Society of Rural Physicians of Canada
Position Statement on Minimum Volume Credentialing
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Introduction

Health policy initiatives are becoming increasingly focused on improving patient safety and quality of care received.[1-3] One method by which this is accomplished is through implementation of mechanisms aimed at improving physician accountability and continually monitoring the standard of care that individual physicians provide.[1-3] In Canada the province with the most developed plan – the Provincial Privileging Project – is British Columbia, where the process of is currently being implemented. As such this paper will specifically analyze the process in BC, although there are similar programs under development both nationally and internationally.

Announced in November 2012, the Provincial Privileging Project introduces recommendations for the minimal volume of a given procedure a physician must perform over a given time period in order to be considered current in their ability to continue performing that procedure. [4] Unfortunately, no rationale is given for the specific volume requirements, and many of the cut-offs appear to be completely arbitrary. Specific "privileging dictionaries" have been developed for each speciality as well as General and Family Practice.[4] Although failure to meet the set standard does not automatically remove a physician's privilege to continue performing a specific procedure, it does trigger a review,[4] inherently disincentivizing that physician from continuing to perform the procedure in question if they are unsure of their ability to maintain the necessary volume. Not only is the potential inability of failing to meet a professional standard a concern in and of itself, the increased vulnerability to litigation cannot be ignored. Irrespective of whether an outcome was reasonable in the circumstances, litigation is an ongoing risk for any physician, and the Provincial Privileging Project provides an easy mechanism through which any blame can be entirely passed on to the physician. It essentially deems a physician to be incompetent unless they can demonstrate otherwise. The Provincial Privileging Project is explicitly stated to be a measurement of a physician's "current experience,"[4] that is, whether their abilities remain up-to-date, not an evaluation of their competency, nor a direct method for credential maintenance. Unfortunately, in both its goal and in its design, the Provincial Privileging Project is fundamentally flawed: not only does it fail to provide a workable mechanism to improve physician accountability and the quality of care provided, the recommendations lack a sound foundation and have the potential to cause significant harm to many physicians' ability to provide services, particularly in rural areas.

Discussion

The Provincial Privileging Project was proposed following the publication of three major papers in British Columbia: the *Investigation into Medical Imaging, Credentialing and Quality Assurance, Phase 1 Report*, the *Investigation into Medical Imaging, Credentialing and Quality Assurance, Phase 2 Report* (collectively the "Cochrane Report") and the *British Columbia Ministry of Health Provincial Review of Licensure, Credentialing, Privileging, Monitoring and Enhancement of Performance* (the "Provincial Review"). The Cochrane Report primarily focused on radiology,[3] but in as much as it made recommendations for the health system in general, it suggested that the health authorities, their affiliates, and the College undertake to (1) improve information sharing among themselves and with other jurisdictions; (2) develop comprehensive retrospective and peer review processes to be used within the health system; and (3) develop standardized measures to review both credentialing and physician performance. [1] Overall, the recommendations focused on the need for clearer expectations and communication processes throughout the medical system. Similarly, the Provincial Review focused on the need for improved communication within the health system, particularly among the health authorities, between jurisdictions and with the College.[2] Although it recommended that the College implement a process for comprehensive physician revalidation, it did not make any specific recommendations for the inner mechanics of such a system.[2(p59)] Considering these as a whole, it is clear that, other than in acting as an ostensible ongoing measure for physician currency, the Provincial Privileging Project fails to be the culmination of a process of ongoing policy development. It is not in line with the BC Ministry of Health's own recommendations, and while it could be considered a crude system for physician revalidation, no evidence has been provided that suggests its mechanisms are at all useful as a measure of physician capability.

The structure of the Provincial Privileging Project seems to be based on one particular underlying assumption: that the volume of medical procedures a physician performs is connected to the quality of the outcomes of those procedures. This is derived from a specialist perspective where physicians spend their

professional careers focusing on one particular area of practice and performing a specific set of associated procedures. It fails to recognize the existence of generalists who perform a wider range of more basic procedures. This demonstrates an underlying problem in the very foundation of the Provincial Privileging Project: its failure to account for a broad range of functional patterns of practice. The stated goal of the Project is to evaluate whether a physician's ability to perform a given procedure remains current. This is fundamentally flawed. Measuring whether a physician has performed a procedure enough times recently is of little use if that recent performance has not been adequate. It is surely not enough that procedures have been performed unless that performance demonstrated a reasonable degree of competence. Therefore, the Provincial Privileging Project must be at least indirectly concerned with competency, even if only measured through the proxy of frequency. In fact, any credentialing or revalidation program which does not consider competency or, equivalently, outcomes, inherently lacks a reasonable foundation. Regardless, the Provincial Privileging Project is clearly attempting to use a measure of volume to render judgement on a physician's abilities. Otherwise it would be completely meaningless. This reasoning – that volume of procedures performed is somehow reflective of a physician's ability to continue performing procedures – has a simplistic sort of appeal. It also lacks any evidentiary foundation for most medical procedures, despite its basic appeal to most administrators.

An abundance of research has been produced on whether the annual volume of procedures performed by a medical practitioner, or within a hospital, can be correlated with the outcome of the procedures.[5,6] Although the literature has produced highly variable results, there is strong evidence that for highly complex surgical procedures[1] surgeons who perform a given procedure more frequently will have better outcomes for that procedure.[7-13] Even within this group of procedures, however, there is evidence suggesting this correlation does not necessarily hold true in a Canadian context.[12(p64)] An interesting trend in this research is that more unusual a procedure is, the stronger the volume-outcome correlation appears to be – but these procedures are often so rare that it is nearly impossible to examine enough in order to produce statistically significant results.[14-16] Some of the research in this area also indicates a correlation between volume and outcome for more common procedures, such as c-sections,[17,18] but most of this research is either entirely questionable or of dubious applicability to BC physicians. For instance, Snowden et al found that a correlation exists between provider volume and lower risk of postpartum haemorrhage in low risk deliveries, but failed to identify the relative qualifications of different providers, failed to identify in which cases complications would have been preventable and was based on administrative data instead of more reliable clinical data.[19] As a counterpoint, Khuri and Henderson found that volume-outcome research based on administrative data was much more likely to find a correlation than if it was based on clinical data.[20] Finally, almost all of the research in this area is American, and thus describes an entirely different health care environment: one where many low density hospital area are extremely close to high density hospitals which provide viable alternatives for service, and one where the majority of outcome analyses are motivated by the needs of insurers. In fact, Urbach et al suggest that volume-outcome correlation are inherently higher in the United States than in Canada due to differences in health system organization.[21] Overall, the foundation of the Provincial Privileging Project – an assumed overall correlation between physician volume and better outcomes – has no evidentiary basis, which makes the entire initiative lack any utility.

Even if the evidence did suggest that volume and outcome were correlated for most medical procedures performed by physicians within the health system, the Provincial Privileging Project would still suffer from a glaring flaw: a failure to consider the causal aspects of an alleged relationship. It is not sufficient to consider outcomes, if the manner of analysis does not also suggest means of improvement. That is, it is less important to know that volume and outcome are correlated in some circumstances, than it is to know why they are correlated. If there is no causal element to the relationship – none has been found[22] – aiming at improving volume rather than quality is treating the symptom rather than disease. This is not helped by the fact, that even where a volume-outcome correlation is indicated, the volume of what is frequently unclear. Evidence is divided on whether practitioner[23] or hospital volume[24], and specific procedure or overall procedure volume[25] are better indicators. Reliance on volume-outcome studies, even for those procedures where a correlation is indicated, is thus logically unsound, as its use of volume as a proxy measurement for competence fails to give any meaningful information that can be used for actual systemic improvement.

Besides being of dubious utility to the health system the Provincial Privileging Project also has the

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1 The procedures include AIDS treatment,[7] surgery on pancreatic cancer,[7] esophageal cancer,[7] abdominal aortic aneurysms,[7,13] paediatric cardiac problems,[7] rectal cancer surgery,[8] hip fracture surgery,[9,10] breast cancer surgery,[11] angioplasty,[12] esophagectomy,[12(p64)] Whipple surgery,[12(p64),] coronary-artery bypass grafting,[13] carotid endarterectomy,[13] aortic-valve replacement,[13] pancreatic resection,[13] lung resection,[13] and cystectomy.[13]

potential to severely impact physicians practising in rural areas. It is a program that fails to account for the generalist nature of rural practice,[26(p5)] wherein physicians develop broad skill sets by performing a wide variety of complementary procedures. Physicians who find themselves unable – or who expect to be unable – to meet required volumes are unlikely to continue performing certain procedures. This result is particularly absurd given the abundant evidence that the volume-outcome correlation is weakest for the less complex procedures that rural physicians are usually called upon to perform.[16] It remains unclear what actual consequences will follow from failure to meet these benchmarks, and therefore it is likely physicians will prefer to give up their procedures rather than risk having them revoked. Even if privilege removal will not necessarily follow from insufficient volumes, the fear of condemnation, censure, or litigation is sufficient to dissuade many low volume physicians from continuing to practice. The adverse impact of this on patients living in rural areas should be obvious. The unavailability of local care will force patients to travel in order to receive necessary treatment and consequently also interrupt their continuity of care, remove them from local support networks, and subject them to greater financial challenges.[27-29] For rural patients and physicians alike the Provincial Privileging Project has the potential to cause significant and long-lasting harm.

A similar program was imposed in 1998 in Saskatchewan by the Saskatchewan College of Physicians and Surgeons, requiring all obstetric practitioners to complete a minimum of 25 deliveries a year.[30] Rural and family physicians left maternity care in droves,[30] and although the requirement was removed in 2002 following evidence demonstrating no difference in outcomes between low and high volume urban physicians[31,32], the number of family physicians providing maternity care in Saskatchewan has never recovered.[30] Furthermore, the existence of stable medical infrastructure is often of great importance to the sustainability and cohesiveness of rural communities.[33,34] Forcing rural practitioners out of providing a comprehensive range of services poses a grave threat to both rural physicians and their communities.

Rural and urban physicians alike would benefit from a comprehensive credential revalidation system. The inadequacy of the Provincial Privileging Project only demonstrates the need for a better program to exist. In the absence of Canadian research that supports the assumption of a volume-outcome correlation, other factors must be considered. In fact, even if such research were undertaken, it would not be especially useful to the question of revalidation unless the causal aspects of any such relationship were considered. A better way to develop a credentialing program is to look at already established research and programs with good results. For instance, in many parts of Europe, revalidation done through a combination of continuing medical education and peer review programs, and regulation is generally done by professional medical bodies.[35] In the United States, CME and assessments are used to achieve certification through the American Board of Physician Specialists.[34] In the Canadian context, programs such as the Managing Obstetrical Risk Efficiently Program (MORE^{OB}) are already being used by hospital to improve their internal communication and teamwork abilities and thereby improve obstetrical outcomes.[36] Ideally all physician revalidation process should emulate this example by focusing on the process of continuous quality improvement. It is important to consider the applicability of pre-existing programs to both the Canadian context and the general medical context. By looking at already demonstrated outcomes a program that has a soundly logical foundation and meets the needs of all BC physicians can best be constructed.

Conclusions

The grave flaws in and the inadequate policy background for the Provincial Privileging Project make it an entirely inadequate provincial health system initiative. It fails to consider physicians in a holistic sense, that is, as practitioners with diverse training and backgrounds, who practice within a specific community environment and are supported by a range of differently qualified team members. Rural practice is a context in which this error is of particular concern. Rural physicians, by their very nature, are called on to handle a greater diversity of procedures, often with lower volumes for specific procedures, than their urban counterparts. This broad range of practice can hardly be considered to reduce their capabilities, as their ability to cross train between procedures allows for development of a varied skill set and wide ranging competencies. As stated in the Provincial Review itself, “If minimum standards are to be established for credentialing, the standards need to take into account the different levels of care provided in the Province. It simply is not possible to provide the same service in rural areas.”[2(p58)] It makes no sense to impose the Provincial Privileging Project standards in rural areas when the very nature of rural practice is so diverse that as to make specific procedure volume irrelevant. Any health system initiative must consider the wide range of well functioning practice styles and groups that operate across the province and do its best to support rather than undermine doctors with wide ranging skill sets. The Provincial Privileging Project clearly fails to do this. Furthermore, as other provinces move to develop similar programs there is a grave danger of an untested and inadequate process spreading to affect other provinces beyond

British Columbia.

Recommendations

Although the BC Provincial Privileging Project is an inadequate initiative to improve physician accountability and the quality of care that patients receive, this does not mean that an appropriate process should not be developed. As established by the Cochrane Report and the Provincial Review, there is a need for improvement in physician review processes and in revalidation methods. In light of this goal The Society of Rural Physicians of Canada therefore make the following recommendations:

RECOMMENDATION 1: That any health system initiative affecting privileging implemented by the provincial Ministries of Health be evidence based. In the absence of evidence arbitrary standards are inappropriate.

RECOMMENDATION 2: Any revalidation process must carefully consider:
(a) the importance of appropriate peer review when measuring quality;
(b) the need to consider Canada's diverse geography and the commensurate range of varied community medical practice that exists; and
(c) the different nature of generalist and specialist practices.

RECOMMENDATION 3: Annual physician procedure volume should not be used as a surrogate measure for either “currency”, competency or outcomes.

RECOMMENDATION 4: A comprehensive and balanced system be implemented and used for credential revalidation which focuses on and considers:
(a) the actual quality of care provided by a physician
(b) the particulars of specific continuing medical education completed by a physician
(c) the impact on the health outcomes of the patients in the community that arise from changes in health care delivery.

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