

dear residents

The Quiet Warming of Modern Medicine

November 23, 2025

Dear Residents,

Growing up in Pakistan, environmental concerns hadn't reached my consciousness until I was in high school when I read [Rachel Carson's](#) now-seminal *Silent Spring*, the book that revealed how profoundly and quietly humankind was polluting the natural world. With all the idealism of youth, I proudly announced to my family that, like Rachel Carson, I was going to become a marine biologist and help save the planet. I remember my father listening patiently before saying something along the lines of, "Nice try... but you are going to medical school." I tried recruiting allies, appealing my case, but the outcome was predetermined. Bottom line: I enrolled in medical school.

The themes of *Silent Spring* have always stayed with me: small actions that seem inconsequential, accumulating into larger forces that transform the world. We saw a striking example of this during the **early months of the COVID-19 pandemic** when human movement abruptly slowed. For a brief moment, the air cleared over cities long shrouded in smog, carbon emissions dipped, wildlife reappeared in unexpected places, and satellite images showed the planet exhaling. No global treaty had been signed. No massive technological breakthrough had occurred. The environment improved simply because billions of tiny, everyday actions like commutes, flights, errands, and industrial activity were paused. It was a vivid demonstration that when small behaviors change in aggregate, the world can look entirely different.

Medicine has its own version of this phenomenon: **academic warming**.

Each of us contributes our own "molecules of heat" into the clinical ecosystem, an extra imaging study "just in case," a reflexively ordered test, a consult filed more out of habit than necessity. Individually, these choices feel insignificant. But collectively, they warm the academic climate: higher costs, more false positives, more downstream testing, longer lengths of stay, and greater burdens on the people doing the work. As with the planet, it is not the dramatic actions that drive most of the temperature rise. It is the quiet accumulation of small decisions.

What is fascinating is how often this warming is not the result of bias, our predictable tendencies, but something subtler: noise. **Daniel Kahneman's** [Noise](#) reminds us that unwanted variability in judgment drives a huge amount of inefficiency. Two clinicians might make very different choices for identical patients. The same clinician might make different choices depending on time of day, fatigue, or prior cases. This scatter, this noise, flakes off small increments of energy into the system. Over time, the system overheats.

Order sets illustrate this tension clearly. They were created as a form of decision hygiene, a way to ensure completeness and avoid catastrophic misses, the minimax principle in action. But when panels become

automatic rather than thoughtful, they behave like leaving all the lights on simply because the switch is easy to flip. They may reduce bias, but they can also create noise of their own, including variability in when and how they are used and a tendency to generate cascades of low-value follow-up.

We see this most clearly in the way we sometimes approach diagnostic panels. A patient with uveitis arrives, and even when the underlying diagnosis is already evident, it is tempting to order the entire uveitis panel, including ANA, ANCA, RPR, HLA-B27, RF, CCP, HIV, and others, simply because it exists. The same pattern holds for the familiar anemia panel that bundles iron studies, B12, folate, and a hemolysis workup, even when the clinical picture points strongly in one direction. These panels were created to help us avoid the rare but serious “do not miss” conditions that keep clinicians awake at night. Yet if we paused and were intentional, we would often realize that only a few carefully chosen tests are required, not the entire menu. The worry that drives us to order everything at once is understandable, but thoughtful selection can serve the patient just as well, and often better, while reducing noise in the system.

High-value care, then, becomes not an exercise in denial but an act of stewardship. It asks us to recognize that we practice within a shared ecosystem. Our decisions, small and large, ripple outward. To cool the system, we do not need dramatic sacrifices. We simply need to be intentional about our thresholds, our order sets, our consults, our reasoning, and our noise.

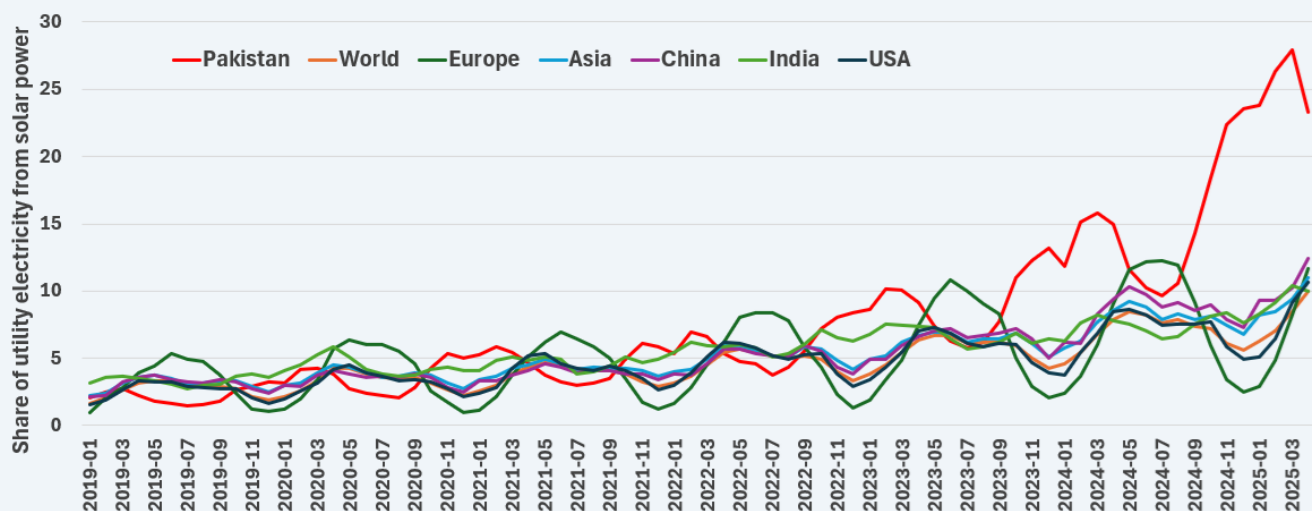
If we take a lesson from the early pandemic, imagine what would happen if we drew blood every other day rather than daily for stable patients. We could reduce overall lab use by a significant amount, lowering costs and reducing iatrogenic anemia, all while maintaining high-quality care.

I realize that I haven’t contributed much to anything personally but was pleased to see that Pakistan now has the fastest growth of solar energy than most other nations. That’s a welcome move to improve the environment of a country that has witnessed deforestation and glacial melt with catastrophic flooding. If they can do it, I know that we can too!

Widening lead:

Pakistan has sourced 25% of its utility electricity from solar this year, far above most other countries & regions

Solar power's share of electricity generation by select country & region



Source: Ember; 2025 data for January through April

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Thank you, as always, for your dedication to thoughtful, conscientious care. You remain the best stewards of the clinical and academic climate we inhabit together.

Dino Kazi