In October 2012, the Canadian Medical Association (CMA), Canadian Pharmacists Association (CPhA), and Canadian Society for Hospital Pharmacists (CSHP), surveyed their members to learn more about the impact of drug shortages on their patients and their practice. While each organizations’ survey reflects the practice settings and nature of their respective memberships, a number of similar questions were included on all surveys. The results provide a consistent picture of the impact of drug shortages on Canadians, on physicians and pharmacists.

**Prevalence of Drug Shortages**

All 3 surveys suggest that drug shortages remain a problem in Canada. Results from the CMA survey indicated:

- 66% of respondents stated shortages are worse since 2010,
- 41% indicated that they had difficulty in obtaining or prescribing specific drugs due to a shortage,
- 34% also stated that a shortage typically lasted between 1-3 months, although 10% of physicians stated that a typical shortage lasted over 7 months.

The CPhA survey revealed:

- 78% of respondents stated that they had difficulty sourcing a medication in their last shift at work,
- 94% indicated that they had difficulty sourcing a medication in the past week,
- 75% of respondents stated that drug shortages had a “significant” impact on workload for the pharmacy practice.

The CSHP survey indicated:

- 45% of respondents had difficulty sourcing a medication for a patient in their last shift,
- 61% had difficulty sourcing a medication over the past week,
- 91% of respondents agreed or strongly agreed that drug shortages are increasing costs to the health care system.

**Impact on Patients**

Drug shortages are having negative impacts on patients.

- 64% of respondents to the CMA survey indicated that shortages of drugs had consequences for patients.
• 60% of respondents to the CSHP survey stated that they had patients who had been inconvenienced by shortages, 78% agreed or strongly agreed that they are negatively affecting patients, and 59% agree or strongly agree that they are compromising care to patients.
• 31% of hospital pharmacists also reported that patient’s health had been compromised (36% did not know).
• 91% of respondents to the CPhA survey stated their patients had been inconvenienced as a result of drug shortages, while 51% stated that patients’ care had been compromised or they had suffered an adverse effect. 55% of respondents indicated that drug shortages had a “significant” impact on patient care and outcomes.

The results of the 3 surveys show remarkably consistent results when asked to identify different consequences drug shortages have had on their patient. The overwhelming majority of respondents (physicians and pharmacists) who indicated that drug shortages had consequences for their patients identified the following consequences with the highest frequency:
- Delays in treatment
- Treatment was stopped
- Received a less effective medication or formulation
- Extra time and/or travel required to locate alternative medication
- Extra cost associated with alternative medication

Although these consequences were the most frequently selected, other identified consequences included:
- Extended hospital stays
- Increased post-operative pain
- Procedures being delayed or cancelled
- Patient admitted to hospital
- Original condition worsened

Close to 40% of CSHP and CPhA respondents indicated that 20% or more of their patients were impacted by drug shortages.

**IMPACT ON PRACTITIONERS**

Drug shortages continue to affect physicians and pharmacists.

67% of CMA respondents stated that drug shortages were having an impact on their practice. When asked how, the most common responses were:
- increases in time on research or consultation with health professional colleagues to source alternative medicine,
- increase in length of patient visits due to medication substitution concerns,
- increase in forms such as insurance claims.

76% of CSHP respondents reported a “significant” impact on their workload, while 20% of respondents included that drug shortages had a “somewhat” of an impact on their practice. Pharmacists and pharmacy technicians were re-assigned to activities related to drug shortages moving them from their
routine activities (e.g., working directly with patients) to more behind the scenes activities such as learning more about the drug shortages, looking for alternative therapies, managing inventory stocks.

75% of respondents to the CPhA survey indicated that shortages were having a “significant” impact upon their practice, while 24% stated it was having “somewhat” of an impact.

Pharmacists have been doing their best to mitigate and address shortages when they occur. When asked what sort of mitigation measures they had taken, both community and hospital pharmacists reported:

- they had identified and obtained drugs from other sources,
- increased communication between the pharmacy personnel and medical personnel to address shortages,
- implemented rationing and/or additional restrictions for the drug that was in short supply,
- used a compounded formulation of the drug, made with a different formulation.

**CONCLUSION**

This joint work of CMA, CPhA, and CSHP to survey its members provides several observations. As of October 2012, drug shortages remained a significant problem in the Canadian health care system. Shortages are having negative impacts on patients, in terms of convenience and health impacts. Shortages are also having a negative impact on physicians and pharmacists, predominantly from the perspective of the time required to manage and address shortages – time that could be spent providing patient care. Respondents to the survey also expressed their frustration that shortages have occurred for as long as they have, and that they are looking for leadership amongst all the players in the drug supply chain to address shortages now, and in the long term.