

SUBCUTANEOUS FUROSEMIDE INFUSION USING ELASTOMERIC INFUSION PUMPS IN A TERTIARY HOSPITAL

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Background and importance

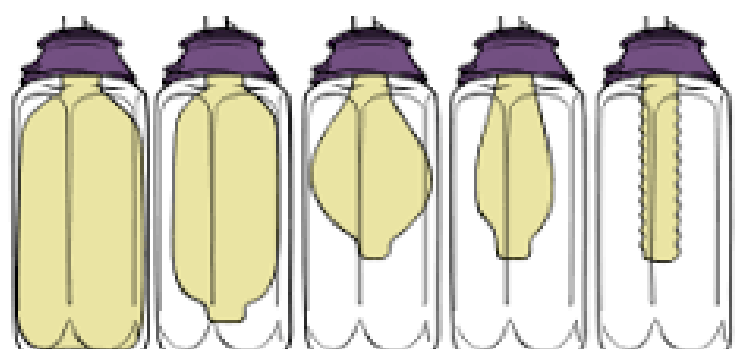
Furosemide subcutaneous administration has been proposed as a useful alternative for congestive heart failure (CHF) management in outpatients. Comparing with intravenous infusion of furosemide, subcutaneous infusion is supposed to increase diuresis using lower furosemide doses, reduce hospital stays and minimize re-entry rates.

Aim and objectives

Describe furosemide subcutaneous infusion by portable pumps (FPP) use in a tertiary hospital

Methods

Retrospective study.
Patients treated with FPP in 2020-2021.



Portable pumps features

Infusion flow 0,5 mL/h.
Length of infusion: 7 days/pump
Formulation pH=8,7 .
Stability: 84 days protected from light and at room temperature.

Collected variables

Demographics.
Diagnosis and clinical results.
Efficacy variables: NT-proBNP, body weight and plasma sodium descents.
Safety variables: changes in glomerular filtering (estimated by CKD-EPI).

Results

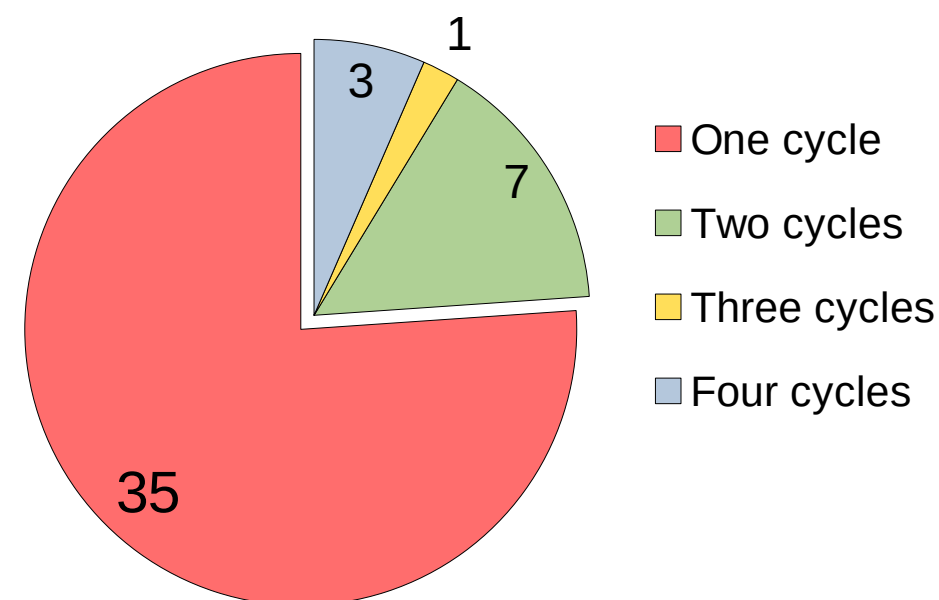
Demographic

- 31 Patients: 19 males.
- Average age 69 years.



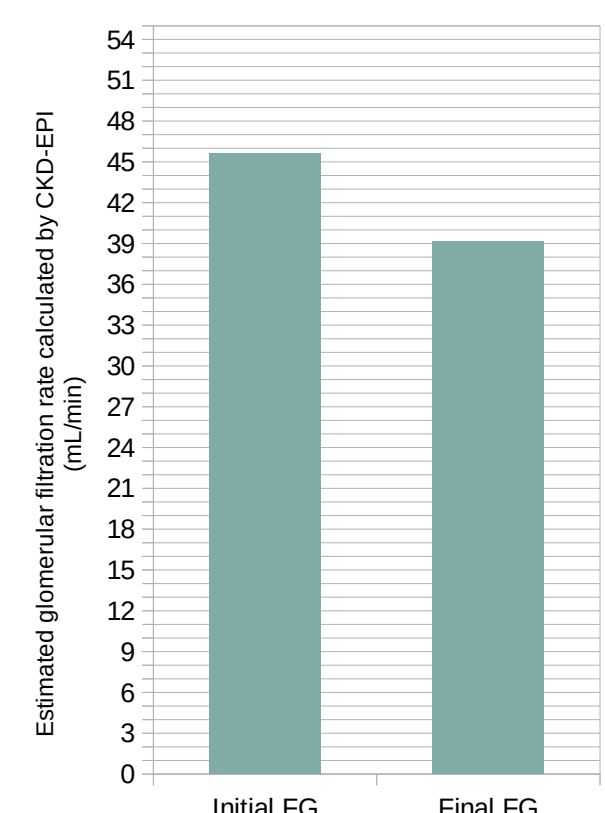
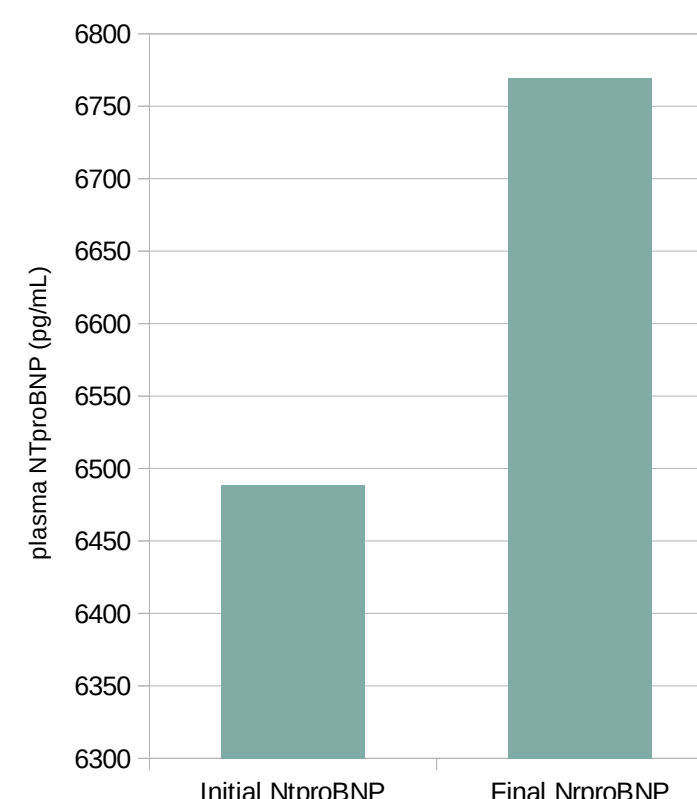
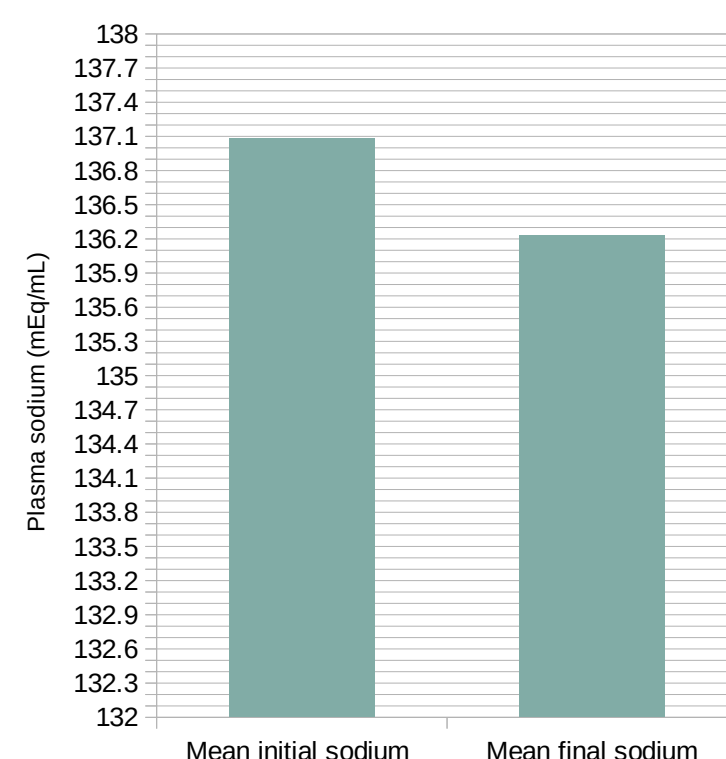
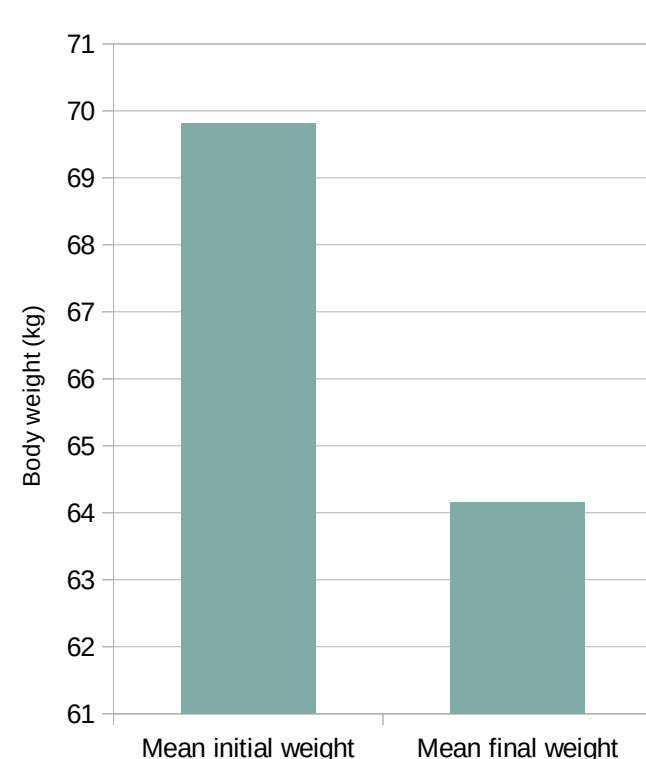
Treatment experiences

Number of furosemide cycles received



- 46 FPP for 31 patients.
- Medium length of treatment: 10 (5-28 days).
- All 31 prescribed for decompensated CHF:
 - 2 after heart transplantation.
 - 1 due to transthyretin amyloidosis.
- 30/31 received 120 mg of furosemide/day (10mg/mL).
- 1/31 received 80 mg of furosemide/day (6,6 mg/mL).
- 0/31 experienced local infection, rash irritation or flow problems.

Safety and efficacy results



Conclusion

FPP let patients improve some CHF measures outside the hospital. Our study supports their use, being safe and effective in some measures.

Pharmacists have a key role by checking the dose, ensuring physical-chemical stability and sterile conditions in preparation, and instructing patients in the use of FPP.