Factors Associated with Inpatient Vs. Outpatient Autologous Stem Cell Transplant

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Introduction

- Multiple myeloma (MM) is rare blood cancer of plasma cells potentially leading to to bone destruction, renal injury, and cytopenias
- Autologous stem cell transplant (ASCT) has been shown to increase depth and duration of response, even in the era of quadruplet therapy
- Inpatient ASCT is associated with significant costs including financial burden, emotional distress, and prolonged hospitalization
- To address these concerns, our center has allowed certain low-risk patients to complete their transplant outpatient
- Our team has noticed several discrepancies, where patients who qualify for outpatient transplants are receiving their procedure inpatient
- The purpose of this medication use evaluation is to examine the incidence of these discrepancies and to assess some of the financial impacts of our outpatient transplant implementation

Outpatient Eligibility Criteria
Age < 70
Serum Creatinine < 2 mg/dL
Lives Within 30 Minutes of Main Campus
Absence of Cardiac Amyloid and MM Diagnosis

Objectives

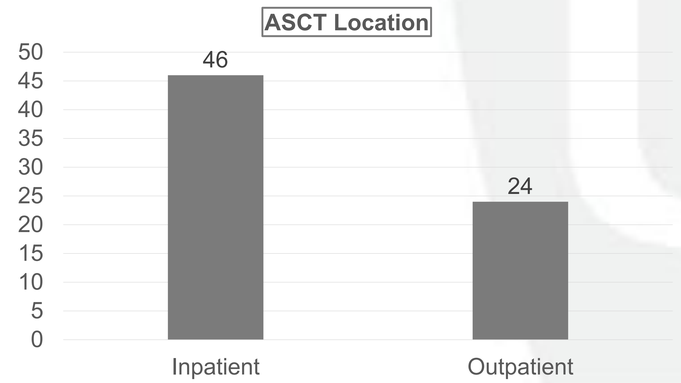
- **Primary Objective**: assess the incidence and reasons for discrepancies between criteria and location of transplant
- **Secondary Objectives**: assess rates of outpatient readmissions, mean length of stay for inpatient admissions, and financial impacts including vials of melphalan given inpatient

Methods

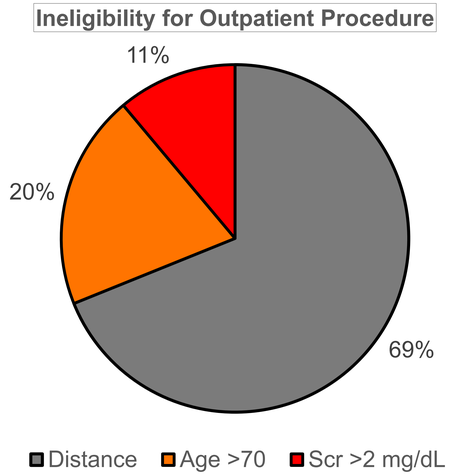
- Single-center retrospective chart review
- 70 patients who had received an ASCT between October 2023 and August 2025

Inclusion Criteria
Multiple Myeloma Diagnosis
Melphalan Monotherapy Conditioning Regimen
Age >18 Years Old

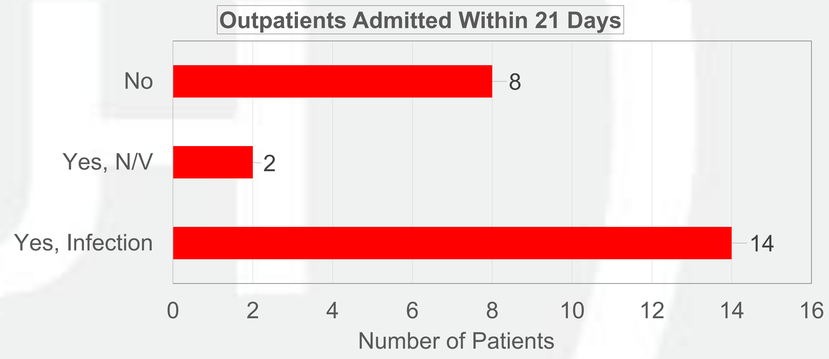
Results



- 57/70 (81.4%) procedures were completed in the correct setting
- 10/46 (21.7%) inpatient procedures met all outpatient criteria
- 3/24 (12.5%) outpatient procedures did not meet all outpatient criteria



Secondary Outcomes	
Mean Inpatient Length of Stay (Days)	18
Mean Length of Stay for Outpatient Transplant Recipients (Includes Admitted and Non-Admitted Patients) (Days)	5
Vials of Melphalan Given Outpatient	204



Limitations

- Lack of documentation surrounding reason for discrepancy
- Did not evaluate financial costs of outpatient procedure including differences in reimbursement for medications and cost of daily follow up
- Unable to investigate reasons for not using outpatient housing options

Discussion/Conclusions

- **The most common reason for an inpatient procedure was distance from the facility**
  - Must emphasize outpatient housing options such as Hope Lodge and Transplant House
- Although 2/3 of outpatients were admitted within 21 days, **outpatients spent an average of 13 fewer days in the hospital**
- Reasons for discrepancies not clear, though may have to do with caregiver availability and perceived ability to follow outpatient procedures
- Providing further education and creating a method of formally documenting eligibility criteria can help to ensure we are giving all eligible patients an opportunity to remain outpatient

Disclosure/References

Dr. Luszcak serves as an advisor to Syndax.

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