The stability of colistin methanesulfonate (CMS) was determined in quadruplicate in elastomeric home infusion pumps containing 1, 2 or 3 MU CMS and in infusion bags with 2 MU CMS all in 100 mL normal saline” Post et al (2018).

Abstract:

The stability of colistin methanesulfonate (CMS) was determined in quadruplicate in elastomeric home infusion pumps containing 1, 2 or 3 MU CMS and in infusion bags with 2 MU CMS all in 100 mL normal saline. Infusions were stored at room temperature (20°C-24°C) with or without exposure to natural light or refrigerated (4°C-8°C) and protected from light up to 2 weeks. In the initial solution of 2 MU CMS in 100 mL saline sampled immediately after reconstitution and dilution, 1.5% of CMS was hydrolysed to colistin. When stored at room temperature and exposed to natural light, colistin concentration in elastomeric infusion pumps increased to 2.6% in 8 days and to 2.1% when stored at 4°C. CMS stability increases at lower temperatures and higher concentrations. Based on the current data, chemical stability of CMS infusion solution is sufficient for a shelf life of 7 days refrigerated plus 1 day at room temperature.

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Reference: