

# A missed opportunity for POCUS?

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## Introduction

Point of Care Ultrasound (POCUS) has the ability to non-invasively and rapidly diagnose a number of life-threatening conditions if utilized well.

We present a child with cardiac tamponade secondary to malignant pericardial effusion. POCUS was not performed during initial stabilization and transfer but diagnosed the condition on presentation to our PICU. A pericardial drain was inserted before onward transfer to a cardiac centre.

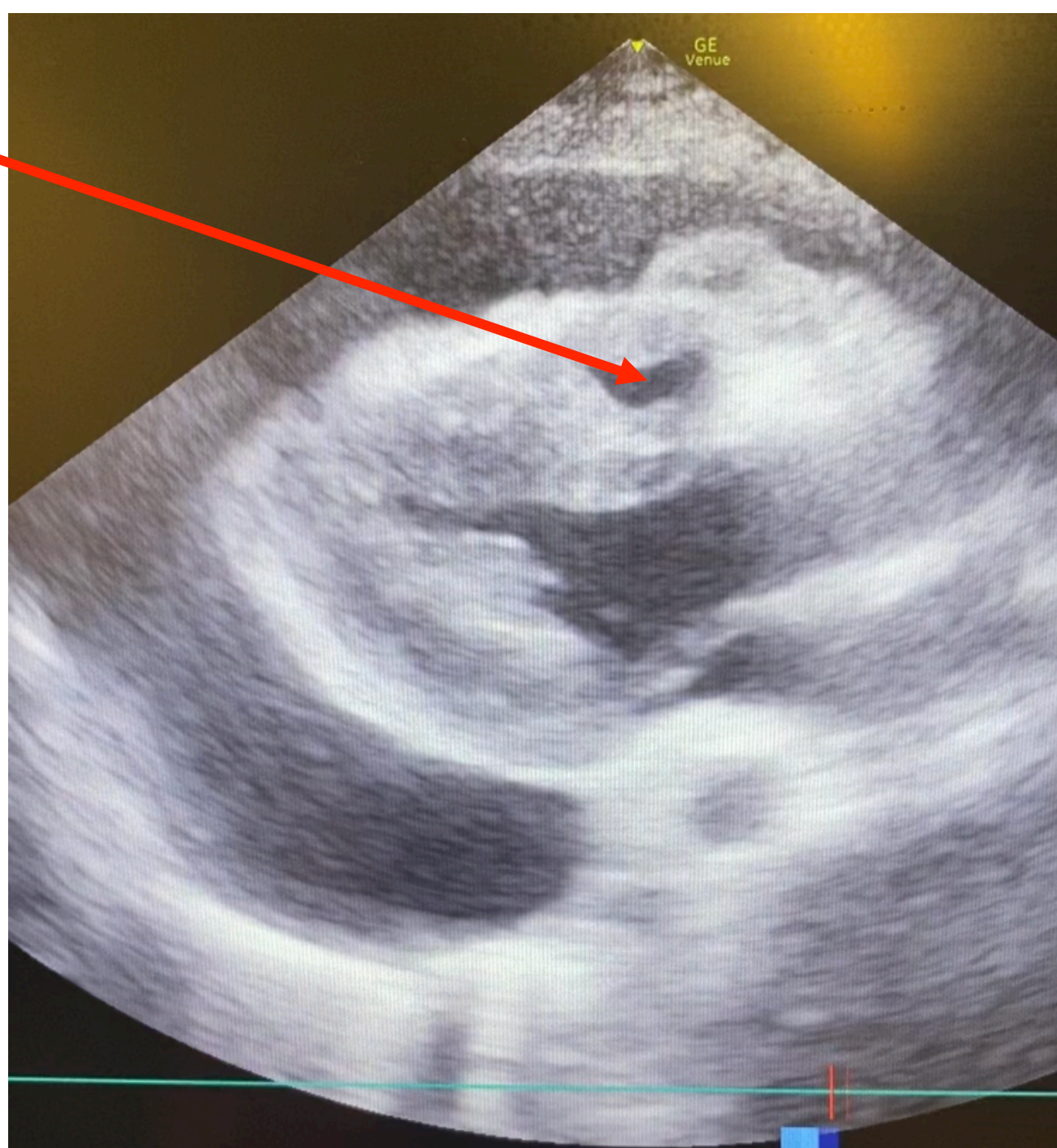
## Case Description

16 year old male

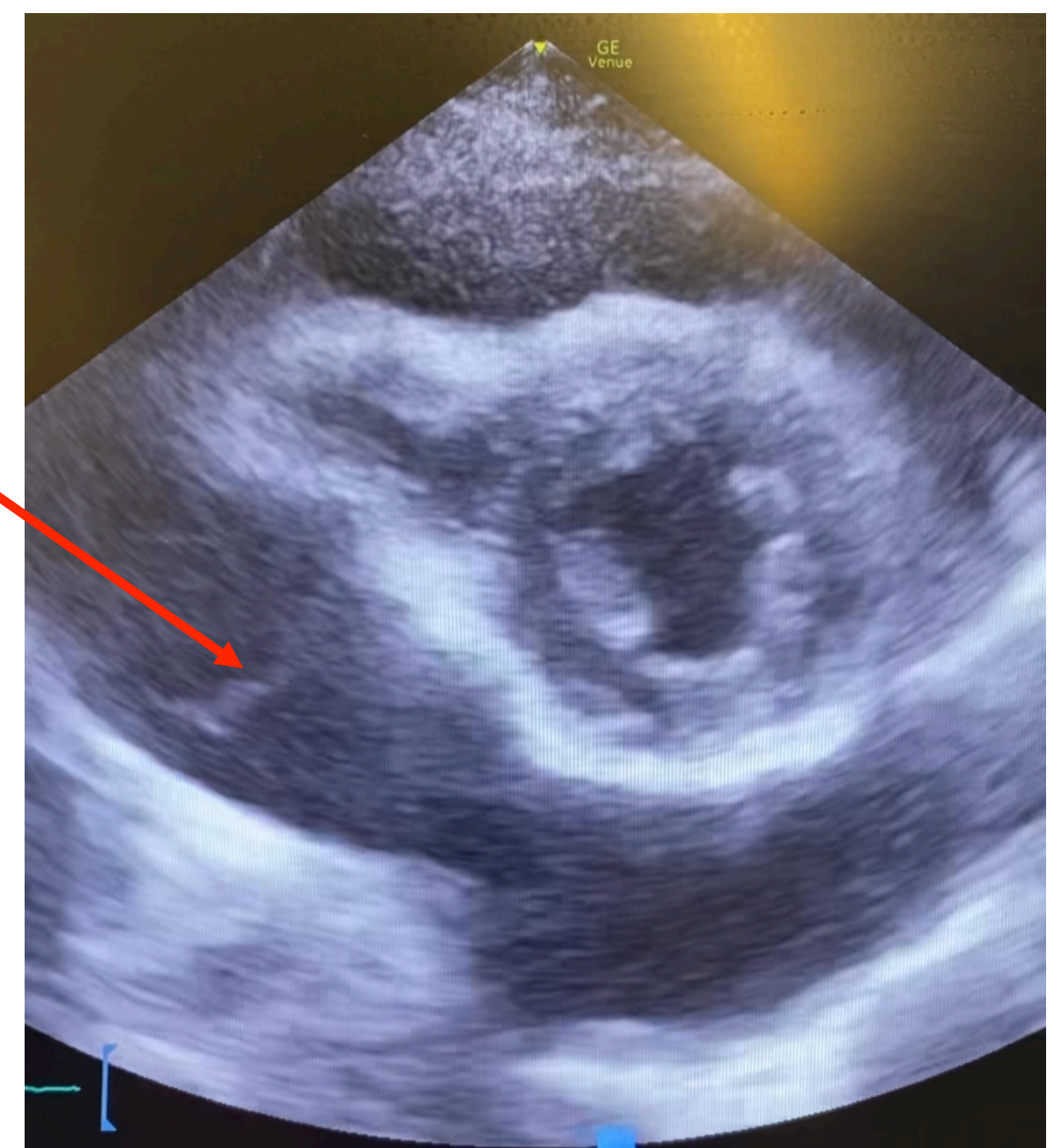
- PC: Chest pain and Fever
- HPC: 1 week history of nausea and malaise
- PMH: Acute lymphoblastic leukaemia (ALL), recent chemotherapy
- Clinical Assessment: tachycardic and hypotensive
- Initially treated for neutropenic sepsis with antibiotics, fluid and peripheral adrenaline infusion

- Ongoing rising lactate and fluid-refractory shock → emergent transfer to our non-cardiac PICU
- On arrival, POCUS was performed by a registrar who had done the CACTUS (Children's Acute Ultrasound) course
- Scan: large fixed IVC and large global pericardial effusion with right heart compression in keeping with cardiac tamponade
- Management: emergency pericardial drain with rapid improvement in clinical status

Collapsed RV



Large pericardial effusion



## Discussion

Early use of POCUS in this case would have changed management and transfer pathways and given better patient care. POCUS skills are variable across specialties and location but appear to be increasing. Where no experienced practitioner is present, we have previously guided acquisition and review of basic POCUS views via video link but this is not equal to having the skills at the bedside.

More widespread availability and awareness of POCUS could be achieved through education and should be considered as a mandatory part of intensive care and emergency medicine training programmes.

## Key Points

- POCUS has the potential to improve clinical care pathways
- Should be integrated into intensive care and emergency medicine training programmes