# Student Impact on Quality Improvement Initiative: IMiD Therapy Adherence Assessment

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## Introduction

- Multiple myeloma (MM) is a cancer affecting the plasma cells in the blood, predicted to be diagnosed in over 35,000 individuals in 2023 and cause over 12,000 deaths.[1] Immunomodulatory drugs (IMiDs) such as lenalidomide and pomalidomide have demonstrated significant improvement in overall survival and progression-free survival in patients with MM, and thus are considered pivotal medications in its treatment.[2] However, real-world adherence to IMiDs is not well documented.[3]
- A quality improvement project utilized Plan-Do-Study-Act methodology to identify optimal interventions to improve IMiD adherence assessment rates
- Adherence assessments were completed by pharmacists and pharmacy students in the cancer clinic who have background knowledge and appropriate training.
- Pharmacy students were intermittently involved in the project during the time of study.

## Purpose

- The primary outcome is to analyze rate of completion of adherence assessments when students are on rotation and assisting with the project compared to when they are not available as a resource.
- Secondary outcomes include quantity and characterization of interventions, as well as the impact of pharmacy students on intervention rates.

## Methodology

- Pharmacists and pharmacy students utilized an Epic reminder list to conduct adherence assessment outreach.
- Epic Smart Phrases were used to streamline work, which documented phone or in person encounters and included anticipated start date versus actual start date, adherence status, and interventions made for nonadherence.
- The adherence assessments are designed to be completed with each cycle of therapy which is typically 28 days.
- The number and type of interventions for nonadherence were recorded and analyzed based on student involvement.

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## Results

| Month of Study | Student Participation | Assessment Rate | Overall Assessment Rate |
|---|---|---|---|
| 1 (2/17-3/8) | Yes | 75.0% | 82.2% |
| 2 (3/9-4/5) | Yes | 87.50% | |
| 4 (5/4-5/31) | Yes | 81.8% | |
| 5 (6/1-6/28) | Yes | 84.6% | |
| 3 (4/6-5/3) | No | 75% | 75.8% |
| 6 (6/29-7/26) | No | 66.68% | |
| 7 (7/27-8/23) | No | 85.7% | |

Table 1. Student participation and adherence assessment rates per month of study
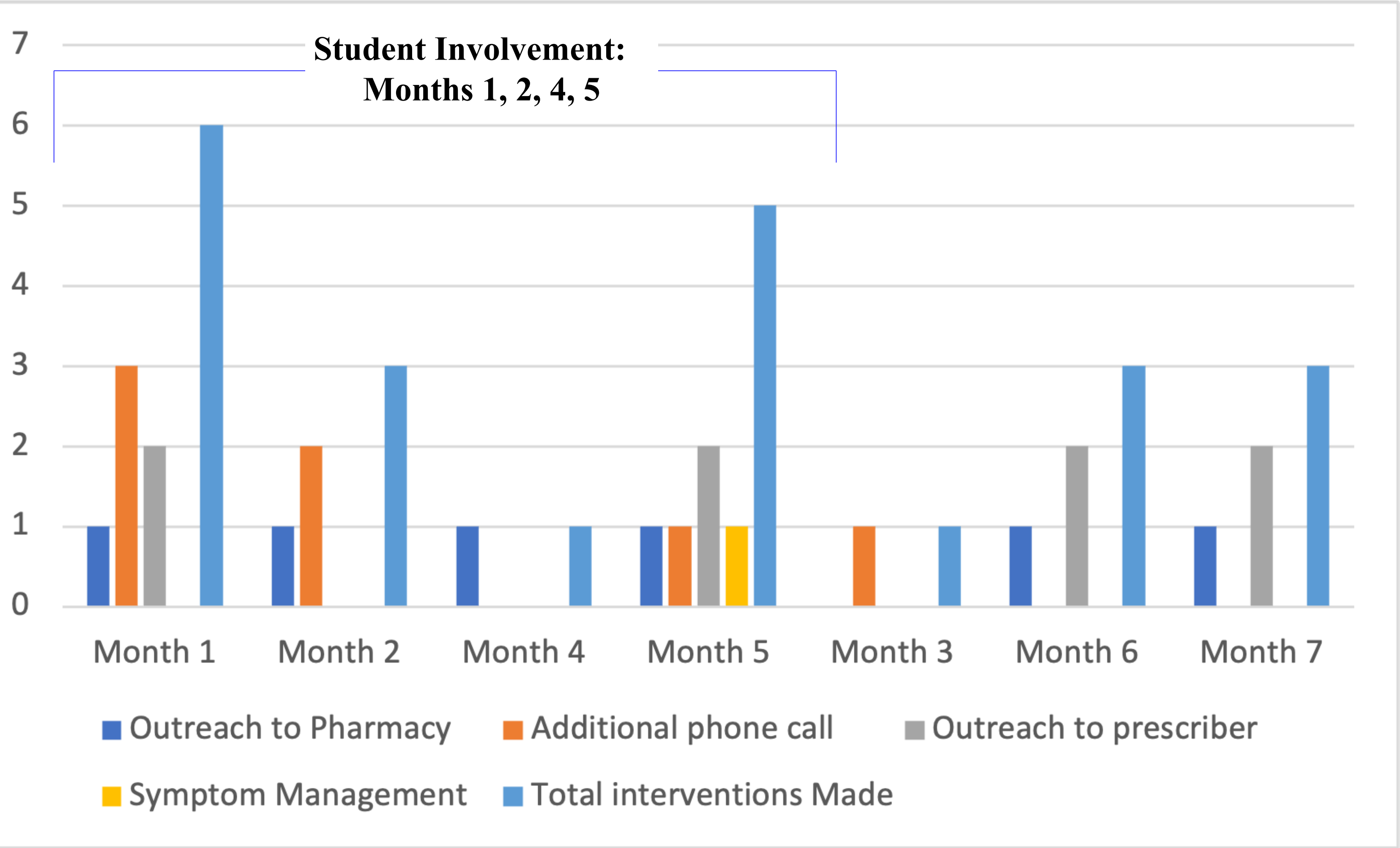


Figure 1. Interventions completed each month of study

**Adherence assessments were more likely to occur when students were involved**

*(6.4% increase in the assessment rate)*

**More interventions were made per month when students were involved**

*(1.4 increase)*

- A total of 22 interventions were made over the span of the 7 months when data for this study was collected. During months where students were present, an average of 3.75 interventions were completed each month. During months where no students were assisting in this program, an average of 2.33 interventions were completed each month.
- Most of the interventions made were communicating with the pharmacy or prescriber to discuss the patient case or making an additional phone call to the patient regarding their medication management.
- Intervention with symptom management was was only completed one time during this study, and it was completed during month five when there was student participation.

## Conclusion/Discussion

This data demonstrates that the rate at which adherence assessments are completed is greater when pharmacy students on rotation are present to help sustain this program. The data also displays how more interventions are made when more patient outreach is made.

Clinical Impact: In another arm of this study, the endpoint is to identify adherence rate over the course of implemented PDSA cycles. It will be useful to use this data to identify if student help in the project is an additional variable which impacts overall adherence to IMiD therapy.

Limitations:
- Dates within this study including APPE student schedules, dates of each month of study, and dates of PDSA cycle implementation do not line up directly with each other.
- During months where there was student assistance in completing adherence assessments, there were periods of time up to two weeks where students were not present.
- The study was conducted in a small study population (n=12) at two infusion centers in a single region (southern CT/RI).

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## References

1. "Myeloma - Cancer Stat Facts." *National Cancer Institute*, Surveillance, Epidemiology, and End Results Program, seer.cancer.gov/statfacts/html/mulmy.html. Accessed 6 Oct. 2023.
2. 3. Cransac A, Aho SMultiple Myeloma. National Comprehensive Cancer Network. Version 1.2024. Available at: https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed 6, Oct. 2023.
, Chretien ML, Giroud M, Caillot D, Boulin M. Adherence to immunomodulatory drugs in patients with multiple myeloma. PLoS One. 2019 Mar 27;14(3):e0214446. doi: 10.1371/journal.pone.0214446.