



from the British
Columbia Association
of

Laboratory Physicians

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Preamble

The British Columbia Association of Laboratory Physicians (BCALP) is a Section of the British Columbia Medical Association. Our members are medical doctors with specialty certificates in Laboratory Medicine. Our special expertise includes all aspects of laboratory testing and its application to patient care.

The British Columbia Association of Laboratory Physicians received a letter from Geoff Rowlands, Assistant Deputy Minister of Health Planning inviting opinions about the future diagnostic laboratory system for the province. As practitioners of laboratory medicine, we have an ethical responsibility to see that any system change properly addresses the best interests of the patient. The Association values the opportunity for involvement and wishes to advance the following opinions for consideration.

The British Columbia Association of Laboratory Physicians (BCALP) promotes quality within Laboratory Medicine practice and recognition for Laboratory Medicine specialists. The BCALP represents the business and economic interests of the Section of Laboratory Medicine within the British Columbia Medical Association.

“It’s time to put patient care first. To do that we must renew public health care, through better management, adequate funding, proper staffing, and sound strategic planning.”

Gordon Campbell, Premier

Laboratory system of the future

The laboratory system of the future will have the following attributes.

- Focuses on the patient and enables integration of community and hospital care
- Increases the quality of care and patient outcomes through the integration of laboratory practice with the delivery of patient care
- Delivers quality services that are responsive and sustainable
- Uses clinical outcomes as a primary measure of laboratory service efficacy
- Coordinates the laboratory service delivery within health regions and provincially
- Employs various strategies (e.g., selected consolidation of testing, appropriate automation and standardization, common laboratory information systems) to achieve cost effectiveness while attending to patient, clinician and system needs
- Employs information technology that facilitates the operation and management of the laboratory system and the delivery and management of health care
- Utilizes a systems approach to quality management
- Fosters the training, recruitment and retention of human resources within the laboratory system

Comments

Laboratory testing is part of the practice of medicine

Advancing the concept that “laboratory services” produce a commodity that can be cheapened by consolidation, robotics and mass production illustrates a fundamental misunderstanding of the practice of laboratory medicine. A misunderstanding that is far too prevalent among administrators who tend to characterize diagnostic medical services among “non-patient care and support services.” A misunderstanding that encourages little responsibility or accountability for the utilization or medical value of the product. A misunderstanding that may foster a system design that disables evaluation of the impact of testing on system costs and patient outcomes.

Laboratory product

A medical laboratory practice produces patient care information that enhances patient care. To do so requires our having a solid and current understanding of clinical medicine. Laboratory physicians consult regularly with clinical colleagues - either by phone or in person - on the interpretation of results and appropriate next steps. We work closely with clinicians to ensure that existing diagnostic tests are used appropriately, and new tests, are introduced in a proper fashion. As the complexity of diagnostic testing increases, the requirement for our active participation in the investigation and management of patients will only increase. As providers of this information, laboratory physicians and technologists must be accessible and intervene proactively in the diagnosis and management of patients. Over zealous consolidation of “laboratory services” impairs the ability of laboratory profes-

sionals to fulfill this function and disrupts their relationship with physicians, nurses and other health care providers.

Laboratory information delivery

Optimal delivery of patient care information, i.e., the right information in the right place at the right time is critical to the efficiency of the clinical process. Eighty percent of computer transactions in a hospital relate to laboratory information. Sixty percent of a physician's interactions with hospital information systems relate to laboratory information. Consolidation may offer the potential of long-term savings, but requires significant up-front investment to ensure that the system can function effectively. Hasty consolidation of "laboratory services" could severely impact the function of other clinical areas.

In his remarks to the Medical Services Commission, Assistant Deputy Minister Geoff Rowlands referenced the issue of coordination of laboratory services with standard care pathways and protocols. The pursuit of this objective involves extensive dialogue between clinicians and laboratory physicians about appropriate methodology, result presentation, interpretations that conform to guidelines, testing frequency, and the integration of results with other patient data. The achievement of this objective at any level of complexity necessitates the incorporation of laboratory results into the clinical information systems of facilities and health care practitioners.

System capacity

The contention that there is underutilized or "excess" capacity within the British Columbia laboratory system requires careful evaluation. Capacity may be defined as the theoretical maximum number of reportable tests per production unit. It is a function of the space, equipment, staff and hours of operation. Realizing maximum throughput on equipment is affected by the interventions required during specimen processing. This, in turn, is a function of specimen type and the decision support provided by LIS and other support staff, e.g., elimination of unnecessary additional testing or doctor notification may take technologist time. Equipment has throughput time and hours of operation; collection times and required TAT affect the flow of specimens to the instrument. To support the work patterns in the clinical areas, many hospital laboratories provide service around the clock and process large morning specimen batches. The necessary proximity of technical and professional resources is determined by patient care requirements. Activities focused on ensuring proper specimen timing and patient preparation may interrupt the smooth flow of operations.

The capacity in the systems now provides the necessary flexibility to varying workload and need for rapid response times. A degree of redundancy, especially in equipment, is required. One hundred percent efficient use of equipment and resources is unattainable. The equipment issue is a red herring, in the overall cost of testing, as it is usually a minor component.

Resourcing change

Resources and time commitment to effect change are substantial. Lessons learned in Alberta and Ontario include the need for adequate planning and adequate funding of enabling infrastructure, particularly, the information technology needed to support redesign.

The 1995 restructuring of "laboratory services" in Alberta was achieved at substantial human and material cost.

(1) The resulting human resources deficit included hundreds of laid off technologists who found other careers, the professional staff and physicians who departed for greener pastures and a portion of the residual staff who were simply burned out by the unmanageable burden of making

good on the promises of external consultants.

(2) The millions of dollars spent on severance packages, lease terminations, structural renovations, techno-fads and medical misadventures are costs that should be amortized and included in any inter-provincial comparisons of "per capita laboratory costs."

(3) The initial reduction in expenditures was achieved through the extraordinary efforts of the remaining staff and was not sustainable. Health authorities have had to significantly increase funding for laboratory medicine over the past five years and recruit personnel from a diminishing pool.

Funding

Fixed contracts for "laboratory services" impair the "modernization" of laboratory medicine by: failing to concurrently compensate laboratories for increases in patient numbers; creating irrational and artificial pressures to reduce costs, thereby compromising the quality of medical practice; and failing to facilitate the evolution of new diagnostic tests of clinical value. The BCALP realizes that improvements to the present fee schedule are feasible within an appropriate framework and process.

The funding in Alberta was cut without any due diligence and without provision for transitional costs. This, along with the massive changes, almost resulted in collapse of the system. Six years later, Calgary is still operating in a decentralized fashion as they have only recently received approval to acquire a new facility.

Guidelines

(1) The present laboratory system provides a strong foundation upon which to build the future system. The concept that the present system is not "modern", i.e., up to date, is not really accurate. Many of the "desired" system features are not widely applied, nationally or internationally. Many of the standards are emerging rather than established. The current Diagnostic Accreditation Program provides an excellent platform for funded expansion of system focused quality initiatives.

(2) Medical leadership is fundamental to the delivery of laboratory services. Laboratory physicians should be relied upon to integrate diverse, public and private systems in order to crystallize the strengths of each system.

(3) The practice of laboratory medicine should be coordinated within health regions and provincially, with clearly stated goals and objectives.

(4) Training, recruitment and retention of human resources is paramount, given that downsizing and restructuring within the laboratory sector has led to an increasing shortage of technologists and other key laboratory professionals.

(5) The determination of the proper distribution of testing services is a complex analysis. Judicious test consolidation can lead to greater efficiency and effectiveness. However, the greatest benefits can be achieved by maximizing the core strengths of community and hospital laboratories in a coordinated fashion while recognizing the varying degrees of complexity and urgency surrounding the delivery of laboratory services in these environments. Care should be directed toward the synergies that enhance patient care.

(6) The information technology architecture should support quality and timely care, efficient laboratory operations, utilization management, appropriate access to information, policy development and planning.

(7) A laboratory utilization group, through the British Columbia Protocols and Guidelines

Committee, should be given a mandate to study factors responsible for utilization and establish recommendations for appropriate policy and effective management of resources.

(8) Public/private cooperation is essential, however "partnerships" burdened by governance issues should be avoided.

(9) In this age of awareness regarding the scope and magnitude of medical errors, the time-honored practice of autopsy pathology and clinical pathologic conferences requires rejuvenation.

(10) Measures to sustain academic expertise should be identified and incorporated into the fabric of the system.

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