# Background

Thalidomide, a potent member of the immunomodulatory drug family (IMIDs) induces both direct myeloma cell death, and indirect antimyeloma response through its impact on the microenvironment.

The drug is approved in multiple myeloma, and also in other rare diseases as severe recurrent aphthous stomatitis. Thalidomide is considered as an effective drug in all its indications; it is also an expensive drug. In an area of limited resources, studies for assessing thalidomide adherence are needed for healthcare professionals and payers alike.

# Material and Methods

Patients who had:
- at least two successive dispensations of thalidomide
- whatever the indication
- between 12/07/2015 and 12/07/2016 (1 year)
- in our teaching hospital

were included in a retrospective study.

The medication possession ratio (MPR) was used to evaluate thalidomide adherence. MPR was calculated according to the following formula:

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MPR = \frac{\text{number of days of medication supplied within the refill interval}}{\text{number of days in refill interval}} \times 100
\]

Clinical and dispensation data were obtained from medical and pharmaceutical softwares of our hospital.

Based on literature, the threshold of 90% was used to define two patient categories:
- MPR < 90% → non-adherent patients
- MPR ≥ 90% → adherent patients.

# Results

Fifty-one adult patients were included:
- 40 (78%) → multiple myeloma
- 6 → cutaneous lupus erythematosus or Jessner-Kanof disease
- 4 → serious aphthous or Behcet’s disease
- 1 → Miescher’s granuloma

The mean patient age was 63.7±13.9 years; 51% were women.

We observed a mean MPR of 0.90±0.16 range 0.37-1.20. The mean MPR was 0.94±0.13 [range 0.61-1.20] in patients with multiple myeloma and 0.77±0.21 [range 0.37-0.99] in patients with other diseases.

A total of 61% of patients were considered as adherents. The percentage of adherent patients was significantly higher in patients with multiple myeloma than in patients with other diseases (70% vs 27%, respectively; p=0.015).

In 86% of patients, no explication was found to explain the non adherence. For all other patients, the explanation is provided in the table II.

# Conclusion

Data are lacking concerning thalidomide adherence. Optimizing thalidomide adherence may increase efficacy of thalidomide-based regimens. Considering the high cost of thalidomide, efforts to increase thalidomide adherence may also reduce wasted money in dispensing pills that are not taken by the patients.

# References and/or Acknowledgements