SIMulatED

Royal Darwin Hospital Emergency Department

Author: Mark de Souza

# Scenario Run Sheet: CAPD peritonitis, fluid overload

## Scenario Overview

**Estimated Scenario Run Time:**  8-10 mins

**Estimated Guided Reflection Time:** 10-15 mins

**Target Group:** ED Registrars and Nurses

**Brief Summary:** 32 yo female, dialyses by CAPD at home, recent formation of AV fistula (not yet used), non-compliance with fluid restriction. Presents with, SOB abdominal pain and cloudy dialysate; mild APO not requiring NIV.

## Learning Objectives

**General**

Team work/Communication

**Scenario Specific**

Suspect CAPD peritonitis from symptoms and turbid dialysate and commence appropriate management

General assessment principles of patients with chronic renal failure (fluid status, metabolic/K+, fistula + vascular access/Tenckhoff site integrity)

Avoidance of cephalic vein cannulation and BP on fistula arm

## Equipment Checklist

**Equipment**

3G sim man + Monitor + CAPD simulation vest

IV access and blood collection, Vacutainer and 50 ml syringe

Culture specimens (dialysate fluid into 2BC bottles, EDTA tube and red top micro container))

Adult Resus Trolley

Dialysate bag (empty and new).

**Medications and Fluids**

Giving set, Normal saline, empty dialysate drainage bag and new dialysate fluid bag

Cefazolin 2x1g vials, ceftazidime 2x 1g vials, heparin 3x1000U vials

**Documents and Forms**

Triage Form and Obs chart

“Peritonitis identification for Adult PD Patients” Protocol (only if specifically asked for)

**Diagnostics Available**

ECG – Sinus Tachycardia

CXR – Mild interstitial oedema (Synapse)

VBG – normal K, anemia, raised creat

## Scenario Preparation/Later Parameters

**Initial Later**

GCS **15** RR 30 P 120 BP 125/75 GCS **15** RR 24 HR 105

Sats 92% RA T 37.8 BSL gas SaO2 98% O2 BP 120/80 T 37.2

**Mannequin Features**

Female, clothed, CAPD vest on, contains simulated cloudy dialysate fluid

## Participants

**Staff Actors**

Registrars x2 ED Consultant available by phone

Nurses x3ED Renal Nurse (reg / consultant referral by phone)

**Instructor Roles**

- Provide the team with VBG and the peritonitis protocol only if specifically asked

## Candidate Instructions/Triage Information

You have gone to Majors cubicle 3 to see an ATS 3 patient. She is a 32yo woman from home who noticed cloudy dialysis effluent during a routine exchange. She has complained of abdominal pain and SOB and phoned the CAPD clinic who advised her to come to ED. Please assess and treat as you would in your everyday practice.

## Patient Instructions

**How do you feel?**

“Dizzy”, “stomach is sore”, “diarrhoea when I go to toilet”

**How do you behave?**

Alert, oriented, complains of abdominal pain if asked. Simulated voice or patient speaks in full sentences. Cooperative with interventions

**Medical History**: Lupus nephritis, renal failure, recent AV fistula formation (not yet used), HT. Meds: amplodipine

**Social**

No etoh use /smoking. Long term Darwin resident, lives with husband and children

## Proposed Scenario Progression

Team to assess cause of respiratory and abdominal issues

Performs routine checks in dialysis patient (VBG, ECG, clinical exam), appropriate peritoneal fluid collection and IP therapy

Focussed history taking, culturally appropriate interaction with patient

Assesses state of new AV fistula and Tenckhoff catheter/site

Notifies Renal nurse and Renal registrar of patient’s arrival and ED assessment, prepares for fluid sampling and exchange

Administers intraperitoneal medications in new dialysate fluid with assistance from renal nurse as required

**Human factors:**

Teamwork, consultation, technical skills (specimen collection)

**Clinical factors:**

Assessment and management of presumed CAPD peritonitis