

CT-ASCP



CHAPTER NEWSLETTER

July 2004

Chapter Newsletter: Volume I,
Number 3

2004–2005 CT-ASCP Call for Nominations

It is once again time for CT-ASCP members to submit their name, or the name of a fellow colleague, for consideration of contributing to the state ASCP chapter through service.

President-Elect

This position is 1-year in length, followed by a 1-year term as Chapter President.

At-Large Director:

This position is a 3-year term.

Please send your nominations to:

Michel G. Fortin, RPh, CGP

Immediate Past President

C/o Neighborcare

20A International Drive

Windsor, CT 06095

Fax to: 860-683-8315

Email to: Michel.Fortin@Neighborcare.com

All nominations must be received by

July 31, 2004

For more information please call:

(203) 314-7771

****Note:** Candidates must be active dues paying members of CT ASCP. A brief biographical sketch will be required for anyone accepting a nomination.



CT-ASCP Chapter Communications Committee:

- Amy Huie-Li, PharmD, CGP
- Kevin Chamberlin, PharmD
- Anna Egle, RPh, FASCP
- James Conklin, PharmD

CT-ASCP PAC Request for Contributions

What is a Political Action Committee (PAC)?

A non-profit organization whose goal is to get supportive state or federal candidates elected, or re-elected, by providing financial support to their campaigns.

Why Contribute to CT-ASCP PAC?

CT-ASCP PAC contributions allow individuals to have a voice in the political process through small donations. The PAC is bipartisan and it seeks to elect candidates to state office who have shown a commitment to senior care pharmacy.

Your Participation is Important:

Your donation will be used to support the campaigns of legislators here in Connecticut who regularly make decisions having great impact on your livelihood. Join

your colleagues in preparing for the upcoming election as we ask for **100% participation** in this year's PAC fund drive. **No donation is too small!**

How to make a donation:

Please mail your **personal check** to the address above. Please include: **name, company name, title/occupation, address, email address, and phone number on the check.**

Donor Recognition:

Your support of the CT-ASCP PAC is greatly appreciated. All donors will be officially recognized at the October CT-ASCP Installation Banquet.

*****Note:** Contributions to CT ASCP PAC are NOT tax deductible for federal income tax purposes

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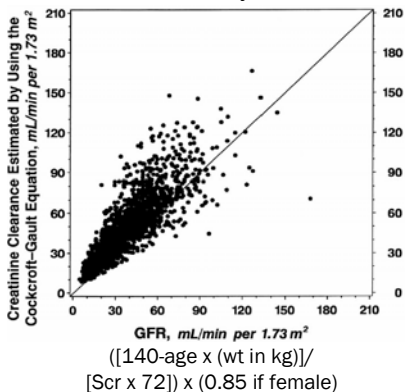
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The MDRD Equation: A Better Assessment for Lousy Beans?

The Modification of Diet in Renal Disease (MDRD) Study was a 1999 multicenter, controlled trial that evaluated the effect of dietary protein restriction and strict blood pressure control on the progression of renal disease. The study's purpose was to develop a more accurate estimate of glomerular filtration rate (GFR) from serum creatinine (Scr) concentration as compared to the standard, the Cockcroft and Gault formula. 1628 patients were enrolled and 1070 of those were randomized to the training sample while the remaining 558 patients made up the validation sample.

At baseline, creatinine clearance (CrCl) was computed from creatinine excretion in a 24-hour urine collection and a single measurement of Scr. The "normal" range for Scr was established at 0.7 - 1.4 mg/dL. A number of variables were included: weight, height, sex, ethnicity, age, diagnosis of diabetes, Scr, serum and urine urea nitrogen, serum albumin, serum and urine phosphorous, serum calcium, mean arterial pressure, urine creatinine, and urine protein. Investigators decided not to include the cause of renal disease, feeling that it added to the external validity of the study since, in most cases, the cause may be unknown or the clinicians may use different renal failure



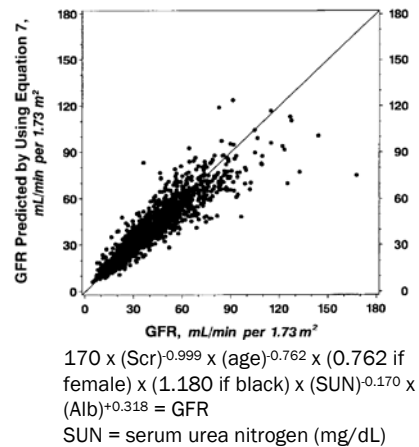
classification. The prediction equation was developed by stepwise regression from the training sample. The equation was then tested and compared to other predictive equations in the validation sample.

The mean age of the enrollees was 55, 60% of who were white and 6% diabetic. The mean Scr was 2.3, and was higher in men, patients with lower protein intake, and patients with higher mean arterial pressure ($p \leq 0.01$). Mean GFR for the population was 39.8 mL/min / 1.73 m², with lower values in patients with lower protein intake, whites compared to blacks, and patients > 55 versus < 55 ($p \leq 0.01$). The mean value of CrCl was 48.6 mL/min / 1.73 m², and was lower in older patients and patients with poor protein intake ($p \leq 0.01$).

When comparisons were made between each of the 7 regression equations and the Cockcroft-Gault equation, the Cockcroft-Gault results were adjusted for body surface area and expressed per 1.73 m² to allow for direct comparison between that and the MDRD equation #7. The graph on the RIGHT shows the MDRD equation with a more narrow distribution of predicted and measured GFR, reflecting a more accurate estimate of measured GFR.

The Cockcroft-Gault equation was found to overestimate measured GFR by 16%, whereas the MDRD equation #7 overestimated measured GFR by less than 10%. More directly, the 90th percentile of absolute errors of the Cockcroft-Gault prediction was only within 19.1 mL/min / 1.73 m² of measured, whereas the MDRD prediction was within 12.9 mL/min / 1.73 m². Of note, with higher concentrations of Scr, the MDRD equation maintained accuracy and sensitivity, especially when compared to the Cockcroft-Gault equation in those patients.

The MDRD is still being tested in a number of different subgroups of patients to determine its validity across patients of all ages and diagnoses. The equation has been validated in ESRD patients, African Americans with hypertensive renal disease, and renal transplant



patients. Since the MDRD equation is based on body surface area, the authors instruct that unadjusted GFR can be computed by multiplying the value of predicted GFR by the term body surface area/1.73 m² without loss of accuracy. As with Cockcroft-Gault, the most accurate estimate of renal function is obtained when the patient is at a steady-state of serum creatinine concentration.

REFERENCES OF INTEREST:

- Cockcroft DW, Gault MH. "Prediction of Creatinine Clearance from Serum Creatinine." *Nephron* 1976;16:31-41.
- Levey AS, Bosch JP, Lewis JB, et al. "A More Accurate Method to Estimate Glomerular Filtration Rate from Serum Creatinine: A New Prediction Equation." *Ann Intern Med* 1999;130(6):461-470.



ASCP News

MDRD Factoids

HOW TO USE:

www.thedrugmonitor.com/clinical-calculators.html

WHEN TO USE:

WHY TO USE:

WEBSITES:

www.nephron.com/mdrd/default.html

www.renal.org/Resources/MDRD-GFRcalculator.htm



Notes and Votes from CT-ASCP BoD: 6/7/04

The following motions are from the June 7th, 2004 Board of Directors (BoD) meeting:

MOTION 1: At the President's discretion, regional "key pharmacy leaders," as defined below, up to a maximum of 18 people will be invited to attend future Senior Symposiums without a registration charge. For the purposes of this motion "Key pharmacy leaders" are defined as: Executive Directors of the State Pharmacy Associations of the New England States and NY and NJ, The Presidents of ASCP Chapters of the aforementioned states, and the President of CT-CSHP.

BoD member	yes	no	abstained	absent
Boskello, F. (2001)	X			
Cannarella, J. (2003)	X			
Chapron, D. (2003)	X			
Conklin, J. (president)	X			
Fortin, M. (immediate past president)	X			
Hughes, K. (2001)	X			
Lachapelle, T. (president elect)	X			
Memoli, P. (2002)	X			
Wojciechowski, S. (secretary/treasurer)	X			
Wrabel, M. (2002)	X			

MOTION 2: The BoD will vote via email as to whether CT-ASCP will endorse the literature promulgated by the CT Collaboration for Falls Prevention.

This motion passed after the meeting, via e-mail.



Legislative Corner

John Gadea, Jr., RPh

Senate Bill # 439, "An Act Concerning Pharmacy Technicians," was passed by the Connecticut Legislature. This bill, although not signed by the governor and therefore not in effect yet, will allow the ratio of pharmacy technicians to pharmacists to be increased from 2:1 to 3:1 under certain provisions. Once the bill becomes law, it will have to be resubmitted to the Regulations Review Committee. The bill will amend Section 20-576 and Section 20-598a of the Connecticut General Statutes - Pharmacy Practice Act.

Before we go any further, however, let us trace the history that brought us here. Last year regulations were submitted to the Regulations Review Committee for approval. The new regulations were intended to be amended to Section 20-576-32 (Regulations Concerning Pharmacy Technicians). Section 1, subsection (c) was amended to define a certified pharmacy technician, and Section 2, subsection (a) establishes the increase in the ratio of technician to pharmacist to 3:1.

The regulations were originally submitted in 2003 as regulations only, because it was believed that they were just amendments to already established regulations. Just before the regulations were considered for a final vote, the committee determined that a statute was required to define a certified technician. As a result of this requirement, the regulations were sidelined and a new statute had to be created during the waning days of the legislative session. Legislatures achieve this by taking an already existing bill and striking out its language and amending it by placing the new substituted pharmacy technician language in its place. The bill number remained the same, although its content was drastically different. The best analogy would be to buy a hard copy book - open it and cut out the text - and replace it with some other text. The book is the same on the outside but appears different on the inside. In this case, the book is Bill #439. (The bill was "The Electronic Prescription Monitoring Bill"). Bill #439 now includes certified pharmacy technician language and was transformed to "An Act Concerning Pharmacy Technicians."

Included in the bill is the following definition: "The department shall, upon authorization of the commission, certify as a pharmacy technician any person who meets the requirements for registration as a

pharmacy technician, pursuant to subsection (b) of this section, and who holds a certification from the Pharmacy Technician Certification Board or any other equivalent pharmacy technician certification program approved by the department." Assuming the passage of the bill and the regulations becoming effective, a pharmacy, licensed by the Department of Consumer Protection, may have a ratio of 3 pharmacy technicians to 1 pharmacist with the following qualifiers: 1) The pharmacist on duty may refuse to work with a ratio of 3:1 (This bill allows the pharmacist discretion not to supervise three technicians if he or she documents it in writing to the pharmacy manager); 2) The ratio of 3:1 only applies if one of the technicians is certified; and 3) The certification is not performed by the State of Connecticut.

The legislation and corresponding regulations would allow for an increase in the ratio of pharmacy technicians to pharmacist - nothing more. The certified technician's limitations would be the same as a non-certified pharmacy technician. In other words, although their knowledge base may be different (certified versus non-certified), their functionalities would be identical under Connecticut law. Furthermore, the increase in the ratio may raise some questions: Will the increase in the ratio of pharmacy technicians to pharmacist increase the number of prescription errors? How can one pharmacist properly supervise three pharmacy technicians when some pharmacists have told me that many times it is difficult enough supervising two pharmacy technicians? Time will tell.

John Gadea, Jr., RPh is the Director of the State of Connecticut Department of Consumer Protection, Drug Control Division.