DOSE BANDING – OPTIMISING DOSES IN CETUXIMAB OR BEVACIZUMAB REGIMENS

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BACKGROUND
The dosage of antineoplastic drugs has been historically based on body surface area or patient’s weight. Lack of resources and increased workload at Onco-Haematology Day Hospital (ODH) are leading to the development of new strategies to optimise processes. One of those approaches is the dose banding (DB) method.[1]

OBJECTIVES
1) Calculate Cetuximab and Bevacizumab doses using the DB method;
2) Compare initially calculated doses with those obtained through DB and assess the economic impact.

METHODS
Patients[1] with Cetuximab prescription, Nov. 2017 to Aug. 2018

1 Patients with >100 kg were excluded.

RESULTS
Doses for 150 preparations of Cetuximab and 406 preparations of Bevacizumab were calculated.

For Cetuximab, the doses obtained by dose banding were 2,8% lower than the initially calculated doses, so less drug was used, which represents savings of €16 409/year. Regarding Bevacizumab, the doses obtained by dose banding were 3,1% lower than the initially calculated doses, which generates savings of €63 343/year.

CONCLUSIONS
We found that the introduction of DB to have a noteworthy impact on oncology service total expenditures. Dose adjustments made were within the recommended range of 5%–10%. This method has been used in Europe and has studies that support its applicability.[1,2]

In our ODH there is a policy of using one vial for more than one patient, so the estimated savings may be slightly lower. Additionally, DB adds another factor of variability to the final dose that will be administered to the patient.

The DB promotes rational drug use. This might be a future approach to other drugs in Onco-Haematology.

BIBLIOGRAPHY