Out of Date™

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What, you ask, is OutOfDate™?

It's a new computer-based instruction system I'm developing. It will revolutionize medical education. It could be as big as UpToDate™ and make me millions.

UpToDate™ is the pinnacle of evidence-based medicine. OutOfDate™ will be the pinnacle of ignorance-based medicine. OutOfDate™ will have everything I have learned in the last 35 years, much of it not only out of date but also totally wrong.

I have been toying with OutOfDate™ for some time but my month of attending on a general medicine ward this year inspired me to go forward.

I am a good attending, but there is an incredible amount I don't know and don't have time to learn. During attending rounds, I need bolstering and will ask the house staff to check up on what I say on ePocrates, MD Consult, or, of course, UpToDate™.

My recent stint as an attending got off to a rocky bad when I was presented an old man with pneumonia. I was sitting with the students and house staff in a workroom with four computer terminals. As an intern named Brian recited the 20 drugs the patient was receiving, I realized that I didn't recognize half the names.

"What's Aztreonam?" I asked uncertainly.

Brian, an earnest young man with short, cropped hair, said, "It's an antibiotic."

I sighed, glum. "Oh, what's it used for?"

Quickly, Tom the medical student had his PDA perform its magic. After inscribing some hieroglyphs, he looked at the little screen and rattled off everything you would want to know about Aztreonam.

A medical student named Alicia presented the next case. Alicia was energetic and pert with long brown hair. The patient, who had AIDS, had been admitted with shortness of breath. While Alicia gave the history, the patient, a thin black man with murky eyes, stared blankly at the TV that flickered above him.

I questioned the patient for a minute or two, listened to his lungs and then we all went back the workroom.

After the debacle with Aztreonam, I wanted a success with the team. Shortness of breath in AIDS is a slam-dunk for an attending, and I used the Socratic method to guide Alicia through the differential.

"So, Alicia, what do you think about when a patient with AIDS comes in with shortness of breath?" I asked as I crossed my arms and relaxed in my chair.

It was a crisp January day and light streamed in from the window that framed a brilliant blue sky.

"A PE," Alicia said, her voice clear.

"Good, what else?"

"CHF."

"Go on."

Alicia paused, as her eyes tightened in concentration.

"I'm blanking," she said, the stress of a clerkship stalling her memory.

"How about pneumonia?" I said, helpfully.

"Right," Alicia said.

"What organism?"

"*Pneumocystis*," Alicia said quickly, smiling and relieved.

"And what is *Pneumocystis*?" I asked, sure I was on solid ground.

Alicia's face darkened and there was a tremble in her mouth. She paused and blurted out, "A gram negative."

I was disappointed for Alicia, no doubt confused after staying up late drawing blood cultures and putting down tubes.

"No, Alicia," I said. "It's a protozoan."

As I was about to hold forth on lung whiteouts and silver stains, I saw the resident Cathy roll her eyes. Cathy is a hearty woman with a round face and an ingratiating smile.

Cathy shook her head and made a slight grimace. "Uh, Dr. Pisetsky, *Pneumocystis* is a fungus, not a protozoan."

"Since when?" I asked, my voice shaky.

"There were some genetic studies showing its true identity."

"That's right," Alicia said. "We learned about it in Micro." Her eyes lit up as she recovered from her own setback on genus and species.

"It can't be," I said. For 35 years, *Pneumocystis* had been a protozoan to me. How could it now be a fungus? I was shocked.

Cathy logged onto UpToDate™ while Tom pulled out his PDA. Within seconds, the verdict was clear. I was wrong again, the victim of an exploding literature. My misclassification of *Pneumocystis* was a further blow to credibility already damaged by the plaintive query about Azteonam.

For the next weeks, I worked harder than ever before as an attending, fearful about being wrong on rounds again. I logged onto UpToDate™ and Medline like a fiend.

Despite downloading every piece of evidence in sight, I became dissatisfied with my rounding. Shorn of my experience, I was parroting studies that had no context for me. In my efforts to be up to date, I was teaching from reading and not what I knew.

Although my memory is extraordinary, it is dwarfed by the gigabytes the students carry in their pockets, and I could never compete with UpToDate™. I decided then to be out of date and tell the students what 35 years as a doctor had taught me.

My rounds morphed and were filled with philosophy and reminiscence.

I told my team how, before the Medicare program, we didn't dialyze diabetics because the risks were thought too high. I described giving the bad news to a blind man with uremic frost crusting his lips. Because he didn't qualify for an artificial kidney, I told him to try black coffee to stave off nausea. I told them about coronary disease before surgery and caths, how nitroglycerin was the only med and morphine addiction was an endgame of intractable pain.

On Martin Luther King Day, we talked about the Freedom Rides, sit-ins at Woolworth's, and suspicions black patients can have about white doctors.

I became rejuvenated as I navigated my team through an era that had, for them, been a blank. I was convinced that what I was teaching had value even it was not up to date. I wondered how my students would learn this history if I were not there.

How would they find about "MOSTAMP"? MOSTAMP is the mnemonic for the old standby treatment of pulmonary edema. It stands for "morphine, oxygen, sitting up, tourniquets, aminophylline, mercuhydrin, and phlebotomy." Mnemonics are a thing of a past because, with a computer, you do not have to remember anything. When I trained in the 1970s, everything had to be memorized. If you forgot how to treat patients in the middle of night, you were doomed and so was the patient.

Thinking about MOSTAMP, I remembered how, at 3:00 in the morning in a treatment room with drab yellow walls, I rescued a lady from pulmonary edema. Bloody froth bubbled from her mouth even as I cranked up the pressure on big cuffs that squeezed her arms and legs. Desperate, I put a large bore needle in her arm and sucked off a unit of thick maroon blood. As her breathing quieted, I felt proud to bring her in for a smooth landing without intubation.

Is phlebotomy in UpToDate™, or has it too been confined to the heap along with reserpine, phenylbutazone, and other bypassed remedies once touted as breakthroughs?

Would UpToDate™ tell the students about the saddest disease to cure? When I was an intern, I rounded with a senior attending whose career in medicine had gone better than his personal life. Divorced, he lived alone although he liked to chat up the women house officers, who numbered less than ten.

On rounds, we presented him a young girl with Graves' disease. We went to the bedside where a freckled teenager glowed with metabolic heat. Her cheeks were red and her eyes bulged and she spoke fast, giggling, flirting with the attending and he perked up and stood taller. Back in the conference room, the attending, who had tired eyes and a gray face, told us how sad it was to treat hyperthyroidism.

"Look at the wonderful girl," he said, almost wistful. "She's so alive and exciting now. Give her PTU, she will be dull and fat." Now that I am almost his age, I know what he was trying to say.

OutOfDate™ will have it all. Everything I have learned—arcane and quaint, right and wrong, from doing your own CSF cell count to measuring the CVP with a water manometer. There'll be old editions of textbooks and links to articles that have been discredited, debunked, and discarded. A simple mouse click will give access to the Vineberg procedure for angina, stomach freezing for ulcers, and lobotomies for psychosis.

My program will be filled with dogma, anecdotes, and outdated truths that should be savored before they are forever trashed. It will have ideas politically correct and incorrect, although political correctness may be hard to find since it didn't exist when I trained, and rounds could be a time of revelation and confession by sorry old men.

I hope OutOfDate™ will be a success. It will be great education because its content will be unique. What other medical source will have this wisdom: Learn from the past, thank God for progress, and be humble, because what's up to date today will be out of date tomorrow?

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