

STANDARD DEVIATIONS: Winners and Losers

Greetings,

Man, quite the contest last week. Did you watch?

I know, right?

How could you look away?

Two heavyweights going at it on a national stage. The country watching, officials on the sidelines keeping things under control, commentators for both sides praising their champions, scoreboards keeping tallies of the changing numbers.

Tied at the end of regulation, neither side could claim victory. Game over? No way.

The rules say to fight on. And so they fought on. Into overtime. Standing toe to toe trading blows, and the scores kept adding up. Each time one would gain the upper hand the other seemed to have an answer. And the officials who watch and referee, and ensure the rules are followed and keep the tally all looked at each count change with the utmost scrutiny.

And so they fought on.

Still too close to call, they kept battling on Until one finally pulled ahead....And the other just couldn't make up the difference.

Eventually, time ran out; a winner declared.

Saturday the contest ended, a victor emerged, a defeated opponent slipped from number one into obscurity, and a powerful, exuberant, enthusiastic celebration erupted. There was shouting and dancing and hugging and crowds gathered to sing the praises of the victor.

Okay, I don't know about you, but **I found that celebration disturbing, and troubling, and dangerous.**

Wait, wait. Let's be clear. Of course, I'm talking about the Clemson/Notre Dame football game, Saturday.

Notre Dame wins 47-40 in double overtime!

What contest were **you** watching??

Saturday evening in South Bend, IN a battle of two college football titans occurred. Ranked number one and undefeated for two seasons, Clemson was sent packing. It was the Irish's first home win over a No. 1 team since the "Game of the Century" vs. top-ranked Florida State in 1993.



And just as in 1993, when the game ended the Fighting Irish fans stormed the field.



{1993. ND 31 vs #1FSU 24, attendance 59,075}



{2020. ND 47 vs #1Clemson 40, attendance 11,011, 2 OT}

It's what they do. Beat the champ, storm the field. Damn the torpedoes, full speed ahead.



It's SOP.

But 2020 isn't 1993. Things have changed.

Putting thousands of people in close, frenzied contact is no longer SOP.

The president (of Notre Dame) has chastised his student body for storming the field and demanded action

(<https://twitter.com/TMcFaddenWNDU/status/1325616921568481280/photo/1>). Note: He acquired COVID-19 at the White House super spreader event of Justice Barrett's nomination.

Now, in the midst of a global pandemic and case rates rocketing out of control across the country (and in our schools!), the risk has changed and the old SOPs are no longer valid, or safe.

And **there's a lesson here for us in the laboratory**. SOPs are dynamic. We change our behavior when risk makes the SOP unsafe; and we do things differently.

The most obvious example is on the Micro bench. Our SOP tells us to isolate growth and then put it into our automated system (MALDI-TOF) for identification, typically on the open bench. But sometimes we face risks in the procedure that cause us to change our SOP.

Fastidious, Gram-negative bugs should give us pause (like Burkholderia, Yersinia, Brucella, and Francisella). They alter and increase our risk of lab acquired infections (LAI). We adopt and implement a modified SOP for these higher risk organisms. Instead of the open bench, we use a biosafety cabinet; and forget MALDI, we send the specimen out to our Laboratory Reference Network (LRN) facility when we can't rule out a particular pathogen. We change the SOP based on a changed risk.

In this uncertain time of SARS-CoV2, new routes and escalations of risk must be kept present in our SOP understanding. Instead of a blind trust in the SOP and rote signatures at each review, we should evaluate our procedures and our situations for changes in risk that impact our work, our protocols, and our safety. The old SOP won't work; we must change our behaviors.

The risks identified with COVID-19 are requiring us to re-examine SOPs. We must mitigate exposures in new and novel ways. PPE requirements have changed. Specimen handling and testing paradigms are shifting. Instrumentation and workflow, disinfection and decontamination, and our basic understanding of risk assessment all deserve the careful scrutiny of a close touchdown call. The ball is in your hands. Is it time to review those SOPs?

Have a great week and be safe,

Bryan

p.s. Who's winning the battle of COVID-19 between Notre Dame and Clemson? Notre Dame has 1,208 cases on 12,600 students (10%) and Clemson has recorded 4,831 for 24,951 enrolled (20%). But what **you** really want ~ **BYU** (2472 of 35K = 7%), and **UTAH** (1322 of 33K = 4%)!

