**Question 22 (14 marks)**

A 64 year old alcoholic man presents with shortness of breath. His vital signs are:

BP 105/70 mmHg

RR 32 bpm

Sat 91% RA

Temp 39 oC

GCS 15

His CXR is shown below



a) List three (3) abnormal findings on his CXR. (3 marks)

* Left upper lobe consolidation
* Left lower lobe patchy consolidation
* Rounded opacity at lateral margin of lower region of right middle lobe
* Hyperinflation – 10 posterior ribs seen, flattened hemidiaphragms
* Small right sided pleural effusion

b) List three (3) organisms you would be concerned about in this patient. (3 marks)

* Strep. Pneumoniae
* Klebsiella pneumoniae
* Staph Aureus
* Haemophilus influenzae
* Anaerobes
* Tuberculosis
* Legionella

c) SMART-COP and CURB-65 are two pneumonia scoring systems. Complete the table below listing two (2) pros and two (2) cons for each system. (8 marks)

**SMART-COP**

*(Systolic BP, Multilobar CXR involvement, RR, Tachycardia >125, Confusion, Oxygen low, Aterial pH <7.35)*

**Pros**

* Can help stratify which patients require ICU admission
* More sensitive than CURB-65
* Includes age adjusted cut offs for RR and 02 levels
* Assist in early recognition of of most seriously ill patients
* Can be used in collection of data for research
* Easy to calculate

**Cons**

* Does not estimate mortality
* Does not explicitly include patient age as a variable
* Accuracy can be affected by extremes of age
* Low specificity
* Requires ABG and albumin

**CURB-65**

*(Confusion, Urea >7, RR >30, BP <90, Age >65)*

**Pros**

* Simple to remember and use
* More specific than SMART COP
* Possibly improved ability to predict mortality
* Uses results of basic bloods

**Cons**

* Includes confusion and urea which in elderly could be due to a variety of factors
* Does not assign points for co-morbid illness and nursing home residence
* May not identify patients requiring ICU admission, respiratory support or vasopressor requirements
* Accuracy can be affected by extremes of age
* Low sensitivity

A few references:

MD Calc

Life in the fast Lane

<http://www.elsevier.pt/en/revistas/revista-portuguesa-pneumologia-320/artigo/psi-curb-65-smart-cop-or-scap-and-winner-is--S0873215913001268>

<https://academic.oup.com/cid/article/47/3/375/315583>