BEAUTIFUL NURSING ABG GUIDE

MAIN VALUE LEVELS:

Arterial Blood pH: 7.35-7.45
PaCO2 (acidic): 35-45
HCO3 (basic): 21-28

OTHER VALUES:

SaO2 (oxygen sat): 95-100
PaO2: 80-100

WHAT IS UNCOMPENSATED, PARTIALLY OR FULLY COMPENSATED

UNCOMPENSATED: PH is **ABNORMAL**, PaCo2 **OR** HCO3 **ABNORMAL**
FULLY COMPENSATED: PH is normal, PaCo2 **AND** HCO3 **ABNORMAL.**
PARTIALLY COMPENSATED: All three main value levels **ABNORMAL.**
This includes PH, PACO2 and HCO3.

HOW TO ANSWER AN ABG QUESTION MADE SIMPLE:

EXAMPLE: A client comes in with the following ABG lab values: a PH of 7.31, HCO3: 27, PacO2 of 65. What imbalance is the client currently in?

Step 1: Write out the values across the paper like below:

PH: 7.31 HCO3: 27 PaCO2: 65

Step 2: Write arrows to indicate if they are acidic or basic. Remember HCO3 is bicarbonate (basic) and PACO2 is carbon dioxide (acidic).

PH: 7.31 ↓ (acidic) HCO3: 27 → NORMAL PaCO2: 65 ↑ (acidic)

Step 3: Match the abnormal arrows. If all three are abnormal, match the PH arrow to the HCO3/PaC02 arrow.

PH: 7.31 ↓ HCO3: 27 → NORMAL PaCO2: 65 ↑

Step 4: If PaCo2 then RESPIRATORY, if HCO3 then metabolic.

The answer to this question is Respiratory Acidosis.

Step 5: If you need to put whether it is uncompensated, partially or fully compensated then see criteria above:

The answer then would be Uncompensated Respiratory Acidosis.

EXAMPLE: A client comes in with the following ABG lab values: a PH 7.55, PaC02 20, HcO3 20. What acid base imbalance are they currently in?

Step 1: Write out the values across the paper like below:

PH: 7.55 HCO3: 20 PaCO2: 20

Step 2: Write arrows to indicate if they are acidic or basic. Remember HCO3 is bicarbonate (basic) and PACO2 is carbon dioxide (acidic).

PH: 7.55 ↑ (alkalosis) HCO3: 20 ↓ (acidic) PaCO2: 20 ↓ (alkalosis)

Step 3: Match the abnormal arrows. If all three are abnormal, match the PH arrow to the HCO3 or PACO2 that matches the PH with being either alkalosis or acidosis.

PH: 7.55 ↑ (alkalosis) HCO3: 20 ↓ (acidic) PaCO2: 20 ↓ (alkalosis)

Step 4: If PaCo2 then RESPIRATORY, if HCO3 then metabolic.

Both the PH and the PaCo2 were abnormal alkalosis. The answer is Respiratory Alkalosis.

Step 5: If you need to put whether it is uncompensated, partially or fully compensated then see criteria above:

The answer then would be Partially Compensated Respiratory Alkalosis.

IF YOU ENJOYED THIS RESOURCE, PLEASE SHARE WITH FRIENDS SO YOU ALL CAN PASS TOGETHER!

BECOME A LIGHT IN THIS DARK WORLD!

XOXO AMANDA