

MENTORING MINUTE

Diary of the "mad" med-lab techs

Anaerobes: the best-kept secret

Microbiologists had always been at the other end of the "Gee, whiz" scale from, say, the chemists who always wanted the very latest box with the new blue lights instead of the old-fashioned (i.e., last month's) red lights. The first Microscan merely semi-automated what techs had been doing with plates and tube testing for years. As a chemist, I really never understood that — but as a lab manager, I knew better than to mess with the micro techs. They had their own little kingdom, and they turned out good work. If they were happy, then I was happy.

—*Chuck Millstein, MBA, MT(ASCP), CLDir(NCA)*

Culturing for anaerobes has been the bane of all microbiologists — and has been since the day they were recognized as a significant cause of serious and even life-threatening infections. They are tough to grow. They need special growth media. They need an oxygen-free environment. This means that in order to successfully cultivate these microorganisms in the lab, we have to dedicate valuable space for anaerobic gas mixtures (gas tanks), bags, jars, and/or the infamous anaerobic chamber.

For 15 years now, a new (new?) methodology remarkably simplifies the technique for growing anaerobes. What is it? An enzyme extracted from the wall of a strain of *Escherichia coli*

that reduces oxygen to water when added to any solid or liquid bacterial culture media. It is simply an agar plate with the same media as the conventional anaerobic plates (e.g., kanamycin/vancomycin-laked blood agar or KVLB; brucella blood agar [BRU]; Schaedler blood agar [SBA], whichever you prefer). The difference is that the oxygen-reducing enzyme has been added. The plates look like the aerobic plates and are manipulated the same way. No extraneous apparatus is needed. The plate is stacked together with the aerobic plates from the same specimen and incubated in the same incubator. What could be simpler?

My question is: Why, after 15 years, is this technology not mentioned in any of the textbooks or described in the procedure manuals? What bothers me is that those same textbooks still describe antiquated methods for cultivating anaerobes that have not been used in years (e.g., "roll tubes"). That information should be relegated to history books, not kept in textbooks. Are we so firmly ensconced in the old tried-and-true techniques that we cannot possibly fathom that there is something else out there that can simplify our lab lives? If you are designing a new lab, do not make room for the anaerobic chamber. Eventually, this method described above will catch on. Hope it does not take another 15 years! □

—*Colleen K. Gannon, MT(AMT) HEW*