

SIBO Case Assignments

(Answers)

CASE #1:

Answer:

This NCNM SIBO breath test is positive for SIBO based both on the characteristic double peak seen with the hydrogen gas and also due to the elevated methane. Methane of 4 ppm at baseline alone could potentially be considered a positive result based on criteria set forth by Dr. Pimentel. But, the increase in methane up to 24 ppm at 120 minutes meets the more widely accepted criteria of positive SIBO due to a change in methane of 20 ppm within the first 120 minutes.

CASE #2:

Answer:

Genova SIBO breath tests only extend out to 120 minutes, which is one of the disadvantages. However, in this case there is unequivocally severe SIBO due to overgrowth of archaea and the associated high methane gas levels. Here the difficulty is not diagnosis, but rather how to treat such a severe case of SIBO. And while we'll be covering this in a few weeks, this is going to be a case that will likely need a rotation of prescription and herbal antimicrobials along with supportive treatment including supplements for GI motility, digestive support and targeted probiotics. You should also test for potential underlying causes of SIBO while beginning treatment.

CASE #3:

Answer:

This Commonwealth SIBO breath test is consistent with severe SIBO due to overproduction of hydrogen gas.

CASE #4:

Answer:

The initial SIBO breath test shows moderate SIBO due to overgrowth of archaea, with associated overproduction of methane. She was treated with herbal antimicrobials and she did note a slight decrease in her mild tremor. She had no GI symptoms initially, and therefore no changes in GI function with treatment, so a repeat SIBO breath test was ordered to monitor treatment response. The follow-up test shows a significant decrease in the levels of methane gas, but interestingly, the hydrogen levels increased. This repeat test results indicate a mild overgrowth of methane-producing microbes and more moderate SIBO overall due to the elevated hydrogen.

There is some debate as to what may cause this, but one plausible explanation is that the methane-producing microbes utilize hydrogen gas. So, when there is an overgrowth of methane-producing microbes, they may “hide” overgrowth of hydrogen-producing microbes. It is only once the levels of methane-producing microbes are decreased that we may see the fuller picture of microbial overgrowth. Regardless of the mechanism through which the change in this SIBO pattern occurred, additional treatment is warranted.

CASE #5:

Answer:

These results are equivocal depending on the interpretation criteria you choose to adopt. If you choose to follow Dr. Pimentel's recommendation that methane at or greater than 3 ppm during any part of the test or an increase of hydrogen over 20 ppm within 180 minutes is positive, then this test would be considered positive. However, if you follow the Quintron recommendations of an increase in hydrogen of 20 ppm within 120 minutes, then these results just meet the criteria for SIBO given the value at 100 minutes of 23 ppm (an increase in 21 over the baseline value). But, if the patient tells you she has diarrhea and feels that food moves through her quickly, it may be that lactulose reaches her colon in less than 100 minutes, in which case the rise at 100 minutes would reflect the normal colonic fermentation of lactulose rather than SIBO. This is a case where patient history and clinical judgment play an equal role to test results.

In this particular patient, a Doctor's Data stool was also run and identified dysbiosis along with *Dientamoeba fragilis*, so an herbal antimicrobial protocol was indicated for other reasons. Had her stool test been completely normal, I think an equally reasonable approach would be to use probiotics and prebiotics alone for GI support while running additional tests for the root cause of her symptoms.