Bortezomib, a reversible inhibitor of the 26S proteasome widely used in the treatment of multiple myeloma, is now being used in various other indications. Pharmacy directors gave the Therapeutic Drug Management Program (TDMP / Programme de Gestion Thérapeutique des Médicaments (pGTm) - www.pgtm.qc.ca) the mandate to evaluate bortezomib use in four university teaching hospitals in Québec, Canada.

OBJECTIVES

Primary objectives
- Describe bortezomib use for all indications in our hospitals and review its use in the treatment of multiple myeloma.

Secondary objectives
- Assess clinical use of bortezomib
  - Therapeutic regimen description (dose, route of administration, frequency)
  - Number of cycles received by patients (treatment duration)
  - Response rate
  - Adverse events

DESIGN

A review of pharmacy databases was performed to identify patients who received bortezomib between June 1st 2012 and May 31st 2013. Pharmacy and medical records of every patient who received bortezomib during the study period were reviewed retrospectively to assess the treatment, response and adverse events.

RESULTS

GLOBAL STUDY POPULATION

A total of 232 bortezomib regimens were administered to 227 different patients during the study period.

Figure 1: Indications for Bortezomib use in the global study population

*Seventeen patients (8.5%) of the multiple myeloma population treated with bortezomib were hospitalized and 22 patients (10.9%) had to discontinue treatment because of adverse events.

ADVERSE EVENTS

Table 6: Treatment related adverse events in global multiple myeloma population

*Seventeen patients (8.5%) of the multiple myeloma population treated with bortezomib were hospitalized and 22 patients (10.9%) had to discontinue treatment because of adverse events.

CONCLUSION

Bortezomib is widely used in the treatment of multiple myeloma. Treatment algorithms should be developed and implemented in each center to optimize the use of bortezomib, particularly in the relapsed/refractory setting. The use of pre-printed orders for the prescription of chemotherapy regimens could help standardize prescription (dose and frequency of each drug).