How to Use Lactic Acid to Assist in Recovery from Staph, MRSA, Diabetes, and Obesity

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Dear Colleague;

This report is presented in two distinct sections.

**In the first section** I will provide you the details of a simple test that, when performed on a patient with elevated lactic acid levels, will drastically reduce those levels within just 15 minutes.

This test can be performed right within your clinic and once you understand how it works you will no doubt see other opportunities to help your patients regardless of how severe their condition may be.

Certain chronically ill patients have highly elevated lactic acid levels which are sustained over days and weeks and are much easier to test for and show a substantial reduction of in a clinical setting. We recommend performing this test on a diabetic, a patient with extreme and ongoing weight problem, or a patient that has an ongoing infection. Therefore, in the case of this test, the reduction of lactic acid is more clearly evident when the patients tested have significantly higher than average lactic acid levels.

The speed and effectiveness in which you can use this test to reduce lactic acid in patients with staph, MRSA, diabetes, and obesity will open up new opportunities in treatments that can assist with recovery in ways that were never before possible.

It is also of interest to observe and track the weight of your patients when using effective treatments that reduce lactic acid. It is not unusual to have a substantial drop of several pounds within the first week and continued weight loss into the second week.

The most widely accepted answer for this sudden weight loss is that the body attempts to buffer acidity by retaining water. When acidity is reduced, the water is no longer needed and the body will let it go - resulting in significant weight loss.

Lastly, when using treatments that effectively reduce lactic acid, patients may experience reduced pain and increased energy levels. Asking your patients to give regular updates on their pain and energy levels will help you evaluate the extent to which they are benefiting from the treatments.

**The second section** of this report outlines some very effective, but not commonly known, tests and procedures for difficult-to-treat and often misunderstood antibiotic-resistant Staph infections.

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**15 minute Lactic Acid Reduction**

The product for performing these tests is used off-label and is called pHenomenal (http://phenomenalwater.com/). It was originally designed to speed recovery times in athletes by reducing the buildup of lactic acid that occurs in the body from intense exercise sessions. It is made using heat, magnetism and a small amount of alkaline buffers (inert calcium that is not reported on the label because it is under the legal reporting limits). With this procedure the inventors have created a stabilized concentrate by removing a high percentage of the hydrogen - the acid part of water. This concentrate is an incredible 12.75 pH and yet is entirely not caustic which is unprecedented in any other form of mineralized concentrate.
NOTE: it is very important to use patients with significantly elevated lactic acid levels before doing this test or the test will only have marginal results. It is best to choose a severe diabetic, a patient with significant and ongoing weight problems, or a patient that has an infection with a lactic acid bacterium (Staph or Strep) and is not currently on antibiotics.

Let’s assume you have a patient with elevated lactic acid. Simply draw a vile of blood to perform a lactic acid blood test from your preferred lab and give the patient 32 ounces of mineral-free or steam-distilled water to drink that has 1 ounce to 1 ½ ounces of pHenomenal mixed into it.

Have them consume the mixed pHenomenal in as short an amount of time as they can comfortably drink it. Between 10 to 15 minutes from the time they finished the mixed water draw a second vile of blood for another lactic acid blood test.

In almost all cases you will find a significant drop in blood lactic acid from the first test to the second and this is further confirmed by how the patient will report “feeling”. Generally pain will go down dramatically and increased energy and the symptoms of lactic acidosis (or sepsis) which was mentioned earlier will dramatically reduce.

What’s happening? Since the pH scale is logarithmic the advantage of drinking mixed pHenomenal, 32 ounces at a mixed ratio of one ounce of concentrate to 31 ounces of mineral-free or steam-distilled drinking water, yields approximately one liter (946 milliliters) at a remarkable 11pH. The cost to the patient is approximately $1.20.

Compared to a 500 milliliter bicarbonate drip at an 8.5 pH, the mixed pHenomenal taken orally is approximately 867 times more alkaline or 867 times stronger neutralizing acidity in the body.

Some of this alkalinity may be neutralized in the stomach, but with the overwhelming power of this product the neutralizing action that occurs in the stomach has proven to be insignificant. If you feel your patient is in severe lactic acidosis or sepsis, simply recommend a higher intake of pHenomenal water which can be mixed 50% to 100% stronger than the directions indicate.

Because pHenomenal is a “Hydroxide” meaning an unstable water molecule that is no longer H2O but has been modified to H1O (or properly “OH”) when it finds a free hydrogen it simply binds the hydrogen to the empty valance and becomes H2O or water again. You can further research this on http://phenomenalwater.com/

The results produced by drinking pHenomenal as outlined above cannot be duplicated by using water produced from “Alkaline Water Machines” and caution should be used recommending them to reduce lactic acidosis or sepsis. To date there have been no confirmed results that this form of altered, or charged, water has reduced lactic acidosis or sepsis. This can be easily tested by simply following the outline mentioned above for the 15 minute Lactic Acid Reduction test using water from an alkaline water machine in place of properly mixed pHENomenal. You will no doubt find the results from the alkaline water machine negligible.

The Difficult to Treat and Often Misunderstood Staph Infection

As you know, there are many forms of Staphylococcus and most of them are non-harmful or even beneficial to human health. For example, Staphylococcus epidermidis is a natural part of our skin flora that helps to break down spent skin cells and keeps us clean (1). If Staphylococcus epidermidis lives on our skin and rarely causes a problem other than the occasional urinary tract infection the question could be asked “why has Staphylococcus aureus become such a plague causing so much pain and suffering in our modern world?”
Staphylococcus aureus is unique in some subtle but important ways and these subtleties will be our first point of interest. The better we can understand this bacteria the better we can defend against it and treat it. As the ancient Chinese proverb so wisely says, “know your enemy”.

All forms of Staphylococcus (and Streptococcus) are known as “lactic acid bacteria” or L.A.B for short meaning they ferment sugar or glucose as their main food source and produce as a byproduct lactic acid\(^2\). It goes without saying they need many more things to survive like minerals, a range of temperature, a range of pH (roughly 4 to 9 pH) and they also produce more than just lactic acid.

For example, Staphylococcus aureus as a waste product produces a small amount of uric acid. Since lactic acid will be a major part of our discussion it is important to note the form of lactic acid that bacteria produces is much different than the lactic acid mammals produce.

Mammals produce “L-lactic acid” and bacteria produce “D-lactic acid”\(^3\). With L-lactic acid the molecule spins to the left and is natural to the body and is converted by the liver, exhaled, sweated, and urinated out. But D-lactic acid rotates to the right and is unnatural to the body and harder for the body to get rid of\(^4,5,6,7,8,9,10,11,12,13,14,15,16\).

Interestingly, D-lactic acid is also the cause of cavities because of the various strains of Streptococcus and Staphylococcus that live in our mouth and teeth\(^17\).

It's important to remember the differences when doing lactic acid blood tests on your patients. Some labs offer the choice of L-lactic acid or D-lactic acid and other labs just offer a D/L-lactic acid test.

Interestingly, Diabetics and many obese people will have highly-elevated lactic acid levels causing a wide range of problems in the body\(^18\). In a later chapter we'll go over some products you can use, off label, to drop both D- and L-lactic acid levels in less than 15 minutes.

Just the understanding of lactic acid is important and interesting but it doesn’t answer the question of why Staphylococcus aureus causes more blood infections, sickness and death than staphylococcus epidermidis which almost never causes problems. The answer is an enzyme called catalase.

Catalase is fascinating to study and could be called “Staphylococcus aureus” secret weapon\(^19\)

Many bacteria have and use catalase in varying ways and therefore it is not unique to Staphylococcus aureus, but when you combine a larger amount of catalase with this strain of Staphylococcus it is able to get around and defend itself from our body’s natural defense systems.

Catalase has one job and that is to neutralize hydrogen peroxide. It is estimated that catalase can neutralize 4 million hydrogen peroxide molecules per second! This is unfortunate for humans because our immune systems produce, and use on demand, hydrogen peroxide to kill and oxidize invaders in our body.

In short, once Staphylococcus aureus enters the blood stream, only one of three outcomes can happen - and no doubt your patent is in one of these three phases:

**Possible outcome #1:** once Staphylococcus aureus enters the blood stream by a cut or scratch the immune system recognizes it as an invader and is able to overcome Staphylococcus aureus’ defenses (catalase) and kill it. This is obviously the best outcome and each of us may have fought and killed Staphylococcus aureus many times in our lifetime without even knowing it.
Possible outcome #2: once Staphylococcus aureus enters the blood stream and the immune system attacks it, Staphylococcus aureus defends itself using catalase and the immune system increases its immune response to the invader by increasing temperature and the production of white blood cells. As this battle continues, a large amount of waste is produced, namely dead bacteria. These spent white blood cells and large amounts of lactic acid further increase the load on the body’s elimination systems. This is called lactic acidosis or mild-to-severe sepsis.

Interestingly, in the past doctors would smell their patient's breath to see if it was sweet smelling indicating larger amounts of lactic acid being expelled though the lungs. Happily we have better and more accurate ways of testing today but the principle is the same. As we will soon see, lactic acid is key to understanding the health and progress of your patient.

Here in possible outcome #2 it goes without saying the first priority is to get your patient's fever down if it is getting dangerous, but the fever is an important indicator that your patient’s immune system is still engaged in the battle. Also, it is standard medical protocol to place your patient on a broad spectrum antibiotic while a more accurate or precise antibiotic can be determined. We'll go over this important step later. For now, just realize that the patient’s immune system is still engaged in the battle with Staphylococcus aureus and this is the most dangerous time because people most often die from fever or sepsis.

Possible outcome #3: this one is in some ways the most fascinating because it shows a remarkable feature of the human immune system which is this: the immune system sees the invader, engages in the battle and recognizes it can't win and so it submits to the bacteria. This is how a person can have an ongoing blood infection like Staphylococcus aureus and not have a fever.

They may not have a fever but you will have other indicators of this infection that we will cover in a moment. For now it helps to know what stage or possible outcome your patient is in:
#1 had an infection and killed it.  
#2 still in the battle.  
#3 lost the battle and submitted to the bacteria.

Avoid Wasted Time, Pain, Suffering and Money by Testing Properly

As you know, one of the reasons we are seeing an increase in antibiotic resistant bacteria is the “overuse” of antibiotics. However- it could be argued that if bacteria were tested against several antibiotics and only the antibiotics that were the most likely to work were used, the antibiotic resistance problem wouldn't be nearly as bad as it is today. You might say that antibiotics are overused because proper testing is underused.

Testing pitfalls:
#1 Not Testing At All!  
#2 Testing the Wrong Spot!

Let's start with not testing at all because it lies at the heart of the antibiotic resistance epidemic.

When Staphylococcus aureus has moved into the blood stream, regardless of whether the patient's immune system is still fighting the bacteria or not, almost any broad spectrum antibiotic will reduce the population of the bacteria- therefore reducing the amount of D-lactic acid in the blood. As a result it reduces the symptoms related to mild to severe lactic acidosis or even sepsis.

These symptoms, to name a few, are: tiredness, soreness, mood swings or depression, sugar and carbohydrate cravings, inability to think, open wounds that don't want to heal, lowered blood oxygen levels, boils, cysts,
folliculitis, and shortness of breath. These can all be related to the body being overly acidic and not being able to balance itself because this blood-born bacteria is converting blood sugar into D-lactic acid and there is nothing to stop it.

Once again- almost any broad-spectrum antibiotic will knock the bacterial population down but the few remaining bacteria are going to multiply and are now resistant to the previous antibiotic. A much better plan is to perform an antibiotic resistance test to confirm what antibiotic the bacteria is least resistant to.

There is nothing wrong with starting on a broad spectrum antibiotic while waiting for the results of the antibiotic resistance test but without the antibiotic resistance test there is a very slim chance of totally wiping out the bacteria on the first attempt.

**Testing the wrong spot:** There are really only five places to check for bacteria and three of them are inaccurate, unreliable, or impossible with today’s technology. They are...

- **The nose/nasal passage and throat**
- **The skin**
- **The blood**
- **A boil or bump, cyst, folliculitis**
- **An open sore/wound**

Since an estimated 25 to 30% of the population test positive for Staphylococcus aureus in their nose and throat and yet 25 to 30% of the population do not have a Staph or MRSA infection it's obvious that the bacteria can live in the nose and throat and cause no damage. It requires a scratch or other intrusion to get past the skin and get into the bloodstream before the body’s immune system will react with it.

Even if a nasal swab test comes back positive there is no way of positively identifying that strain of Staphylococcus aureus as the exact same strain that is causing the blood infection. In other words- this Staphylococcus aureus is very likely not the same strain that is in the blood and therefore, if an antibiotic resistance tests were done from the nose nasal passage or throat, it is probably not the correct antibiotic therefore a swab from the nose is the least-certain and should be the last choice of the five options.

Much of the same can be said about testing the skin for Staphylococcus aureus. A large percentage of the population has Staphylococcus aureus on their skin while it is totally harmless and possibly even beneficial, similar to how Staphylococcus epidermidis helps keep a body clean.

This makes the skin also a poor option to get an accurate test result unless there is some very obvious sign of infection and is inviting a false positive and a round of antibiotics that are not targeted for the strain of Staphylococcus aureus that is in the blood.

There are blood tests for determining if Staphylococcus aureus is present but there are some considerations. First- it is a difficult test for the lab and a standard test will require several large blood samples and many often come back negative.

When testing to determine if your patient is positive for Staph it is best to test while your patient is at the peak of an infection and doing poorly so the population of the bacteria will be high and there is a better chance of getting a more accurate result. Next -and sadly- there is no test to draw blood, isolate the bacteria, and then do antibiotic resistances testing.

Another option is testing a boil, bump, cyst, or folliculitis. To lance any kind of pocket or even use a needle to pierce the pocket and test that fluid will yield very accurate results and has the most likelihood of positively identifying the strain of Staphylococcus aureus.
Care needs to be taken to make sure the slice or puncture was not contaminated by another strain of Staphylococcus aureus that possibly could have been on top of the skin at the same time. Sterilization of the skin is critical to accurate results.

If an isolated pocket like a boil cannot be used, an open wound will yield the next best results. Caution also needs to be taken if you are sampling the skin as it may have had another strain of Staphylococcus aureus inhabiting the skin in the same place (that is on top of the skin) and is not the same as the strain that is inhabiting the blood.

**In What Phase of the Infection is Your Patient?**

If your patient is complaining of tiredness, soreness, and/or any of the possible aforementioned symptoms related to lactic acidosis, a simple lactic acid blood test will give you an insightful look into the phase of the infection. If the test comes back with elevated levels of lactic acid in the blood the only reasonable question is “Where did the lactic acid come from?”

As mentioned before the body will convert, neutralize and expel toxic amounts of D-lactic acid to maintain a healthy balance but if the levels are elevated the systems for converting, neutralizing and expelling lactic acid have been overwhelmed. This is because the bacteria population has grown to such an extent that it is converting so much glucose from the blood (and converting it to D-lactic acid) that the patient is living in mild-to-severe lactic acidosis.

Even while a patient is on an incorrect antibiotic the symptoms of lactic acidosis generally clear up. This is because the overall population of the bacteria has fallen until the round of antibiotics is over and the bacteria population begins to rise again, causing the same symptoms all over again.

It goes without saying that if a patient has been on multiple rounds of antibiotics the best thing to do is wait for a boil or skin lesion so it can be cultured and a proper antibiotic resistance test performed.

If there is not a way to culture the bacteria there are a number of things that can be done to lessen the impact of lactic acidosis and limit these symptoms:

**#1 Diet.** Any diet that will limit sugar and carbohydrate intake and balance blood sugar is preferred. This will avoid spikes in blood sugars and the blooming of new bacteria. This will not stop the growth of bacteria but it will aid in balancing the patient’s mood and energy because several hours after the consumption of sugar or carbohydrates the blood levels of lactic acid spike, causing all of the before-mentioned lactic acidosis symptoms to spike as well. In addition to lactic acid levels going up generally energy levels go down and the natural thing is to eat foods high in sugar and carbohydrates looking for energy and creating a cycle.

**#2 Perform a test to drop lactic acid in 15 minutes or less.** If your patient is in lactic acidosis, or even sepsis, there have been a large number of doctors that have used a fitness and energy product to prove to themselves that they can drop lactic acid levels in as little as 15 minutes with continuing benefits for hours.

In the past the one of the most common ways to bring down lactic acid levels was to place the patient on antibiotics therefore bringing the bacteria count down or possibly a bicarbonate drip. This method can be painfully slow and sometimes ineffective.

Because this product pHenomenal provides a significant drop in lactic acid (20) this causes a reduction or elimination of the symptoms related to lactic acidosis or sepsis. This is a long-overdue revolution in science and will no doubt prove to open up exciting new windows of opportunity for treatment in your own practice by simply following the outlined 15 minute test above to prove to yourself it's efficacy.

Since there are no known adverse side effects to pHenomenal it would be wise to have your patient consuming water mixed with pHenomenal as per instructions or even more so and sometimes much more so depending on the severity of the infection and even for some time after the infection.
A good illustration is like trying to gauge how much water to use putting out a fire. If the fire is big you need more and if the fire is smaller you need less. You can also keep a fire wet to make sure it doesn’t come back.

Since the D-lactic acid produced by the bacteria is dependent on the bacterial population, blood sugar levels and ability of the body to dispose and neutralize the lactic acid a weekly or by-weekly blood drawn lactic acid test meter the progress of your patient. Also, just asking your patient how they “feel” will provide insight.

Remember that if your patient is currently on an antibiotic or drinking water mixed with pHenomenal chances are the lactic acid blood test will be in the normal range.

**Treating Staph or MRSA Open Sores, Wounds and Skin Irritations.**

Skin has a slightly acid pH but if you were to take a pH reading of an open or active Staph or MRSA sore generally you will find the acidity levels much lower. The common assumption is lactic acid bacteria is thriving in this area and producing large amounts of D-lactic acid under and on top of the affected area. Since acidity decreases oxygen levels, causing the necrosis (death) of skin and subcutaneous fat, these wounds are difficult to heal.

**Reoccurring Boils and Folliculitis**

Reoccurring boils can be painful and discouraging to the patient and difficult to diagnose because they can have more than one cause. For example: our inner terrain has many competitors for food and after a round of antibiotics this balance can be thrown off. It is common to have boils after a round of antibiotics but to find, upon a culture, that it is free of Staphylococcus aureus yet positive for Candida (a genus of yeasts and is currently the most common cause of fungal infections worldwide).

Because the antibiotic targeted the bacteria this left the yeasts and various other competitors with a plentiful food source and a healthy environment to thrive.

Once again, this underscores the importance of culturing the boil and at the same time testing to see if the patient has elevated lactic acid levels.

If the boil is negative for Staph and lactic acid levels are normal it can only be assumed that the boil is caused by another source and not by a lactic acid bacteria.

As one can see, lactic acid can be a strong indicator for better understanding when your patient is in a struggle with any lactic acid bacteria.

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