Blood Chemistry VA Introduction

Hi, everyone,

Welcome to the functional blood chemistry unit.

Before we jump into the nitty-gritty details, I want to start with an introduction to blood chemistry and talk about why it's such an important tool for functional medicine practitioners to master.

I believe that a functional blood chemistry panel is one of the most efficient and effective screening tools available to us as clinicians. It allows us to quickly assess the function of several of the most important body systems, identify current areas of concern, and detect potential problems that, without intervention, may become significant and even life-threatening problems in the future.

In our practice, every single patient that walks through the door gets a functional blood chemistry panel. Why? Because most people have either never received a comprehensive evaluation like this, or it has been years or even decades since they have.

This is a huge problem, because in many cases, early detection of abnormalities enables us as clinicians to prevent a condition that would become very difficult to manage if it isn't diagnosed until much later.

Of course this is exactly what typically happens in our conventional "disease management" system. In the introduction, I mentioned that one of the primary differences between functional and conventional medicine is where we intervene on the spectrum of disease development. In functional medicine, we focus on prevention of disease before it occurs. In conventional medicine, the intervention often doesn't take place until the disease has fully manifested and progressed to a chronic state. At that point, it is much more difficult and expensive to reverse, which is why we're in the situation we're in today.

Several decades ago, the average annual lab work a physician ordered was much more comprehensive than it is today. This change is in large part due to the influence of insurance companies that will only cover tests that they deem medically necessary. It's a simple issue of economics: if Doctor A orders $2,000 of tests initially, while Dr. B orders $200 of tests, which doctor do you think is most likely to keep her job?

However, this policy—like many other policies in the conventional model—is extremely shortsighted. Reducing the amount of money spent on testing up front may save money in the short term, but it will almost certainly lead to higher costs over the long term.

For example, let's say that through comprehensive up-front testing I detect that a patient is in the early stages of developing type 2 diabetes. Through simple dietary and lifestyle changes that I prescribe, they are able to correct their metabolic dysfunction without ever taking a single medication—or even supplement.

Contrast this with the conventional model, where type 2 diabetes is often not detected until it is fully manifested. At this point, it may be so far progressed that the patient requires several medications including insulin in order to manage it. They may also have serious and expensive complications that require additional medications and occasional hospitalization.

According to the American Diabetes Association, the average cost of treating diabetes per patient per year is $8,000. Assuming a patient develops diabetes at age 45, and dies at age 75, that would be a total cost of almost $250,000 over their lifetime.

It doesn't take a financial genius to realize that spending even $1,000 on up-front testing to detect and prevent a condition that could cost $250,000 to manage is a sound investment. Unfortunately, insurance companies still haven't figured this out, so comprehensive functional blood chemistry panels have not yet become mainstream.

That's the bad news. The good news is that, once patients understand the value of these panels and their potential for not only saving money over the long-term, but also avoiding serious disease and extending lifespan, they are often more than happy to pay for them—even if the money is coming out of their pocket.

If you do these panels with your patients, you will consistently identify problems that have been entirely overlooked or missed by the conventional system. I can't tell you how often this happens in my practice. There isn't a month that goes by where we don't find someone with conditions they didn't know they had, like Hashimoto's, pernicious anemia, iron overload, nutrient deficiencies, or early-stage metabolic syndrome.

In this unit I'm going to teach you the basic principles of functional blood chemistry, the difference between functional and conventional evaluation of blood markers, how to identify patterns of disease or functional imbalance, when to do additional testing or refer out for further work-up, and how to construct a comprehensive screening panel that you can use in your practice.

Sound good? Let's move on to the basic principles of functional blood chemistry in the next video.