

# Case 3

# Case 3

- 58 year old man presented to ED with 3 days of epigastric and right upper quadrant abdo pain, vomiting
- No other medical history other than mild obesity and high alcohol intake about 6 beers per day

|                              |                      |                 |
|------------------------------|----------------------|-----------------|
| Haemoglobin                  | 174 g/L              | 130-175         |
| RBC                          | 5.65 x E12/L         | 4.3-6.0         |
| Haematocrit                  | 0.49                 | 0.4-0.52        |
| Mean Cell Volume             | 87 fL                | 80-99           |
| Mean Cell Haemoglobin        | 30.8 pg              | 27-33           |
| RDW                          | 12.8                 | 11.5-15.0       |
| RBC (nucleated)              | 0 x E9/L             |                 |
| Platelets                    | 170 x E9/L           | 150-400         |
| <b>WBC</b>                   | <b>13.7 x E9/L H</b> | <b>4.0-11.0</b> |
| <b>Neutrophils</b>           | <b>12.0 x E9/L H</b> | <b>1.9-7.5</b>  |
| Basophils                    | 0.05 x E9/L          | 0-0.2           |
| Eosinophils                  | 0.05 x E9/L          | 0-0.5           |
| <b>Monocytes</b>             | <b>1.1 x E9/L H</b>  | <b>0.2-1.0</b>  |
| <b>Lymphocytes</b>           | <b>0.5 x E9/L L</b>  | <b>1.0-4.0</b>  |
| <b>Immature Granulocytes</b> | <b>0.1 x E9/L H</b>  | <b>0.0-0.06</b> |
| Authorised by                | Analyser Protocol    |                 |

|                             |   |               |          |               |
|-----------------------------|---|---------------|----------|---------------|
| Sodium                      | 140   | mmol/L        |          | 135-145       |
| Potassium                   | 3.8   | mmol/L        |          | 3.5-5.2       |
| Glucose                     | 7.7   | mmol/L        |          | 3.0-11.0      |
| <b>Creatinine</b>           | <b>129</b>  | <b>umol/L</b> | <b>H</b> | <b>60-105</b> |
| Albumin                     | 42  | g/L           |          | 32-48         |
| Protein                     | 73  | g/L           |          | 66-84         |
| Globulin plasma             | 31  | g/L           |          | 25-41         |
| <b>Bilirubin</b>            | <b>135</b>  | <b>umol/L</b> | <b>H</b> | <b>&lt;25</b> |
| <b>GGT</b>                  | <b>881</b>  | <b>U/L</b>    | <b>H</b> | <b>0-60</b>   |
| <b>Alkaline Phosphatase</b> | <b>157</b>  | <b>U/L</b>    | <b>H</b> | <b>40-120</b> |
| <b>CK</b>                   | <b>24</b>   | <b>U/L</b>    | <b>L</b> | <b>60-220</b> |
| <b>CRP</b>                  | <b>16</b>   | <b>mg/L</b>   | <b>H</b> | <b>0-5</b>    |
| <b>ALT</b>                  | <b>366</b>  | <b>U/L</b>    | <b>H</b> | <b>&lt;45</b> |
| Troponin I                  | <5  | ng/L          |          | 0-54          |
| Glucose Comment             |  |               |          |               |
| Authorised by               | Siemens Atellica  |               |          |               |
| <b>Lipase</b>               | <b>&gt;3500</b>   | <b>U/L</b>    | <b>H</b> | <b>8-78</b>   |

Bloods on admission

# Case 3

- Lipase 3500 - admitted with pancreatitis
- Day 1 deterioration with hypoxia and acute renal failure

|                             |             |               |          |                  |
|-----------------------------|-------------|---------------|----------|------------------|
| Sodium                      | 136         | mmol/L        |          | 135-145          |
| Potassium                   | 5.1         | mmol/L        |          | 3.5-5.2          |
| <b>Urea</b>                 | <b>14.5</b> | <b>mmol/L</b> | <b>H</b> | <b>3.2-7.7</b>   |
| <b>Creatinine</b>           | <b>320</b>  | <b>umol/L</b> | <b>H</b> | <b>60-105</b>    |
| Phosphate                   | 1.31        | mmol/L        |          | 0.75-1.50        |
| <b>Calcium</b>              | <b>2.00</b> | <b>mmol/L</b> | <b>L</b> | <b>2.10-2.55</b> |
| Calcium (albumin adjusted)  | 2.10        | mmol/L        |          | 2.10-2.55        |
| <b>Albumin</b>              | <b>31</b>   | <b>g/L</b>    | <b>L</b> | <b>32-48</b>     |
| <b>Protein</b>              | <b>55</b>   | <b>g/L</b>    | <b>L</b> | <b>66-84</b>     |
| <b>Globulin plasma</b>      | <b>24</b>   | <b>g/L</b>    | <b>L</b> | <b>25-41</b>     |
| <b>Bilirubin</b>            | <b>550</b>  | <b>umol/L</b> | <b>H</b> | <b>&lt;25</b>    |
| <b>GGT</b>                  | <b>611</b>  | <b>U/L</b>    | <b>H</b> | <b>0-60</b>      |
| <b>Alkaline Phosphatase</b> | <b>123</b>  | <b>U/L</b>    | <b>H</b> | <b>40-120</b>    |
| <b>CRP</b>                  | <b>131</b>  | <b>mg/L</b>   | <b>H</b> | <b>0-5</b>       |
| <b>AST</b>                  | <b>180</b>  | <b>U/L</b>    | <b>H</b> | <b>&lt;45</b>    |
| <b>ALT</b>                  | <b>221</b>  | <b>U/L</b>    | <b>H</b> | <b>&lt;45</b>    |
| Magnesium                   | 0.86        | mmol/L        |          | 0.70-1.00        |

|                               |             |
|-------------------------------|-------------|
| Haemoglobin                   | 169         |
| RBC                           | 5.51        |
| Haematocrit                   | 0.48        |
| Mean Cell Volume              | 88          |
| Mean Cell Haemoglobin         | 30.7        |
| RDW                           | 13.7        |
| RBC (nucleated)               | 0           |
| <b>Platelets</b>              | <b>62</b>   |
| <b>WBC</b>                    | <b>21.2</b> |
| <b>Neutrophils (Band)</b>     | <b>3.0</b>  |
| <b>Neutrophils</b>            | <b>15.4</b> |
| Basophils                     | 0.0         |
| Eosinophils                   | 0.0         |
| <b>Monocytes</b>              | <b>2.2</b>  |
| <b>Lymphocytes</b>            | <b>0.2</b>  |
| <b>Lymphocytes (Reactive)</b> | <b>0.2</b>  |
| <b>Immature Granulocytes</b>  | <b>0.2</b>  |

Day 1 bloods

# Case 3

- Admitted to ICU with multiorgan failure
  - intubation
  - dialysis

# Case 3

- CT showed large amount of pancreatic necrosis
- USS showed gallstones. No CBD dilatation
- Aetiology: ?gallstones or alcohol



RP

CT Day 1

# Case 3

- Definition of severe pancreatitis
- Prognosis of severe pancreatitis
- Complications of severe pancreatitis

# Pancreatitis

## Severity definition - revised Atlanta criteria 2012

- Mild
  - no organ failure or complications
- Moderate
  - transient organ failure, or local or systemic complications
- Severe
  - persistent organ failure (>48hrs)

# Pancreatitis

## Severe pancreatitis

- Occur in 10% patients
  - may need ICU support
  - often long hospital stay with multiple secondary complications
  - increased mortality