Determining Safety for Rituximab Infusions in the Home and Pharmacy Infusion Suite

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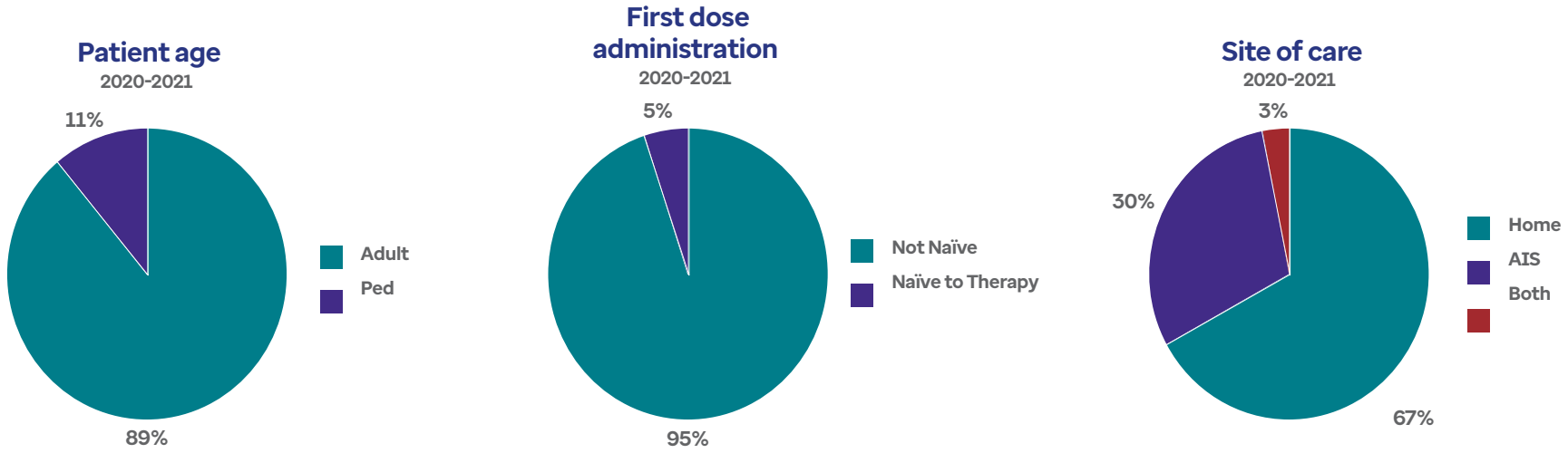
Introduction

The ability to receive care in the outpatient setting has long been established as more convenient and cost effective for the patient.[1] Home infusion therapy is no exception and never more imperative than during the COVID-19 pandemic. In addition to convenience and cost savings, limiting the patient's exposure to COVID-19 was crucial. Administering therapy in the outpatient setting during the pandemic also helped to alleviate strain on hospital systems by freeing up valuable bed space and preserving personal protective equipment (PPE). During the COVID-19 pandemic this organization received an increased number of referrals for rituximab therapy, including first doses, to be administered in the home or pharmacy ambulatory infusion suite (AIS). Concerns regarding the severity of acute drug reactions (ADRs) associated with the initial doses of rituximab have historically limited its administration to a more controlled site of care until patient tolerance was established.

This project seeks to establish that patients can safely receive rituximab, including first doses, in the home or pharmacy AIS by demonstrating a low incidence of ADR's in these environments during a two-year period following the emergence of Covid -19

Methods

A retrospective analysis was performed on all rituximab dispenses between January 01, 2020-December 31, 2021. Patients were excluded if they received rituximab outside of the home environment or pharmacy AIS. Data analysis included patient age and gender, primary diagnosis, infusion location, first-dose administrations, premedication orders, the incidence and severity of ADRs, and infusion completion to establish effective management of ADR's. All ADRs were classified as mild, moderate, or severe based on the World Allergy Organization's guidelines for the assessment and management of anaphylasis.[2]



Results

111 patients received 340 doses of rituximab during the study period including six patients who were naïve to therapy (5.4%) and 12 patients who were 18 years of age or younger (10.8%). There were 27 reported mild ADRs (7.9%) among 21 patients (18.9%), however there were no moderate or severe reactions and no patient required care at an outside facility secondary to an ADR. Only one infusion was not completed (0.3%) because of an ADR, likely due to the patient's age and complaint. This ADR occurred in an 11-year-old complaining of an "itchy and tight throat" which subsequently resolved with the administration of intravenous diphenhydramine. Of the six patients who were naïve to therapy, three experienced a mild ADR that resolved with minimal or no interventions, and all three infusions were able to be completed.

Discussion

These findings support that rituximab can safely be given in the home or pharmacy AIS and ideally could prompt payers to advocate for this setting in the future for cost-saving purposes.

Conclusion

Rituximab infusions, including first-dose administration, can safely be given in the outpatient setting with established safety protocols in place that include the administration of appropriate premedication to decrease or prevent untoward side effects, as well as a plan for managing infusion related reactions.

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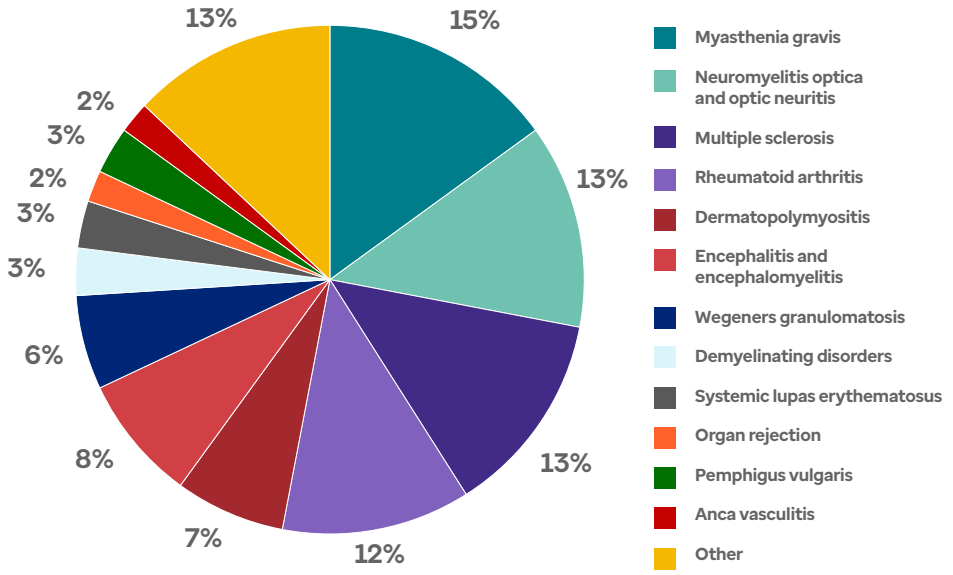
References:

1. Polinski, J. M., Kowal, M. K., Gagnon, M., Brennan, T. A., & Shrank, W. H. (2017). Home infusion: Safe, clinically effective, patient preferred, and cost saving. Healthcare (Amsterdam, Netherlands), 5(1-2), 68-80. https://doi.org/10.1016/j.hjdsi.2016.04.004

2. Cardona, V., Ansotegui, I. J., Ebisawa, M., El-Gamal, Y., Fernandez Rivas, M., Fineman, S., Geller, M., Gonzalez-Estrada, A., Greenberger, P. A., Sanchez Borges, M., Senna, G., Sheikh, A., Tanno, L. K., Thong, B. Y., Turner, P. J., & Worm, M. (2020). World allergy organization anaphylaxis guidance 2020. The World Allergy Organization Journal, 13(10), 100472-100472. https://doi.org/10.1016/j.waojou.2020.100472

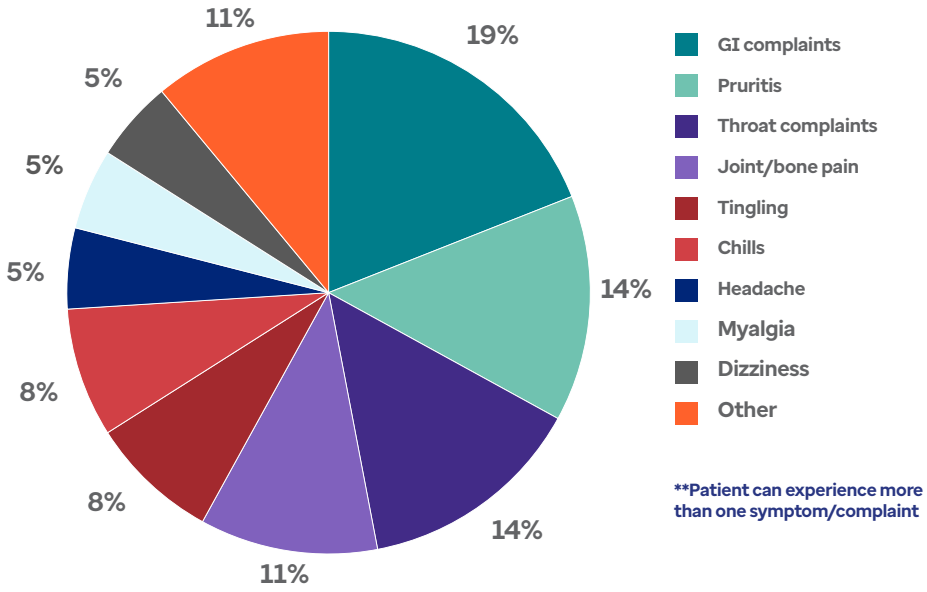
Rituximab dispenses by primary diagnosis

2020-2021



Adverse event symptoms/complaints

2020-2021



**Patient can experience more than one symptom/complaint