

## The quality of veterinary medicines and their implications for One Health

### Supplemental material 12. Characteristics of equivalence surveys of veterinary medicines quality

Reference / country of collection	Active pharmaceutical ingredient (API)	Brand name	Outlet types	Reference standard	Test(s) performed and analytical technique for API content/Impurities	Failure frequency % (n/N)
<b>Tetty, 1999 [1]</b> <b>United Kingdom</b>	Isometamidium	Samorin® Veridium®	Unspecified	Unspecified	API content  <u>HPLC-UV</u>	0.0% (0/8)
<b>Scott-Moncrieff, 2012 [2]</b> <b>United states of America</b>	Protamine zinc insulin	Compounded product (n=12) and unknown brand name (n=2)	Compounding company and manufacturers	USP	API content, zinc concentration, pyrogenicity test, pH, appearance, crystal size, insulin concentrations in the supernatant.  <u>HPLC</u>	78.6% (11/14)
<b>Saba, 2012 [3]</b> <b>Nigeria</b>	Oxytetracycline	Unknown brand name	Veterinary pharmacies	Unspecified	API concentrations  <u>Spectrophotometer</u>	100.0% (12/12)
<b>Cook, 2012 [4]</b> <b>United States of America</b>	Trilostane	Compounded product	Pharmacies	USP	API content, impurities test, dissolution test  <u>HPLC-PAD</u>	37.5% (36/96)

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<b>Vidal, 2013 [5]</b> <b>Uruguay</b>	Albendazole	Unknown brand name	Veterinary shops	USP	API content, dissolution test  <u>HPLC-UV-Visible</u>	33.3% (1/3)
<b>Gberindyer, 2014 [6]</b> <b>Nigeria</b>	Albendazole	Unknown brand name	Local veterinary shops	USP 2007	Weight uniformity, API content, hardness, friability, disintegration, dissolution  <u>UV-spectrophotometer</u>	100.0% (9/9)
<b>Laporte, 2017 [7]</b> <b>United states of America</b>	Fluconazole	Compounded product	Veterinary pharmacies	USP	API content, impurities, pH, appearance  <u>HPLC-UV</u>	6.3% (1/16)
<b>Gberindyer, 2017 [8]</b> <b>Nigeria</b>	Gentamicin sulphate	Generic	Local veterinary and pharmaceutical stores	USP	API content  <u>HPLC-UV-Visible</u>	12.5% (1/8)
<b>Gberindyer, 2019 [9]</b> <b>Nigeria</b>	Amoxicillin-Gentamicin Amoxicillin-Colistin	Unknown brand name	Pharmaceutical and veterinary shops and clinics	USP, IP	API content  <u>HPLC-UV</u>	70.0% (7/10)

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<b>Seifu, 2019 [10] Ethiopia</b>	Albendazole	Unknown brand name	Veterinary pharmacies	USP	API identification, API content, appearance, weight uniformity  <u>UV-visible spectroscopy, FTIR, HPLC-UV-Visible</u>	60.0% (6/10)
<b>Waller, 2020 [11] Brazil</b>	Itraconazole	Unknown brand name (n=1) and compounded product (n=1)	Veterinary pharmacies and compounding pharmacies	Manufacturer specification	API content, antifungal efficacy  <u>HPLC-MS, In-vitro antifungal susceptibility assay</u>	100.0% (2/2)

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### References:

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