

Stability of Huvepharma® brands in acidified drinking water

Trial description

Objective

- ▶ The stability of a water-soluble veterinary product in drinking water largely determines the target tissue concentrations and its subsequent efficacy.
- ▶ The stability of several water-soluble Huvepharma® brands was assessed in acidified drinking water at room temperature for 24 hours after the start of administration.

Set-up

Brand	Active substance	Formulation	Concentration	Method	TB
Apravet®	Apramycin (sulfate)	WSP	552 IU/mg	MA	2
Amphen®	Florfenicol	OSu	200 mg/ml	HPLC	15
Gallifen®	Fenbendazole	OSu	200 mg/ml	HPLC	14
Huvacillin®	Amoxicillin trihydrate	WSP	800 mg/g	HPLC	1
Huvamox®	Amoxicillin trihydrate	WSP	800 mg/g	HPLC	1
HydroDoxx®	Doxycycline (as hyclate)	WSP	500 mg/g	HPLC	4
Lincoral-S®	Lincomycin - spectinomycin	WSP	222 + 445 mg/g	HPLC	1
Parofo®	Paromomycin sulfate	OSo	200 mg/ml	HPLC	17
Pharmasin®	Tylosin tartrate	WSG	1000 mg/g	MA	18
Pigfen®	Fenbendazole	OSu	200 mg/ml	HPLC	18
Tilmovet®	Tilmicosin	OSo	250 mg/ml	HPLC	23
Vetmulin®	Tiamulin hydrogen fumarate	WSG	450 mg/g	HPLC	22
		OSo	125 mg/ml		23

WSP: Water soluble powder, OSu: Oral suspension, WSG: Water soluble granules, OSo: Oral solution, MA: Microbiological assay, HPLC: High-performance liquid chromatography, TB: Technical bulletin (for more detailed information)

Measured parameters

The concentration or activity of the active substance(s) was determined at:

- ▶ Three pH values: pH 1.2, pH 4.5 and pH 7.0 (or 8.0)
- ▶ Three time points: immediately, 6 h and 24 h after the start of administration

Results

Recovery was expressed as a percentage of the theoretically expected concentration or activity.



The recovery takes into account the variability of the method.

Conclusion

The Huvepharma® brands tested demonstrated excellent recovery in acidified drinking water, even 24 hours after the start of administration. Huvamox® and Huvacillin® demonstrated excellent stability for 24 hours at pH 4.5, and for 6 hours at pH 1.2.

TB6-General Veterinary products:EN01.0426/MINART-MBI