



DIAZOXIDE 10MG/ML ORAL SUSPENSION AS A COST-EFFECTIVE ALTERNATIVE TO THE COMMERCIAL PREPARATION

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Objectives

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- Diazoxide is the first line therapy in infants with hypoglycaemia due to hyperinsulinism. A formulation to facilitate the dosage in newborns has been developed due to the increasing demand at our Hospital.
- The elaboration of a magistral formulation as a cost-effective alternative to the diazoxide oral suspension not commercialised in Spain.

Material and methods



Results

Manufacturing method:

- Capsules of diazoxide 25mg as active substance
- Carboximetilcelulose (CMC) as excipient

1) Four capsules of 25mg were opened and spreaded over a mortar

2) 10ml of CMC was measured on a test tube

3) CMC was added slowly over the powder while stirring the mixture to obtain a homogenized milky cream

4) Suspension was stored in an amber bottle up to seven days at ambient temperature

Results in terms of efficacy:

7 neonates (4 males)
aged 5.8±2.3 days
Treated for 28 days

6 «sensitive» with blood sugar levels of 105±30mg/dL

1 showed no improvement

Global expense comparison:

1 pack (100 capsules of 25mg) = 21€
 1 bottle of 30mL oral suspension commercial = 473€
 1 bottle of 10mL oral suspension formulation = 0,84€

Conclusion

The preparation constitutes a suitable alternative by using a simple and cheap technique since its introduction. In the future, full studies of stability must be designed to prolong its period of validity and monitor its security.