When Old Math Meets New Math

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Two score and 2 years ago, I set forth onto the wards following my basic science foundation. "Rounds" started at 9:00 AM with our team that included the service attending, senior resident, 2 interns, and a few of us short-coated, pockets-full students. Cases were presented outside the patients' rooms by a team member, interviewed and examined with the attending, and then discussed as to our problem list, assessment, and plan. As I recall, this took a range of 25 to 45 minutes per new patient and 5 to 20 minutes per established patient. I continued this process when I joined the faculty after residency and fellowship 7 years later. On a semiannual basis for the next 34 years I would keep track of the time it took to round on new and established patients over a random 1-week interval while I was on "service" with a team. The team members have changed very little, while the rules for an inpatient internal medicine service have changed drastically. During this interval such concepts as "caps" on number of service patients and admissions per call, continuous service hours limitations, mandatory days out of the hospital, and night and day float have all been invoked. What was very clear was that the rules were not going away, and that my old math was no longer going to work. But that was OK—we would adapt, forge on, and continue to win the battle against time.

I have no clue as to why I kept track of these numbers; I just did. The numbers kept piling up in my desk until this past year when I decided to look them over. I guess that is what seniors do; they look back. It was startling to see how little they have changed (TABLE).

I always start service by determining the team's expectations and goals. They have not changed across 4 decades, with the top 5 requests to (1) learn a lot; (2) spend more time with the physical exam; (3) learn ECGs; (4) review imaging studies; and (5) have the opportunity to present their literature review regarding patients on service. Rarely has anyone wanted to perform table rounds, present about patients without doing a bedside interview and examination, skip the ECG and imaging, or not review the literature.

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I honestly do not remember rounding for 6½ hours during my first decade. More than likely it is either my dementia setting in or it was not something that mattered. What mattered was learning our profession. I do remember rounding as a resident on Heme-Onc with one of my many role models on more than 25 patients until well after dinner. I would not trade that experience for any amount of money and yet I would not wish that on my current students. That was then and this is now. My era seemed to be silent learners, observing and taking away pearls to be used at another time. Today, learners are doers, in the moment, right now. They do not need to see me examine the jugular venous pressures or find the PMI repeatedly. They need to do it while I watch. I slowly evolved from the doer on rounds to the observer. That required me to spend extra time ideally before rounds or after to confirm and fine-tune the findings.

The biggest change has been my contact time with the team. Rounds went from "as long as it takes" to an anticipated duration anywhere from 90 to 180 minutes. Thus, my daily rounds that have averaged more than 4 hours spanning 4 decades do not fit into the equation because, no matter whether I use old math or new math, 240 is always greater than 90 to 180. This has presented a challenge that has required an adaptation (of sorts).

So, how do you make more than 240 minutes of time fit into a window half that size? I do not know. I look at the list of patients, calculate the time needed, and scratch my head. Using my 34-year-old data, in 120 minutes, I can see a combination of the following: 3 new or 8 established patients or 2 new + 3 established patients. What that means is that I will round on an average of less than 50% of the patients on service—not acceptable!

This collision of old and new math has created compromised math. My thoughts:

- Always break for conferences. They are the juicy little morsels of our education.
- Preround on my own for most of the established patients. This challenges the residents to know the case details, as they do not want the old man to know something they don't.
- Allow for full presentation of all new patients using the old math concept with the

TABLE
Rounding Details for New and Established Patients Over 4 Decades

Years	No. New/Wk	New Min	No. Est/Wk	Est Min	Total Time, Min	Hours/Wk	Hours/Day
0–10	41	34	84	16	2738	45.6	6.5
11–20	33	32	72	14	2064	34.4	4.9
21–30	25	38	66	14	1874	31.2	4.4
31–35	24	31	61	15	1659	27.7	4.0
Average		33.8		14.8		34.7	4.95

understanding that if there are 3 new and 7 established patients, rounds will take $(34 \times 3) + (6 \times 15) = 182$ minutes. Education mandates this (or at least my mandate from my professors, patients, and my mother). This is also how I make sure the flock stays together and no one is drifting off.

- Know the specifics of your team. Post-call might not involve an overnight stay; thus, post call may not be the same as it used to be. A post-call day might even be longer since all the action occurs then: new presentations to be heard, plans to be made, and outcomes to review.
- Allow time-outs on rounds. For a team of 5, a 10- to 20-minute break can produce 50 to 100 minutes of literature review to enhance everyone's learning and patient care.
- Always look at your patients' images and ECGs and make field trips to visit your friendly radiologist. (I think they are lonely.)

Accept the fact that some days are just going to take longer than others, but no cutting corners. Our job is to pay it forward from our mentors to the next generation.

As I head into what is likely my final decade in this wonderful profession, I am grateful for where I have been, where I am, and for all those students, residents, and fellows who have not reported me to the authorities for exceeding time limit.

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