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Cast 25 – Haematological Malignancy PART 2

You are the ED Consultant in-charge of a rural ED with a 53yo female Jane Doe, who was brought in by her partner, for progressively worsening SOB for 5 days.
Jane presented very severe respiratory distress, pallor, and diaphoresis. She reported non-productive cough with fevers and rigors over the past 2 days, associated with a loss of taste and smell. She has no significant past medical history and is not on any regular medications. She has a 30 pack-year smoking history, ETOH on weekends socially.

- After a diagnosis of Blast crisis, her clinical state required an intubation and transfer.

(a) Fill in 2 specific challenges for each category below, caring for such a patient in a Rural ED? (4 Marks)

Emergency Department	• Busy Department • Senior Staff Shortage • Time is wasted as the JMS has to make multiple phone calls, while looking after patient • Pathology and Radiology are not available 24/7 • Turnaround time from pathology sometimes may be long, as the sample might be sent to tertiary hospital for reporting • This may lead to delay in confirmation of diagnosis • Many a times there is a single consultant taking care of Department)
Inpatient Factors	• Limited resources • Limited specialist availability • Limited bed capability • No HDU/ICU • Specialist registrar usually are very busy, may not answer in timely fashion • Switch will not connect to consultants • Increase wait time to speak with specialists • Many a times specialist registrars are unable to make independent decision and must consult with their consultant before making any decision, this causes a further delay • Registrar vs Consultant • Hard to escalate - from rural/regional to city hospital

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Referral Challenges	• Specialist Registrar only available via page • The urgency of Jane Doe, is not visible to the other hospital • Try the Bed Brokers - patient will be out of pocket • ED to ED may be needed

Transport Challenges	• Distance
	• Private car
	  • Family will have make arrangement to transport
	• Ambulance
	  • Depends on Ambulances available
	• Retrieval services
	  • Chopper - depends on weather
	  • By Road - again takes long time
	• Lengthy process

Patient Factors	• Far from all the city hospital • Family needs to organise transport to visit in case the disposition is to a city hospital • It's very daunting for people, as they are unable to get timely updates once the patient is transferred to a city hospital

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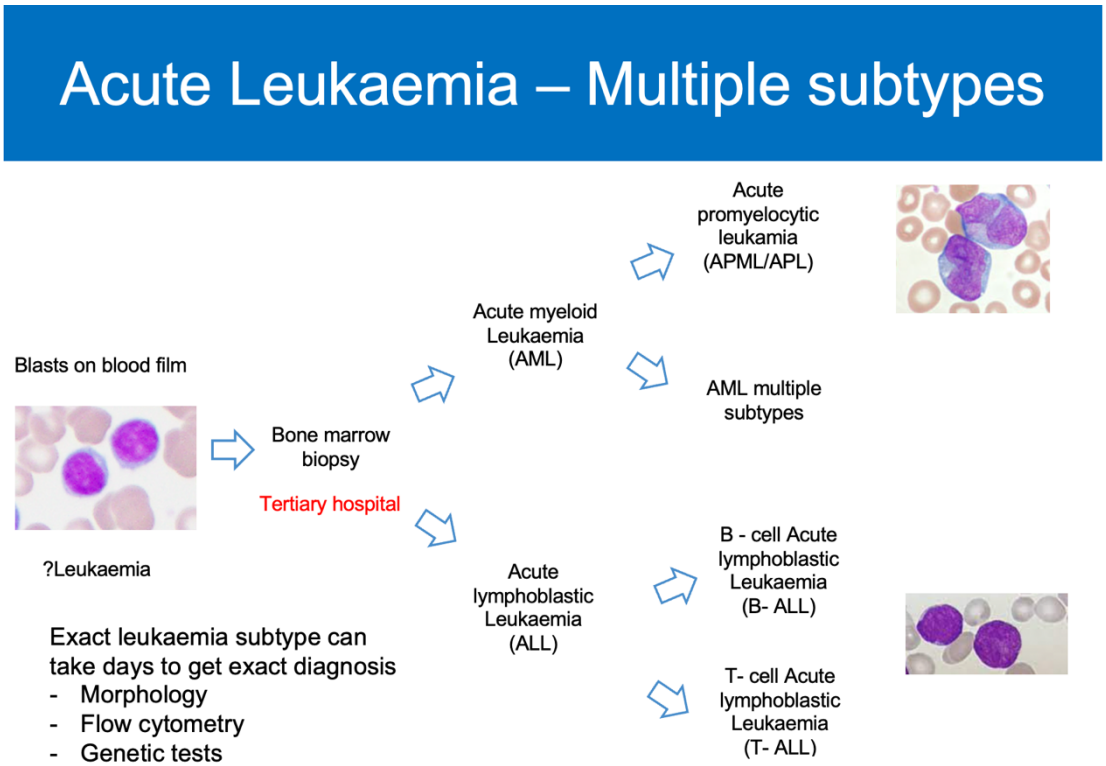
APML



What do Haematologist do before we confirm leukaemia? (simplified)

- Stabilize patient
- Correct coagulopathy
- Antibiotics (often neutropenic)
- Get bone marrow biopsy ASAP!
- If we think APML.
    - ATRA – all transretinoic acid – Vit A!

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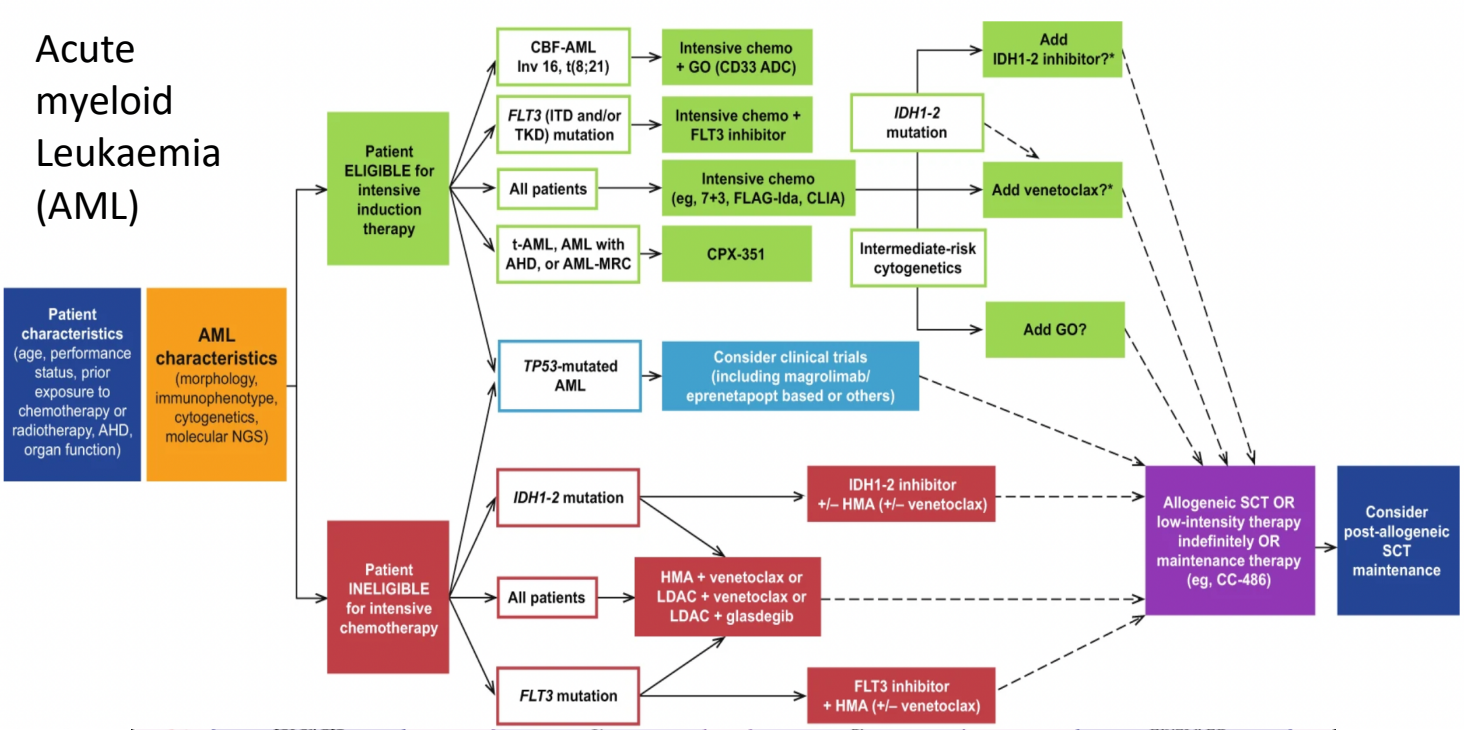
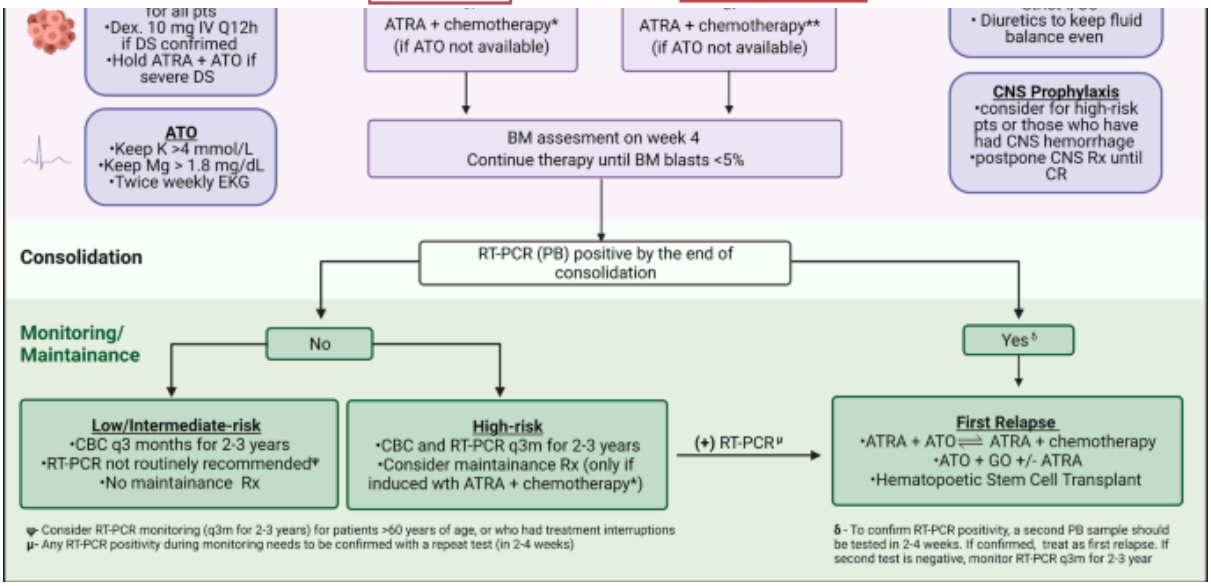
AML – multiple different treatments





Yilmaz et al. BCJ, 2021

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Acute leukaemia service (Monash Health – Clayton)

Clinical

- One of largest in Victoria
- Over 60 new presentations yearly
- Clinical Trials Unit
- Weekly Multidisciplinary Meeting
- OPD Clinics
- 24 hour clinical service (Clayton)
    - 2 receiving IP units
    - 2 ward Haematologists
    - 2 ward registrars

Pathology

- 4 advanced trainees
- 24-hour supervisory laboratory haematologist
- After hours (On call haematologist)
- Urgent review of films
- Daily bone marrow biopsy service
- Flow cytometry
- Molecular testing

What to do if there are called about blasts on a film?

- Think about acute leukaemia!
- Medical emergency
- Call for help (24/7)
    - Haematology registrar/haematologist on call
- Coagulation profile – look for DIC
- Treat any infections
- Look to transfer to tertiary centre ASAP for diagnostic marrow and treatment.