An Intergenerational Reflection on the First Night on Call—*plus ça change, plus c'est la même chose? (The More Things Change, the More They Stay the Same?)*

Tazo S. Inui, MD
Thomas S. Inui, ScM, MD

Editor's note: This reflection was jointly authored by Tazo and Thomas Inui. Tazo is a first-year resident in the University of California, San Diego, surgery program. Thomas (Tazo's father) was an intern and resident in the Osler Medicine Service at Johns Hopkins Hospital. One generation apart, they recall their first night on call, noting differences and similarities.

1969, Baltimore, Maryland, Medicine Intern Thomas Inui

On the afternoon of Tuesday, June 30, 1969, I picked up my "whites" and presented myself to Osler 3, one of the internal medicine house staff services at the Johns Hopkins Hospital. My internship formally began later that day (12 midnight, July 1). That afternoon I read through some of the "off-service notes" written by the interns who were themselves about to become "JARs (junior assistant resident)." As I recall, one of them may even have served as a source of continuity for the Osler 3 service team, which included 2 JARs, 3 interns, and 3 students. By tradition our attending physician would go on rounds with the team 3 times a week, hearing about our patients as we "flipped the cards" in the doctor's office or did walking rounds. I stored my black bag (a gift from Eli Lilly) and the *Barnes Manual* (the Washington University handbook of inpatient medicine) on the shelf above the desk in Osler 3 (next to several vials of Ritalin someone had left behind), introduced myself to Amy (the Osler 3 charge nurse), and went home to my row house apartment 1 block behind Hopkins Hospital in the neighborhood where my new wife and I would live for the next several years while I completed training.

I returned to Osler 3 at midnight, and made rounds on my patients. Some time in the middle of the night I was urgently called to the emergency department to pick up my first admission. He was a man in his mid-50s who was described to me over the telephone as febrile, hypotensive, stuporous, with possible "polymicrobial sepsis," and Di Guglielmo syndrome, type 2. On the way down to the emergency department I looked at the *Barnes Manual* to see if I could find any mention of this syndrome but found none. In the emergency department I was told by the admitting resident that it was "some kind of myelodysplastic condition." Having no real clue what this meant, I met my patient, who was semistuporous with a low blood pressure, on the gurney. He had various purpuric lesions, no nuchal rigidity, and came with a thick chart that told me he had been taking prednisone. The admitting resident said they had "Gram stained" his blood smear and thought there might be both gram-positive and gram-negative organisms on the slide. His Wright stain blood smear showed immature-looking white cells. I do not recall his complete blood count. I remember that we did our own laboratory work in the rudimentary facility that each Osler floor hosted at the end of the entrance hallway.

Honestly frightened by how sick this patient was, I admitted him to a bed just across the hall from the nursing station (the priority arrangement that served as an intensive care unit [ICU] in those days). Calling my resident, who was at home, we developed a plan for a lumbar puncture (atraumatic and clear), chest x-ray, urinalysis, blood cultures, stress-level steroids, pushing normal saline, and broad antibiotic coverage for sepsis. In those days we used a regimen short-handed as "KKK" (an acronym I never fully understood because it referred to kanamycin, Keflex, and colistin: KKC?).

The patient somehow survived the night. The patient was seen by the attending physician the next morning, who elaborated on the differential diagnosis of polymicrobial sepsis (a phenomenon I recall as one associated with visceral abscesses that erode into an intravascular space). I remember being interested in the differential diagnosis, although I was confused by how it might apply to this particular case. There was also a discussion of how exogenous steroids were metabolized, in what form they were active, and the advantages/disadvantages of methylprednisolone. The attending physician asked about the blood cultures, which I knew were "cooking but negative." I wondered whether I had somehow mismanaged the patient. Not much was said about Di Guglielmo syndrome, type 2.

The patient died several weeks later, partially of renal failure. Years later I believe it was suggested that the KKK

Tazo S. Inui, MD, is a first-year surgery resident at the University of California, San Diego; **Thomas S. Inui, ScM, MD,** is President and Chief Executive Officer of the Regenstrief Institute for Health Care, the Sam Regenstrief Professor of Health Services Research, and Associate Dean for Health Care Research at Indiana University School of Medicine.

Corresponding author: Thomas S. Inui, ScM, MD, Regenstrief Institute, 1050 Wishard Blvd RG6, Indianapolis, IN 46202, tinui@iupui.edu

DOI: 10.4300/JGME-D-10-00004.1

regimen, compared with other antibiotics for sepsis, was associated with excess morbidity (mainly renal failure) and mortality.

In retrospect I would describe my first night on call as lightly supervised, sobering, a little daunting, and of significant educational value. I cemented my general "sepsis" workup, decided that Gram stains of blood smears were full of artifacts, refined my gestalt for "sick as hell," identified several conventional therapeutic approaches (for better or worse), learned a little more about drug kinetics and metabolism, and saw the one and only patient I've ever cared for with Di Guglielmo syndrome. I admitted several other patients, didn't sleep much, but passed on the Ritalin. It was a rich experience.

2009, San Diego, California, Surgery Intern Tazo Inui

My first overnight call was on the July 4th weekend. I remember being grateful that I wasn't on call the first night of my internship, giving me a couple of days to get acquainted with my service and hospital. On the big day itself, I deposited my bag in the on-call room, collected sign-out sheets from the other services I was cross-covering, and heard about their patients just after noon. It was a holiday and everyone was signing out early. Suddenly, I was the only surgery intern in the hospital, with my chief resident a phone call away if I wanted her. She emphasized that I should call her early and often. After sign-out, I put on my white coat and walked around to see some of the patients who I had met only on paper, wanting to identify them in the event that I was called about them later. Most of the night was quiet. There were consults to lance abscesses (including in the emergency department and the psych ward), a gentleman urinating blood, and requests to renew pain medications, but for the most part my evening was free of excitement. At around 3 o'clock in the morning, I sent my student to bed and decided to take one last walk around the hospital to see patients before getting a little sleep; rounds would start in a couple of hours.

My first stop was in the intermediate care unit to see a patient on the general surgery service (my own). He was a man in his 80s who had been admitted for an anastomotic leak from an endoscopic colon resection for diverticulitis 2 weeks earlier. The resulting abscess had been drained percutaneously. He also had moderately advanced Parkinsonism with a significant tremor. When I saw him earlier in the evening he had been eating dinner and looked cheerful. At 3:30 AM, I found him lying quite still in bed. The nurses were giving him a sponge bath, but he seemed unresponsive. To my "He doesn't look very good," they said, "Oh, he does that when we bathe him." He clearly looked ill, so I asked for a set of vital signs. When his systolic pressure flashed on the screen at 70 mm Hg, I knew that he was really sick and I was behind in treating him. The next few hours are something of a blur. I remember starting him on broad-spectrum antibiotics, giving him fluid, and contemplating how I was going to tell my chief that our previously stable patient was now quite ill.

After about an hour of waiting for intravenous fluids to take effect but seeing no change in his blood pressure and seeing him develop a significant fever, I decided to move him to the ICU where he could be better monitored. At that point I started calling my chief resident and the attending physician who was covering the service to inform them that their intern (with 3 days' experience) was moving one of their patients to the ICU. It was 4:30 AM, getting close to time for rounds and the arrival of more experience. My actual service chief had his pager turned off because he wasn't yet on call. I remember thinking he would want me to talk with the on-call chief, but also that he wanted to hear if anything happened on our service. I didn't know how to officially transfer a patient, but Marty, the ICU clerk (hearing about how sick my patient was), was helpful: "I tell you what: roll him onto a gurney, push him over here, and we'll admit him!"

The patient lived another 24 hours before dying. We watched him through the morning to see whether he was going to completely decompensate and die, or if he could turn a corner and come back. After extensive discussions, his children and wife decided they didn't want him to go back to the operating room for an exploratory laparotomy, saying that he had lived long enough and would not want another operation, even if it might be life-saving. It was difficult to hear them refuse a potentially curative operation, although I'm not sure it was the wrong decision.

As presented at the morbidity and mortality conference later, the autopsy findings suggested that a flushing of the patient's intra-abdominal drain early in the day of my night call might have further contaminated his peritoneum, triggering his crisis. In terms of his management it's hard to say what I should have done differently. I spent the next day wondering if I was going to be fired. I felt as if I had killed this patient by not doing enough. With a little bit of time and perspective, I now think I did most of the right things in roughly the right order, but it was clearly a significant early—and humbling—experience.

I took at least 2 lessons away from this experience. First, it's possible to have a patient who seems stable become desperately ill in a matter of hours. It might be that a patient's underlying comorbidities are more important than how he or she looks at any given moment. I didn't recognize that my patient was, at baseline, a very frail guy. His eating dinner at 8 PM didn't mean that he couldn't "crash" at 3 AM; when he had exhausted his physiologic reserve, he decompensated in very short order. Next, there is no substitute for walking and looking at one's patients. As it happened, I never got called about my patient becoming desperately ill. I did get a call about 2 hours before he decompensated, requesting a renewal of pain medications. In retrospect, this might have been a warning sign, but at the time it didn't sound like one. Now when I'm called about

pain in the middle of the night, I'm reminded of this first patient and I take a walk to see for myself.

Plus ça change

Separated by 40 years, internship circumstances are notably different. On-call and admitting nights were 2 of every 3 days for the elder Inui, and are 1 in every 4 days for the younger Inui. There were no work-hour caps in 1969, but the cross-coverage case load was lighter and handoffs fewer. Weekly hours of sleep were fewer, but naps during on-call periods were possible. Intensive care units made their appearance in 1969. Attending physicians in 1969 were teaching physicians (''visits'') who focused their comments on their domains of expertise and were not the physicians of record for patients on the ''resident service.'' House staff don't do their own laboratory work today (or invent nonstandard diagnostic technologies). The elder Inui had a home base on a hospital floor, and the younger Inui had only a shared on-call room. Charge nurses were known by name and were part of the house staff work team. Gifts from industry were simply part of the fabric of house staff and student life.

Plus c'est la même chose

Even across medical disciplines and generations, we think the similarities are noteworthy. Personal responsibility for seriously ill patients is the crucible experience in residency training. Bedside experience (*seeing* patients) feeds clinical judgment. The supervision of an attending physician is important, but having a senior resident is more likely to relieve night terrors in real time. Tiredness is a way of life. Ritalin may have gone away but Provigil has made its appearance. Most people eschew both. ''Losing'' a patient is a deeply felt and very personal experience—and one that lingers, perhaps for decades. Autopsies and team discussions on attending rounds are important to the left brain but don't heal the intern's heart. Unit secretaries still know everything.