SIMulatED

Royal Darwin Hospital Emergency Department

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# Scenario Run Sheet: oncology: pericardial tamponade

## Scenario Overview

**Estimated Scenario Run Time:**  15-20 mins

**Estimated Guided Reflection Time:** 20-30 mins

**Target Group:** ED Registrars and Nurses

**Brief Summary:** 64 yo male with known metastatic adenoca (NSCLC) lung presents with acute dyspnoea and shock from malignant pericardial tamponade

## Learning Objectives

**General**

Resus team communication

**Scenario Specific**

Structured approach to DDX of severe dyspnoea and shock in oncology patients

Rationale for treatment of reversible complications of cancer vs initiation of end-of life care

Delivery of psychological support for patient and family while delivering critical care

ECG/CXR findings of pericardial effusion

US findings in pericardial tamponade

Indications for therapeutic pericardiocentesis

## Equipment Checklist

**Equipment**

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Adult Resus trolley

**Medications and Fluids**

Giving set, Normal saline

Lignocaine, pericardiocentesis catheter + drainage bag, spinal needle

**Documents and Forms**

ED Nursing chart

**Diagnostics Available**

VBG – mild lactic acidosis, chronic mild CO2 retention

CXR – R hilar lung ca

CT chest – lung ca, small pericardial effusion (on wife’s iphone)

ECG – Sinus tachycardia, pericardial effusion changes

USS – MPEG/JPEG effusion / tamponade

## Scenario Preparation/Later Parameters

**Initial Later**

GCS **15**  RR 30 P 140 BP 85/50 GCS **15** RR 20 HR 100

Sats 93% RA T 37.8 BSL gas SaO2 99% O2 BP 120/70 T 37

**Mannequin Features**

Male 3G mannequin

## Participants

**Staff Actors**

ED Registrars x3 Radiographer

Nurses x3ED ED Consultant available by phone

Oncology reg referral by phone

**Instructor Roles**

- Provide the team with clinical signs, bedside diagnostics, CXR

## Candidate Instructions/Triage Information

It is 0400h. SJA calling en route with 64yo male recently diagnosed lung cancer. Presents with near syncope after increasing SOB for 3 days. HR 120, RR 30, BP 95/50, T 37.4, SaO2 95% 4L O2. ETA 5mins.

## Patient Instructions

Breathless, distressed, wife anxious

**Medical History:** Diagnosed 2/52 ago with Stage III NSCLC on CT and bronchoscopy, awaiting results of EGFR mutation analysis to commence treatment. 2/12 Weight loss and cough. Had meeting with oncologist next week. HT on ramipril.

**Social** Builder, lives with wife. Recently reformed smoker.

**HPC:** Increasing Left pleuritic chest pain and SOBOE past 3 days. Got out of bed around 2am to go to toilet, developed extreme SOB and collapsed on floor. No LOC. Struck Right shoulder on basin but using arm normally. No fever, haemoptysis, calf pain. Hasn’t been eating well. Anxious about financial situation

## Proposed Scenario Progression

* Focussed history and examination and bedside investigations (ECG, VBG, CXR, EFAST)
* Clinical Sx (if examined): quiet heart sounds
* Supplemental O2, IV access, fluid bolus for shock
* Consider titrated narcotic for pain and agitation
* Patient and partner reassurance
* Identifies cardiac tamponade and commences planning for urgent pericardiocentesis
* Liaison with ED consultant and Oncology on call
* Enquires about prior discussion regarding advanced directive
* Team confers on disposition (likely formal pericardial window)