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## editor's note

Hello members, and welcome to the inaugural issue of the AANPA NEWS. We launch this newsletter at an exciting time, as our membership has climbed past the 250 mark, and continues to expand.

This is a pivotal time for our profession. As PAs in nephrology, we are faced both with an explosion of new information to treat our patients, and a series of challenges to test our profession. These challenges demand that we be better prepared and organized to face our future. This newsletter is intended to fill a portion of the communication gap by providing our membership with key information in a concise and timely manner. It will include updates on nephrology and the AANPA, links to pertinent web sites, and reports from key PA and nephrology meetings. Toward that end, this issue includes updates from the November 2006 Annual Meeting of the American Society of Nephrology (Renal Week), as well as a summary of the minutes from our last meeting.

We hope that you find this newsletter informative and helpful. If you have questions, suggestions, or other topics you would like discussed, please e-mail your thoughts to [aanpanews@sbglobal.net](mailto:aanpanews@sbglobal.net).

We especially want to thank Watson Nephrology for giving us an unrestricted educational grant to publish this newsletter.

Most respectfully,

Peter Juergensen, PA-C  
Laura Troidle, PA-C  
Marilyn Olsen, PA-C, MHS  
Christa Hodges, PA-C

## Anemia in Chronic Kidney Disease

*Anemia management was widely discussed at the American Society of Nephrology's Renal Week in November 2006, highlighted by the simultaneous publication of data from two related studies—CREATE (Cardiovascular Reduction by Early Anemia Treatment with Epoetin Beta) and CHOIR (Correction of Hemoglobin and Outcomes in Renal Insufficiency)—in The New England Journal of Medicine.*

Recommendations by the Kidney Disease Outcomes Quality Initiative (KDOQI) suggested that the target hemoglobin should be 11.0 g/dL or greater. An upper limit was not specified, but caution was suggested with hemoglobin levels >13.0 g/dL. The wisdom of these recommendations was contested in heated debates, especially because they were established without supporting data from good randomized trials, and did not take the findings from CREATE and CHOIR into account.

The wisdom of the KDOQI recommendations was contested in heated debates...

The CHOIR study compared cardiovascular events in patients treated with epoetin alfa to achieve a hemoglobin of 11.3 g/dL with those in patients treated to a higher target hemoglobin level; the planned target was 13.5 g/dL but the mean achieved was 12.6 g/dL. The higher hemoglobin values were associated with an increased risk of death, myocardial infarction, hospitalization for congestive heart failure and stroke combined, and no improvement in quality of life was demonstrated. The CREATE trial showed that the risk of a first cardiovascular event in patients with chronic kidney disease (CKD) did not decrease in patients with a target hemoglobin (Hb) of 13.0 to 15.0 g/dL compared with patients with a target Hb level of 10.5 to 11.5 g/dL. Based on these findings, the FDA came out with a recommendation to maintain Hb in the 10 to 12 g/dL range (see article on page 2).

Discussion also centered on the KDOQI recommendation for routine IV iron replacement when a serum ferritin level of 500 ng/mL is attained. Several studies noted that serum ferritin is affected by a variety of factors, especially in patients with the malnutrition-inflammation complex syndrome or infection, and is therefore not a true reflection of iron stores. Papers presented and discussions at the meeting concluded that this opinion from KDOQI does not have enough support from the literature and that the suggested upper limit is arbitrary. It was felt that IV iron dosing decisions in patients with serum ferritin >500 ng/mL should be based on the individual patient's clinical situation.

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## CHOIR Study Links High-Dose Epoetin to Cardiovascular Risk

The use of high doses of epoetin to treat anemia in patients with chronic kidney disease appears to increase their risk of heart attacks and stroke, according to a study reported in a recent issue of *The New England Journal of Medicine*.

Originally presented at the American Society of Nephrology's Renal Week Conference in November 2006, the CHOIR study (Correction of Hemoglobin and Outcomes in Renal Insufficiency) evaluated the potential benefit and harm from treatment with epoetin alfa in patients with chronic kidney disease who are not on dialysis. The open-label trial included 1432 patients with chronic kidney disease. Of these, 715 patients received epoetin alfa to reach a hemoglobin level of 13.5 g/dL and 717 patients were dosed to achieve a level of 11.3

g/dL. The FDA-approved labeling is to raise hemoglobin levels to no higher than 12 g/dL.

More patients in the high-hemoglobin group suffered at least one serious adverse event, whereas improvement in quality of life was similar in the two groups. The authors concluded that the use of a target hemoglobin level of 13.5 g/dL provided no improvement in quality of life when compared with a target level of 11.3 g/dL, and was associated with increased risk.

The FDA subsequently issued an advisory recommending:

- Dosing to the target hemoglobin range of 10 to 12 g/dL
- Measurement of hemoglobin twice a week for 2 to 6 weeks after any dosage adjustment

- Decreasing the dose of erythropoiesis stimulating agents if the hemoglobin increase exceeds 1 g/dL in any 2-week period
- For chronic renal failure patients, measuring hemoglobin twice a week after beginning treatment until hemoglobin has stabilized
- Patients should contact their doctor if they experience any increase in shortness of breath, pain or swelling in the legs, or blood pressure

### Suggested Readings:

Iron deficiency in the 2006 KDOQI era: diagnosis and management. *Clin J Soc Nephrol*. 2006;1:S1-S31.

Singh AK, Szczech L, Tange KL, et al. Correction of anemia with epoetin alfa in chronic kidney disease. *N Engl J Med*. 2006;355:2085-2098.

## CREATE Finds No Reduction in Cardiovascular Risk

Early complete correction of anemia in patients with chronic kidney disease does not reduce the risk of cardiovascular events, investigators wrote in *The New England Journal of Medicine* last month.

In the 3-year CREATE study (Cardiovascular Risk Reduction by Early Anemia Treatment with Epoetin Beta), 603 patients with stage 3 or 4 chronic kidney disease and mild-to-moderate anemia were randomly assigned to a target hemoglobin level in the normal range of 13.0 to 15.0 g/dL (group 1) or the subnormal range of 10.5 to 11.5 g/dL deciliter (group 2). Patients were treated

with subcutaneous epoetin beta, which was initiated at randomization for group 1 but after the hemoglobin level fell below 10.5 g/dL in group 2. The primary endpoint was the risk of a composite of first cardiovascular events, including sudden death, myocardial infarction, acute heart failure, and stroke. Quality of life was assessed at the end of the first year using a validated questionnaire.

There was no statistically significant difference in the likelihood of a first cardiovascular event in the two treatment groups (58 in group 1 and 47 in group 2). Overall, there were no major differences

in adverse events between the two groups. No significant differences between the two groups in the frequency of death from cardiovascular disease or any cause were observed. However, there was significant improvement in group 1 compared with group 2 in measures of general health ( $P=0.003$ ) and physical function ( $P<0.001$ ).

### Suggested reading:

Drueke TB, Locatelli F, Clyne N, et al. Normalization of hemoglobin level in patients with chronic kidney disease and anemia. *N Engl J Med*. 2006;355:2071-2084.

## ASN UPDATE Renal Week Highlights Anemia and CKD

### Treatment Guidelines for Chronic Kidney Disease

The Kidney Disease Outcome and Quality Initiative (KDOQI) reviewed current practice guidelines for patients with chronic kidney disease (CKD). The evidence-based guidelines for the management of diabetics include targeting an HbA<sub>1c</sub> of <7.0 in all diabetic patients regardless of CKD stage. Hypertension management should include an angiotensin II inhibitor (ACEI) or angiotensin receptor blocker (ARB) with or without a diuretic, with a goal blood pressure of 130/80. Lipid management should aim at a goal LDL of <100, with <70 as a therapeutic target. Nutrition management is now based on a target protein intake of 0.8 g/kg body weight/day. A new clinical practice recommendation suggests that both ACEIs and ARBs may be useful in normotensive diabetics with microalbuminuria.

Therapeutic targets in patients with CKD were furthered explored. Proteinuria, hypertension, and hyperlipidemia were each discussed with respect to their role in the progression of CKD. Proteinuria, an independent risk factor for progression, can be limited by the use of ACEI and ARB therapy. However, individual response to these agents varies, and other approaches may be necessary to achieve goals. Evidence suggests that residual albuminuria can be further modified by the combination of a low salt diet and diuretics, non-steroidal agents, vitamin D analogs, or statins with ACEI and/or ARB therapy.

Maintaining a goal blood pressure of 130/80 is clearly associated with a slower rate of decline to end-stage renal disease (ESRD); however, NHANES IV data suggest that <40% of CKD patients achieve this goal. ACEI and/or ARB agents are recommended as primary therapy, with sodium restriction and diuretics used as secondary therapies. Other classes of antihypertensive agents, including beta blockers also serve as additional agents in diabetic patients.

Baseline hyperlipidemia has been linked to CKD progression and statin use has been shown to be beneficial. This benefit might be secondary to reduction in proteinuria and interstitial inflammation. Non-renal effects of statins may have an important role in slowing CKD progression as well.

### Antimicrobial Locks for Central Venous Hemodialysis Catheters

Strategies to reduce the use of central venous catheters among hemodialysis patients are of obvious importance given the striking morbidity and mortality associated with the use of this vascular access. Catheter-associated bacteremia is responsible for the majority of these complications including death. Thus, the use of a catheter is appropriately discouraged.

However, dialysis catheters are still used in some patients. Antimicrobial locks have shown promise in lowering the risk of catheter-associated bacteremia. A total of 9 poster presentations at the ASN meeting discussed antimicrobial lock

strategies. Seven of the posters presented addressed the use of a variety of agents including gentamicin-heparin, ethanol, tauerlock, and minocycline as prophylactic measures, with a reduction in the development of catheter-associated bacteremia. Other posters examined the use of vancomycin locks as therapy for bacteremia with promising results. Thus, antimicrobial locks might be a useful preventative tactic in ESRD patients using a catheter.

For more information regarding antimicrobial locks consider two recent publications: Nori US, et al. *Am J Kid Dis*. 2006;48:596-605; and Saxena AK, et al. *Kidney Int*. 2006;70:1629-1635 Links to the abstracts are available online at [www.asn-online.org](http://www.asn-online.org)

### Treatment of Secondary Hyperparathyroidism in CKD

The effectiveness of calcimimetics in the treatment of secondary hyperparathyroidism was debated during a lively presentation by Daniel W. Coyne, MD, Washington University School of Medicine, and William G. Goodman, MD of Amgen. Extensive data were presented supporting the effectiveness of cinacalcet (Sensipar) for decreasing levels of intact parathormone in dialysis patients, but there are little data supporting the use of Sensipar in stage 3 and 4 CKD patients.

Dr. Coyne presented data regarding the effectiveness of active Vitamin D analogs for the treatment of secondary hyperparathyroidism in patients with ESRD

*Continued on next page*

Extensive data were presented supporting the effectiveness of cinacalcet for decreasing levels of intact parathormone in dialysis patients...

ASN UPDATE *continued*

and CKD. He also mentioned the additional benefit noted in several studies that the use of Vitamin D decreases mortality in these patients.

Numerous papers presented at the ASN meeting addressed the importance of achieving the KDOQI recommendations for serum levels of intact parathyroid hormone, calcium, and phosphate. It appears that increased cardiovascular mortality in CKD patients may be related to vascular calcification. The process of calcification is active and very complex. It involves suppression of inhibitors of calcification (ie, fetuin, matrix gla protein), activation of inducers of calcification (ie, high phosphate, BMP-2, IL-6), high calcium-phosphate product, and calcium loading. To slow this process, it was felt that it is essential to control phosphate, minimize calcium loading, and control parathyroid hormone levels to target goals. Additional data showed that Vitamin D levels are very low in most CKD and ESRD patients, and treatment with ergocalciferol or active Vitamin D analogs is needed if the parathyroid hormone level is elevated.

*Suggested readings:*

Drueke TB. Calcimimetics versus vitamin D: what are their relative roles? *Blood Purification*. 2004;22:38-43.

Block G. Calcium, calcimimetics and clinical outcomes. *Clin J Am Soc Nephrol*. 2006;1:170-171.

## AANPA Board Minutes May 30, 2006

## I. Treasurer's Report

a) Beginning balance:	\$13,346.87
b) AANPA donation for Katrina relief:	\$1,000.00
c) Conference Registration for PA students from Netherlands:	\$350.00
d) Miscellaneous expenses: (Web page, travel reimbursement, etc)	\$760.39
e) Ending balance:	<b><u>\$11,236.48</u></b>
f) Trying to be conservative with money and keep a \$10,000 base	

## II. Open Issues

- g) Survey results discussed. See AANPA Web site ([http://www.aanpa.org/members/pdf/AANPA\\_Report.pdf](http://www.aanpa.org/members/pdf/AANPA_Report.pdf)) for results. (Requires AANPA membership and login to Web site.)
- h) Motion for charging of dues: There was a great deal of discussion over this issue. Proxy votes received were all in favor of charging voluntary dues. The motion was then amended to make dues (\$20 annually) mandatory for existing members, first year free to new members with \$20 charged upon renewal and annually thereafter and to keep student membership free. This compromise was to continue to encourage new members and student involvement, but it was deemed that \$20 should not be beyond the reach of practicing PAs and that the organization has grown to an extent that more can be achieved with positive cash flow. The motion was seconded and carried with 6 votes in favor and 2 nays.
- i) Motion to provide training/educational CD to new members. Laurie Benton has moved forward quickly on this project and already has several chapters created and funding to make final copies and distribute. Motion was seconded and carried unanimously.
- j) Motion to move toward several other educational programs. These include a 5-day, Category I workshop for critical care and an internet-based CME program with both Category I credit and "certificate of completion" provided for users who successfully finish the course. The course is intended for all midlevel providers in nephrology, including advanced practice nurses. This is not to be construed as further accreditation or "certification" but only as continuing education with proof of completion of the course. Motion was seconded and carried unanimously.
- k) Election of new AANPA Board of Directors. Peter Juergensen will be finishing his 2-year term as President. Vice President: Karen Burchell was re-elected for another term. Treasurer: Molly Lenahan. Secretary: Marilyn Olsen was re-elected for another term. Student Representative: Katey Wilson. Membership Chair: Kim Zuber was re-appointed for another term. CME Chair: Laurie Benton was re-elected for another term. Liaison: Kim Zuber has also generously agreed to another 2-year term as the AANPA liaison. However, next year it will be necessary to present a new candidate to serve with Kim and to train for a year before taking on the full responsibility of this important position.

## III. Action Items

- l) Review AANPA Bylaws and Articles of Incorporation, tax history and update all as needed. Provide a written job description for all AANPA Board of Director positions including Chairs and present all to AAPA for charter update.
- m) Create an AANPA membership card and assign a number to all existing members and new members.
- n) Finish all chapters in training CD and begin to distribute.
- o) Creation of above-mentioned educational programs.

We are presently also working on the incorporation of the AANPA and updating the tax status for the Association.

## FYI

Visit these Web sites to learn more about renal disease, health care policy, and other important information for PAs.

[www.usrds.org](http://www.usrds.org)

United States Renal Data System

[www.ndoqi.org](http://www.ndoqi.org)

The National Kidney Foundation Kidney Disease Outcomes Quality Initiative

[www.ispd.org](http://www.ispd.org)

International Society for Peritoneal Dialysis

[www.kidney.org](http://www.kidney.org)

National Kidney Foundation

## RPA Conference a Success

The Renal Physicians Association held a conference for nephrology Physician Assistants and Nurse Practitioners at the Westin Boston Waterfront Hotel on September 25-26, 2006. Over 200 PAs and NPs were in attendance. AANPA members presented lectures on bone and mineral metabolism and the role of PAs and NPs in nephrology practice. Small group sessions included the Fistula First initiative, transplant, and end of life care. Lectures on hypertension and Medicare billing and coding changes pertinent to PAs and NPs provided useful information. The conference was a great networking opportunity for both PAs and NPs.

## 2007 upcoming meetings

January 24-26, 2007

9th International Conference in Dialysis:

Advances in CKD 2007

Austin, TX

<http://www.renalresearch.com/html/conferences.htm>

February 18-20, 2007

Annual Conference on Dialysis

Denver, CO

[www.muhealth.org/~dialysis](http://www.muhealth.org/~dialysis)

March 8-10, 2007

12th International Conference on Continuous

Renal Replacement Therapies

San Diego, CA

[www.crrtonline.com](http://www.crrtonline.com)

March 12-13, 2007

Midlevel Practitioner Meeting, Renal Physicians Association (RPA)

Baltimore, MD

[www.renalmd.org](http://www.renalmd.org)

The RPA will be sponsoring a wonderful PA/NP update, "Nephrology Survival Skills for Physician Assistants and Nurse Practitioners", at the meeting. It will begin on Monday, March 12 at noon and will conclude on Tuesday, March 13 at 4 PM. If you register for the PA/NP meeting, you can also attend the annual RPA meeting on Monday morning from 8 AM to noon free of charge. If you have a full weekend, or need CME credits (annual meeting and PA meeting), register for the Billing and Coding seminar by Deb Lawson on Friday, March 9, the RPA annual meeting March 10-12, and then the PA meeting on March 12-13. The Billing and Coding seminar is worth EVERY moment! Deb does an incredible job and the price is only \$99 for the full day with breakfast/lunch (category 2 credit only for this seminar).

April 11-13, 2007

Spring Clinical Meetings

Orlando, FL

[www.kidney.org](http://www.kidney.org)

The National Kidney Foundation is encouraging PAs and NPs to attend their Spring Clinical Meetings in Orlando, FL, April 11-13, 2007. There will be a separate track for PAs and NPs at the spring meeting, thanks to Laurie Benton, our CME chair. Nephrology 201, a one-day course especially for midlevel practitioners, will be held on April 10. Additional topics include "Urinalysis" and "The ABCs of Clinical Research" along with diabetes, transplant update, and HTN.