Managing patients with adverse events following immunizations or contraindications to vaccination

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Vaccination is one of the most effective public health interventions ever developed, having led to dramatic reductions in childhood morbidity and mortality. Although vaccines are generally safe, they have been associated with rare moderate or severe adverse events (e.g., febrile seizure, anaphylaxis). Patients with adverse events following immunization (AEFI) occasionally come to medical attention, and in such cases, physicians and patients may have concerns about the safety of proceeding with further immunizations. These patients can benefit from a detailed assessment by an expert clinician, as do those with underlying medical conditions that may alter the risk of an adverse event. In Canada, the Special Immunization Clinics (SIC) network was established in 2013 at 13 centres across Canada to provide expertise in the clinical care of patients with AEFI and potential contraindications to immunization.

A one-time survey was conducted to describe the current referral patterns for children with AEFI or potential vaccine contraindications among paediatricians and subspecialists in Canada and to assess paediatricians' willingness to refer such patients to a SIC, in anticipation of establishing the SIC network. The survey was distributed to 2490 paediatricians and paediatric subspecialists through the CPSP with a response rate of 24%. A majority of respondents (53%) practised general paediatrics exclusively, 4% practised infectious diseases (ID) or allergy subspecialties, 25% practised general paediatrics and a subspecialty other than ID or allergy, and 16% practised another subspecialty only. In total, 52% of respondents reported that they administer vaccines.

In the past 12 months, 29% of respondents had received questions or referrals for children with challenging AEFI or potential vaccine contraindications, including 84% of ID and allergy specialists. Family physicians were the most frequent source of referrals, followed by general paediatricians and public health professionals. Twenty-six percent (26%) of respondents had referred a patient with AEFI to another specialist in the past 12 months, most commonly an allergist or infectious disease specialist.

Few respondents expressed dissatisfaction with available resources for managing patients with AEFI (2% very dissatisfied, 7% somewhat dissatisfied), compared to the proportion that was satisfied (24% very satisfied, 24% somewhat satisfied), but there was a high frequency of non-response (44%). Overall, 69% of respondents indicated that they would be likely or very likely to refer patients to a SIC, and 34% indicated that they would have referred at least one patient to a SIC in the previous 12 months.

In conclusion, patients with challenging AEFI or potential vaccine contraindications are encountered by paediatricians and subspecialists in a variety of practice settings, and there appears to be broad support for a SIC network among Canadian paediatricians. With 13 sites in six provinces, the SIC network will be well positioned to support paediatricians and subspecialists in managing these patients. An article entitled, "Canadian paediatricians' approaches to managing patients with adverse events following immunization: The role for a special immunization clinic" was submitted to *Paediatrics & Child Health* and accepted for publication in 2014.

References are available upon request.

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