



## The 65th ASH Annual Meeting Abstracts

## ORAL ABSTRACTS

## 902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

**Primary Care Management Pathways to Reduce Wait Times in Hematology: Monoclonal Gammopathy of Undetermined Significance**

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**Background:** Prolonged wait times are a worsening barrier to accessing specialist care in Canada and other countries across the globe. The flow of patients between primary care and specialists has been a recognized area for improvement (Liddy et al., 2020; Moir & Barua, 2021). Kingston Health Sciences Centre (KHSC) has aimed to optimize referrals through the implementation of primary care management pathways (PCMPs). PCMPs are diagnostic and/or treatment algorithms, co-developed by local primary care physicians and specialists with input from patients. They are designed to support primary care providers in managing low risk medical conditions in the community while more quickly identifying patients with higher risk conditions to be seen by specialists.

A PCMP was implemented in June 2021 for Monoclonal Gammopathy of Undetermined Significance (MGUS) (<https://kingstonhsc.ca/refer/hematology>). This asymptomatic condition with low levels of monoclonal protein in the blood or urine has an approximately 1% per year risk of transforming to a hematological malignancy such as multiple myeloma (Kyle et al., 2018). The MGUS PCMP outlines diagnostic criteria, management, and monitoring instructions for low-risk MGUS along with patient information. "Red flag" features, such as renal impairment, anemia or significantly increased monoclonal protein levels, are used to highlight those who need urgent referral.

The aim of this study is to evaluate the impact of an MGUS PCMP on wait times in Hematology in Kingston, Ontario.

**Methods:** All consecutive outpatient Hematology referrals received at KHSC from January 2021 to December 2022 were reviewed. Monthly outcome measures included the number of new referrals and median wait times for patients seen. Number of MGUS referrals deferred to the PCMP was included as a process measure. Monthly balancing measures included number of re-referrals of PCMP patients, number of deaths without being seen for MGUS, and number of new multiple myeloma diagnoses. To compare 6-month pre-PCMP implementation (January 2021 to June 2021) with 18-month post-PCMP implementation (July 2021 to December 2022), generalized linear regression analysis was conducted.  $p < 0.05$  was considered statistically significant. A survey of primary care providers was distributed through the regional Primary Care Physicians' Council to assess primary care satisfaction with the PCMP.

**Results:** Between January 2021 and December 2022, 4504 Hematology referrals were received, 278 (6%) of which were MGUS referrals. 76 (27%) of MGUS referrals were deferred to the PCMP.

There was a significant increase in monthly Hematology referrals from a mean ( $\pm$  standard deviation (SD)) of 163.0 ( $\pm$  13.9) pre-PCMP to 195.9 ( $\pm$  27.3) post-PCMP ( $p < 0.0001$ ). There was no significant difference in mean monthly MGUS referrals pre-and post-PCMP ( $11.7 \pm 4.7$  versus  $11.6 \pm 3.5$ ).

Hematology's median wait time for those seen fell from a median (interquartile range (IQR)) of 51.3 days (13) pre-PCMP to 28.5 days (11) post-PCMP ( $p < 0.0001$ ). The MGUS median wait time also fell from a median (IQR) of 40.5 days (59) to 37.0 days (32.5) ( $p < 0.0001$ ).

No significant difference was noted in the balancing measures. Pre-PCMP to post-PCMP, the mean number of deaths without being seen for MGUS ( $0.17 \pm 0.41$  versus  $0.17 \pm 0.38$ ,  $p = 0.36$ ) and mean monthly new multiple myeloma diagnoses ( $5.17 \pm$

1.94 versus  $5.17 \pm 2.50$ ,  $p = 0.54$ ) remained stable. There were 7/76 (9.2%) re-referrals of patients deferred to the PCMP, with a median (IQR) time to re-referral of 64 days (348).

A survey to assess primary care provider satisfaction with the PCMP included a total of 28 respondents; 19/28 (67.9%) reported using PCMPs. On a scale of 0 to 5, where 5 is the highest satisfaction, the median (IQR) overall experience was 4/5 (1.5) and impacts on supporting patient care and changing management were also 4/5 (1). The most common concern, raised by 7/28 respondents (25%), was the downloading of more work to primary care.

**Conclusion:** The MGUS PCMP was associated with reduction in wait times for overall Hematology and MGUS despite an increase in referrals. Limitations of this study include concurrent changes in the program, including staffing and the COVID-19 pandemic. These results suggest that PCMPs may be an effective tool to address Hematology wait times, likely best complemented with other strategies to avoid overburdening primary care providers.

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