Steve Server //

> "*The Hospital is the only proper College in which to rear a true disciple of Aesculapius*"
> Dr. John Abernethy

It had been a strange few days. I had been pulled from my original team in general neurology to join the stroke service for the sake of "social distancing." The neurology work room—which I had experienced in the previous month as a bustling, but warm site of learning and doing for all of neurology's inpatient services—was to be cleared out to everyone but the inpatient team. Other teams had been spread to small consultation rooms or break rooms.

On the morning of March 16, as I prepared for rounds, I saw a patient in a mask, his bed pushed by two nurses with eye shields and full PPE. I pressed myself against the wall to allow the bed to pass by, and went about my business.

At about 9 a.m., my attending and I were just beginning rounds, standing and waiting for an elevator. His pager went off. I was expecting us to have to scurry down to the ED to see a new stroke patient. He furrowed his brow, and squinted as he tried to make out the tiny, dark print of the pager. He raised his eyebrows, looked to me and said, "Well, guess the school will be sending you all home."

We walked to go see my patient, both in our thoughts, digesting the news.

As I was presenting my new patient, however, it was as though nothing was amiss. I went through his history, his imaging, his physical exam. My attending quizzed me on features of the patient's rare disease, known as Moya-Moya, smiling as he passionately taught the group about the disease. We examined the patient together, and he corrected me gently as we did the neurological exam. The doctor explained the implications of the patient's diagnosis: he was likely to need neurosurgery. The patient was overwhelmed and teared up. My attending comforted him with a hand on his shoulder as he reassured him that we would be with him every step of the way.

As soon as we left the peace of the patient's room, things moved quickly as I tried to set my educational affairs in order. I presented my patients, dropped off some papers in the neurology workroom, and then coordinated with my classmates. We had a quick concluding meeting with

the clerkship director. He wished us the best and sent us on our way. We grabbed our coats, caught an elevator, and stepped out into a grey, blustery afternoon.

As in many of life's domains, COVID has had a transformational effect on medical education. The vast majority of medical schools across the country have suspended clinical clerkships, meaning that the required rotations that medical students work their way through—psychiatry, surgery, OBGYN, internal medicine, pediatrics, etc.—have been paused. The AAMC has sent guidance regarding appropriate roles for medical students in the era of COVID. It is "strongly suggest[ed] that medical students not be involved in any direct patient care activities" in COVID hotspot areas, due to limited amounts of PPE and unnecessary exposure for students, people in their social circle, and patients themselves. Students should be invited to volunteer only if there is an unmet need that they can safely fill. The date for resumption of clerkships remains unclear, to be determined on a case-by-case basis. Students will need to complete these clerkships at some point—the AAMC requires medical students to have a certain minimum number of weeks of active patient care.

Until that time, schools have adapted by offering a virtualized curriculum. We have Zoom lectures regarding the virology, the epidemiology, the ethics of COVID. These are wonderful lectures from distinguished thinkers and clinicians. Medical students have volunteered their time sewing PPE, transporting food items to shelters, and doing phone triage for COVID+ patients. Between lectures and volunteer experience, we are learning important things about organizational management in the time of crisis, about clinical trials and drug development, and about telemedicine and triage.

But it really doesn't fulfill me in the way it does to take care of patients face-to-face.

Still, though it may seem inevitable that medical students have come to expect patient-centric education on the wards, this mode of medical education has not always been the norm. That today it seems common-sense speaks to just how thoroughly the concept of bedside teaching has come to form the intellectual and spiritual core of American medical education in the twentieth century.

Perhaps no figure is as responsible for this fact than Dr. William Osler. Osler, often referred to as the "Father of Modern Medicine," is frequently introduced to young medical students by means of his pithy aphorisms:

> "*Medicine is a science of uncertainty and an art of probability*"
> "*The good physician treats the disease; the great physician treats the patient who has the disease.*"
> "*Listen to your patient; he is telling you the diagnosis.*"

These quotes are fodder for welcome speeches and first-day-of-med-school slide decks, but few medical students know that virtually every aspect of the next 8 years of their medical education is dependent in large part on the efforts of Osler and his allies.

Osler completed his medical training at McGill in Montreal in 1872. After receiving his degree, Osler trained under famed pathologist Rudolf Virchow. After training under both the British and continental models of medical training, both of which were oriented toward physical examination as the best source of medical education, Osler likely developed his commitments as he spent some years as Chair of Clinical Medicine at University of Pennsylvania, a hospital less oriented toward bedside teaching than European counterparts. In general, at many American medical schools at the time, ward didactics, amphitheater lectures, or shadowing rounds were the most common mode of instruction. Students did not take an active role in the care of patients. While schools may have held bedside rounds as theoretically valuable, at many institutions, the administrative structures of hospitals simply made the practice of bedside teaching impossible. Hospital trustees were oriented principally toward satisfying the charitable aim of hospitals, rather than facilitating student involvement in care. This meant that students were at best a novelty and at worst a detriment to patient care.

In 1889, Osler had his chance to advocate for change. He was appointed the first Physician-in-Chief at Johns Hopkins Hospital. As part of his role in the hospital system—and pursuant to the bequest of Johns Hopkins himself, a Quaker businessman—Osler oversaw the establishment of the school's School of Medicine in 1893. Osler organized the new system to make bedside teaching an integral part of medical education. At the residency level, he established the practice of live-in training. In this model, residents lived in dormitories at the hospital and did the majority of patient care—this ultimately led to the moniker often applied to residents, "house staff." In 1896, at the level of undergraduate medical education (the technical name for medical school), Osler made his mark through the establishment of clinical clerkships for third- and fourth-year medical students. During their clerkship, medical students were intimately involved in patient care, taking histories, physical exams, and even laboratory analysis of blood and body fluids. Three days a week, students would present at bedside rounds to Dr. Osler himself, and this would serve as the major site for medical learning (Huddle and Ende). Osler was certainly not hostile to didactic education or laboratory investigation of disease. He just saw it as merely one component of the larger goal of training medical students: "He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all" (Osler 220).

In 1903, Osler offered a passionate articulation of his teaching philosophy in an address to the Academy of Medicine in New York titled "The Hospital as a College." In remarks inspired by the quote of famed English surgeon John Abernethy, Osler defended the introduction of medical students to the wards. Lectures and lab time were important supplements, but for Osler, it was "a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself" (Osler 332). This required a reformation of the hospital into a hospitable place for learners at all levels, into a place where students would feel as welcome as at a library or lecture hall. Indeed, having students in the hospital would not only not be a hindrance to high-quality care, it was a necessary component of offering high-quality care at all:

> *[Medical students] should be in the hospital as part of its equipment, as an essential part, without which the work cannot be of the best. They should be in it as the place in which alone*

> *they can learn the elements of their art and the lessons which will be of service to them when in practice for themselves. The hospital with students in its dispensaries and wards doubles its usefulness in a community. The stimulus of their presence neutralizes that clinical apathy certain, sooner or later, to best the man who makes lonely "rounds" with his house-physician (Osler 341).*

In 1905, Osler left Johns Hopkins for Oxford, and in his farewell address, he made clear what he viewed as his greatest legacy: "I desire no other epitaph … than the statement that I taught medical students in the wards, as I regard this as by far the most useful and important work I have been called upon to do." Osler died in December 1919, from lung hemorrhage, likely the result of debilitation by another pandemic, the Spanish flu.

Living through major historical events has a way of bringing into focus the things we truly value, the things we don't care to live without. Hours with friends at the local pub. Spontaneous games of basketball in the park. Broadway musicals. First kisses. The *sturm und drang* around us trains us to look ever more purposefully for the safe harbor.

For the last few years, as I have trained to become a physician, the hospital has been one of those ports in the storm: a site of openness and learning, of belonging and camaraderie. Over decades, physicians, administrators, residents, and medical students have labored mightily to cultivate a medicine like this, a medicine as Osler saw it, a medicine which vibrates with life and learning and loss and joy, a medicine in which doctors and patients share life's critical moments together. That intimacy is one of the delights of medicine practiced at the bedside, and every day, medical students come to the hospital to worship at this shrine to vitality, to learn how they too may one day be as fulfilled as their favorite residents and attendings, by caring for humans in need.

COVID threatens to take that from us. To see the hospital as a site of threat and forbidden knowledge has left me and many of my colleagues with a feeling of real loss. These days, most of our learning deals with the impersonal, the statistical. Pandemic conspires to anonymize our patients. It isn't easy to palpate life through epidemiological models and case reports, miles from the patient's bedside. It is easy to have some anxiety about the medicine that we will soon enter, and the type of medicine that we may need to practice in the future.

But rather than focus on these feelings of loss and anxiety, medical students may take this opportunity to reassert our commitment to the things that matter. It may take some effort, given the stresses we have day-to-day. But it is worth it to nourish ourselves with the spirit of bedside medicine as we help care for patients in our volunteer work and in our telehealth endeavors. We can celebrate in the fact that our attending physicians are committed to taking care of us, that they feel invested in our learning, and that they respect us enough to task us with projects they see as vital to patient care. We can take some solace in the fact that the camaraderie of the hospital as college is still with us—for the hospital is not just a building, but a community with shared values and a shared mission of caring for the sick.

That community stands together every day, social distancing or not.

References

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