

Site of Care Safety Outcomes in Patients Receiving Ocrelizumab via Home Infusion versus Hospital-Based Infusion Center

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BACKGROUND

- Site of Care (SOC) programs are a utilization management strategy for high-touch therapeutic areas including multiple sclerosis with goals to:
 1. Improve quality of patient care
 2. Reduce cost of care
 3. Increase patient convenience
- Ocrelizumab, CD20-directed disease modifying therapy, is indicated in:
 - Relapsing forms of Multiple Sclerosis
 - Primary Progressive Multiple Sclerosis
- Most commonly observed adverse effects of ocrelizumab and other biologic, specialty infusions include:
 - Infusion-related reactions (IRRs)
 - Increased risk of infections
- Specialty infusions are a growing area; >15% of all therapies at home infusion are specialty infusions
- Limited research examines the safety of specialty infusion administration at home infusion

METHODS

- Design: Dual-site, retrospective chart review
- Inclusion Criteria:
 - Multiple sclerosis patients receiving ocrelizumab infusions at Fairview Home Infusion and the hospital-based infusion center between March 1, 2017 to September 30, 2019
- Exclusion Criteria:
 - Age <18 years of age
 - Concurrent use of other disease modifying therapies
 - Off-label use of ocrelizumab
- Data Collection:
 - Patient diagnosis, demographics, treatment history, infusion and visit time
 - Incidence, severity, and management of infusion reactions
 - Incidence of infections

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OBJECTIVE

Evaluate the incidence, severity, and management of infusion-related reactions and ocrelizumab-related infection rate in patients receiving ocrelizumab infusions through Fairview Home Infusion at the infusion suite or the patient's home versus a hospital-based infusion center.

TABLES/CHARTS

Figure 1. Ocrelizumab dosing protocol

Pre-medications: Acetaminophen 650mg PO, Methylprednisolone 125mg IV push, Diphenhydramine 50mg PO/IV

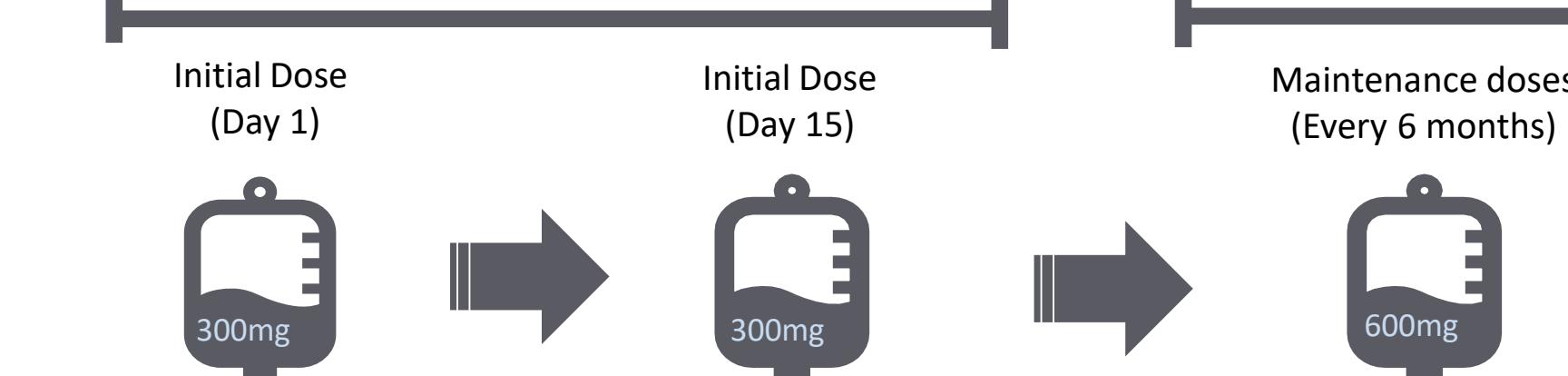


Figure 2. Ocrelizumab infusions received at home infusion and the infusion center

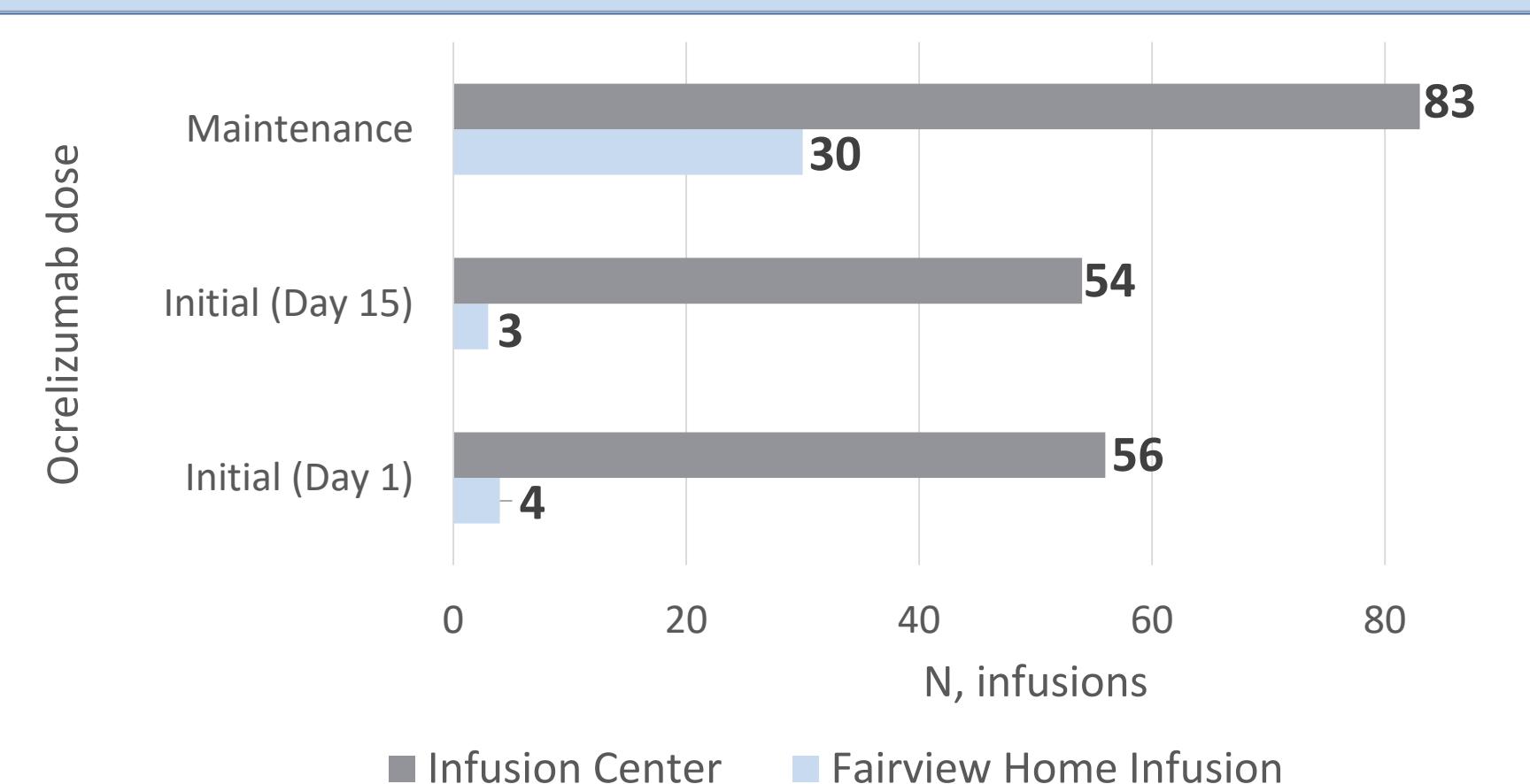


Table 5. Infusion and visit time

	Fairview Home Infusion	Infusion Center
Average Infusion Time, hours		
Initial Dose	2.8	3
Maintenance Dose	3.6	3.6
Total Visit Time, hours		
Initial Dose	4.6	4.9
Maintenance Dose	6	5.5

Table 1. Demographics of patients at home infusion and infusion center

	Fairview Home Infusion (N=24)	Infusion Center (N=61)
Age (average)	45 years	47 years
Female	50%	41%
Race		
Caucasian	100%	84%
African American	0%	15%
Hispanic	0%	1%
Diagnosis		
Relapsing Remitting MS	67%	61%
Primary Progressive MS	33%	39%

Table 2. Definition of IRRs per Common Terminology Criteria V5

Mild	Asymptomatic or mild symptoms
Moderate	Minimal, local or noninvasive intervention indicated
Severe	Severe or medically significant but not immediately life-threatening

Table 3. Infusion Reactions

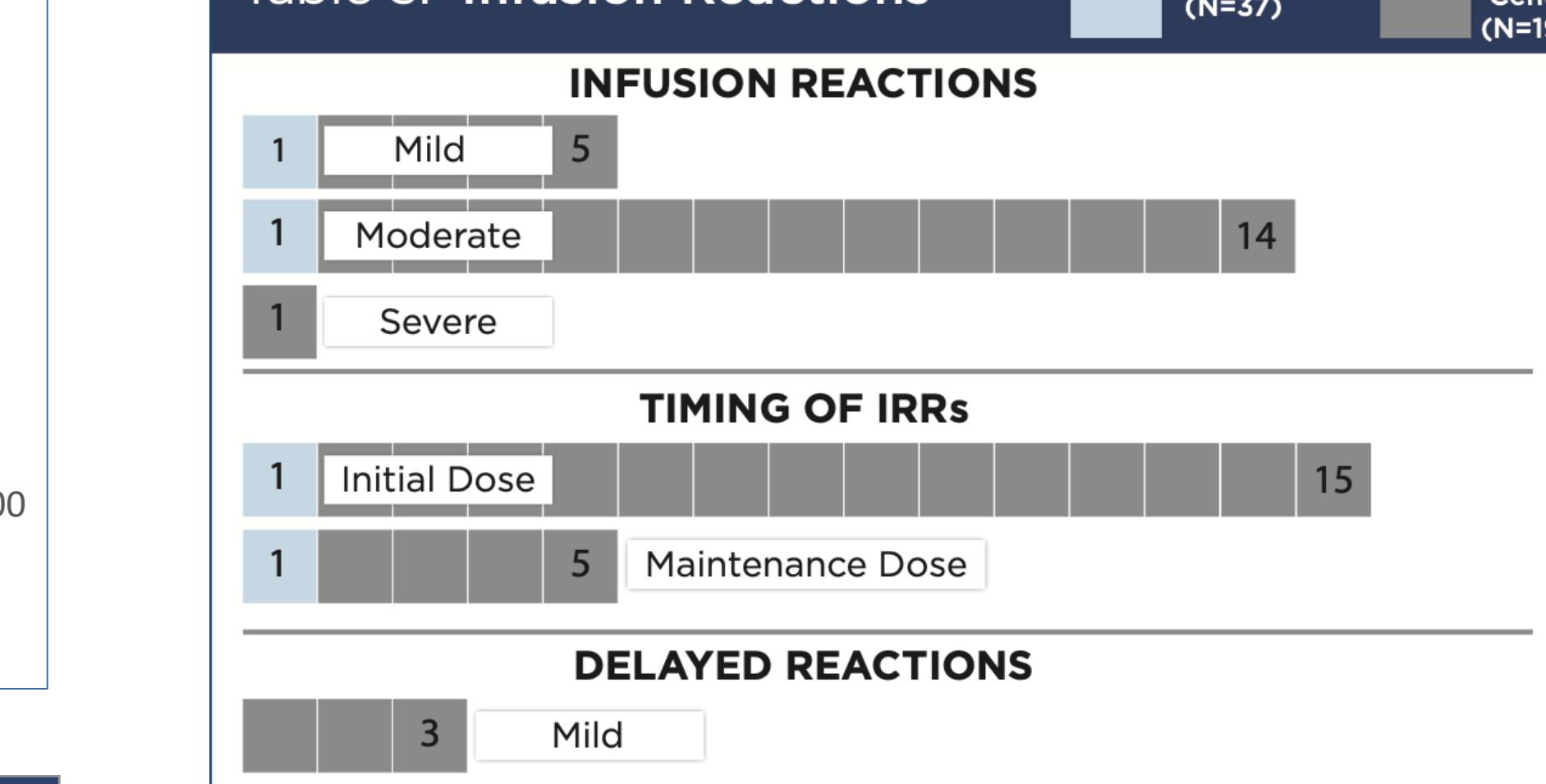
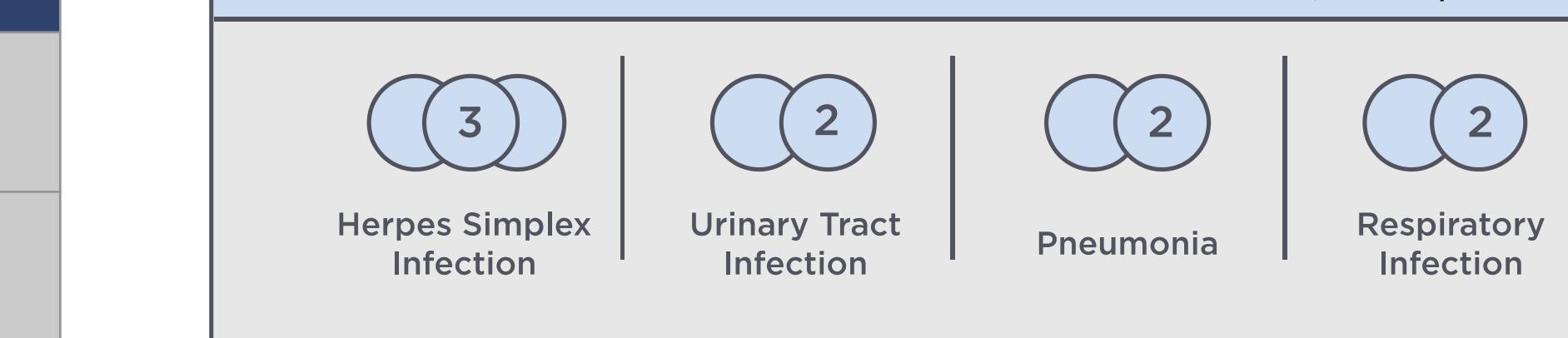


Table 4. Incidence of infections: Infusion-Center (N=61 patients)



RESULTS

- 24 Fairview Home Infusion patients and 61 hospital-based infusion center patients met the inclusion criteria (Table 1) and were treated with standard ocrelizumab dosing protocol (Figure 1)
- There were 37 and 193 ocrelizumab infusions administered at Fairview Home Infusion and the infusion center, respectively (Figure 2)
- Infusion Reactions (Table 2, Table 3):
 - 2 home infusion patients and 16 infusion center patients experienced IRRs
 - 5.4% (N=2) of home infusions and 10.4% (N=20) of infusion center infusions resulted in predominantly mild-moderate infusion reactions
 - Majority of the IRRs occurred during the initial dose
 - Incidence of IRRs during the maintenance dose was 3.3% at home infusion and 6% at the infusion center
- Infections (Table 4):
 - No infections were reported in the home infusion electronic medical record (EMR)
 - 7 patients in infusion center experienced infections, of which 2 patients experienced more than 1 infection
 - Most common infections included: herpes simplex virus, upper respiratory infection, urinary tract infection, and pneumonia
- Infusion and visit time at the two sites of care were similar (Table 5)

CONCLUSIONS

- To our knowledge, this is the first study to evaluate safety of ocrelizumab infusion administration at home infusion
- Data evaluated demonstrate no difference in incidence, severity, and management of ocrelizumab IRRs at home infusion versus a hospital-based infusion center
- Limitations of this study include the small sample size limiting statistical power, and potential variability in data obtained from two different EMRs
- Future steps are to continue collecting safety data for ocrelizumab and evaluate outcomes for other specialty home infusions

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