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Integrating a Pharmacist into an Already-Established Primary Health Care Team

Defining the role of pharmacists in a variety of health care settings has been widely discussed over the past several years, and it continues to be an area of significant interest to our profession. In particular, pharmacists have been encouraged to establish and/or enhance clinical pharmacy services in ambulatory, hospital, and community practices.

However, in these collaborative efforts, it is important to have clearly defined roles to reduce ambiguity or overlap of roles with other health care professionals and also to promote a cohesive approach when more than one pharmacist is involved with the team. Several factors must be considered before a pharmacist joins a health care team: Is this an established team? Have the team members interacted with a pharmacist before? What are their expectations of the pharmacist?

We would like to direct readers of the *CJHP* to our recently published study, in which we investigated how to integrate a pharmacist into an already-established primary health care team.[1] The study setting was designated as a primary care site, but a clinical pharmacist had never been a member of the team. The only previous interactions that team members had had with pharmacists were brief communications with community practitioners regarding dispensing functions.

We used an approach known as action research, a qualitative methodology involving a cyclical, dynamic, and collaborative process in which researchers strive to improve their practices. We worked with established primary and ambulatory care pharmacists and members of the primary care team to define and tailor the activities of the proposed clinical pharmacist position. A pharmacist then joined the team and carried out the agreed-upon services. Focus groups were held with the team at the end of the study period to evaluate the pharmacist's role. The results of this process were ultimately used to create an 8-step guide for this integration process. This guide or template may be of interest to all clinical pharmacists who wish to become part of a primary health care team but who are unclear about what their roles or expectations should be.

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Sharing Data from Pharmacy Information Systems

In a recent issue of the *CJHP*, Brisseau and others[1] discussed the topic of sharing data from pharmacy information systems to electronic health records. I was dismayed by some of the misleading and inaccurate information presented in this letter.

I would first take issue with the number that the authors quoted from the Hospital Pharmacy in Canada Survey, suggesting that "6% of departments were using this type of medical record" [i.e., electronic health records].[1] I seriously doubt this number and could not find its source anywhere in the published survey. In fact, Table J-5 of the survey report[2] states an 81% achievement rate among pharmacists in using medication-relevant portions of patients' electronic medical records for managing patients' medication therapy. This rate of use necessarily implies that such electronic medical records actually exist. I suspect that the authors were confusing the rate of implementation of electronic health records with the rate of uptake of

full-blown computerized order entry, which is probably in the range of 11%.[3] In fact, most hospitals in Canada have some sort of electronic system that functions as an electronic health record. In addition, under the leadership of Canada Health Infoway, most provinces are deploying provincial electronic health records, which will be able to exchange data electronically with pharmacy systems.

The authors of the letter[1] also state that "the American Society of Health-System Pharmacists has published a number of statements on robotization and information technologies, but neither the Canadian Society of Hospital Pharmacists nor any of the professional regulatory authorities in Canada have published professional guidelines for data maintenance or order exchange in health care settings." This is not entirely true. Furthermore, such activities do not really fall within the CSHP's role. I would also like to point out that Canadian versions of such guidelines actually do exist. In British Columbia and other provinces, there are specifications for electronic data interchange involving pharmacy systems and provincial networks like BC's PharmaNet. Granted, in British Columbia, we currently deal only with community and outpatient pharmacies; however, there are plans to include data from hospital pharmacy systems as well. In addition, the Canadian Pharmacists Association (CPhA) has been actively involved with the Canadian Electronic Drug (CeRx) Messaging Standard, which deals with e-prescribing messages, dispensing messages, clinical messages (e.g., allergies), and other types of communication. In fact, Canada Health Infoway has an active standards group that is paying close attention to information exchange in the pharmacy context at the provincial level. The provinces are at differing levels of deployment, but the Maritimes (especially Newfoundland and Labrador and Prince Edward Island) are leading the way.

In the pilot study described in the letter by Brisseau and others,[1] the authors found medication administration records, as a source of information for an electronic health record, to be fraught with many obstacles. However, this should not have been surprising. These records are designed for a specific purpose in the hospital environment and are not always the best source of dispensing information. I would agree with the authors' suggestion that we are not ready to share information with inpatient and outpatient records, if such sharing of information were to rely solely on the use of medication administration records. But in Canada, we are clearly not looking at this type of record as the sole source of information. Many vendors of pharmacy clinical information systems are fully aware of the standards for electronic health records established by Canada Health Infoway. In most provinces, in fact, provincial electronic health records are based on these standards, and any vendor wishing to market a system that will integrate with the provincial records must follow the standards.

In conclusion, I would point out that I have been asked to represent the Canadian Society of Hospital Pharmacists (CSHP) on the National e-Pharmacy Task Force, which is composed of stakeholder groups such as the CSHP, the CPhA, and the National Association of Pharmacy Regulatory Authorities. The task group is fully engaged in discussions related to the issues raised in the letter.[1] However, the e-health agenda is clearly here, and there is no doubt in my mind that we are already sharing data from pharmacy information systems and will continue to fine-tune the electronic exchange of pharmacy data.

Brisseau and others conclude their letter[1] by stating, "In the meantime, to avoid slowing further development in the health care sector, safe data-sharing from pharmacy information systems to inpatient or outpatient electronic health records could rely on electronic sharing of actual labels (e.g., in pdf format)." In my view, this conclusion is irresponsible, a step backward at best, and potentially has the same flaws as using medication administration records.

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[The authors respond:]

We thank Jeff Barnett for his interest in and comments about our recent letter to the editor.[1]

In that letter, there was a numeric error, but we also failed to provide complete details for the data cited. Specifically, the value of 6% that appeared in our letter should have been 7% (n = 6), referring to implementation of complete electronic health records, including computerized prescriber order entry systems, for hospitals with 201–500 beds (such as ours), as reported in the 2007/2008 Hospital Pharmacy in Canada Survey (see Table H-3).[2] Notably, increased values of 12% (n = 11), for hospitals with 201–500 beds, and 8% (n = 13), for all respondents, were reported in the Hospital Pharmacy in Canada Survey for 2009/2010 (see Table F-4).[3] Although it is true that the proportion of health care institutions with complete electronic health records is on the rise, it is our understanding that most Canadian health care institutions use several systems, some with and others without electronic interfacing, for clinical monitoring of inpatients and outpatients. We will have to wait a few years before most institutions have access to fully integrated electronic health records.

As far as the various Canadian and provincial initiatives related to setting up electronic health records are concerned, we acknowledge their existence but would emphasize that they must be fully integrated into current products before their full effects

will be realized. The Canadian Electronic Drug (CeRX) Messaging Standard is well designed and holds a lot of promise. This standard will make it possible to share complete information, provided that the information systems exchanging data respect all principles of the standard, which is often not the case.

While we wait for the implementation of compliant systems that can securely share all data related to patients' drug records, we believe that sharing data from the medication administration record (rather than sharing electronic records based on incomplete, nonstandardized data from various systems that may have been transformed by algorithms) may be a good compromise. Furthermore, the challenge is not to show the feasibility of optimal data exchange, but rather to achieve safe information sharing.

We applaud Jeff Barnett's participation as a CHSP representative on the National e-Pharmacy Task Force, which will help to mobilize pharmacists, institutions, and other stakeholders to promote the changes that will be required in order for information to flow safely from one system to another.

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