S Lee, R Enns. The hidden realities of endoscopy unit budgeting. Can J Gastroenterol Hepatol 2014;28(11):619-620.

To the Editor:

Despite the economic turbulence of the past five years, Canada has enjoyed relative economic stability. Austerity measures in affected countries have had a major impact on health care spending. Endoscopy is a procedural speciality that incurs significant cost through its high usage rate of consumables coupled with significant capital costs (eg, endoscope systems). Long-term delivery of an advanced endoscopy service requires endoscopists to understand the financial implications of their clinical decisions and the equivalent options that have differences in cost. In most Canadian endoscopy units, involvement of physicians in cost management (aside from restriction of services) has been limited, primarily because purchasing and organization of budgets is performed through hospital executive management and a regional administrative service. The first step to involvement and participation is understanding the process of purchasing and documentation of costs.

We elected to undertake a study investigating the operating performance and characteristics of the St Paul's Hospital (SPH) GI clinic, Vancouver, British Columbia. Its aim was to investigate the caseload breakdown of the GI clinic, gain a better understanding of characteristics that impacted on the budgetary performance of the GI clinic and formulate recommendations to encourage better utilization of available resources. The three fiscal years predating March 2014 were retrospectively examined.

The study used both qualitative and quantitative methods of health research combined with investigative accounting principles. Access to confidential financial and operating records of the GI clinic was provided by Providence Health Care (health network of SPH), Health Shared Services British Columbia (HSSBC) and private vendors. Operational processes were reviewed and key clinical and management personnel were interviewed. The project began with collection, extraction and collation of relevant data through review of financial and operating records from multiple parallel sources. The original aim was to correlate clinical activity with various elements of the operating budget. Some of the initial questions included: does funding increase correlate linearly with increased activity?; are certain costs more liable than others in exceeding budget forecast?; is cost on a per-case basis changing?; and, how can we best manage operational growth? From these findings, we generated proposals that were presented to the endoscopists at the site.

The findings were both enlightening and disappointing at the same time. Four key issues were uncovered and are summarized below:

1. Endoscopic clinical activity is recorded through both the hospital clinical activity database and through the GI clinic's Olympus Endobase. Variations in procedure count was expected, but it was the magnitude of these variations that was concerning. Variations of 1% to 3% were common across all procedures, with a substantial 21% difference in endoscopic retrograde cholangiopancreatography (ERCP) count demonstrated during one fiscal year. This led to inaccurate cost analysis based on inaccurate input data. Further investigation found that the hospital database coding was dependent on a multistep process prone to incomplete manual data collection and inaccurate coding by clerical staff. SPH is currently transitioning to a new system in which the MSP billing code from a physician's billing note will act as the input for data collection.
2. Examination of the statement of activities revealed that the majority of funding for the department came from annual hospital allocation. The allocation over the three years gradually increased, in part, as a response to the sizeable budget deficits from the previous

years. Other 'one-off' government grants, such as pilot funding for the BC bowel cancer screening program, provided additional funding that allowed for extra service provision for a finite period. One of the key causes of budget deficits over the first two fiscal years ending 2012 and 2013 was caused by overtime nursing wages, often occurring during daytime hours. This led to an improvement in nursing staff allocation during ordinary hours and a focused effort of making overtime more judiciously used, resulting in a significant 63% reduction in overtime costs.

3. Accounting for approximately one-half of all expenditure was the cost associated with supplies and consumables. At first glance, the statement of operations appeared to record expenditure appropriately through different equipment categories. This assumption was disrupted when the category 'Enteral feedings' was shown to account for approximately one-third of all consumable expenditures. It was realized that items categorized under the 'Enteral feedings' banner, rather than a homogenous group, were, in fact, representing a much wider portfolio of items. Endoscopic ultrasound fine-needle aspiration needles, metal esophageal stents and ERCP guidewires were just some of the items housed within the category.

This miscategorization was spread across other category headings. Furthermore, appearance of sundry categories with rapidly escalating expenditure demonstrated that purchasing of specific items had been budgeted from multiple and evolving sources. This miscategorization issue may appear somewhat mundane and trivial. However, imagine if an observational study counted cases incorrectly and attributed frequency of a disease into the wrong classification. Consider the accuracy of the disease burden within the study population. In our study, miscategorization made it impossible to obtain an accurate reflection of supplies and consumables spending. Costs and usage trends simply cannot be deduced.

4. Over the past few years, British Columbia has shifted to a centralized purchasing agency known as HSSBC. Its role was to act on behalf of all British Columbia health networks to negotiate with individual vendors to achieve a consistent (and ideally, discounted) pricing and reliable supply chain for all. The SPH GI clinic's categorization method is actually a direct mirroring of the organization within the HSSBC catalogue of products. This miscategorization of products in the HSSBC system has serious user implications. An analogy would be visiting a supermarket and finding toothpaste, lamb chops and oranges in the confectionary aisle. Not only is it difficult to navigate and locate products within the catalogue, the miscategorization of products has serious end-user auditing outcomes, as demonstrated by the SPH budget.

This miscategorization of equipment reflects an unfortunate situation in which understanding of the procedures and equipment is independent from the purchasing and organization of the cost centre. This is easy to understand if one recognizes that the purchasing centre, HSSBC, is regionally responsible for the purchase of many thousands of items of varying types and usages. Where different items are classified and placed has not been carefully scrutinized, and placement in different categories has not been deemed to be a critical issue. However, the apparently haphazard placement of different devices in unrelated categories prohibits accurate assessment of utilization.

The issues we uncovered surprised us and made us realize how complacent we, as clinicians, can be when interacting with the financial implications of our practice. The purchasing models that have developed are typically extremely large (typical of 'wholesale' purchasing) and somewhat detached from the needs of the end user. We encourage all GI clinics to reflect and examine their own practice and budget planning to facilitate better utilization of available resources. The ability to analyze can only be made possible with accurate data collection. Existing data collection systems need to be

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scrutinized and this information cannot simply be assumed to be accurate. Furthermore, our research demonstrated that a hierarchical purchasing structure, as in the case with HSSBC in British Columbia, needs its catalogue of products to be accurately categorized to facilitate a meaningful statement of expenditure for its users. This applies to all fields within medicine, not only within endoscopy purchasing.

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