INTERPRETING ABGS A DECISION TREE

START HERE
Normal pH?

Yes

Are PaCO2 and HCO3- BOTH normal?

Yes

Congrats! No Imbalances!

No

Compensated

Which direction is pH going?

7.35-7.39

Acidosis

Use ROME: ph is ↓; is PaCO2 ↑ or ↓?

Resp

Met

7.41-7.45

Alkalosis

Use ROME: ph is ↑; is PaCO2 ↑ or ↓?

Resp

Met

No

Is pH high or low?

high

Alkalosis

Are PaCO2 and HCO3- BOTH abnormal, or only one?

both

Partially Compensated

Use ROME: ph is ↑; is PaCO2 ↑ or ↓?

Resp

Met

one

Uncompensated

Which value is abnormal?

PaCO2

Resp

HCO3-

Met

low

Acidosis

Are PaCO2 and HCO3- BOTH abnormal, or only one?

one

Uncompensated

Which value is abnormal?

PaCO2

Resp

HCO3-

Met

both

Partially Compensated

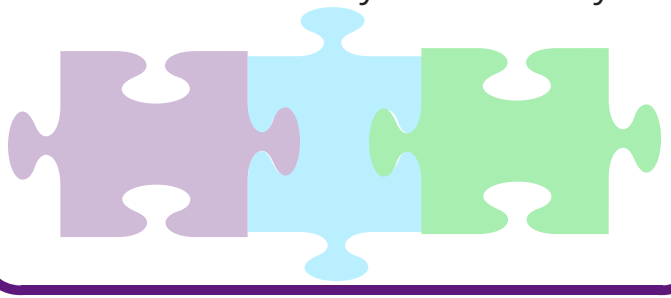
Use ROME: ph is ↓; is PaCO2 ↑ or ↓?

Resp

Met

yournursing tutor

Use the color-coded puzzle pieces to record the results of your ABG analysis!



Resp = Respiratory

Met = Metabolic

Explanation of **ROME** = **R**espiratory **O**pposite, **M**etabolic **E**qual

How to use ROME: Compare the direction of PaCO2 (high/low) to the direction of pH (high/low). If they are going in the *opposite* direction, then it's a respiratory cause. If they are going in the *same* direction, then it's a metabolic cause.