Incidence of Infusion-Related Reactions Following Subcutaneous Administration of Daratumumab

Lindsay Tomcsanyi, PharmD; Nicholas Bitz, PharmD, MSPGx, MBA; Veronica Mears, PharmD; Samuel Porter, PharmD, BCOP

University Hospitals Cleveland Medical Center Department of Pharmacy

Introduction

- Daratumumab is a human IgG1k monoclonal antibody targeting CD38 and is an effective treatment for multiple myeloma and light chain amyloidosis, used alone or in combination
- Historically, the intravenous formulation was associated with a high incidence of infusion-related reactions, requiring extensive premedication[1]
- Daratumumab-hyaluronidase reduces administration time (3-5 minutes vs. 3-7 hours IV) but still necessitates premedication and monitoring due to infusion reaction risk[2]
- The purpose of this medication use evaluation was to assess the frequency and onset of infusion-related reactions after daratumumab-hyaluronidase administration, to determine if the current post-infusion monitoring period at University Hospitals can be safely reduced

Methods

Study Design:

- Retrospective, multicenter, medication use evaluation

Population:

- Patients who received daratumumab-hyaluronidase between October 1st, 2023 and October 1st, 2024 via electronic data pull

Table 1. Patient Inclusion/Exclusion Criteria

Inclusion Criteria
• Patients ≥ 18 years old
• Diagnosed with either multiple myeloma or systemic light chain amyloidosis
• Received cycle one administration of daratumumab-hyaluronidase

Outcomes:

Primary

- Incidence of infusion-related reactions post daratumumab-hyaluronidase administration

Secondary

- Onset of infusion-related reaction from time of daratumumab-hyaluronidase administration

References

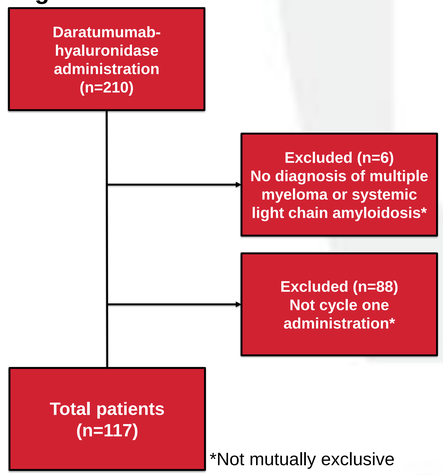
1. Haematologica. 2022;107(10):2408-2417
2. UH Drug Use Guidelines – daratumumab-hyaluronidase

Disclosures

Authors of this presentation have no financial or personal relationships with commercial entities that could directly or indirectly influence the content of this presentation.

Results

Figure 1: Patient Screening & Enrollment



*Not mutually exclusive

Table 2. Baseline Characteristics

Baseline Characteristics	N=117
Age, years	70 (64,77)
Male	57 (49)
Diagnosis*	
Multiple Myeloma	109 (93)
Systemic Light Chain Amyloidosis	10 (8.5)

Data are represented in median (IQR) or number (%)
*Not mutually exclusive

Table 3. Treatment Characteristics

Treatment Characteristics	N=117
Treatment Day	
C1D1	100 (85)
C1D8	9 (8)
C1D15	7 (6)
C1D22	1 (0.85)
Premedications	
Acetaminophen	110 (94)
Diphenhydramine	112 (96)
Dexamethasone	111 (95)
Montelukast	108 (92)
Received All Premedications	107 (91)

Data are represented in number (%)

Figure 2: Presence of Infusion Reaction

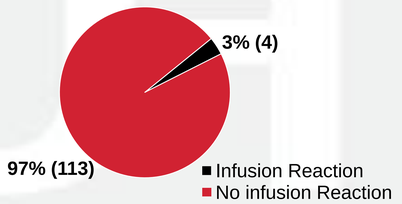


Figure 3: Onset of Infusion Reaction

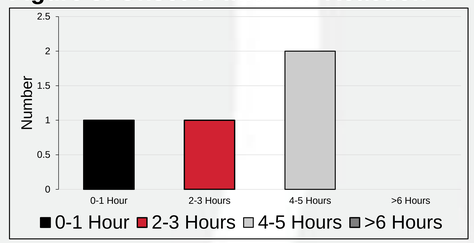


Figure 4: Type of Infusion Reaction

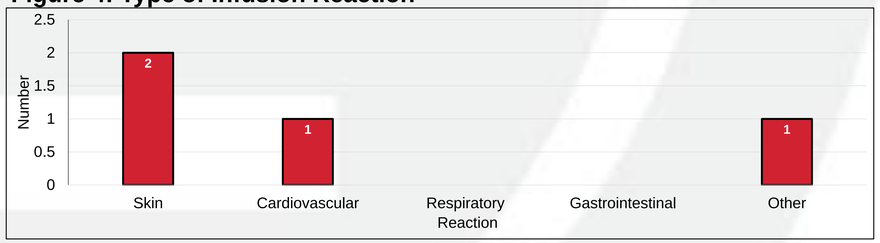
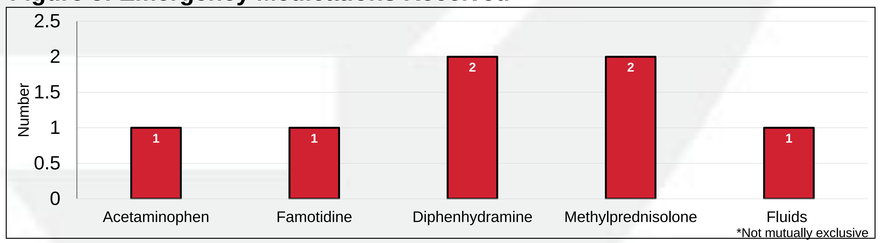


Figure 5: Emergency Medications Received



*Not mutually exclusive

Future Opportunities/Conclusions

- Considering the incidence, onset, and severity of infusion-related reactions, there is potential to safely reduce the duration of post-administration monitoring for the first administration while removing all monitoring for the second administration
- Thorough patient education is crucial to safely decrease post-infusion monitoring
- Standardized documentation for adverse events is needed to ensure consistent reporting of infusion-related reactions
- Infusion-related reactions were rare with most being mild and skin-related, suggesting overall safety of daratumumab-hyaluronidase
- One patient who reacted reportedly took their premedications prior to arrival, making it unclear if they were adequately premedicated
- Concurrent administration of other medications alongside daratumumab-hyaluronidase may confound infusion reactions due to possible adverse events