

CLOTTING CONTROL IN A HAEMODIALYSED PATIENT WITH ALLERGIC TO LOW MOLECULAR WEIGHT HEPARIN (LMWH).

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PP-032

BACKGROUND:

A female with renal failure (renal clearance < 20 ml/min), uncontrolled blood clotting, allergic to LMWH, and who has suffered bruising, epistaxis and gastrointestinal bleeding with hemodynamic compromise, including repeated transfusions, when was treated with acenocoumarol.

PURPOSE:

- To design a therapeutic strategy to **control the clotting** in this patient.
- To describe the most efficiently manufacturing method of **Argatroban vial**.

MATERIAL AND METHODS:

- Other alternatives were evaluated (Lepirudin, Fondaparinux and new oral anticoagulants, NACO).
- A literature review was made to determine drug stability in syringes and polypropylene bags, at different concentrations and storage conditions, to develop a solution with the optimal concentration that allowed us the most efficient use of the vial.

RESULTS:

- NACO and Fondaparinux are contraindicated in renal failure, and Lepirudin is not commercialized since 2012.
- The possible alternatives are Danaparoid and Argatroban, being the last one the most cost-effective.
- Argatroban solutions are stable under natural light and temperatures between 2-8°C, in 0.9%NaCl or glucose solution, at 1mg/ml, when are packed in polypropylene syringes and bags for 14 days. Moreover, they are stable under natural light and 25°C, in 0.9% NaCl at 0.2mg/ml in the same type of packaging for 180 days. Doses of the initial bolus (13mg) and the doses administered as a continuous infusion during dialysis (18mg administered at 6mg/hour), were according to Product Information.
- Considering the stability conditions and the doses required by the patient, half the vial (1.25ml) was prepared in a bag with a total volume of 125ml, at a concentration of 1mg/ml, from which was obtained the initial bolus and the continuous infusion for 4 dialysis sessions (occurring over 14 days).

CONCLUSION:

- We achieved the clotting's control in this patient. The manufacturing method allowed us the most efficient use of the Argatroban vial.



REFERENCES: Coventry DA, Webster NR: Heparin-induced thrombocytopenia and the health economic analysis of argatroban.

BJA 2014;112:964-7.