**Knee aspiration**

To the Editor:
In “The occasional knee aspiration or injection” the authors describe how to change syringes if more than one is needed to aspirate a knee.1 A much easier way is to use a 3-way stop-cock.

David Howe, MB
Advocate Harbour, NS

Reference

**[One of the authors responds:]**

Dr. Howe makes a very good point. I only wish he had also provided me with a mnemonic to remind me which way to turn the handle on the stop-cock.

John Wootton, MD
Shawville, Que.

**Type 2 Diabetic Flow Chart, 2004 Update**

To the Editor:
I read with frustration and disappointment the Type 2 Diabetic Flow Chart, 2004 Update, that appeared in the Summer issue of CJRM.1

As a practising family physician I am an enthusiastic supporters of the concept and use of flow charts as practical tools to improve care of patients with diabetes. However, I am seriously concerned because this flow chart does not reflect current guidelines and therefore does little to promote and encourage optimal patient care based on evidence.

The Canadian Diabetes Association (CDA) published the “2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada” in December 2003. These evidence-based guidelines do not appear to have been considered in the revision of this flow chart and are not referenced.2

There are numerous deviations from the most recent set of CDA guidelines and the most recent lipid guidelines, and I feel your readers deserve to be made aware of these differences. I offer the following specific examples, cross-referenced to the 2003 CDA guidelines pages.2

Screening (CDA pages S10–13)
There is no mention of screening for type 2 diabetes. The age for routine screening has been lowered from 45 to 40, and several risk factors have been added. In addition, a detailed screening algorithm provides guidance on when to use the OGTT. This is important and practical information for FPs and is a notable omission.

Diagnostic criteria (p. S7–9)
A confirmatory test should be done on another day in the absence of unequivocal hyperglycemia accompanied by acute metabolic decompensation.

Random >or=11.1 mmol/L + symptoms of diabetes

GDM (p. S99–105)
7.8 – 10.2 (not 10.3) do a 75-g OGTT and measure fasting, 1 h and 2 h values.

Screening sensory foot exam (p. S72-5)
New guidelines have simplified the recommended screening. Detection of peripheral neuropathy should be conducted by assessing loss of sensitivity to a 10-g monofilament at the great toe or loss of sensitivity to vibration at the great toe. The proper monofilament test is as follows: Press the monofilament against the plantar surface of the great toe until the filament bends. If the patient is unable to feel the pressure they have lost protective sensation and are at high risk of a foot ulcer.

Lipid values (p. S58–65)
This method of assessing risk based on 10-year risk of CVD event is outdated and was recently revised.2 The CDA guidelines were written to reflect the current lipid guidelines and present lipid targets as follows. High risk: LDL-C <2.5 mmol/L and TC:HDL-C <4.0 mmol/L; moderate risk: LDL-C <3.5 mmol/L and TC:HDL-C <5.0 mmol/L. Note that the optimal TG value is <1.5 mmol/L, not <2.0 mmol/L.

Management approach (p. S37–42)
This stepwise approach has been replaced by a management algorithm that emphasizes the importance of achieving glycemic tar-
gets quickly through the early use of combination therapy (including initial therapy with insulin). New guidelines recognize that the stepwise approach could lead to unacceptable delays in reaching targets and that even short-term hyperglycemia can result in vascular changes.

Glycemic control (p. S18–20)
The CDA targets have been simplified as follows and apply regardless of method of treatment (i.e., there are no specified targets for the elderly people or those on insulin or glyburide). The guidelines provide a chapter on the elderly, with the recommendation to aim for the same targets as those of otherwise healthy adults, but to be more conservative in those with multiple comorbidities, limited life expectancy or high functional dependency (p. S106-9). The recommended HbA1C target for most patients is ≤7.0%, whereas a “normal range” (≤6.0%) should be considered for patients in whom it can be achieved safely.

Creatinine clearance is a recommended test and is not included. 24-hour urine collections are not recommended. ASA therapy is recommended for all people with diabetes with evidence of CVD as well as those with atherosclerotic risk factors that would increase their risk of CV events (not only those over age 30). There is no line for other antihypertensive medications (e.g., diuretics, long-acting calcium channel blockers, cardioselective beta blockers).

All physicians in Canada should be following the same guidelines to ensure consistency of care across this country. I am disappointed that the flow chart you have provided for rural physicians is promoting a standard of care that is now outdated and in some instances inaccurate.

Stewart B. Harris, MD, MPH, FCFP, FACP
Associate Professor, Centre for Studies in Family Medicine
The Ian McWhinney Chair in Family Medicine Studies
University of Western Ontario
London, Ont., and Chair
Canadian Diabetes Association 2003 Clinical Practice Guidelines Expert Committee

REFERENCES

[Drs. Kelly and Sehgal respond:]
We are pleased to clarify some of the reservations expressed by Dr. Harris with regard to the 2004 update1 of this flow chart. Hopefully the discussion will also be of interest to readers.

The process of updating the flow chart included a careful examination of earlier CDA guidelines and of the literature published since the publication of the 2001 SRPC flow chart.2 We had completed our literature review and flow chart before the 2003 CDA guidelines3 were published in December of that year. We did, however, examine them before publication of our flow chart update.

We were pleased that the 2001 flow chart had stood the test of time.2 While the CDA guidelines have undergone some changes, the evidence has not substantially changed.

Many of the clinical recommendations in the 2003 CDA guidelines are Grade D (i.e., expert opinion, not supported by significant research data). It is not surprising that generalist rural physicians may differ from their urban colleagues in some regards. The 12 members of the Steering Committee of the 2003 Clinical Practice Guidelines Committee of the CDA are internal medicine specialists, and the Expert Committee included 3 family physicians and 45 internists.3 Rural physicians’ expertise lies in being generalists who balance the uniqueness of their patients and geography with multi-disease management.

Since the evidence had changed very little, scant content change was indicated. The HbA1C target was lowered to be consistent with recent previous CDA recommendations.

Screening
This is an important issue but remains a Grade D recommendation. It is not necessary to include screening in a chart that is for patients already diagnosed with type 2 diabetes. We note it is also absent from the 2005 CDA sample flow chart (p. S122).3

Footcare
The literature cited as evidence for annual foot exams (Grade D recommendation, p. S72) in the
2003 CDA guidelines clearly recommends that testing (Grade A recommendation, p. S72) be done on the “dorsum of the great toe, just proximal to the nailbed.”

Glycemic control
The recent CDA guidelines do warn about the risk of hypoglycemia in the elderly, especially with glyburide. The UK Prospective Diabetes Study has already documented the 18% incidence of hypoglycemic events with “tight” control (HbA1C of 0.07) in 1998 using insulin. Clinicians dealing with frail and elderly patients and those living in remote areas need to be cautious, as the CDA admits (p. S18, S106, S37), and the evidence suggests that less tight control would avoid these hypoglycemic episodes (Grade A, Level 1). We concur with the CDA suggestion that “significant risk of hypoglycemia often necessitates less stringent glycemic goals” (p. S43).

Lipid values
Even the Working Group on Hypercholesterolemia and Other Dyslipidemias admits that triglyceride levels are not a treatment target. This value was included because several rural physicians felt the lipid values were incomplete without it. The level has been lowered from 2.0 to 1.5 in that Oct. 28, 2003, publication, but our literature review and chart were completed before that date. Both values are Grade D recommendations, and this change has been added to our online version of the 2004 flow chart (www.srpc.ca).

Management approach
This is up to the patient and clinician. Patient safety and compliance is always a key issue to clinicians on the front lines, and it seems wiser to introduce one medication at a time to manage side effects and ensure a long-term therapeutic relationship. Our patients may well not model urban patients attending a tertiary care endocrinology/diabetic clinic. The reference by Harris to the CDA management algorithm (p. S59) to initiate 2 oral hypoglycemic medications simultaneously at times or to begin therapy with insulin is a Grade D recommendation, which may have theoretical advantages (quicker achievement of glycemic control), but is fraught with practical problems for rural physicians and their patients, where a step-wise approach makes more sense.

Renal
It was interesting to see that the CDA no longer recommends 24-hour urine collections; they are a cumbersome test in rural areas, with poor compliance and daily variation. However, when referring a diabetic patient to a nephrology service for declining renal function, a 24-hour urine test makes a good addition to the referral. We agree with Harris that simply following serum creatinine and spot albumin/creatinine ratios are the optimal tests. Creatinine clearance is not a value many primary care physicians routinely calculate, so including it in our flow chart was unnecessary.

The SRPC continues to provide useful, practical information and tools for rural physicians. Our hope is that the 2004 update of the Type 2 Diabetic Flow Chart meets some of those needs, because we see the ravage that this disease causes on many of our patients. We take the authors of the 2003 CDA guidelines at their word when they state: “It is important to use a care plan that best suits your practice needs” (p. S122).

Len Kelly, MD
Sioux Lookout, Ont.
Yogi Sehgal, MD
Sioux Lookout, Ont.

References

Correction
In the Summer 2004 issue of CJRM there was an error in the Discussion section of the Original Article by Seaborn Moyse and Osmun. Reference 8 (i.e., Redelmeier and Cialdini) should have been cited as reference 7. We apologize for this error.

Reference