

M.E. Cárdaba García<sup>1</sup>, M. Izquierdo Navarro<sup>1</sup>, A. Salvador Palacios<sup>1</sup>,  
S. Fernández Peña<sup>1</sup>, S. Izquierdo Muñoz<sup>1</sup>.

<sup>1</sup>Hospital Clínico Universitario, Hospital Pharmacy, Valladolid, Spain.

## Background

Mercaptopurine is indicated for the treatment of acute lymphoblastic leukemia (ALL). In our country there is no commercial presentation that allows proper dosage in pediatric patients. However, in March-2012, an expensive 20 mg/mL mercaptopurine suspension that may be purchased as a foreign drug was commercialized. In order to meet the needs of these patients using a more cost-effective alternative, the Pharmacy Department developed a mercaptopurine compounded drug.

## Objective

To assess the economic impact brought by the development of a 50 mg/mL mercaptopurine suspension (12 mL) compared with the use of commercial syrup.

## Material and methods

- 50 mg/mL mercaptopurine suspension → Simple syrup + cherry syrup + sterile water + mercaptopurine 50 mg triturated tablets
- Retrospective study (March 2012 – September 2015)
- Collected data, from Farmatools<sup>®</sup> and Farmis<sup>®</sup> softwares: number of ALL patients treated with the suspension, suspensions dispensed, mercaptopurine tablets used and its cost, treatment phase of the ALL-SEHOP-PETHEMA protocol when the dispensation was done.
- Suspension appraisal: valuation rules of the Regional Health Management
- Commercial suspension price: Ministry of Health Web Site.
- Total saving: direct cost of commercial suspension – direct cost of compounded suspension

## Results



- 40 compounded mercaptopurine suspensions (50 mg/mL): 2 for consolidation phase and 38 for maintenance phase
- Shelf-life: 28 days
- 28.1 €/each one
- Total expenditure: 1,124 €

- 20 commercial mercaptopurine suspensions would have been needed
- Shelf-life: 56 days
- 269.36 €/each one
- Total expenditure: 5,387.2 €



**4,263.2€ saved**

## Conclusion

- Compounded 50 mg/mL mercaptopurine suspension can meet therapeutic needs of ALL pediatric patients and save costs.
- It would be useful to assess the addition of a preservative to the compounded suspension to increase its shelf-life and save on costs.