# A simple case of TACO

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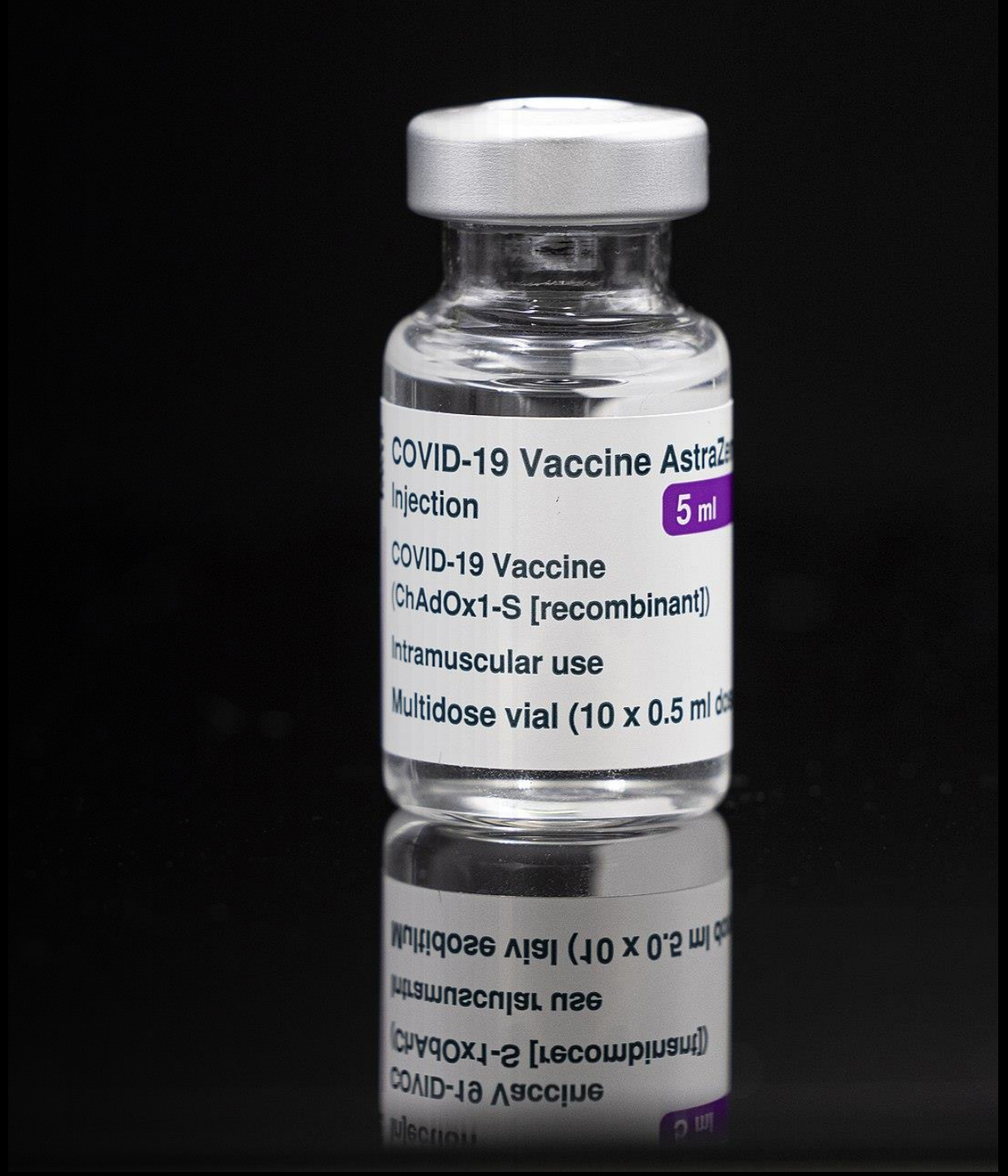
# Home of the Oxford/AZ vaccine



# LH 67F

- IgA lambda myeloma
- Diagnosed March 2014;
- CTD then melphalan autograft (2015).
- Relapsed March 2020 (Del 17p and Gain 1q) managed with DVD, partial response.
- Now on IRD + clarithromycin, but **relapsing** again.

- Crohn's disease on vedolizumab infusions, and pan-colonic diverticular disease.
- Colo-vesical fistula (CT March 2021); conservatively managing.

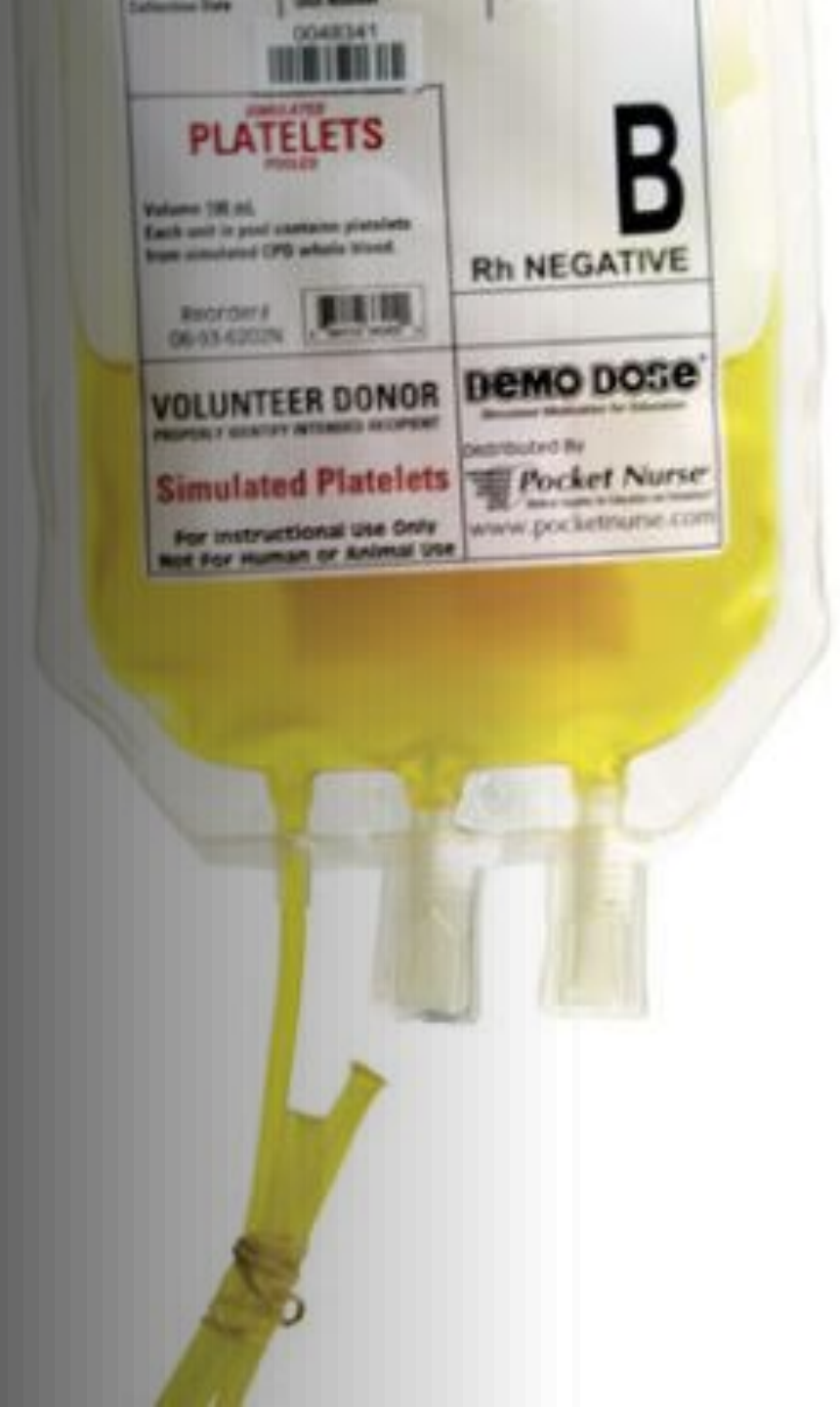
# Admitted August 2021

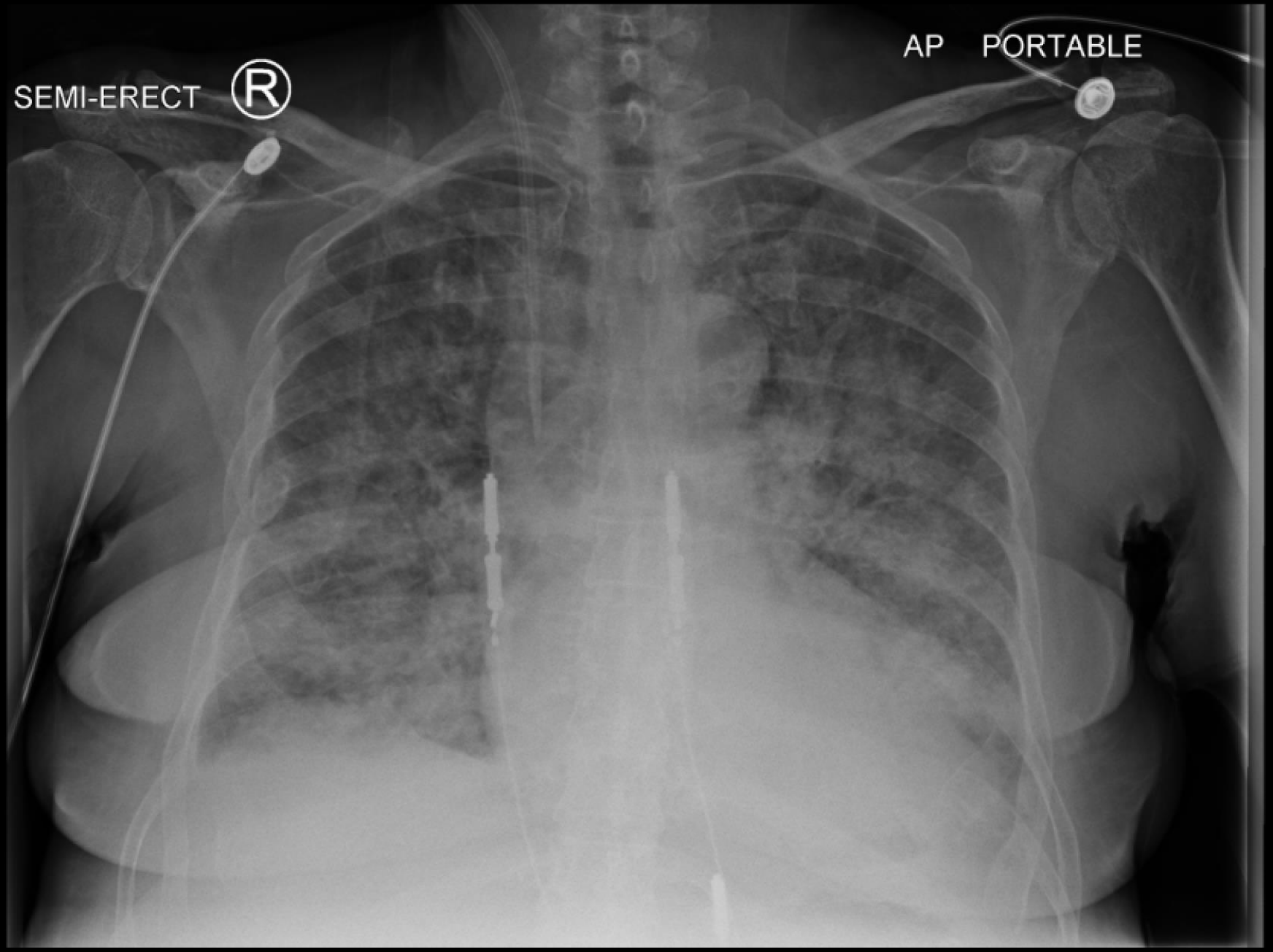
- 10/7 vomiting and diarrhoea
- AKI CR >1000. Oligouric. K6.4.
- New pancytopenia. Hb 47; Plt 7; WCC 3.2;

- E. Coli Sepsis + progression of myeloma
- IV abx – responding well
- Started regular haemodialysis
- Pancytopenia not improving. Plt to start pomalidamide
- Multiple platelets/RBCs without any problems

# Platelet transfusion

- 2 weeks into admission - Fevers returned. Ceftazidime and gent started. Apyrexial 24hrs.
- Discharge planning
- Prophylactic transfusion of platelets
- 30 mins later:
  - On our review, patient in visible resp distress
  - Alert and orientated, some distress
  - On 15L o2, sats 96%
  - HR 130, BP 200/100
  - Chest: AE bilaterally, wheeze bilaterally with creps
  - ?some facial swelling

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# It must be TACO!

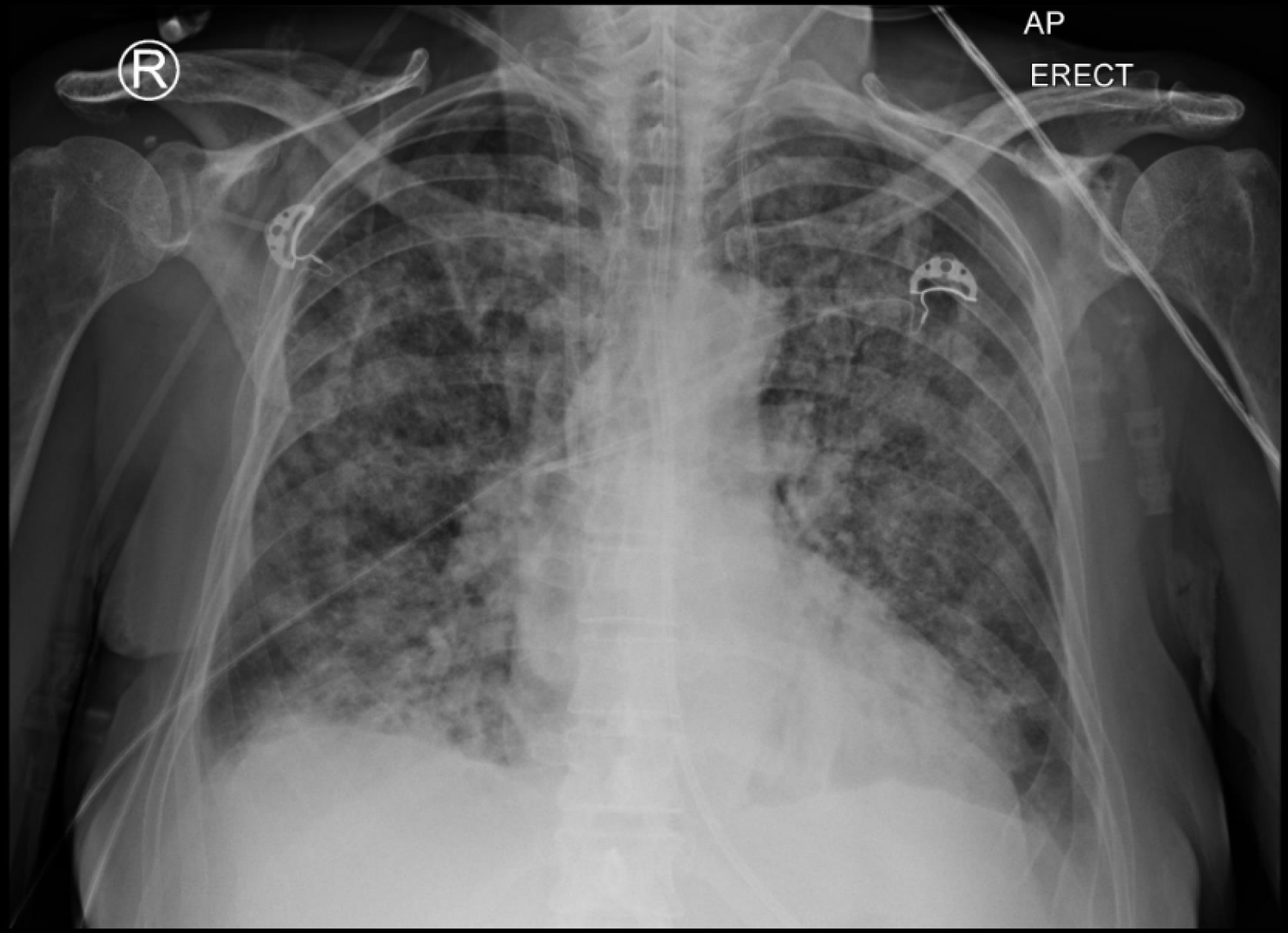
- Renal failure
- High BP
- Sudden onset

SHOT Serious Hazards of Transfusion

| SERIOUS ADVERSE REACTIONS | | |
|---|---|---|
| **All reactions should be reported to MHRA if they are 'Serious' – see definition page 9** | | |
| **TERM** | **DEFINITION** | **WHAT TO REPORT** |
| **TACO**<br><br>(Transfusion-Associated Circulatory Overload)<br>**** Please note the ISBT definition of TACO was updated in May 2019, therefore the SHOT definition of TACO has been modified**** | *** Required criteria (A and/or B)**<br>**A**. Acute or worsening respiratory compromise and/or<br>**B**. Evidence of acute or worsening pulmonary oedema based on:<br>• clinical physical examination, and/or<br>• radiographic chest imaging and/or other non-invasive assessment of cardiac function<br>**Additional criteria**<br>**C.** Evidence for cardiovascular system changes not explained by the patient's underlying medical condition, including development of tachycardia, hypertension, jugular venous distension, enlarged cardiac silhouette and/or peripheral oedema<br>**D.** Evidence of fluid overload including any of the following: a positive fluid balance; clinical improvement following diuresis<br>**E.** Supportive result of a relevant biomarker, e.g. an increase of B-type natriuretic peptide levels (BNP) or N-terminal-pro brain natriuretic peptide) NT-pro BNP to greater than 1.5 times the pre-transfusion value | Patients classified with TACO (surveillance diagnosis) should exhibit the following during or up to 12 hours after transfusion*<br>• At least one required criterion (i.e. A and/or B)<br>• With a total of at least 3 or more criteria (A to E)<br>*SHOT continues to accept cases up to 24 hours after transfusion |

- ICU – intubated. Filtered. Labetalol infusion.
- Bedside echo – Global LV failure. No RWMA.
- TnI 419 (high >17) at time rising to 3850 12hrs later.
- NT-proBNP 81 000 (high > 400)
- Widespread T wave inversion on ECG

- Extubated after 1 day. HFNO 50L/min 40% FiO2
- Continued on filtration – maintaining negative balance
- Stepped down to ward 3 days later
- Still on HFNO but improving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# Maybe it’s a burrito??

- ARDS
- Failed to respond to removal of fluid
- No clear evidence of an ischaemic event or infection

SHOT Serious Hazards of Transfusion

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| **TERM** | **DEFINITION** | **WHAT TO REPORT** |
| **TAD**<br><br>(Transfusion-Associated Dyspnoea) | TAD is characterised by respiratory distress within 24 hours of transfusion that does not meet the criteria of TRALI, TACO or allergic reaction. Respiratory distress in such cases should not be explained by the patient's underlying condition | Cases with relevant features (see definition) should be reported together with, wherever possible, information on oxygen saturation/arterial blood gases and chest X-ray appearances |
| **TRALI**<br><br>(Transfusion-Related Acute Lung Injury) | Acute dyspnoea with hypoxia and bilateral pulmonary infiltrates during or within six hours of transfusion, not due to circulatory overload or other likely causes, or in the presence of human leucocyte antigen (HLA) Or human neutrophil (HNA) antigen antibodies cognate with the recipient | Suspected cases should be discussed with a Blood Service Consultant (who can arrange appropriate investigations) and reported if there is a high index of suspicion, even if serological investigations are inconclusive |

# Conclusions

- SoB + Hypertension ≠TACO
- Very difficult to diagnose TRALI – requires panel approval for tests
- Supportive care and early escalation to ICU is key