Lost in Translation: Expanding Clinical Pharmacy Services through a Universal Language

Clinical pharmacists are key members of the health care team who "provide patient care that optimizes medication therapy and promotes health, and disease prevention."[1] Currently, pharmacy stakeholders and leaders use drug therapy problems (DTPs) and key performance indicators (KPIs) to communicate the impact of clinical pharmacy services on patient outcomes. KPIs are evidence-based, quantifiable measures of quality that result in a positive outcome for a patient.[2] A group of Canadian hospital pharmacists has developed a set of clinical pharmacy KPIs that support improvement in the quality of patient care and advance evidence-informed clinical pharmacy practice.[3] These measures include activities such as planning pharmaceutical care, resolving DTPs, providing patient education, attending interprofessional patient rounds, and performing medication reconciliation.[3] To date, KPIs have been instrumental in demonstrating the positive impact that interventions by clinical pharmacists have on patient outcomes. They have been key measures in expanding the role of clinical pharmacists, yet there are some limitations to their application. One limitation is that KPIs and DTPs are well understood only by pharmacists and are not always meaningful to other health care professionals or hospital administrators. A second limitation is that key stakeholders and decision-makers communicate their performance in terms of hospital metrics, but clinical pharmacy KPIs do not directly translate to these hospital metrics. Therefore, a common language for communication must be developed to advocate effectively for continued expansion of clinical pharmacy services. Use of a common language will help to ensure that nonpharmacist stakeholders and key decision-makers appreciate the significant impact that clinical pharmacists have on patient outcomes.

The benefits of KPIs and DTPs have become ingrained in pharmacists' understanding of modern clinical pharmacy practice. The current obstacle lies in translating the benefit of these measures to nonpharmacist stakeholders and leaders. In a recent study, Mourao and others[4] gathered feedback on clinical pharmacy KPIs from pharmacists, patients, and nonpatient stakeholders. They found substantial differences between pharmacist and nonpharmacist respondents in rating the highest-priority KPI, and most of the nonpharmacist stakeholders did not understand certain KPIs, such as the task of developing and implementing a pharmaceutical care plan.[4] These results illustrate the differing priorities and interpretations of clinical pharmacy KPIs by pharmacists relative to nonpharmacist stakeholders.

To properly demonstrate the benefit of clinical pharmacy services and continue to grow the role of clinical pharmacists, pharmacists must improve their communication with other health care professionals and administrators. Although KPIs remain fundamental to assessing the benefit of clinical pharmacy practice, we propose that understanding and participating in initiatives based on hospital metrics will be the solution to ensuring that the message is not lost in translation. Hospital metrics can be broadly classified as operational, clinical, and financial measures. They include outcomes such as actual length of stay, emergency department wait times, readmission rates, and disease-specific outcomes, such as *Clostridium difficile* infection rates.[5] For example, pharmacists can recommend using narrower-spectrum antibiotics or shortening the duration of therapy to target a reduction in rates of *C. difficile*; they can provide education to patients at high risk of medication non-adherence as a way to target readmission rates; or they can perform medication reconciliation on admission to improve patient flow and emergency department wait times. These approaches would ensure that pharmacists and key decision-makers are working toward common goals. Additionally, they would ensure that the hospital as a whole can be compared with other hospitals (rather than comparing data between individual pharmacists), which is what hospital administrators rely on to make financial decisions. Although it is crucial to maintain evidence-based outcomes as the focus of clinical pharmacy practice, these outcomes can improve hospital metrics, which are also clinically significant for patients.

If key pharmacy stakeholders could translate the benefits in patient outcomes demonstrated by clinical pharmacy KPIs to improvements in general hospital metrics, the evidence for expanded clinical practices would be strengthened. In a manner similar to how clinical evidence might be prioritized according to a hierarchy of outcomes (e.g., improvements in mortality prioritized over surrogate markers), high-quality outcomes that are

relevant to key decision-makers should be used to assess and translate the value of clinical pharmacy services. Although KPIs have successfully contributed to the advancement of the profession, pharmacy needs to move beyond KPIs, in the direction of hospital metrics, which are more relevant to a broader audience. Once all parties are able to speak the same language, the benefit of continuing to expand the role of clinical pharmacists will become clear to everyone.

References

1. Definition of clinical pharmacy. Lenexa (KS): American College of Clinical Pharmacy; 2015 [cited 2017 Oct 10]. Available from: https://www.accp.com/stunet/compass/definition.aspx
2. Lo E, Rainkie D, Semchuk WM, Gorman SK, Toombs K, Slavik RS, et al. Measurement of clinical pharmacy key performance indicators to focus and improve your hospital pharmacy practice. *Can J Hosp Pharm.* 2016;69(2):149-55.
3. Fernandes O, Gorman SK, Slavik RS, Semchuk WM, Shalansky S, Bussières JF, et al. Development of clinical pharmacy key performance indicators for hospital pharmacists using a modified Delphi approach. *Ann Pharmacother.* 2015;49(6):656-69.
4. Mourao D, Rayond C, Slobodan J, Gorman SK, Toombs K, Doucette D, et al. How do patient, non-patient and hospital pharmacist stakeholder perspectives on clinical pharmacy key performance indicators for hospital pharmacists compare? [abstract]. *Can J Hosp Pharm*. 2015;68(1):70.
5. Hansel J, Seaman N. *Building a powerful hospital scorecard … by keeping it simple!* Emeryville (CA): Mede Analytics; 2012 [cited 2017 Oct 10]. Available from: www.hfma.org/brg/pdf/MedeAnalytics_Building%20a%20Hospital%20Scorecard_White%20Paper.pdf

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