

our personal use of screening examinations with our professional recommendations to our patients.

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Trimethoprim-Sulfamethoxazole-Induced Hypoglycemia

To the Editor: As a geriatrician I would like to comment on a statement in the brief report by Mathews et al.¹ Specifically, the authors state: "Creatine clearance can be estimated easily and *accurately* [emphasis added] using this formula: $(140 - \text{age})(\text{weight in kg})(0.85 \text{ for women}) / 72(\text{serum creatinine in mg/dL})$."

The Cockcroft-Gault equation (above) is probably the most frequently used equation to estimate creatinine clearance and is certainly one of the simpler and easier equations to apply in practice.

The accuracy of the Cockcroft-Gault equation in predicting creatinine clearance in the elderly, however, is still being debated, not only for the extremes of age and when multiple comorbidities are present, but also for the healthy elderly. In the elderly, when values obtained from the Cockcroft-Gault equation are compared with actual measured creatinine clearance rates, the creatinine clearance is often meaningfully different from what the Cockcroft-Gault equation would predict. The Cockcroft-Gault equation should therefore be considered for what it is—a quick clinical guesstimate. In the studies, when lines are plotted using statistical methods, nice equations are generated for clinical estimation of creatinine clearance in the population. When one looks at the actual plots and scatter, however, there is considerable individual variation. For example, in the Fliser et al study,² elderly patients with measured 24-hour creatinine clearance rates of about 40 mL/min had predictions by the Cockcroft-Gault equation ranging from about 40–120 mL/min. Conversely, elderly patients whose Cockcroft-Gault equation predicted a creatinine clearance of 40 mL/min had actual 24-hour creatinine clearance values ranging from less than 10 mL/min to more than 60 mL/min.

Although the Cockcroft-Gault equation is still useful to obtain a ballpark estimate, when a true assessment of creatinine clearance is important for an individual patient, a 12- or 24-hour urine collection is still the preferred measure of renal function. The MacArthur Foundation Study of Successful Aging, in their evaluation of this issue, studied 15 equations (including the Cockcroft-Gault equation) for potential use in estimating creatinine clearance accurately in the elderly.³ To quote their findings and conclusions:

Most equations underestimated creatinine clearance, with average bias ranging from -33.1 mL/min to $+19.6$ mL/min. . . . Equations were variable in their erroneous placement of individuals into renal function categories. Regression modeling . . . failed to provide better estimates of creatinine clearance than those already available. . . . The equations eval-

uated here provide unacceptable predictions of creatinine clearance in normally aging individuals. We advocate the use of serum drug concentration measurements when available and encourage investigation into timed urine collections of short duration as alternatives to clearance-estimating equations in the elderly.

Of course, the authors' major point, that considering age-related changes in renal function when determining drug dosages, remains unchallenged. My caveat is to be wary of the quick estimates.

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References

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2. Fliser D, Bischoff I, Hanses A, et al. Renal handling of drugs in the healthy elderly. Creatinine clearance underestimates renal function and pharmacokinetics remain virtually unchanged. *Eur J Clin Pharmacol* 1999;55:205–11.
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Providing Medication by Bending the Rules

To the Editor: Physicians sometimes falsify records to help their patients.¹ Often such falsification is done at the behest of the patient. In one not-too-uncommon scenario, uninsured patients ask physicians to write the name of an insured relative on their prescription; the cost of the medicines will then be paid by the relative's insurance! To help indigent patients get urgently needed medicines, one author has even endorsed such practice.² I wish to highlight some caveats with this practice.

First, falsification is ethically and legally wrong. Second, the insurer can claim fraud. The activity might be reported by the patient (acting as an undercover agent) or a disgruntled employee. The medical board might discipline the physician. Third, the relative might unwittingly take the medicine and suffer harm. Fourth, what medical record will the physician produce if sued for professional negligence. Fifth, no major societal change will result from playing Robin Hood (sharing the insurer's wealth with the uninsured) on such a small scale. Finally, by not telling the truth, we will simply perpetuate society's ills by encouraging the patient to try more lies. The next time the trickster might ask the physician to see him at no cost and bill the relative's insurance! No matter what some people say, society still holds physicians in high esteem and will follow the example its role models set.

Most prescriptions cost less than \$100. If physicians really want to help, it would be far better for them to buy the medicines from the neighboring pharmacy (one hopes at a professional discount) and dispense them at no cost to the patient. The patient could actually pick up the