

# Stability and compatibility of paracetamol and ketoprofen in a fail-safe iv administration set



Lise BERNARD, Valérie SAUTOU, Daniel BOURDEAUX, Jean CHOPINEAU

Laboratory of Clinical Pharmacy and Biotechnics, Faculty of Pharmacy, University Clermont1, Place Henri Dunant, 63001 Clermont-Ferrand, France

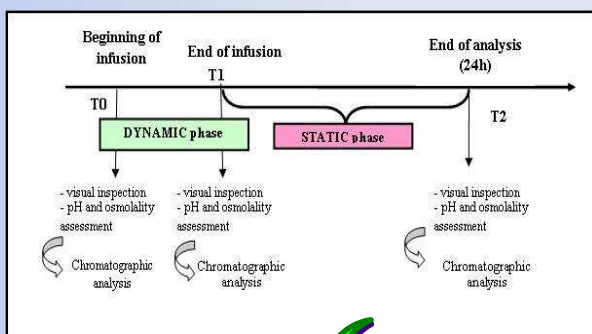


## INTRODUCTION

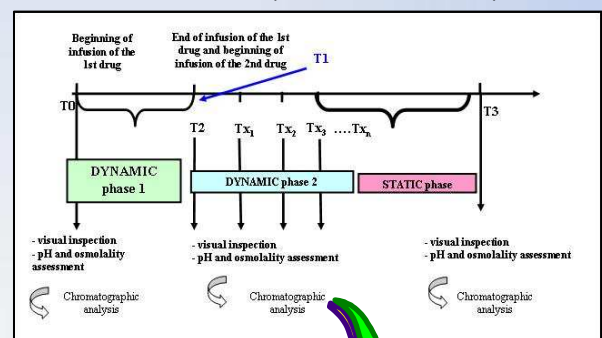
Intravenous infusion takes an important place in the current therapy in hospitals. B. Braun Medical has recently developed an iv administration set with an automatic infusion stop. It avoids nurses regularly check the end of the infusion and changing the drug the medical device at each new drug infusion. But it's important to study the stability of the infused drugs, which stay in stasis for several hours in the dropper chamber and in the tube. We focus our study on two frequently used drugs in hospital practices: paracetamol (PERFALGAN®) and ketoprofen.

## MATERIALS AND METHODS

Individual infusions of paracetamol or ketoprofen



Successive infusions of paracetamol and ketoprofen



## RESULTS

Colorless and no particle

No variation of pH and osmolality

	T0	T1	T2
Control	9,92	9,72	9,73
Mean	<b>9,76</b>	<b>9,65</b>	<b>9,87</b>
Stdev	0,18	0,23	0,26
RSD	1,9%	2,4%	2,6%
% vs T0	100,0%	99,4%	101,6%
Control	1,20	1,23	1,20
Mean	<b>1,17</b>	<b>1,16</b>	<b>1,04</b>
Stdev	0,05	0,07	0,07
RSD	4,5%	5,9%	6,8%
% vs T0	100,0%	99,0%	<b>88,5%</b>

Table 1: Evolution of the concentrations of paracetamol and ketoprofen when infused alone with Intrafix® Safeset

**Ketoprofen: stable during time of infusion but loss >10% after 24h of stasis in the IV administration set.**

- NO degradation product
- Controls are STABLE throughout the 24h period



Probably interaction between ketoprofen and PVC

however

**No risk for patients:** given the total precribed dose and no toxic risk exist

## DISCUSSION-CONCLUSION

Repeated individual infusions of paracetamol (Perfalgan) 10 mg/mL or ketoprofen (Profenid) 1 mg/mL are possible with the iv administration set Intrafix Safeset, leaving them in position until 24 hours, because of the stability of these drugs. There is also no problem to infuse successively paracetamol and ketoprofen through this medical device: no drug instability or incompatibility appears during the 24 hours of stasis and patients can be safely cared.

