

# International Education Issues: Practicing and teaching international neurology The Krakow experience



Chad Heatwole, MD

Address correspondence and reprint requests to Dr. Chad Heatwole, The University of Rochester, 174 Edgemont Rd., Rochester, NY 14620  
chad\_heatwole@  
urmc.rochester.edu

In the heart of Krakow sits the Klinika Neurologiczna. As part of the School of Medicine of Jagiellonian University in Poland, this building serves as a center for the care of patients with neurologic diseases and as a facility to train medical students. Within the Klinika is Babinski Hall. Named for the renowned Polish neurologist Dr. Joseph Babinski (1857–1932), this lecture hall provides students with a location to learn from their peers, instructors, and patients. Within a short walk of Babinski Hall are several reminders of the city's rich history. Wawel Castle sits on a hill overlooking the Wisła River, nestled closely against one of Poland's national cathedrals. Giant bones reported to be those of the city's ancient dragon lie anchored to the cathedral with metal shackles. Legend claims that as long as these bones exist, so will the cathedral.

Jagiellonian University, established in 1634, is the second oldest University in central Europe. Copernicus trained there, as did Pope John Paul II before he became Pope. The historic St. Mary's Basilica still towers over the famous Rynek Główny, one of the largest marketplace squares in Europe. On a typical day, the square is packed with tourists, businessmen, and locals. Some saunter across the stone pavement, while others relax over a meal and drink. St. Mary's Basilica provides a unique musical experience for those nearby. On the hour, every hour, a lone trumpeter plays an unfinished tune (the hejnał) from each of the four corners of the Basilica's highest tower. The tune is always stopped abruptly at the same point to commemorate the original trumpeter who took an arrow in the throat while attempting to warn the town of a pending Mongol attack.

In the spring of 2005, Dr. David Gill, Dr. Ralph Józefowicz, and I were invited to Krakow to help instruct and train students at the Jagiellonian University School of Medicine. This opportunity, originally developed through Dr. Józefowicz's efforts, is offered once a year to Uni-

versity of Rochester chief neurology residents and is funded by both universities. At the time, I was a father of a 3 month old and considered declining the offer because of the added complications of traveling with a young child. In the end, I accepted the offer, and I have never regretted my decision.

Babinski Hall is different from most American lecture halls. On one side of the steep auditorium is a wall of windows. In the spring months, these windows provide a pleasant view of blossoming maple trees from the clinic's courtyard. Within the hall, students take notes behind a series of long wooden desks. The acoustics and layout are excellent. A lecture can be seen and heard from any point on the presenting stage without the use of a microphone. An old sign with Babinski's name hangs over the main entrance. In direct contrast to the aged wooden desks, the room has been modified and modernized with a video projector and laptop computer to assist with didactic presentations.

Some of the medical students at Jagiellonian University have spent their entire lives in Poland, whereas others transferred in from other countries to learn medicine. Despite being a Polish school, all classes are taught in English. On the whole, the students are diligent, bright, conscientious and show a high degree of collegiality.

The Polish medical student's involvement in patient care is different than in the United States. During my own medical school training, I often found myself rounding on, writing notes for, and prescribing medication for more than 10 patients at a time (although admittedly this number seems to get larger the further I get away from my own medical school training). At the Klinika, medical students typically do not write notes in patients' charts and often do not round with the primary resident and attending team that is directly taking care of the patients. As students, they are allowed to examine patients and take histories but often are not present during many management discus-

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Saint Mary's Basilica



Dr. Chad Heatwole at Babinski Hall



sions. As an alternative way of education, students are expected to learn from their patients via attending teaching conferences. During these conferences, medical students are asked to consent and bring their patients directly to Babinski Hall.

In Babinski Hall, students present a patient's medical history to their teaching attending and to the rest of their class. As the teaching physician, I enjoyed this experience. I would introduce myself to the patient and then obtain a history through a Polish interpreter. At the completion of the interview, I would perform a complete neurologic examination for the students while pointing out critical examination features. After discussions with the patient and the class, each volunteer was taken back to his or her own hospital bed. In addition, each primary medical team would be notified of the insights provided by the evaluation.

The neurologic cases were similar to what we see in the United States. While there, I examined patients with multiple sclerosis, seizures, stroke, and encephalopathy. In a more unusual case, I identified pyridoxine toxicity in a young woman who presented with a sensory neuronopathy.

Initially, I thought that many Polish patients would refuse to participate in the "teaching theater" because of the degree of exposure that it required. Not only did patients participate, but they often expressed their gratitude for the added in-

sight into their disease and for being able to assist in student education. In cases in which a patient was too ill to leave his or her bed, I would implement traditional bedside teaching with smaller groups. Both methods of teaching were equally well received by the students.

While in Poland, I also had the opportunity to lead neurology case discussion groups and give four 1-hour didactic lectures on the topics of primary brain neoplasm, status epilepticus, cerebral infarction management, and subarachnoid hemorrhage. During the medical students' neurology rotation, they received two to three didactic lectures a day, followed by patient and small group discussions.

Despite cultural and language differences, it was relatively easy to teach neurology in Poland. As a focus of my own residency, I had previously instructed medical students, given case presentations during neurology grand rounds, and given neuromuscular lectures to our faculty. I found that this background prepared me well to teach the Krakow students.

Clinically, the limitations in accessing select imaging studies and tests were easily compensated for by relying on neurologic fundamentals: a good history, a thorough examination, and a logical thought process. These fundamentals re-

main essential in the art of neurology, irrespective of the country in which a physician practices.

Overall, my international teaching experience was invaluable. The time spent evaluating Polish patients and training Polish medical students helped me garner a greater appreciation for international neurology. After one month, I felt that I had improved my skills as a neurologist. Specifically, during that time, I was able to focus on my clinical history and neurologic examination skills in isolation from an abundance of ancillary testing.

Since returning from Krakow, I have found that I rely more on clinical fundamentals and less on ancillary testing. Practicing and teaching neurology in Krakow not only helped sharpen my clinical skills and teaching techniques but also gave me a greater appreciation of the global efforts against neurologic disease. The international neurology experience may be one of the better ways to personally experience these benefits. It is likely that even Joseph Babinski would have agreed.

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