55 and is day 7 post-elective total knee replacement. She has come in feeling short of breath



55yo
D7 post- Right TKR
Observations: HR 110, BP 132/80, RR 22, Sat 93% RA, Temp 36.8

HPC: Has been recovering well since the operation although she has only been out of the chair to use the toilet. The pain in her knee has been better although she has some pain in the calf of that leg. The pain in her chest started this morning and has been getting worse. It's central and worse when she breathes in.

PMH: BMI 48, previous surgery for varicose veins

DH: LMWH injections, analgesia

Examination: HR ~110, regular. Chest clear. Right knee wounds are clean, dry and healing well. Right calf is painful on squeezing, swollen in comparison to the left and has pitting oedema to the knee.

SIMPLY FINALS

Case 2- Investigations

Bedside

ECG

ABG

Bloods

FBC

U&E

Mg

Bone Profile

G&S

Clotting- d-dimer?

Imaging/ Special Tests

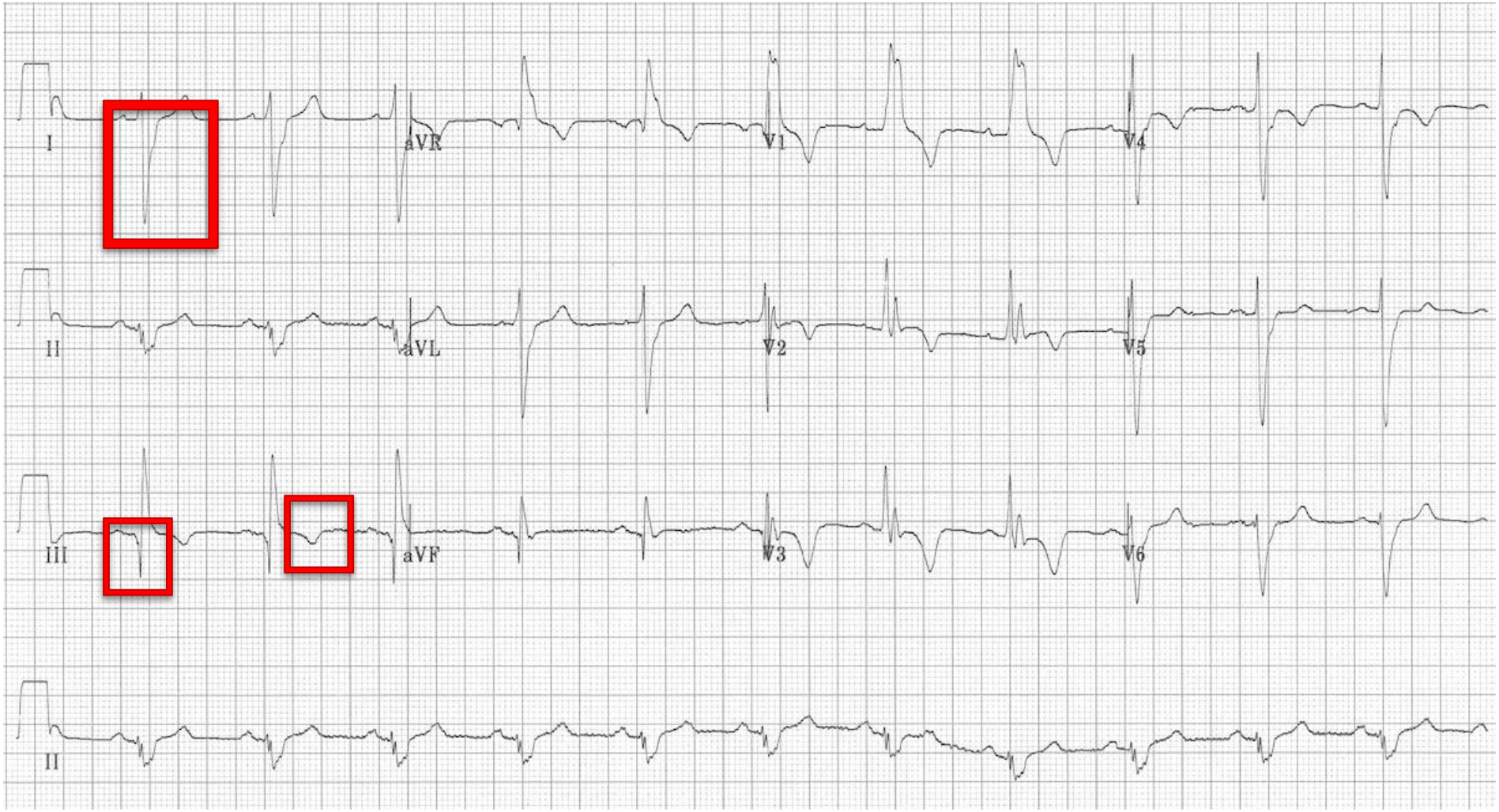
USS Doppler right leg

CTPA

ABG: pH 7.35, pO2 9.8, pCO2 4.11, Lac 1.8, HCO3 27, Glu 6.5, Hb 121
ECG: Sinus tachycardia, rate 108

Wells Score: 9
PERC Rule: Positive

SIMPLY FINALS



RBBB
Extreme right axis deviation (+180 degrees)
S1 Q3 T3
T-wave inversions in V1-4 and lead III
Clockwise rotation with persistent S wave in V6

SIMPLY FINALS

Case 2- Impression and Plan

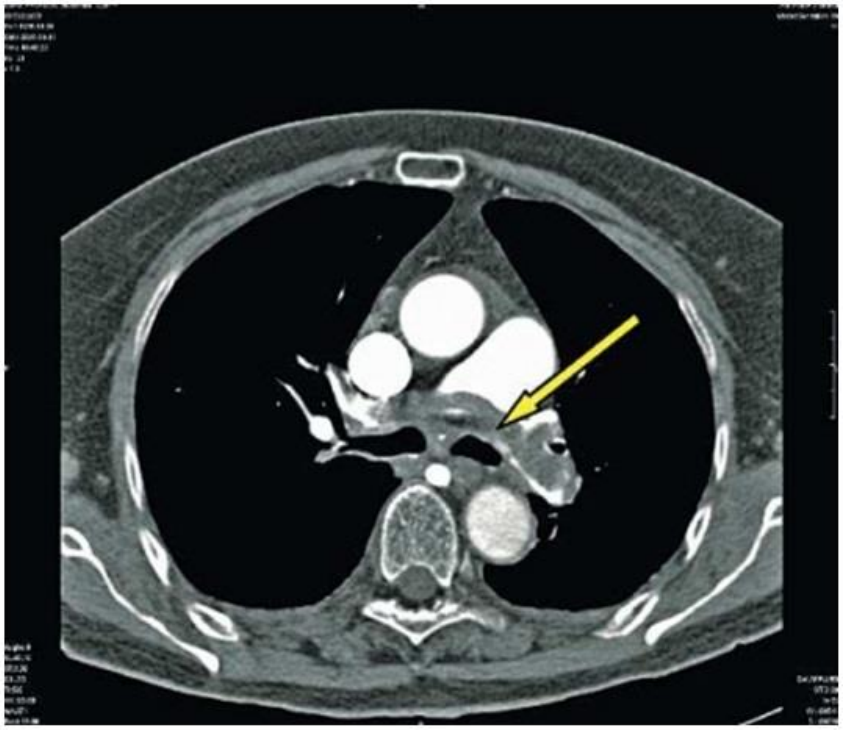
Impression: PE/ DVT

Plan:

1. Arrange CTPA and USS Doppler right leg- imaging should be completed within 1 hour
2. Treatment dose LMWH
3. Call for help- inform seniors

SIMPLY FINALS

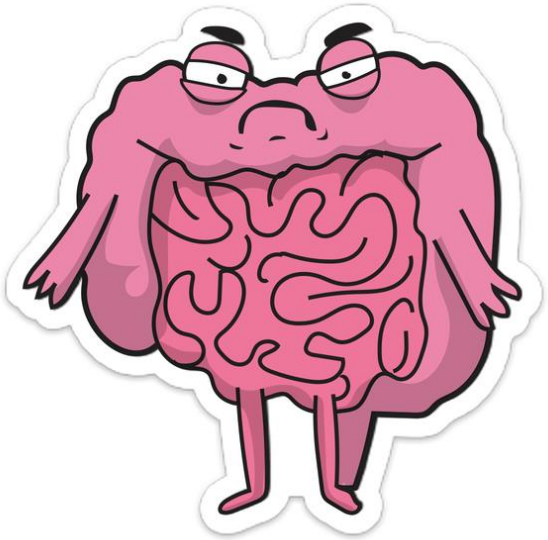
Massive PE



- Presentation: Shock, syncope, distended neck veins, respiratory distress, RHS
- High flow O2, immediate echo/ CTPA (if stable)
- Heparin 5000iu IV +/- LMWH pending thrombolysis
- In cardiac arrest, CPR to continue 60-90 minutes post-thrombolysis

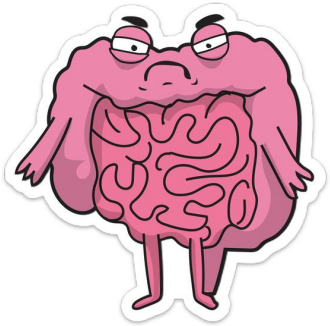
SIMPLY FINALS

Case 3



SIMPLY FINALS

"Doctor, can you come and prescribe a laxative for one of my patients? She hasn't opened her bowels in 2 days and is complaining of abdominal pain."



45yo
D2 post- Laparoscopic cholecystectomy
Obs: HR 80, BP 118/76, Temp 36.0, RR 17, Sat 98%OA

HPC: Generalised abdominal pain, aching in nature with sharp pain in the lower quadrants. Has been getting worse over the last 12 hours. Urinating well, mobilising, no associated symptoms
BNO, not passing flatus since her operation. Vomited 4x this morning.

PMH: Normally fit and well

DH: Paracetamol, codeine, lactulose

Examination: Abdomen distended and firm, generalised moderate tenderness. Bowel sounds present but quiet. Hyperesonance to percussion. All other systems NAD. PR- empty rectum

SIMPLY FINALS

Case 3- Investigations

Bedside

VBG

Bloods

FBC

U&E

Mg

Bone Profile

Imaging/ Special Tests

AXR

CT Abdomen-Pelvis

VBG: NAD

SIMPLY FINALS

Case 3- Impression and Plan

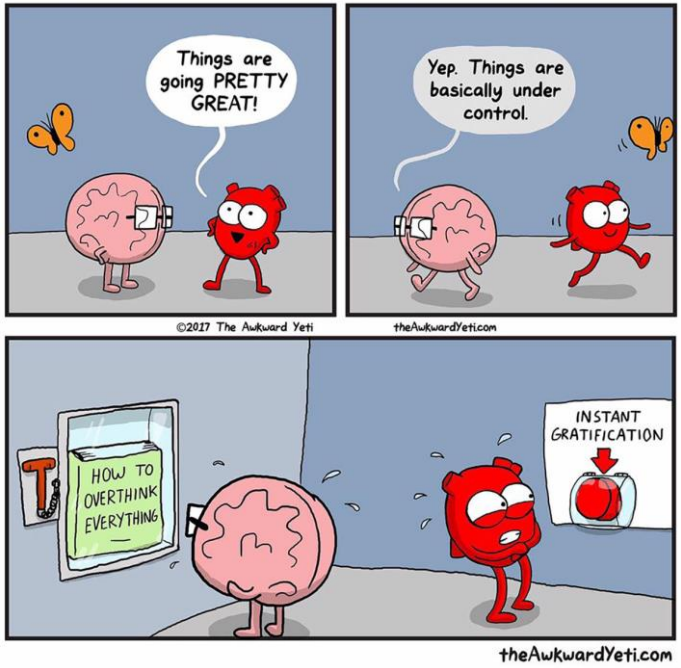
Impression: Post-op Ileus

Plan:

1. NBM/ sips for comfort
2. NGT- doesn't provide quicker resolution of ileus
3. PPI/ Analgesia/ Antiemetics
4. IV fluid support
5. Reassurance
6. Call for help- inform a senior

SIMPLY FINALS

Case 4



SIMPLY FINALS

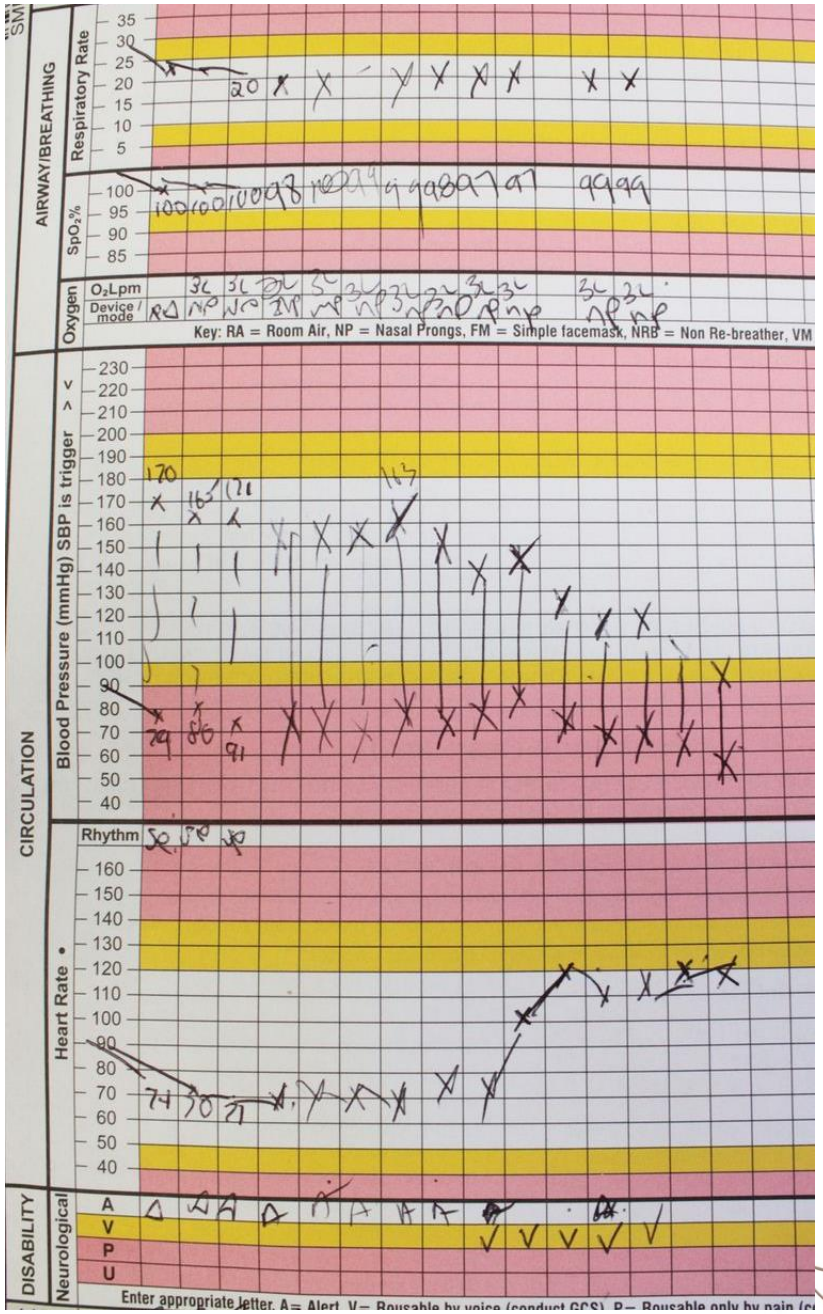
"Can you please come and review the patient in bed 12. He got back from recovery 2 hours ago and says he is feeling very dizzy. I have tried calling the registrar but she is busy in A&E with the SHO and asked me to call you"

65yo ♂
D0 post- right hemicolectomy
Observations: HR 128, BP 102/65, RR 28, Temp 37.2, Sat 99 on 4L

HPC: Admitted that morning for an elective right hemicolectomy for bowel ca. Came back from recovery 2 hours ago and has been asleep up until 30 minutes ago when he started feeling dizzy. He also feels very cold, and his stomach and chest hurt. No other medical problems, no allergies. No drugs since coming back from recovery.

Examination:
ABCDE
RR28, cool and clammy peripheries and looks unwell. PR is ~130, pulse feels bounding. BP 95/56. Abdominal examination shows generalised tenderness ++ but soft. Wound is clean and dry. Calves SNT.

SIMPLY FINALS



SIMPLY FINALS

Case 4- Investigations

Bedside	**Bloods**	**Imaging/ Special Tests**
VBG	FBC	?CT Abdomen-Pelvis pending response to initial management
ECG	U&E	
	G&S	
	Clotting	

VBG: **pH 7.30**, PCO2 6.15, PO2 2.28, **Hb 68 (135)**, K+ 4.2, Na 139, **Lac 2.9**, BE 1.6, HCO3 19

ECG: Sinus tachycardia

SIMPLY FINALS

Case 4- Impression and Plan

Impression: Hypovolaemic shock secondary to active bleeding

Action plan:

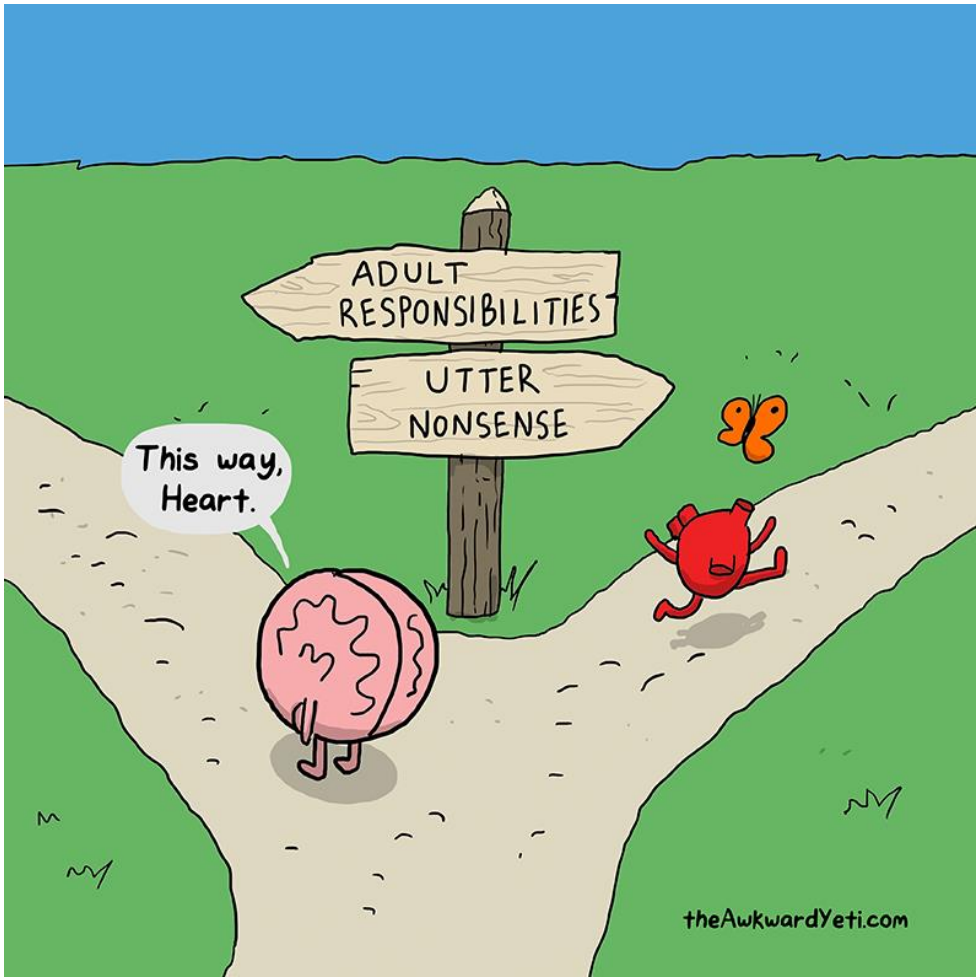
1. CALL FOR HELP- Major haemorrhage call/ Surgical Reg ASAP
2. IV fluids
3. Blood transfusion
4. Continuous monitoring, repeat ABCDE
5. Back to theatre

SIMPLY FINALS

Preventing Complications

- Enhanced recovery
- Early mobilisation
- Early re-introduction of diet
- Dietary supplements
- Careful pain management
- Coughing and chest physio
- Monitoring electrolytes including phosphate and magnesium
- Monitoring Hb

SIMPLY FINALS



SIMPLY FINALS

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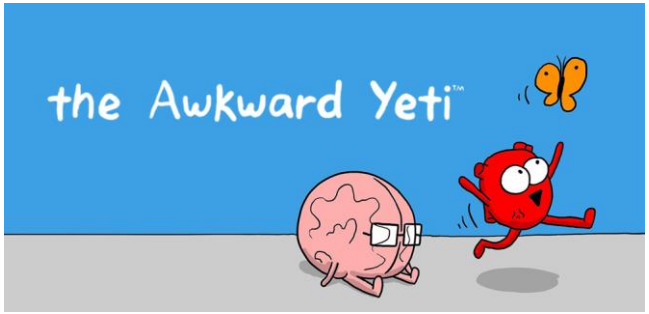

SIMPLY FINALS