Clinical Staff Pharmacists' Experience and Awareness Surrounding Continuous Prostacyclin Therapies In Pediatric Pulmonary Hypertension

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Background: Continuous prostacyclin therapies, such as epoprostenol and treprostinil, are prescribed as empiric or concomitant therapy in pediatric pulmonary hypertension patients. Although these therapies have been around for years, continuous prostacyclin therapies and its delivery via CADD-M5 pumps were introduced to our institution in April 2017. Since these orders require diligent attention by healthcare providers due to their inherent risk of prescribing and dispensing errors, awareness and expertise with continuous prostacyclins is paramount. Clinical staff pharmacists play a key role in ensuring medications are prescribed and dispensed appropriately. Determining our current pharmacists' experience and awareness with these medications will best guide quality improvement and educational initiatives to provide safe medication practices.

Methods: A 10 question online survey was sent via email to 55 clinical staff pharmacists at Phoenix Children’s Hospital (PCH). The email provided a URL link to the electronic survey hosted through SurveyMonkey®. SurveyMonkey® compiled survey responses anonymously and the survey was open for 6 days.

Results: Forty percent of clinical staff pharmacists responded to the web-based survey. Approximately 50% of the respondents have been practicing at PCH for less than 5 years, while approximately 30% have been practicing for greater than 10 years. Pharmacists were asked how many times they were exposed to continuous prostacyclin therapies within the last year. More than 50% had been involved in an order 1-2 times; 14% 3-4 times, 9% greater than 5 times, and 23% reported zero exposure. Approximately 32% of staff pharmacists were comfortable or very comfortable verifying an order; however, over 65% did not feel comfortable evaluating a dose titration of continuous prostacyclin therapy. Despite their comfort level, 90% of clinical staff pharmacists were interested or highly interested in learning more about continuous prostacyclin therapies and/or pulmonary hypertension therapies.

Conclusions: The results of this study highlight the importance of pulmonary hypertension based educational initiatives, especially those targeted towards the impact of high-risk medications such as continuous prostacyclins. Based on the results of our survey, we aim to implement a targeted educational initiative and content expert program to improve the expertise of clinical staff pharmacists when recommending and verifying continuous prostacyclin therapies in addition to other medication therapies for pulmonary hypertension.