(FOBT) and to a "do nothing" approach. This approach is not standard care, colonoscopy is felt by many to be the current gold standard screening tool, and colonoscopy has already shown to be cost-effective in comparison to both FOBT and doing nothing. There is also a lack of direct clinical data comparing FOBT, CT colonography, colonoscopy, and a "do nothing" approach.

Dr. Kiberd also notes that our analysis did not consider differences in screening uptake and suggests that "offering several screening methods may be the only way to increase population-wide adherence" with CRC screening. In fact, we did model up to a 50% increase (well above what is likely realistic) in screening adherence using CT colonography in our sensitivity analysis (see Table 4 in the article).[1] Although this resulted in a reduction in net lives lost, it came at an enormous cost. Finally, there is no evidence that we are aware of that increasing the number of options leads to an increase in screening adherence. In fact, there is even some evidence to the contrary.[2]

Dr. Peltekian states that "the only logical strategy" for CRC screening should start with CT colonography followed by colonoscopy in positive cases. From our analysis, we feel that it is rather illogical to switch from a dominant strategy to a dominated (more expensive, less effective) strategy. We are not the only investigators to suggest that CT colonography is an inferior screening test[3-5] and a less efficient use of resources compared to colonoscopy.[6] We agree that access to colonoscopy is limited in Canada and that this important resource deficit needs to be resolved before population-based CRC screening can be implemented. However, these same resource issues also apply to elective radiologic exams. In the most favourable CT colonography study by Pickhardt and colleagues,[7] the mean time spent in the endoscopy suite was 31.5 minutes compared to 14.1 minutes in the CT suite. However, an extra 19.6 minutes was required on average for a radiologist to interpret a CT colonography study. In addition, 15%–30% of patients still require a colonoscopy. It would be an administrative feat to reserve colonoscopy time for the potential positives on CT, so that patients can be done on the same day while still prepped.

Our base-case cost of CT colonography in Alberta almost certainly underestimates the true costs involved. Widespread use of CT colonography for CRC screening would require significant capital expenditure to purchase new CT scanners along with the necessary software. Just as more gastroenterologists would be required to accommodate population-based CRC screening, more radiologists and technicians would need to be trained to perform primary screening using CT colonography. We agree that the appropriate re-screening interval for CT colonography has not been established. However, it is unlikely to be as long as suggested for colonoscopy until further experience is gained. Shorter re-screening intervals are likely to occur in its early stages. All of these factors would undoubtedly increase the cost of a CT colonography-based CRC screening strategy.

Ultimately, it will be up to health policy decision-makers to decide whether or not to provide funding for CT colonography for CRC screening. We believe that resources for CRC screening would be better invested in CRC education and on improving access to our already established screening modalities.

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Conjugate vaccines and polysaccharide response

Purified polysaccharide vaccines work by activation of B cells in a T-independent manner, producing predominantly IgM and little memory B cells.[1] Protein-polysaccharide conjugate vaccines (such as Prevnar/PCV7 which uses 7 prevalent polysaccharides to bind to non-toxic variant of diphtheria toxin, CRM197) allow the protein to present antigen on B cells and CD40/CD40L interaction, while T cells allow antibody class switching from IgM to IgG producing memory cells and longer response. Conjugated vaccines usually use polyribosylribitol phosphate (PRP) conjugated with protein carriers and conjugate vaccines for *Haemophilus influenzae* and *Neisseria meningitidis* (using outer membrane proteins, OMP) have already been developed.[2]

However, conjugate vaccines may not work in high-risk categories like HIV-positive children[3] and asplenics,[2] and the PPV23 vaccine failure comorbid elderly[4] needs to be identified and followed up. IgG subclass measurement for evaluation of vaccine response is vital; anti-IgG1 pneumococcal antibodies in children (both with normal and abnormal immunity) and anti-IgG2 anti-

bodies in adults are the best discriminatory laboratory measure.[5] The future seems certain for conjugate vaccines, and PPV23 may end up being a test to see polysaccharide response in an individual.

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Unnecessary distraction for specialist physicians

I read with interest the analysis and discussion of Audas and colleagues.[1] I am at a loss to understand the role of the basic medical examinations for specialist and family physicians when they are allowed to practise in their specialist area of medicine. In my case, I am a consultant child and youth psychiatrist whose training, although from outside the US and Canada, was considered adequate by the Royal College of Physicians and Surgeons of Canada for specialty work. The time and energy that I will spend on preparing for the LMCC examinations could be better spent in CME pursuits that would impact on clinical care.

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