

# AN EVALUATION OF THE PHARMACIST INTERVENTION IN INTRAVENOUS MIXTURES STABILITY



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## **PURPOSE**

✓ To evaluate a check of replacement of the infusion bag in time about dopamine and nitroglycerin to ensure their
effectiveness and safety in different hospitalization units in a hospital

### MATERIAL AND METHODS

- ✓ Prospective observational study conducted in a hospital
- ✓ Duration: 3 months
- ✓ Patients included: patients treated with any of the mixtures: dopamine and nitroglycerin intravenous selected from pharmacy electronic prescription program
- ✓ From the Pharmacy Department an informative sheet was sent to hospitalization units with the following information: patient identification, intravenous mixture prescribed and the text: "The stability of the mixture is 24 hour. Change the dilution every day at the same time"
- √ Variables studied:
- the infusion rate (<21mL/h, >21mL/h and =21mL/h) and
- the time when the mixture was replaced

- ✓ The information sources used:
- electronic medical files
- nurse interviews
- direct observation of the mixture

# **RESULTS**

- ✓ Sixty prescriptions were analysed
- √ 48 mixtures were prescribed with an infusion rate of <21mL/h
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- √ 9 mixtures with 21mL/h
- √3 mixture with >21mL/h

- √30 of the 60 mixtures (50%) were changed every 24 hours
- ✓ The rest were changed when the perfusion finished according to the infusion rate without considering the mixture stability
- ✓ The mixtures which were changed correctly: 70% were prescribed with an infusion rate of <21 mL/h, 20% with 21mL/h and 10% with >21mL/h
- ✓ The mixtures changed after the recommended time were prescribed with an infusion rate: 90% with <21 mL/h and 10% with 21 mL/h
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### CONCLUSIONS

- ✓ The mixtures prescribed with an infusion rate of <21mL/h led to a miscalculation of the time when the mixtures had to be changed correctly
- ✓ Pharmaceutical intervention: it is necessary to give active and passive information about mixtures stability to ensure their effectiveness and safety

# **ACKNOWLEDGEMENTS**

