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Dear Me,

I am you, writing from the year 2062 to share some advice and give you a glimpse of the future of urology. Even as an intern, I know you're always thinking about "the next big thing" in urology. I also understand your feeling that the world is passing you by while you're in residency. Don't worry. As an attending, you'll catch up quickly and have a strong foundation from which to contribute. For now, focus on being the best urologist you can be. The rest will follow, I promise. You chose a great field. Here are some of the amazing things you have to look forward to.

By 2035, the robotic approach will become the gold standard for major urologic surgeries: prostatectomies, cystectomies, nephrectomies, and upper tract reconstruction. Transplantation will also be done robotically with lab grown kidneys, bladders, and ureters. Each surgeon's volume, outcomes, and complications will be publicly available. This data will be of tremendous benefit to our patients, but at the cost of society holding us to a higher standard. No matter, your generation will meet the challenge and become better surgeons because of it. However, a consequence of this transparency is that major surgeries will be funneled to a small, select group of surgeons at each state's "medical centers of excellence". Despite this, the volume of oncologic surgeries will decline throughout the years due to breakthroughs in targeted medical therapy. Surgeons who engage with new technologies and techniques will wield significant advantages as the outcomes improve and patient preferences change. You would be wise to stay within arm's reach of the cutting edge.

Within the operating room, the robotic surgeon's console and patient cart will become more compact and portable. Combined with new advances in wireless technology, robotic surgeries will not only be performed across continents, but also in space. Bed-siding robotic cases will no longer be necessary as any robotic instrument you could need will rotate along a barrel and can self-sanitize. Very soon you will never need to switch out an arm ever again. For cystoscopy and ureteroscopy, gone are the days of bulky light and camera cables as these features will be built into the endoscopes. Gone are the days of sore calves and cramped arms as endoscopic procedures will be done sitting down once the endoscopes are inserted and docked in place. The camera feed will sync to each surgeon's augmented reality headset. Augmented reality will allow us to view key patient metrics, identify anatomic structures such as nerves and vasculature, and provide MRI-guided navigation. With these tools at our disposal, urologic procedures will not only be faster and safer, but also lead to better outcomes for our patients.

In the next two decades you will be part of an exciting leap forward for the field of urology. Keep an open mind. Ignore the naysayers. Learn something new every day. And remember, whatever you do, do for your patients. Good luck.

– Larry Hou