

Five Things Physicians and Patients Should Question

1 Don't initiate erythropoiesis-stimulating agents (ESAs) in chronic kidney disease (CKD) patients with hemoglobin levels greater than or equal to 100 g/L without symptoms of anemia.

Administering ESAs to CKD patients with the goal of normalizing hemoglobin levels has not demonstrated survival or cardiovascular disease benefit, and may be harmful in comparison to a treatment regimen that delays ESA administration or sets relatively conservative targets (90–110 g/L).

2 Don't prescribe nonsteroidal anti-inflammatory drugs (NSAIDs) in individuals with hypertension or heart failure or CKD of all causes, including diabetes.

The use of NSAIDs, including cyclo-oxygenase type 2 (COX-2) inhibitors, for the pharmacological treatment of musculoskeletal pain can elevate blood pressure, make antihypertensive drugs less effective, cause fluid retention and worsen kidney function in these individuals. Other medication prescribed by a healthcare professional may be safer than and as effective as NSAIDs.

3 Don't prescribe angiotensin converting enzyme (ACE) inhibitors in combination with angiotensin II receptor blockers (ARBs) for the treatment of hypertension, diabetic nephropathy and heart failure.

When used in combination ACE inhibitors and ARBs are associated with an increased risk of symptomatic hypotension, acute renal failure and hyperkalemia and may increase mortality.

4 Don't initiate chronic dialysis without ensuring a shared decision-making process between patients, their families, and their nephrology health care team.

The decision to initiate chronic dialysis should be part of an individualized, shared decision-making process between patients, their families, and their nephrology health care team. This process includes eliciting individual patient goals and preferences and providing information on prognosis and expected benefits and harms of dialysis within the context of these goals and preferences. Limited observational data suggest that survival may not differ substantially for older adults with a high burden of comorbidity who initiate chronic dialysis versus those managed conservatively.

5 Don't initiate dialysis in outpatients with Stage 5 CKD in the absence of clinical indications.

Initiating chronic dialysis before the appearance of uremic symptoms or other clinical indication is associated with significant burden and inconvenience for the patient without any clinical benefit. Recent guidelines from the Canadian Society of Nephrology recommend that patients with an estimated glomerular filtration rate (eGFR) less than 15 ml/min should be closely followed by their nephrologist and dialysis deferred until symptoms of uremia, volume overload, hyperkalemia or acidosis become an issue or the eGFR drops below 6 ml/min.

How the list was created

The Canadian Society of Nephrology (CSN) established its *Choosing Wisely Canada* recommendations by striking a Choosing Wisely Working Group from its Clinical Practice Guidelines Committee. The working group created a survey to poll the members of the society, who were asked to vote for 5 tests, 5 investigations and 5 treatments that they felt were overused, misused or had potential to cause harm. Over 400 members were surveyed with a 22% response rate. These responses were collated into themes, and ordered by their frequency of occurrence. Three members of the working group reviewed the list independently; each of whom proposed a top 10 list of recommendations derived from the survey responses. These 3 lists were then reviewed by the working group and a draft top ten list was generated based on the following criteria: strength of evidence; potential for harm; cost saving; frequency of occurrence in clinical practice and pertinence to nephrology. The draft list of ten items was presented at the CSN annual general meeting and members were asked to vote electronically on their agreement with each recommendation. In addition to the membership votes, the working group then considered the strength of evidence and potential for meaningful impact of the recommendations, and a final list of five items was agreed upon. Recommendations 1, 2, and 4 were adapted with permission from the Five Things Physicians and Patients Should Question. © 2012 American Society of Nephrology.

Sources

- 1** Druke TB, Locatelli F, Clyne N, et al. Normalization of hemoglobin level in patients with chronic kidney disease and anemia. *N. Engl. J. Med.* Nov 16 2006;355(20):2071-2084.
Moist LM, Troyanov S, White CT, et al. Canadian Society of Nephrology commentary on the 2012 KDIGO Clinical Practice Guideline for Anemia in CKD. *Am. J. Kidney Dis.* Nov 2013;62(5):860-873.
Pfeffer MA, Burdmann EA, Chen CY, et al. A trial of darbepoetin alfa in type 2 diabetes and chronic kidney disease. *N. Engl. J. Med.* Nov 19 2009;361(21):2019-2032.
Singh AK, Szczech L, Tang KL, et al. Correction of anemia with epoetin alfa in chronic kidney disease. *N. Engl. J. Med.* Nov 16 2006;355(20):2085-2098.
- 2** Gooch K, Culleton BF, Manns BJ, et al. NSAID use and progression of chronic kidney disease. *Am. J. Med.* Mar 2007;120(3):280.e281-287.
National Heart, Lung, and Blood Institute. [cited 2007]. (U.S): Department of Health and Human Services. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure [Internet]. 2004 Aug [cited 2014 Sep 23]. Available from: <http://www.nhlbi.nih.gov/files/docs/guidelines/jnc7full.pdf>.
National Kidney Foundation. KDOQI clinical practice guidelines for chronic kidney disease: evaluation, classification and stratification. *Am J Kidney Dis.* 2002;39(2 Suppl 1):S1-266.
Scottish Intercollegiate Guidelines Network (sponsored by NHS Quality Improvement Scotland). Management of chronic heart failure: A national clinical guideline. [Internet]. Edinburgh (UK): Scottish Intercollegiate Guidelines Network (SIGN); 2007 Feb [cited 2014 Sep 23]. Available from: <http://www.sign.ac.uk/pdf/sign95.pdf>.
- 3** Fried LF, Emanuele N, Zhang JH, et al. Combined angiotensin inhibition for the treatment of diabetic nephropathy. *N. Engl. J. Med.* Nov 14 2013;369(20):1892-1903.
Heran BS, Musini VM, Bassett K, Taylor RS, Wright JM. Angiotensin receptor blockers for heart failure. *Cochrane Database Syst Rev.* 2012;4:Cd003040.
Mann JF, Schmieder RE, McQueen M, et al. Renal outcomes with telmisartan, ramipril, or both, in people at high vascular risk (the ONTARGET study): a multicentre, randomised, double-blind, controlled trial. *Lancet.* Aug 16 2008;372(9638):547-553.
Phillips CO, Kashani A, Ko DK, Francis G, Krumholz HM. Adverse effects of combination angiotensin II receptor blockers plus angiotensin-converting enzyme inhibitors for left ventricular dysfunction: a quantitative review of data from randomized clinical trials. *Arch. Intern. Med.* Oct 8 2007;167(18):1930-1936.
Yusuf S, Teo KK, Pogue J, et al. Telmisartan, ramipril, or both in patients at high risk for vascular events. *N. Engl. J. Med.* Apr 10 2008;358(15):1547-1559.
- 4** Chandna SM, Da Silva-Gane M, Marshall C, Warwicker P, Greenwood RN, Farrington K. Survival of elderly patients with stage 5 CKD: comparison of conservative management and renal replacement therapy. *Nephrol. Dial. Transplant.* May 2011;26(5):1608-1614.
Jassal SV, Trpeski L, Zhu N, Fenton S, Hemmelgarn B. Changes in survival among elderly patients initiating dialysis from 1990 to 1999. *CMAJ.* Oct 23 2007;177(9):1033-1038.
Kurella M, Covinsky KE, Collins AJ, Chertow GM. Octogenarians and nonagenarians starting dialysis in the United States. *Ann. Intern. Med.* Feb 6 2007;146(3):177-183.
Kurella Tamura M, Covinsky KE, Chertow GM, Yaffe K, Landefeld CS, McCulloch CE. Functional status of elderly adults before and after initiation of dialysis. *N. Engl. J. Med.* Oct 15 2009;361(16):1539-1547.
Murtagh FE, Marsh JE, Donohoe P, Ekbal NJ, Sheerin NS, Harris FE. Dialysis or not? A comparative survival study of patients over 75 years with chronic kidney disease stage 5. *Nephrol. Dial. Transplant.* Jul 2007;22(7):1955-1962.
- 5** Cooper BA, Branley P, Bulfone L, et al. A randomized, controlled trial of early versus late initiation of dialysis. *N. Engl. J. Med.* Aug 12 2010;363(7):609-619.
Nesrallah GE, Mustafa RA, Clark WF, et al. Canadian Society of Nephrology 2014 clinical practice guideline for timing the initiation of chronic dialysis. *CMAJ.* Feb 4 2014;186(2):112-117.
Suantitaphong P, Altamimi S, Ashkar M, et al. GFR at initiation of dialysis and mortality in CKD: a meta-analysis. *Am. J. Kidney Dis.* Jun 2012;59(6):829-840.

About Choosing Wisely Canada

Choosing Wisely Canada is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures, and to help physicians and patients make smart and effective choices to ensure high-quality care.

For more information on *Choosing Wisely Canada* or to see other lists of Five Things Physicians and Patients Should Question, visit www.choosingwiselycanada.org. Join the conversation on Twitter @ChooseWiselyCA.

About The Canadian Society of Nephrology

The Canadian Society of Nephrology (CSN) is a proud partner of the *Choosing Wisely Canada* campaign. CSN is a society of physicians and scientists specializing in the care of people with kidney disease, and in research related to the kidney and kidney disease. The mission of CSN is focused on setting high standards for medical training and education; encouraging research related to the kidney, kidney disorders and renal replacement therapies; improving the delivery of health care related to nephrology; and, promoting the continuing professional competence of nephrologists.